FINAL SCOPING REPORT

for

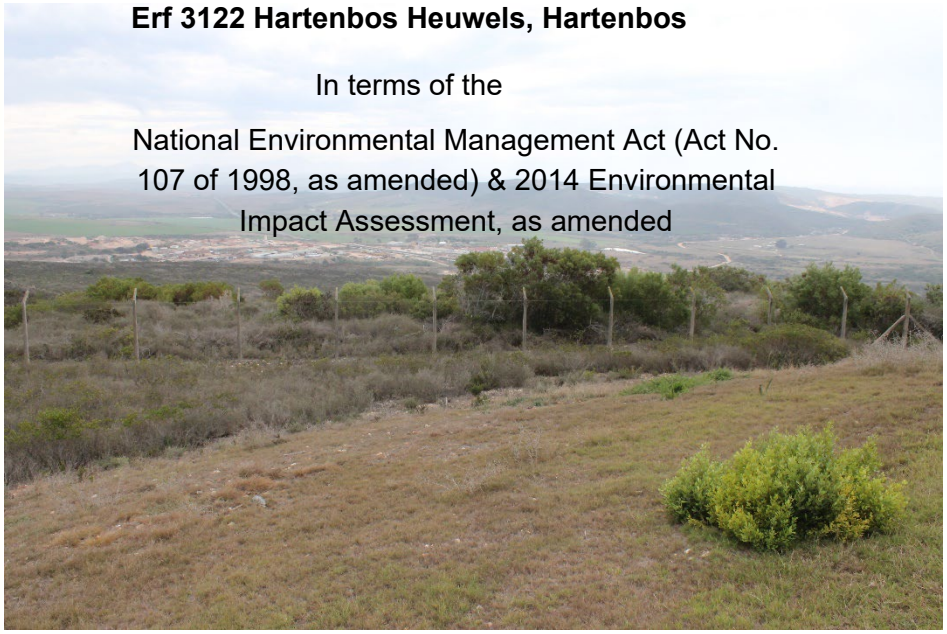
HARTENBOS GARDEN ESTATE

on

Erf 3122 Hartenbos Heuwels, Hartenbos

In terms of the

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



Prepared for Applicant:

Hartenbos Hills Propco (Pty) Ltd

Date: **5 October 2022**

HARTENBOS
Garden Estate
Natuur-Landgoed

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Report Reference: **MOS495/07**
Department Reference: **16/3/3/2/D6/18/0002/22**
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PURPOSE OF THIS REPORT:

Departmental Decision-Making

APPLICANT:

Hartenbos Hills PropCo (Pty) Ltd

HARTENBOS
Garden Estate
Natuur-Landgoed

CAPE EAPRAC REFERENCE NO:

MOS495/07

DEPARTMENT REFERENCE:

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SUBMISSION DATE

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Environmental Impact Assessment Regulations 2014

HARTENBOS GARDEN ESTATE

Erf 3122, Hartenbos Heuwels, Hartenbos (Mossel Bay District), Western Cape Province

Submitted for:
Departmental Review

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CONTENTS OF A SCOPING REPORT

Section 2 in Appendix 2 of R982 of the 2014 EIA Regulations, details the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process. The table below lists the minimal contents of a **scoping report** in terms of these Regulations and provides a reference on where to find said information in this report.

Requirement	**Details**
(a) details of - (i) The EAP who prepared the report; and (ii) The expertise of the EAP, including a curriculum vitae.	The pre-application, draft and final scoping reports were compiled by Louise-Mari van Zyl from Cape EAPrac. Louise-Mari van Zyl is a registered EAP (Reg No 2019/1444) with +19 years experience in the field of environmental impact assessments. She holds a Master's Degree in Geography & Environmental Studies from Stellenbosch University.
(b) the location of the activity, including – (i) The 21 digit Surveyor General code of each cadastral land parcel; (ii) Where available, the physical address and farm name; (iii) Where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties.	C05100040000312200000 Erf 3122 Hartenbos Heuwels, Hartenbos 34°07'42.99"S 2205'07.16Ë°
(c) a plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is (i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or (ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken.	Preferred Site Development Plan attached as Appendix E. Services Plans attached as Appendix G4, G5 and G13.
(d) a description of the scope of the proposed activity, including - (i) All listed and specified activities triggered;	Refer to main report with table on listed activities as agreed to with the Department in response to the Notification of Intent.

Requirement	Details
(ii) A description of the activities to be undertaken, including associated structures and infrastructure.	
(e) A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.	Main Report on legislative requirements.
(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	Main Report on need & desirability. Also refer to the Planning Report annexed as Appendix G11.
(h) A full description of the process followed to reach the proposed preferred activity, site and location within the site, including - (i) Details of all the alternatives considered; (ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs; (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; (iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects; (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 - (aa) can be reversed; (bb) may cause irreplaceable loss of resources; and	Main Report.

Requirement	Details
(cc) can be avoided, managed or mitigated; (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;((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; (viii) The possible mitigation measures that could be applied and level of residual risk; (ix) The outcome of the site selection matrix; (x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and (xi) A concluding statement indicating the preferred alternatives, including preferred location of the activity;	
(i) A plan of study for undertaking the environmental impact assessment process to be undertaken, including - (i) A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity; (ii) A description of the aspects to be assessed as part of the environmental impact assessment process; (iii) Aspects to be assessed by specialists; (iv) A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists;	Main Report.

Requirement	Details
(v) A description of the proposed method of assessing duration and significance; (vi) An indication of the stages at which the competent authority will be consulted; (vii) Particulars of the public participation process that will be conducted during the environmental impact assessment process; and (viii) A description of the tasks that will be undertaken as part of the environmental impact assessment process; (ix) Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.	
(j) An undertaking under oath or affirmation by the EAP in relation to - (i) The correctness of the information provided in the report; (ii) The inclusion of comments and inputs from stakeholders and interested and affected parties; and (iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties.	Appendix I
(k) An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment.	Appendix I
(l) Where applicable, any specific information required by the competent authority.	Requested consideration of a 3rd alternative. Refer to Section 5 & 10 of the FSR.
(m) Any other matter required in terms of section 24(4)(a) and (b) of the Act.	

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ABBREVIATIONS

AIA	Archaeological Impact Assessment
BGIS	Biodiversity Geographic Information System
BID	Background Information Document
CBD	Central Business District
ACMP	Archaeological Conservation Management Plan
CEMP	Construction Environmental Management Plan
DEFF	Department of Environmental Affairs (National)
DEA&DP	Department of Environmental Affairs and Development Planning
DEIR	Draft Environmental Impact Report
DSR	Draft Scoping Report
FEIR	Final Environmental Impact Report
EAP	Environmental Impact Practitioner
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMP	Environmental Management Programme
GA	General Authorisation
GPS	Global Positioning System
HIA	Heritage Impact Assessment
HWC	Heritage Western Cape
I&APs	Interested and Affected Parties
IDP	Integrated Development Plan
LUPA	Land Use Planning Act
NEMA	National Environmental Management Act
NEMAA	National Environmental Management Amendment Act
NEMBA	National Environmental Management: Biodiversity Act
NERSA	National Energy Regulator of South Africa
NHRA	National Heritage Resources Act
NID	Notice of Intent to Develop
NSBA	National Spatial Biodiversity Assessment
NWA	National Water Act
Pre-App	Pre-Application
SANBI	South Africa National Biodiversity Institute
SANS	South Africa National Standards
SPLUMA	Spatial Land Use Management Act
SDF	Spatial Development Framework
TIA	Traffic Impact Assessment
WULA	Water Use License

SUMMARY

1 INTRODUCTION

Cape EAPrac has been appointed by Hartenbos Hills PropCo (Pty) Ltd, hereafter referred to as the Applicant, as the independent environmental practitioner to facilitate the **Scoping & Environmental Impact Assessment (EIA)** process required in terms of the National Environmental Management Act (NEMA, Act 107 of 1998 as amended) for the proposed **Hartenbos Garden Estate** development on Erf 3122 situated in the Hartenbos Heuwels extension of Hartenbos (Mossel Bay Municipal District).

Since the property was **approved as Extension 4 of the existing Hartenbos Heuwels** residential area and the site is **earmarked for residential development** according to the Mossel Bay Municipal Spatial Development Framework (SDF), t**he Applicant's** objective is to develop a residential estate with several amenities.

The proposed development requires **Environmental Authorisation (EA)** prior to commencement. The **Western Cape Department of Environmental Affairs and Development Planning** (DEA&DP) is the competent decision-making authority in this regard and a **Full Scoping & Impact Assessment** process must be followed.

To capture stakeholder engagement and provide a transparent public participation process, a **Pre-Application (Pre-App) Scoping Report** was made available to registered Interested and Affected Parties (I&APs) for a **30-day review and comment** period extending from 22 January 2022 to 22 February 2022. Following the outcome of the pre-application scoping process, the formal **Application Form** was submitted to the DEADP on 25 August 2022. The pre-application opportunity to comment was followed up with the availability of the **Draft Scoping Report (DSR)** with a further **30-day commenting period** extending from **1 September till 1 October 2022.** Comments receiving during these commenting periods have been considered and are reflected in this **Final Scoping Report** for consideration by the Competent Authority.

The steps to be followed from now onwards include:

1. In the event that the Final Scoping Report is accepted by the Department, then compile the draft Environmental Impact Report (EIR) and put it out to registered I&APS review and comment for a minimum 30-day comment period;
2. Consider, respond to and including all comments received during abovementioned DEIR and include them in the Final EIR;
3. Submit the Final EIR to DEA&DP for decision-making (grant or refuse authorisation).

Figure 1: Wide view of Erf 3122 (study site indicated in red) situated South of Sonskynvallei and West of Hartenbos Heuwels residential area.

2 SITE DESCRIPTION & GENERAL ATTRIBUTES

The study site is the property of the **Afrikaanse Taal & Kultuur Vereniging (ATKV),** but is in the process of being **transferred** to the Applicant who is duly authorised to conduct the Scoping & Impact Assessment application process.

Erf 3122 is a remaining, undeveloped portion of the original Hartenbos Township Development and represents (**Township Extension 4 as per approved General Plan**). As such the property falls **within the designated urban edge** of Hartenbos and is earmarked for residential development in accordance with the 2017, as well as the updated June 2022 Spatial Development Framework (SDF), of the Mossel Bay Municipality.

The Hartenboskop **municipal reservoir** is situated in the northern most corner of the site where a second municipal reservoir is proposed as part of the municipal bulk services master plan. **Existing service** servitudes (overhead electrical and water lines) cross the property and a number of informal tracks criss-cross the site.

The main **access** to the site has a gate to prevent unauthorised vehicular access, however it is noted from trails that people still access on foot (by-pass the gate) and unregulated vehicle access points are also noted from within Hartenbos Heuwels which results in unfortunate illegal dumping, as well as erosion where informal trails and tracks are made/used without permission from the owners/applicant.

The subject property is situated west of the N2 freeway approximately 2,5km from the original Hartenbos Town which developed between Louis Fourie Road and the Indian Ocean. The subject property is bounded by the existing Hartenbos Heuwels residential neighbourhood to the east, municipal conservation area to the west, south and north. The NumNum Residential Estate, railway line and Aalwyndal small holdings are located further to the south, while medium density housing is located to the southeast and the Sonskyn Valley residential area and mining activities further to the northwest. The north-eastern boundary of the site is bordered by the Municipal Conservation Area that forms the buffer between agricultural areas and the extent of the towns urban edge.

Figure 2: Site location showing surrounding land use and ongoing development/expansion of the urban area (Source: Google Earth).

There are multiple accesses to the subject property via the existing road network. One is taken directly from **Kameeldoring Avenue**, which links with **Louis Fourie Road (R102)** via **Boekenhout Avenue**. Louis Fourie Road (R102) is the main transportation route linking Mossel Bay to the south with Hartenbos and environments to the north.

An alternative access to the subject property is taken via **Geelhout Avenue and Waboom Street** which end at the **R102 and R328 intersection**. The R328 is an extension of Louis Fourie Road which connects Hartenbos with Oudtshoorn via the Robinson Pass. Refer to Figure 3 for a spatial indication of formal accesses to the site.

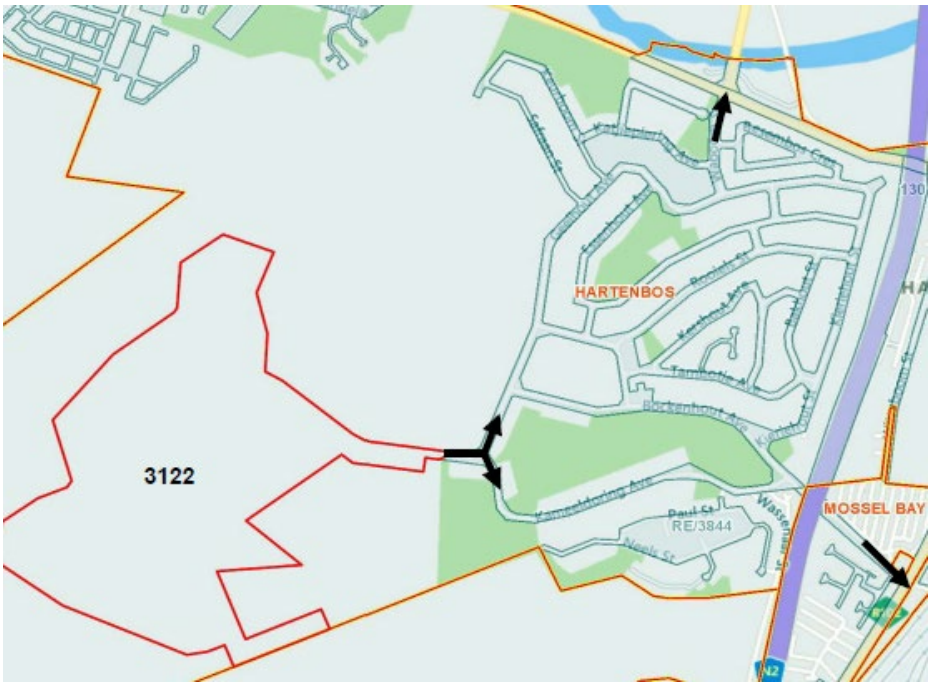

Figure 3: Access points/routes to and from the site to main arterial roads.

Further details on the site specifications are described in below table nothing that the site is zoned Agriculture 1, however because of its earlier inclusion as Extension 4 of Hartenbos Heuwels, Act 70 of 70 of the Agricultural Act no longer applies. The Department of Agriculture in their comment on the previous application (dated 31 March 2015, REF: 20/+9/2/4/7/141) confirmed that no further agricultural studies or approval are required in terms of the Conservation of Agricultural Resources Act (CARA).

The subject property was historically used for agricultural purposes around the 1940s into the early 1970's whereafter the land laid fallow. No agriculture was practiced in the past few years. The historical cultivation (ploughing) disturbed vegetation especially on the central plateau, followed by several wildfires of which the last was in 2018.

Figure 4: Wildfire at Hartenbos Heuwels on the study site in 2018.

Figure 5: Study site after 2018 wildfire (the area is a high fire risk area).

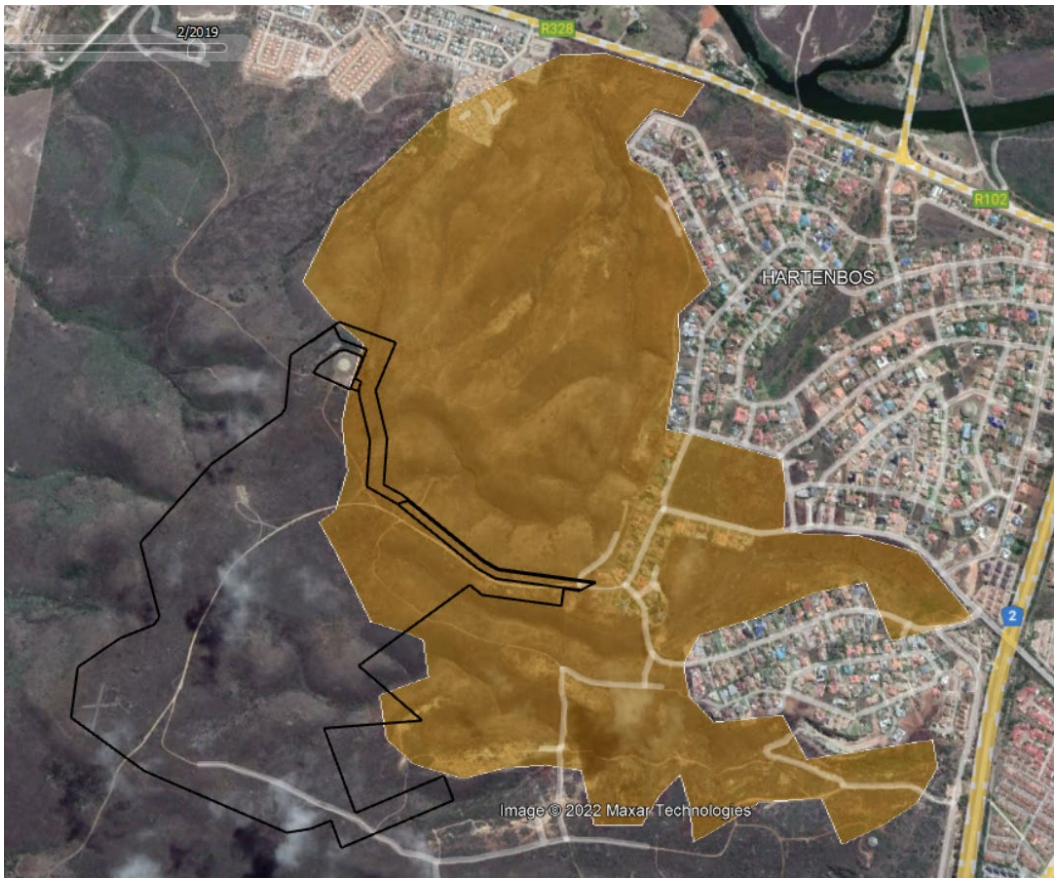

Figure 6: Extent of the 2018 wild fire in relation to Hartenbos Heuwels, Sonskynvallei and Hartenbos Gardens Estate site (Source: Google Earth).

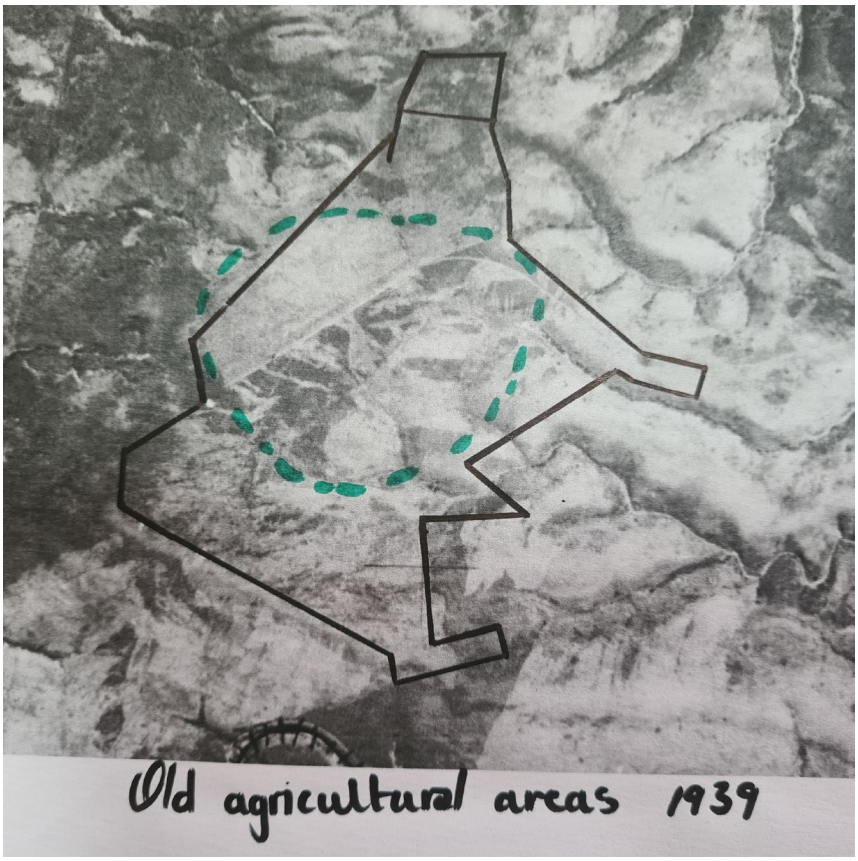

Figure 7: Agricultural areas noted on 1939 historical aerials.

Figure 8: Evidence of agricultural use from 1957.

Valleys and steep slopes remained relatively undisturbed, resulting in the subject property being covered by both alien vegetation (infestation) and natural vegetation in various levels of succession (recovery).

As part of the environmental process **specialists have been appointed** to determine the sensitivity levels of the vegetation/habitat/ecosystems. These specialists covered the entire environmental spectrum and are all listed at the start of this report. The primary purpose of these appointments was to **identify a portion of the subject property suitable for development,** with **acceptable levels of impact(s).**

The findings and recommendations of these specialist investigations resulted in the **identification of a portion of the subject property deemed suitable for development**, which is primarily the **central plateau** and **southern portion** and represents **<50% of the subject property**. The remainder of the property which represents the **undulating eastern portion** comprising the **existing valleys and slopes** have been identified as significant and **conservation worthy** and was therefore **excluded from the development area**.

The development proposal, which forms part of this application, acknowledges the majority of "boundaries" set by the specialist investigations collectively. Each specialist scoping report has considered the environment and recommendations are made to **avoid, mitigate and manage** the proposed development thinking, design and ultimately impacts. The specialist scoping studies were undertaken over a period of time from when the application investigation commenced, with a pause during the COVID pandemic, and are included with this Final Scoping Report as appendices.

Further details of the property are reflected in below table:

Description	Erf 3122 Hartenbos
Location	West of Kammiebos Avenue Hartenbosheuwels
Extent	60,5190ha
Registered owner	DIE AFRIKAANSE TAAL-EN KULTUURVERENINGING Offer to purchase: Hartenbos Hills Propoco (Pty) Ltd
Title Deed	T 24075/1995 (Copy of Title Deed attached)
Existing zoning	Agriculture Zone
Restrictive Conditions	None in Title Existing pipeline servitude and servitude area
Planning Legislation	Mossel Bay Municipality: Integrated Zoning Scheme By-Law Mossel Bay Municipality: By-Law on Municipal Land Use Planning, 2019

3 PROPOSED *HARTENBOS GARDEN ESTATE* DEVELOPMENT

This development proposal is likely to be developed in four (4) separate phases over time, as the market dictates. Following the outcome of the EIA process (if authorised), a **further 12 – 24 months** is set aside to obtain all the necessary approvals i.e. town planning/land use, services agreements, building plans etc. This scale of development is likely to then be develop over a period of **8-10 years**.

Figure 9: Phasing proposed for the Hartenbos Garden Estate.

The proposed development in its preferred alternative state at scoping level, compromises of approximately **531 residential units on 60,51ha** in the following components:

- Approximately 280 **Single Residential** erven
- Approximately 54 **General Residential** terrace apartments
    - consisting of 34 Comprehensive Care Units (three storey building)
    - and 20 Assisted Living units (one-bedroom units)
- Approximately 144 **Village Apartments** in five (5x) **three storey blocks** (one- and two-bedroom units)
- **Private open spaces** that accommodate tearooms/trails/infrastructure
- **Nature Conservation Area** that falls outside the development footprint
    - Management actions and outcomes to be detailed in impact assessment
    - Practicality of development area in relation to the conservation area to be assessed
    - Ecological burning addressed by fire ecologist (the area is deemed to be in a high fire risk area)
- **Village Precinct** behind the municipal reservoir, with provision for:
    - **retirement facilities** (General Residential Zone 3 on approximately 2.43ha inclusive of
      a **three (3) storey Club House and Restaurant**, **shed in ground floor**;

- **Recreational Centre** (with gym, pool, multi-functional hall, storage etc), **Frail Care Centre** and **Parking**
- **Private Roads** and access
- **Services** (second Municipal reservoir at the existing Hartenboskop Reservoir as part of municipal planning, stormwater, sewage, water and electricity connections)

Several other development options were considered by the Applicant, most were not presented to the specialists because of internal changes and decisions by the Applicant as part of the pre-planning stages.

The previous EIA layout was rejected by the Department in the then environmental decision. The **start-up alternative** for this EIA process was submitted to the specialists to inform their initial site sensitivities/constraints analysis. This alternative was determined to be in conflict with a number of specialist constraints and was eliminated without further assessment. The informed **first preferred alternative** (in terms of the pre-application scoping phase).

The Department of Environmental Affairs & Development Planning and CapeNature in their comment on the pre-application scoping report, highlighted points of concern, most notably the location of tearoom(s) in the conservation areas and the proposal of a communication tower, thereby raising concern about associated impacts. The second **preferred alternative** (with this submission) was subsequently modified to **exclude** these features altogether.

In response to the Draft Scoping Report, the Department made recommendations for a **potential third alternative** to be developed that take into account three main aspects namely (a) the alternative of **exercising agriculture**, (b) improved **ecological corridors/linkages** and (b) **height options/location for three storey buildings** – alternatively the location of multi-storey buildings, which although noted, cannot be developed as an alternative site development plan during the scoping stage since it requires further assessment and input from the specialists from their impact assessments. Should their detailed assessments identify the need to further amend the preferred alternative to align with the Department's inputs in this regard, it will be done and reports on in the Draft and Final Impact Assessment Reports as a further alternative on condition that it is a reasonable and feasible alternative.

The following table provides a summary of the preferred alternative as presented during the scoping phase consisting of the following components:

No of Units	Extent (ha)	%	Zoning	Land Use	
280	±10,9908	18,0	Single Residential I (SRI)	Dwelling house	
3	±0.8394	1,4	General Residential Zone III (RZIII)	Terrace Apartments (Flats)	
8	±12,0989	19,9	Open Space Zone II (OSZII)	Private Open Space with tearooms	
1	±23,9230	39,6	Open Space Zone III (OSZIII)	Nature conservation area	
1	±0,3686	0,6	Open Space Zone II (OSZII)	Sport Facilities, clubhouse, restaurant, bar, offices utility	
1	±2,4333	4,0	General Residential Zone III (RZIII)	Village precinct, flats, clubhouse, frailcare & recreation *	
1	±8,7082	14,4	Transport Zone III (TZIII)	Private Road	
1	±0,9286	1,5	Utility Zone (UZ)	Municipal Reservoir	
296	**60,5190ha**	**100**			

4 ACCESS & SERVICES

Access will be via the existing **Kameeldoring Lane** (main road through Hartenbos Heuwels) with a 20m wide road reserve with **options** to divert **directly to Louis Fourie Drive** via Boekenhoutstreet, or the R102/R328 intersection.

Internal roads will have a maximum surface area of 5m with a 13m wide road reserve whilst the main access into the Estate will exceed 8m in road width.

Upgrades to municipal roads infrastructure are **part of the Municipal Arterial upgrades** linked to **existing/approved developments** and include:

- A 60m long designated left turn lane along the southern approach of Louis Fourie Road onto Boekenhout Street. This upgrade serves both the recently approved Renosterbos development (currently under construction) and that of Erf 3122 (Hartenbos Garden Estate);
- Exclusive right turning lane on Waboom Street at the R102/R328/Louis Fourie intersection as per conditional approval of the Outeniquabosch development.

It has been noted from the Traffic Impact Assessment (TIA) that the Municipality has approved the TIA with the above-mentioned conditions. The Municipality will again be consulted as part of the ongoing environmental process to determine if any further upgrades may be required, most notably for intersections within the existing Hartenbos Heuwels and at what point the necessary upgrades must be implemented to avoid unnecessary traffic congestion.

To services the development a municipal **1200kl reservoir** is to be constructed next to the existing 3.5Mg/l Hartenboskop municipal reservoir in the far northern portion of the property. The existing municipal reservoir (inclusive of the new 1200kl reservoir) is registered with an existing servitude. This servitude road must remain a gravel road and not be tarred to minimise further impacts on the butterfly habitat that surrounds the reservoir site.

Stormwater discharge points will be towards natural low-lying areas with erosion control measures and overland discharge according to SUDS protocols and will be done in cooperation with the freshwater specialist at the level of detail design throughout the impact assessment phase.

Sewage from the development will be accommodated by the existing Municipal wastewater treatment works. New sewage pump stations (minimum four) are proposed on the development site at low lying areas. These pump stations will be fitted with overflows and backup generators in case of power failures to prevent pollution. These activities have been considered as part of the Water Use License (WULA) as they do fall within 500m from seepage wetlands along the bottom valleys.

The **existing Sonskynvallei electric substation** has sufficient capacity to accommodate the full demand of the proposed development. The proposed development can connect to the **existing 11kV overhead line** that runs from the Sonskynvallei substation along the eastern boundary of the property.

Construction waste from the development will be accommodated at the existing Great Brak construction rubble site and **operational phase** will be transported to the District Regional PetroSA landfill site.

The Municipality in response to the Planning Application (2019) indicated that electrical, stormwater, roads and solid waste management is sufficiently addressed. They will be required to re-confirm services capacity and availability as part of the environmental application prior to decision-making.

5 ALTERNATIVES

The current land use (vacant property with no particular active land use at present) permits agriculture as a primary right, with allowance for a single residential dwelling, which according to the Municipal By-Laws allows for the following activities as per below Table.

The primary right being agriculture (grazing / cultivation) as well as consent uses under this zoning. Since the property has not been actively farmed in the past ten (10) years the transformation for most of these uses will require prior Environmental Authorisation (with the exception of natural grazing).

Primary Use	Consent Use
Agriculture	• Abattoir • Airfield • Agricultural industry (>2000m²) • Animal care centre • Aqua-culture • Camping site • Farm shop • Farm grave yard • Freestanding base telecommunication station • Function venue • Helicopter landing pad • Off-road trail • Plant nursery • Quarry • Renewable energy structure • Shooting range • Tourist facilities • Utility service

According to the NEMA Regulations (2014 as amended) 'agriculture' for purposes of the Regulations means "*…..any cultivation or raising of crops, feeding, breeding, keeping or raising of livestock".*

The definition of 'alternatives' in relation to the same Regulations, means *"…..different means of meeting the general purpose and requirements of the activity, …….and includes the option of not implementing the activity".*

With the exception of tourist facilities/nursery/function venue, the **consent uses and primary use** under Agricultural Zoning, **is not deemed compatible with that of an urban area** and **the Applicant has no intention of developing under the Primary Right or Consent Use**.

Furthermore, the site **does not contain 'agricultural resources'** in the sense of water to for instance irrigate with or keep animals for grazing, hence this primary right is unlikely to be feasible. At the same time, implementing **agriculture as an alternative**, does not fall within the parameters of the definition of 'alternative' since it will **not meet the general purpose and requirements of the activity which is deemed to be urban development**.

The development proposal has gone through a reiterative pre-planning process and numerous layouts have been considered with the proposed site development plan being Revision 11 (November 2021, modified in August 2022 to accommodate comments from the pre-application scoping phase).

The preferred alternative as presented in this Final Scoping Report, may well be subject to further changes as the specialist impact assessments become available, however for the purpose of the scoping investigation, the following (reasonable/feasible) alternatives have been considered (note that eliminated alternative are discussed in the main report):

- **No-Go (vacant with no development): Alternative 1** as a farming unit with primary welling is not deemed a reasonable/feasible option, given the lack of agricultural resources such as available drinking water for livestock, transportation challenges to bring in and remove livestock through an established residential area and lack of appropriate fencing to house livestock. Most consent uses are not deemed compatible with neighbouring residential developments and the Applicant has no intention of implementing any of these land uses. This alternative entails the **site remaining vacant.** Given the designated land use for infill development, within the urban edge of Hartenbos, with existing access and services readily available on the site, it is unlikely that this site will remain undeveloped/unoccupied for an extended period of time. Invasive alien clearing is a mandatory requirement in terms of the National Environmental Management Biodiversity Act (NEMBA), as well as the Conservation of Agricultural Resources Act (CARA), and although the ATKV as landowner (not the Applicant) is legally obliged to comply with these Acts that will see environmental conditions of the property improve, they have not done so in the past and the site continues to be a fire risk with the presence of invasive alien vegetation going unchecked. The ATKV has not been issued with a notice ito NEMBA or CARA. Thus the status quo for invasive alien vegetation/uncontrolled access/fire risk will form part of this alternative assessment.
- **Alternative 2: Revision 11** (as modified August 2022) is the current site development proposal presented in this final scoping report. This layout is the preferred alternative to the Applicant given that it is based on the outcome of a specialist (scoping level) input process to help identify suitable development areas.
    - Following the outcome of the pre-application/draft scoping process, this alternative has been **modified** by (a) **excluding tea rooms** from the designated Nature Conservation Areas and keeping only those in the Private Open Space areas; (b) **excluding the communication tower** from the proposal as insufficient detail and design is available to assess this activity.
    - Suggestions from moving the village centre closer to the entrance were considered, however the elongated entrance to the site is problematic to fit in such a land use.
- **Potential third alternative**: DEADP in their comment on alternatives requested *specified information* in the form of a **further alternative** be considered taking into

account the outcome of the **potential visual impact assessment**, **ecological fire management**, **open space functionality** and **loss of landscape connectivity**. In considering the potential development of

The requirement for the impact assessment and determination of the final development alternative must be informed by applying the Impact hierarchy whereby specialist must show how impacts have been avoided, minimised, rectified, reduced or whether or not off-sets are applicable in circumstances where impacts cannot be avoided/mitigated/managed.

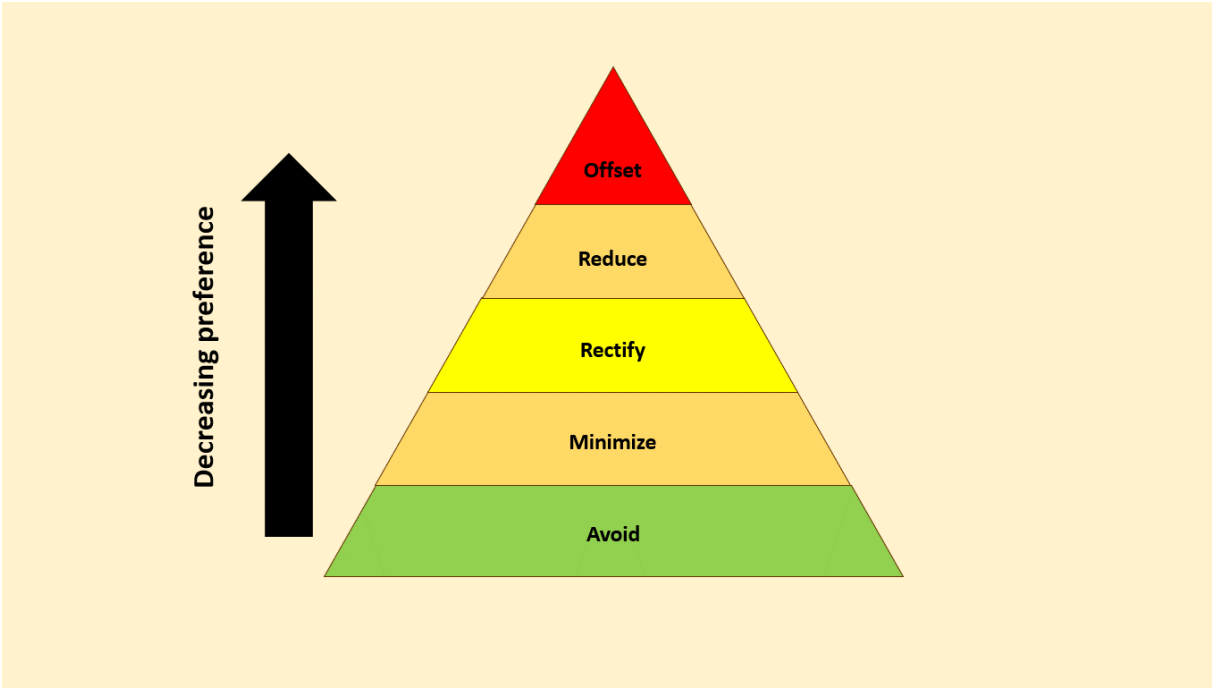

Figure 10: Impact hierarchy for environmental impact assessments.

Only once the detailed impact assessments are underway by the specialists, will it be possible to apply the impact hierarchy and determine if a further feasible alternative is required, should the aspects needing detailed assessment and/or further consideration not be acceptable to the independent specialists.

Note that although numerous options for the layout were considered by the Applicant, only one other alternative was (initially) provided to the specialists as part of the pre-planning stage. This initial (start-up) alternative has since been eliminated because of multiple conflicts with specialist constraints/sensitivities making it a non-feasible option.

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6 ENVIRONMENTAL REQUIREMENTS

The current assessment is being undertaken in terms of the **National Environmental Management Act** (NEMA, Act 107 of 1998 as amended). This Act makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority (in this case, the Provincial Department of Environmental Affairs and Development Planning) based on the findings of an Environmental Assessment.

The proposed development entails a number of listed activities, which require a **Scoping & Environmental Impact Reporting (S&EIR) process**, which must be conducted by an independent environmental assessment practitioner (EAP). *Cape EAPrac* has been appointed to undertake this process

The listed activities associated with the proposed development, as stipulation under 2014 Regulations 983, 984 and 985 are shown in the table below.

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.
9	Development of infrastructure exceeding 1000m in length for bulk transportation of water or storm water (b) excluding where such infrastructure will occur within an urban areas.	Although the site falls within the designated urban edge according to the municipal SDF, it does not conform to the definition of an 'urban area' according to the Regulations, as such bulk infrastructure must be considered where necessary.
12	Development of I. Dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or II. Infrastructure or structures with a physical footprint of 100 square metres or more Where such development occurs I. Within a watercourse II. Infront of a development setback or **III.** If no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.	The proposed development entails the development of infrastructure with a physical footprint exceeding 100 square metres within a watercourse and/or in proximity to watercourses for stormwater outlets, access roads and sewage pump stations.
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.	The proposed development entails the development of infrastructure with a physical footprint exceeding 10 square metres within a watercourse and/or in proximity to watercourses for stormwater outlets, access roads.
24	The development of a road- II With a reserve wider than 13,5 meters or where no reserve exists where the road is wider than 8 meters; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial, or institutional purposes.	The main arterial access road (internal) to be constructed will be wider than 8m and external upgrades to main access routes/intersections.
28	Residential, mixed, retail, commercial, industrial or institutional developments where	Area was utilised for grazing purposes prior to the historical subdivision of Hartenbos

	such land was used for agriculture, game farming, equestrian purposes or afforestation before or after 1 April 1998 and where such development will occur (i) inside an urban area and the total area to be developed will exceed 5ha in size.	Heuwels Extension 4. However it does not falls within the definition of the Regulations with reference to urban area therefore it must be considered.
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.
2	Development of reservoirs for bulk water supply with a storage capacity of more than 250 cubic meters.	1200kl reservoir to supplement the existing 3.5Mg/l reservoir on the property.
12	The clearance of an area of 300m^2 or more of indigenous vegetation except where such clearance is required for maintenance purposes undertaken in accordance with a maintenance management plan. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEM;BA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004.	More than 300m^2 of indigenous vegetation with an ecological threat status of critically endangered will be cleared for the proposed development.
Activity No(s):	Provide the relevant **Scoping and EIR Activity(ies)** as set out in **Listing Notice 2**	Describe the portion of the proposed development to which the applicable listed activity relates.
15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance where such clearance of indigenous vegetation is required.	The area to be transformed for the proposed development is ± 30 ha.
Note: Only those activities listed above shall be considered for authorisation. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. Environmental Authorisation must be obtained prior to commencement with each applicable listed activity. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted.		

7 PLANNING CONTEXT

Due to the current zoning being Agriculture 1, a rezoning and subdivision application is required to change the land use to Subdivisional Area. To this end a Town Planning application was submitted to the Mossel Bay Municipality in June 2021 with relevant consent uses and departures.

The planning application was advertised (for public review and comment) and has been circulated to relevant State Departments for comment.

The outcome of the environmental application process will inform the Municipality's decision on the planning application.

It is noted that the site is **earmarked for residential development** according to the 2019 as well as the updated 2022 **Mossel Bay Spatial Development Framework**. As such the development proposal is deemed to be **compatible with the spatial planning** of the area.

Due to the fact that Erf 3122 is an undeveloped portion of the greater Hartenbos Heuwels development (as approved in General Plan), the Municipality deems it to be within the 'urban edge' of Hartenbos. The development proposal is therefore seen as being in **line with the local planning context of the area.**

The site is located between the Sonskynvallei township, the Municipal Conservation Area and the existing Hartenbos Heuwels extensions 1, 2 & 3 and as such is the furthest that Hartenbos Heuwels can expand because the municipal conservation area forms the edge of urban development for Hartenbos Heuwels.

8 SPECIALIST/TECHNICAL INPUT

The following **specialist** and **technical input** was obtained to inform site constraints and the development proposal/alternatives and is discussed in detail in the main report. Professional input comprises of various specialist and technical reports and are listed below.

Note that in terms of the May and October 2020 Protocols Gazetted by the Minister of Environmental Affairs, all specialists must be **SACNASP registered** where the protocol so prescribes and all reports must adhere to the protocols where necessary.

Technical investigations are not subject to the protocols, however the professionals must still be registered in terms of their professional affiliations.

TECHNICAL INVESTIGATIONS:

- Geotechnical
- Civil Engineering
- Electrical Engineering
- Stormwater Design
- Traffic
- Planning

SPECIALIST BASELINE INVESTIGATIONS
(Please note specialist assessments are on-going and detailed impact assessments will be included in the environmental impact assessment phase of the

Environmental Process. Baseline specialist scoping reports are included in this Scoping Report.	
Archaeological Investigation	Dr Peter Nilssen
Faunal Investigation	Simon Todd (Simon Todd Consulting) & Dr Marius vd Vyfer (Chepri Consulting) Note that Dr Jonathan Conville will conduct the specialist (scoping) review and impact assessment.
Freshwater Investigation	Dr Justine Ewert-Smith (Freshwater Consulting Group)
Heritage Investigation	Stefan de Kock (Perception Planning)
Social Investigation	Tony Barbour
Paleontological investigation	John Pether
Visual	Bapela Cave Klapwijk
Botanical	Dr Dave McDonald (Bergwind Botanical Surveys)
Butterfly	Dr Dave Edge
Fire risk	Dr Hannes v Zyl & Dr Tiaan Pool (NMU)
Biodiversity	Dr Dave McDonald to undertake with Impact Assessment

In the event that the process dictates the need for additional specialist studies, such will be commissioned during the impact assessment phase of this application process.

Following on the outcome of the pre-application / draft scoping report, no further / additional studies have been identified other than what is listed in the above table.

NOTE: Specialist studies were undertaken over an extended period of time given availability of specialists and/or where one specialist was awaiting another study to be finalised before being able to conclude his/her scoping study. Although site inspections for such studies were done more than 12 months prior to this DSR, some during 2017/2018 as part of the pre-planning stage, specialists are likely to re-inspect the property to inform their impact assessment reports if deemed necessary.

All relevant specialists have been provided with access to the original (previous) EIA documentation. They are required to consider changes of (previous) findings in terms of the current legislative context, landscape, spatial planning and site conditions.

9 NEED AND DESIREABILITY

Need and desirability must be considered during the environmental process and is described in detail in Section 12 of the main report.

In keeping with the requirements of an integrated Environmental Impact process, the DEA&DP ***Guidelines on Need and Desirability (2010 & 2011 & 2017)*** were referenced to provide an estimation of the activity in relation to the broader societal needs. The concept of need and

desirability can be explained in terms of its two components, where *need* refers to *time* and *desirability* refers to *place*.

The following considerations have been taken into account in considering need & desirability of the project:

- Location of the site adjacent to existing urban township development (Hartenbosch Heuwels) with other township developments such as Renosterbos Estate also approved for development recently (currently under construction)
- Prior approval for Erf 3122 as Extension 4 of Hartenbos Heuwels
- Designated for urban development in terms of the Municipal SDF 2019 and 2022
- Incorporated within the urban edge of Hartenbos
- Area as a potential expansion of the greater adjoining Municipal Conservation Area
- Availability of the bulk services on the site and sufficient capacity within the municipal bulk services
- Accessibility of the site via existing road infrastructure
- Already approved Environmental Authorisation for upgrades to Louis Fourie Drive necessary to ensure traffic flow conditions at acceptable level for Erf 3122 as well
- +/- 50% area deemed suitable for development from an environmental perspective
- Continuous demand for safe, secure and modern residential developments (note that COVID conditions have prompted a culture of 'working-from-home' which enables families to relocate and work from anywhere – this drives a significant semi-gration to the Garden Route);
- Open space conservation area covering amounting to more than 50% of the site area.
- Conservation area for endangered butterfly species incorporated into preferred site plan.

10 POTENTIAL RISKS / CONSTRAINTS

The project team and specialist input identified the following as potential issues/concerns/impacts to date. The public participation process helped identify additional potential concerns, risks and impacts (both positive and negative) that may arise from this development proposal.

- Fire risk (the site is situated within a high fire risk area and Hartenbos Heuwels have experienced damaging wildfires in recent years);
- Additional traffic and particularly the potential impact of increased traffic on intersections onto arterial roads and through existing township areas, as well as construction traffic;
- Environmental impact associated with the proposed development, most notably biodiversity (ecological patterns and processes) and impact on habitat/species diversity and corridor movement;
    - It must be noted that the butterfly reserve will be excluded from the Estate fencing and will act as an ecological corridor with surrounding and neighbouring properties.
- Management of invasive alien vegetation within undeveloped areas (also linked to fire risk);

- Benefit of creating additional employment opportunities through construction and operational components;
- Impact on non-renewable energy resources;
- Benefit of added income generated through rates & rates, direct and indirect employment opportunities;
- The visual impact of the proposed development along the ridgeline;
- Historical decisions (negative) on previous applications to be considered along with relevant specialist/reports that was used to inform the historic application/assessment.

Table 1: Potential impacts/risks associated with the proposed development as broken up into specific disciplines.

Possible Constraints	Specialist Input
Ecological (fauna, flora, biodiversity)	Active alien clearing is required for the nature conservation areas (most notably the ridgeline and watercourses) in order to ensure that the environment will also benefit from the proposed development. It is recommended that an Alien Clearing Management Plan be drawn up to ensure long term clearing is done in a sustainable manner. CapeNature has provided detailed criteria such a Plan must adhere to and form part of the Management Plan. Fire management is raised as a concern although it is unlikely to be a major risk factor to development nodes themselves, however the area is known for wildfires and therefore a detailed Fire Management Plan considering open space and ecological burning must be incorporated as part of the overall management goals for the site. CapeNature has provided detailed criteria such a Plan must adhere to. Protection of any natural forest/protected species and applying for the necessary permits for any species of special concern/protected. Ecological functioning and linkages to neighbouring remaining natural areas.
Fire Management	Proximity of frail care to areas that will require ecological burning. Controlled fires must not be compromised once the area is occupied. Ecological burning regime must be provided as part of the impact assessment phase. Neighbouring areas to the west are conservation areas that must be burned and smoke from such fires may pose a nuisance to residents.
Freshwater	The site contains a number of on-site watercourses and bottom valley wetlands. Unnecessary encroachment of development onto these features is unwanted. Aquatic buffers on all major drainage lines and smaller tributaries are accommodated in the preferred alternative layout to minimise potential impacts. Structures extending close to the watercourses i.e. stormwater outlets/sewage pump stations are being considered ito the WULA.

	Active alien clearing along all affected watercourses must be implemented as a mitigation measure to help improve the aquatic environment that will be affected by this proposal.
Heritage	Context of the site and visual issues connected with landscape character.
Social	Meeting housing demand specifically for secure (gated) developments as people relocating to the area come from areas deemed to be high-risk and are used to high levels of security. Employment opportunities during construction and operational phase. Skills transfer and training is important to optimise benefit to previously disadvantaged and lower income groups.
Traffic	Operational access through Hartenbos Heuwels and intersections onto Louis Fourie and R108/R386. Dealing with construction traffic through Hartenbos Heuwels. Ensuring that road design/construction take into account the local (wet) climate to ensure sufficient life cycle of road infrastructure.
Butterfly	Species identified in proximity to the municipal reservoir have conservation value and their habitat must not be compromised. Alien clearing and appropriate fire regimes are important which must not be deviated from once the development is occupied. Controlled access to the area only.
Visual	Ridgeline development must be managed and mitigated with appropriate setback, architectural guidelines and appropriate landscaping given that high rise structures are proposed along the ridgeline albeit behind municipal infrastructure. Landscape character must take into account necessary visual guideline and protocols. The option of applying height restrictions must be considered for visually sensitive landscape areas on the property.

11 CONCLUSION

The scoping exercise is a very important part of the environmental investigation process. It aims to present concept proposals to the public and potential Interested & Affected Parties and for stakeholders to help identify environmental issues and concerns raised as a result of the proposed development alternatives to date. This allows Interested & Affected Parties (I&APs), authorities, the project team, as well as specialists to provide input and raise issues and concerns, based on the information presented in this report.

The proposed *Hartenbos Garden Estate* development has been analysed from Botanical, Faunal, Freshwater, Social, Heritage, Archaeological, Palaeontological and Visual perspective, and the constraints and anticipated risks, impacts and consequences identified. Given the outcome of the pre-application scoping it was determined that a Biodiversity Impact Assessment is also required to specifically consider connectivity, ecological corridor functioning and linkages to the neighbouring municipal conservation area.

Further site inspections and detailed assessments by specialists to inform their detailed impact assessments could potentially result in the development of further alternatives to ensure that the impact mitigation hierarchy is underscored with this impact assessment process. Given the outcome of the botanical and faunal scoping studies, as well as the matters associated with ecological functioning and corridor linkages, it is determined that a biodiversity impact assessment must be introduced as part of the detailed impact assessment phase.

Anticipated risk, impacts and consequences associated with the proposed development have been identified by project team members and specialists and will be further assessed once the public participation process is completed. The proposed development comprises of various components which have been explored and described in this report.

Cape EAPrac is of the opinion that the information contained in this Final Scoping Report and the documentation attached hereto is sufficient to allow the competent authority to apply its mind to the potential negative and/or positive impacts associated with the development, in respect of the activities applied for.

MAIN REPORT

1 INTRODUCTION

Cape EAPrac has been appointed by Hartenbos Hills PropCo (Pty) Ltd, hereafter referred to as the Applicant, as the independent environmental practitioner to facilitate the **Scoping & Environmental Impact Assessment (EIA)** process required in terms of the National Environmental Management Act (NEMA, Act 107 of 1998 as amended) for the proposed **Hartenbos Garden Estate** development on Erf 3122 situated in the Hartenbos Heuwels extension of Hartenbos (Mossel Bay Municipal District).

A previous EIA process conducted by a different specialist team and EAP also considered township development on the site. The outcome of the EIA resulted in a negative decision i.e. rejection of the final EIR.

Despite the negative outcome of the previous EIA, the property was originally approved as Extension 4 of the existing Hartenbos Heuwels residential area and the site remains earmarked by the Mossel Bay Municipality for residential development (Mossel Bay Municipal Spatial Development Framework (SDF 2022), **the Applicant's** objective therefore remains to develop a residential estate with several amenities.

The proposed development requires the necessary **Environmental Authorisation (EA)** prior to commencement. The **Western Cape Department of Environmental Affairs and Development Planning** (DEA&DP) is the competent decision-making authority in this regard and a **Full Scoping & Impact Assessment** process must be followed.

To capture stakeholder engagement and provide a transparent public participation process, a **Pre-Application (Pre-App) Scoping Report** was made available to registered Interested and Affected Parties (I&APs) for a **30-day review and comment** period commencing on 22 January 2022 ending on 22 February 2022.

Following the outcome of the pre-application scoping process, the formal **Application Form** was submitted to the DEADP, followed by availability of this **Draft Scoping Report** to **registered** I&APs and thereafter now submission of the **Final Scoping Report** to the Department for consideration.

The steps to be followed from now onwards include:

- Submit the Final Scoping Report with all submissions/comments/responses to the Department for consideration;
- If the Final Scoping Report is accepted, then compile the draft Environmental Impact Report (EIR) and put it out to registered I&APS review and comment for a 30-day comment period;
- Consider, respond to and including all comments received during abovementioned DEIR and include them in the Final EIR;
- Submit the Final EIR to DEA&DP for decision-making (grant or refuse authorisation).

1.1 PUBLIC PARTICIPATION Process

The Public Participation Process (PPP) timeframes in terms of the 2014 EIA Regulations are constrained and does not necessarily allow for thorough consultation. A pre-application public participation was therefore conducted in order to provide the public with ample opportunity to review project information and provide comment/input. The Pre-App phase included the

distribution of the **Pre-App Scoping Report** to potential and registered Interested and Affected Parties (I&APs) for review and comment. The following also formed part of the Pre-App PPP:

- Placing and advert in the *Mossel Bay Advertising* calling for I&AP registrations and informing the public of the availability of the pre-application Scoping Report and where it can be viewed;
- Making the pre-application Scoping Report available on the *Cape EAPrac* website;
- Putting up site notices at the entrance to the site informing the public of the process and proposed development;
- A stakeholder register was opened and will be maintained throughout the application.

Comments and submissions received during the pre-application scoping phase have been captured and reflected in both the Draft as well as the Final Scoping Reports.

All reports have been made available for a minimum commenting period of 30-days as allowed for in the Environmental Regulations.

The Final Scoping Report will be submitted to the DEADP for decision-making and registered I&APs will be notified that it is available for information.

NOTE: The Protection of Personal Information Act (POPIA) will be adhered to in terms of this scoping & impact assessment process. I&APs that register and/or that submit comment in response to any of the reports or that attend meetings as part of the public engagement, is alerted to the fact that it is a transparent process and submissions and details of those participating will be captured and reflected in the stakeholder register that must be submitted to the competent authority. An IA&P cannot be registered for the process without supplying their contact details, or without their comments being incorporated and reflected in the public domain.

2 GENERAL DESCRIPTION OF THE SITE AND CONTEXT

The property is currently owned by the Afrikaanse Taal & Kultuur Vereniging (ATKV), but is in the process of being transferred to the Applicant who is duly authorised to conduct the Scoping & Impact Assessment application process in the meantime.

Erf 3122 is a remaining, undeveloped portion of the original Hartenbos Township Development and represents (Township Extension 4 as per approved General Plan). As such the property falls within the urban edge of Hartenbos and continues to be designated for residential development by the Mossel Bay Municipality.

The municipal Hartenboskop reservoir is situated in the northern most corner of the site where a second reservoir is proposed as part of this application. Existing service servitudes (electrical and water) cross the property and a number of tracks criss-cross the site. The main access to the site has a gate to prevent unauthorised access, however it is noted from trails that people still access on foot (by-pass the gate) and unregulated vehicle access points are also noted from within Hartenbos Heuwels which results in unfortunate illegal dumping, as well as erosion where informal trails and tracks are made/used without permission from the owners/applicant.

The subject property is situated west of the N2 freeway approximately 2,5km from the original Hartenbos Town which developed between Louis Fourie Road and the Indian Ocean. The subject property is bounded by the existing Hartenbos Heuwels residential neighbourhood to the east, municipal conservation area to the west, south and north. The Aalwyndal small holdings are located further to the south, while medium density housing complexes are located to the southeast and the Sonskyn Valley towship area and mining activities further to the northwest. The municipal Conservation Area lies to the north-west of the property.

There are multiple accesses to the subject property. One is taken directly from Kemeeldoring Avenue which links with Louis Fourie Road (R102) via Boekenhout Avenue. Louis Fourie Road (R102) is the main transportation route linking Mossel Bay to the south with Hartenbos and environments to the north. An alternative access to the subject property is taken via Geelhout Avenue and Waboom Street which end at the R102 and R328 intersection. The R328 is an extension of Louis Fourie Road which connects Hartenbos with Oudtshoorn via the Robinson Pass.

The property is zoned Agriculture 1 and was historically used for limited agricultural purposes due to lack of agricultural resources. No current agricultural activities are present thereon. The historical cultivation (ploughing – dry lands) disturbed vegetation especially on the central plateau. Valleys and steep slopes remained undisturbed for many years resulting in the subject property being covered by both natural and alien vegetation. Subsequent wildfires also impacted the recovery and restoration rate of indigenous vegetation/diversity on the property.

As part of the environmental process specialists have been appointed to determine the sensitivity levels of the vegetation/habitat/ecosystems. These specialists covered the entire environmental spectrum and are all listed at the start of this report. The primary purpose of these appointments was to evaluate the site sensitivities/suitabilities/characteristics in order to identify a portion of the subject property suitable for development with acceptable levels of impact(s). The findings and recommendations of these specialist investigations resulted in the identification of a portion of the subject property for potential development, which is primarily the central plateau and southern portion and represents <50% of the subject property. The remainder of the property which represents the undulating eastern portion comprising the existing valleys and slopes have been identified as significant and conservation worthy and was therefore excluded from the provisional development area.

The development proposal which forms part of this application acknowledges the majority of “boundaries” set by the specialist investigations collectively. Each specialist scoping report has considered the environment and recommendations are made to mitigate and manage the proposed development thinking and design. The specialist scoping reports are included with this final Scoping Report as appendices. The individual specialist impact assessments will also take into account the previous specialist studies undertaken as part of the 2016 EIA process to identify/consider relevant changes in the site conditions/legislative framework and character of the area.

Further details of the property are reflected in below table:

Description	Erf 3122 Hartenbos
Location	West of Kammiebos Avenue Hartenbosheuwels
Extent	60,5190ha
Registered owner	DIE AFRIKAANSE TAAL-EN KULTUURVERENINGING Offer to purchase: Hartenbos Hills Propoco (Pty) Ltd
Title Deed	T 24075/1995 (Copy of Title Deed attached)
Existing zoning	Agriculture Zone
Restrictive Conditions	None in Title Existing pipeline servitude and servitude area
Planning Legislation	Mossel Bay Municipality: Integrated Zoning Scheme By-Law Mossel Bay Municipality: By-Law on Municipal Land Use Planning, 2019

3 PROPOSED DEVELOPMENT

The development is planned as a four (4) phase proposal. The following portions form part of the proposal. The preferred site development plan is depicted in the next figure and a larger version is also attached to this report as Appendix E. This preferred scoping alternative has been informed by overlaying all of the specialist constraints analysis layers to create a 'developable area' to help guide a footprint with acceptable impact levels/significance of impacts.

Figure 11: Preferred scoping alternative (Revision 11, August 2022).

3.1 PORTIONS 1-279:

The erven indicated in bright yellow on the site development plan are those set aside for single residential. These are erven similar to what is found in the greater Hartenbos Heuwels.

The proposed residential component of the development which will be zoned Single Residential Zone I (SRZI) is in extent the largest urban land use within the development. A

total of +/-**280 single residential erven** are proposed as part of the development on erven varying in size from **200m² to 747m²** in extent.

These residential erven include a combination of:

- 40 Garden Houses (200m² erven),
- 122 smaller residential erven (<350m²) and
- 117 larger residential erven (350m²->600m²).

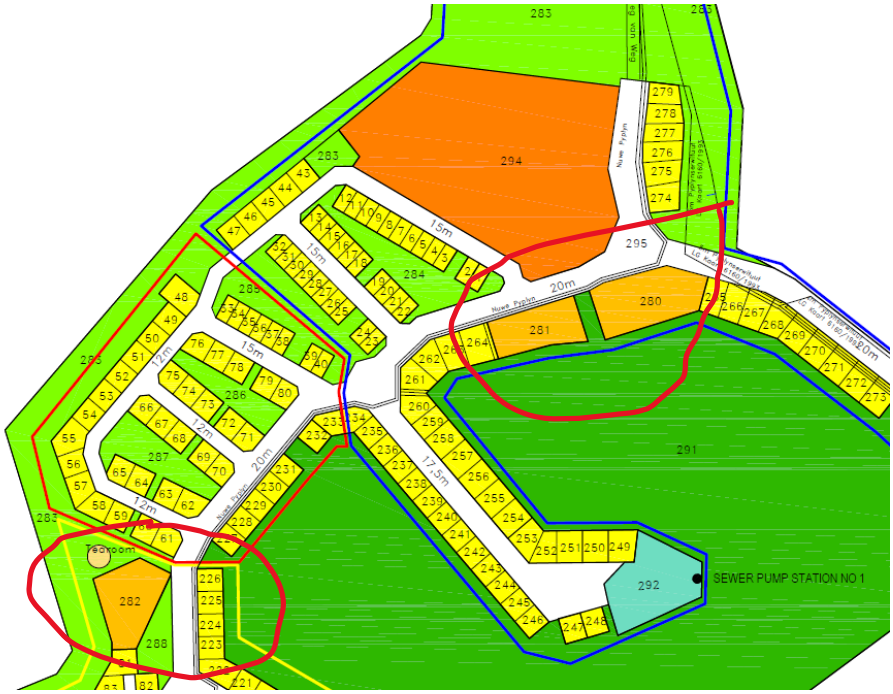
The garden house erven (200m²) will all have a common building line departure (0m) to facilitate the intended semi-detached dwellings thereon.

These single residential erven are proposed on primarily the flatter plateau portion of the subject property mostly on land disturbed in the past by low key agriculture and other activities (model aeroplane airstrip etc.). The smaller residential erven are located near the village precinct and on the western portion of the subject property, while the larger erven mostly form the edge with the private open space and nature conservation areas.

The +/-280 single residential erven covered a total area of **±8,39ha** at a **density of ± 33 units/ha**, while the combined density (**531 residential units on 60,51ha**) of all residential opportunities is **±8,7 units/ha**, which is well **below the average density of 25 units/ha recommended** by all spheres of government.

The single residential erven are all accessed by the private road network through the development and linked by a network of interacting private open spaces which provide a combination of active and passive open areas. The smaller garden houses are within easy and short walking distance from the communal activities and village precinct. In order to facilitate the proposed single residential component on Portions 1-279, these portions must be **rezoned to Single Residential Zone I (SRZI)** with dwelling unit as a primary land use.

3.2 PORTIONS 280-282:



In order to comply with the **general trend for densification inside approved urban edges** supported by all spheres of government to optimise existing infrastructure and services and facilitate an integrated and sustainable development, provision is made within the development for alternative residential options than single residential to provide opportunities for all members of the community. Portions 280, 281 & 282 represent the proposed **Terrace Apartments (flats)** which measures collectively 8 394m² in extent and which will be zoned General Residential Zone III (GRZIII).

A total of +/-**54 apartments** (3x18) varying from **1 bedroom to 3 bedrooms** are proposed on the individual portions as part of the proposed development on the subject property. These three portions will be developed in phases 2, 3 and 4 respectively.

The coverage of the proposed apartments will vary between 27%-49% (less than prescribed 60%) and a bulk between 0,54-0,96 (less than prescribed 1). The apartment buildings will comprise individual **three storey** contemporary designed buildings strategically placed on each portion within the development in order to create a unique sense of place with interactive open spaces between these buildings. All these buildings **will be lower than the 12m height restriction** as stipulated in Zoning Scheme By-Law.

The interface with the new arterial private road will also be respected through sufficient setbacks and landscaped areas. Provision will also made for **sufficient onsite parking** bays and will be detailed on submission of the building plans. A detail Site Development Plan will be submitted for each of these portions as part of the building plan process once final approval is obtained.

In order to facilitate the proposed terrace apartments (flats) on the proposed portions, Portions 280, 281 & 282 will have to be rezoned to General Residential Zone III (GRZIII).

3.3 PORTION 283-290 (FUNCTIONAL PRIVATE open space areas – green):

Provision is also made within the development for a variety of private open spaces which link the residential and other components with each other in order to create a sustainable and balanced development. These private open spaces, measuring total of **±12 ha**, which will be **zoned Open Space Zone II** (OSZII), are strategically placed within the development and are easily accessible from all the residential erven and include the larger conservation area which comprises the majority of the eastern portion of the subject property and separates the proposed development component from the existing Hartenbos Heuwels residential neighbourhood.

Some of these OSZII portions will also serve a secondary function with the portions along the **outside perimeter** of the proposed development **also serving as fire breaks**. These areas, which facilitate a **setback of the residential components from the abutting natural areas**, will be **landscaped and shaped** in accordance with the requirements from **the fire specialists**. These areas will be properly maintained to ensure the safety of the residents and property.

The OSZII portion between the proposed village precinct and the municipal reservoir on the northern portion of the subject property will also function as **open space for the butterfly reserve** which were found in that area. Given the conservation importance of the butterfly habitat, consideration must be given to this area being incorporated into the on-site **Nature Conservation Area.**

In order to establish an integrated and sustainable development on the subject property and provide a specific service to the residents, provision is made for small tearooms throughout the development where residents can meet and enjoy fellowship. These tearooms, which are classified as restaurants in the zoning scheme by-law, will be small in size and will be scattered throughout the development on the OSZII zoned portions. These facilities will be in close proximity to all residents and can be easily accessed (vehicle or pedestrian) from the internal private road network or the interconnected private open space network which runs through the development.

With a previous version of the preferred alternative provision was also made for future freestanding base telecommunication station on the proposed OSZII zoned portion. Due to a lack of sufficient information available about this feature (exact location/design/purpose etc), the preferred alternative (August 2022) excludes this feature.

3.4 PORTION 291 (nature CONSERVATION AREAS – GREEN):

As the result of the specialist studies that were conducted for the subject property, large areas of the subject property have been **identified as being environmentally sensitive** and **conservation worthy** and on which **no development must take place**.

This area (Portion 291) which represents a substantial portion of the subject property (±23,9ha) (39,6% of property) comprises primarily the **valleys and steeper slopes along the eastern portion** of the subject property. In respect of the findings of these specialist studies, this area have all been **excluded from the future urban development areas** but included into the **development as conservation areas**. In order to ensure that **no future development takes place on this portion of land**, the intention is to **rezone** this to an appropriate zoning.

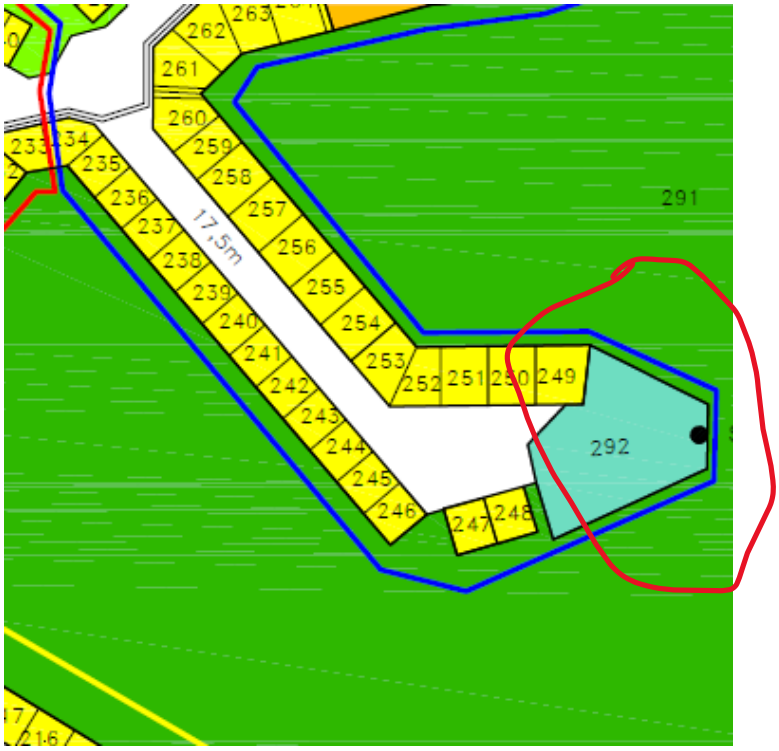
In terms of Mossel Bay Municipality Integrated Zoning scheme By-Law, 2019 the most appropriate zoning is **Open Space Zone III** (OSZIII) which makes provision for **nature conservation area**. The intention is that these areas will be included into a proper **management plan** and managed **collectively with the abutting Mossel Bay Municipality Conservation area.** It is recommended that consideration be given to incorporating the butterfly reserve area (currently indicated as private open space) within this conservation area as it is deemed a more appropriate zoning to ensure long-term protection.

Provision will be made, subject to the compliance with specific requirements, for **walkways and pedestrian routes** in these areas in order to provide limited access to the residents to enjoy this nature area.

Provision was initially made for a small tearoom within this nature conservation area. However following arguments from the DEADP in response to the pre-application Scoping Report, this tea room has been **excluded from the Nature Conservation Area.**

As part of the engineering infrastructure in support of the proposed development provision is also made on the subject portion for several **sewer pump stations** because of the lower gradient requirements, as well as stormwater outlets, which classifies as “utility service” and which is also a Consent Use under OSZIII zoning. The pump stations will pump the sewerage to the main bulk infrastructure network.

3.5 PORTION 292:



Provision is also made for other (private) communal facilities on a separate portion within the development. The intention is to utilize Portion 292 for **communal facilities** which comprise, but is not limited to, a **restaurant and sport and recreation centre** with parking and will be zoned **Private Open Space Zone II** (OSZII) with Consent Use. Portion 292 is situated at the end of a cul de sac road. This site is centrally located within the development to ensure optimised accessibility to residents. Visitors will only be allowed via the controlled access/security entrance gate.

Portion 292 measures ±3 686m² in extent and will comprise a built structure with sufficient onsite parking to support the intended land uses.

As part of the engineering infrastructure in support of the proposed development provision is also made on the subject portion for a **sewer pump station** which classifies as "utility service" and which is also a Consent Use under OSZII zoning. This pump station will be one of a few proposed across the entire development and will pump the sewerage to the main bulk infrastructure network. In order to facilitate these intended land uses, Portion 292 will have to be rezoned to **Open Space Zone II** (OSZII) with the primary and Consent Uses.

3.6 PORTION 293:

Figure 12: Erf 293 in its amended position next to the village precinct (Alternative 2).

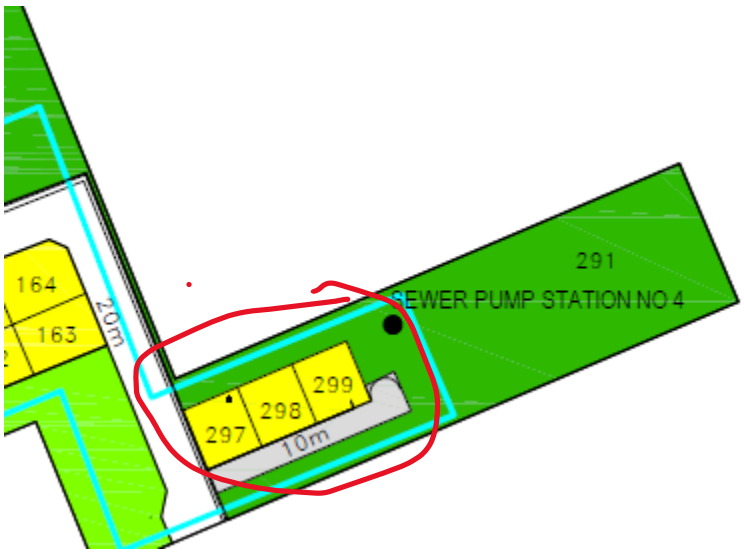
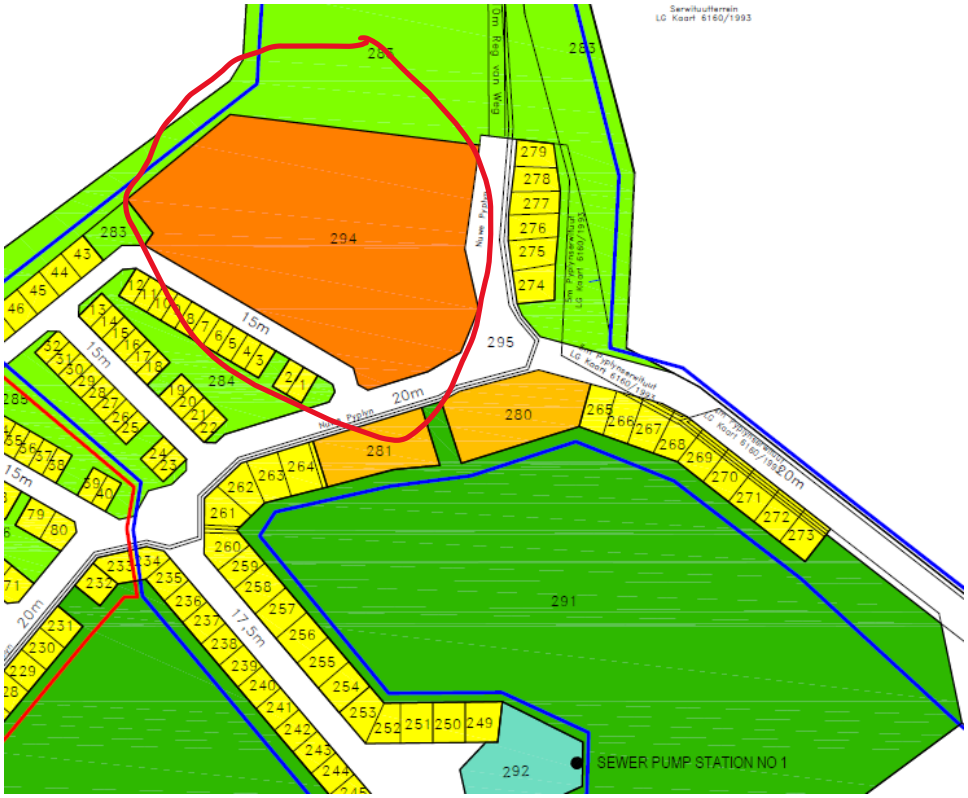


Figure 13: The original position of Erf 293 at the southern corner of the property (changes following input during planning process).

In order to maintain the private open spaces and landscaping within the development, provision must be made for a facility in which such **maintenance equipment can be stored**. This portion, Portion 293 measuring ±3720m² in extent will be zoned Open Space Zone II (OSZII) was previously located along the south-eastern boundary of the subject property at the end of the internal private road. However, in response to comments received during the planning application public participation process, this maintenance facility was relocated to its proposed position. The intention is to construct a newbuilding on Portion 293 which will be utilized **for maintenance and storage purposes by the Homeowners Association/Managing Agent.**

Portion 293 will have to be rezoned to **Open Space Zone II** (OSZII) with the primary land use.

3.7 PORTION 294:



Portion 294 represents the **Village Precinct** which represents the central component of the proposed development located on the northern portion of the flat plateau of the subject property south of Portion 1 (water reservoir).

This portion which will be zoned **General Residential Zone III** (GRZIII) with Consent Use as **'Retirement Resort"** represents a variety of land uses measures **±2,43 ha** in extent and comprises the main focal point of the proposed development with the **communal amenities** and **specialized services**.

The proposed land uses and buildings on Potion 294 as part of the Village Precinct comprise **various land uses** associated with a **retirement resort** and are directed to the residents of the proposed development, however membership to non-residents is being considered as an option by the Applicant to ensure sustainability thereof. The precinct will include the following:

- Clubhouse
- Recreation Centre
- Village Apartments
- Health Care
- Clubhouse
- Approximately 248 parking bays (basement and ground floor level)

This component comprises one three (3) storey (ground floor, plus first and second floor) building measuring ±1300m² in extent which forms the centre of the proposed village precinct on the proposed Portion 294. The land uses proposed within this building comprise:

Ground floor:

- Entrance foyer and courtyard
- Homeowners Association / Managing Agent offices
- Sales Office
- Restaurant
- Kitchen
- Lounge & Game Room
- Library
- Convenient store
- Hair and nail salon
- Cinema room
- Slop Room
- Outside braai area
- Public toilets
- Nurse's room

First and second floor:
Provision is made on the first and second floor of the club house building for a total of approximately **54 one bedroom assisted living** and **comprehensive care centre** units respectively. These single rooms will vary in size from 28m² to 45m².

Recreation Centre:
Provision is made in a separate building behind the clubhouse building for **indoor gym** with **rehabilitation facilities and pool area** as well as a **multifunctional hal**l. The proposed building also includes **ablution facilities** and **storerooms** and measure ±440m² in extent. The indoor sports facilities include but not limited to a **gymnasium, aerobic area, indoor pool and other associated facilities**, while the **multifunctional hall** will be a **communal facility** which can be used for any purpose from **social gatherings, church services and dances**. The proposed building will lead out onto an **outdoor recreation area** which will be landscaped and will function as a **central courtyard** on the site and which is earmarked for **outside play and recreation purposes**.

Village Apartments:
The proposed village apartments comprise five three (3) storey (ground floor, plus first and second floor) buildings grouped around the central courtyard (outside recreation area) within the Village Precinct.

An estimated **144 village apartment units** are proposed within these buildings on the proposed Portion and comprise a combination of **bachelors, 1 and 2 bedroom units** which will vary in size from ±40m² to ±90m². Apart from the bedrooms provision is also made for a bathroom and open plan kitchen and lounge area as well as balconies. The required **parking bays** for the proposed apartments are provided for in the proposed **basements of each of the buildings** as well as on **ground level** within the Village Precinct. These parking areas have direct access from the proposed internal private road network. These apartment buildings are all linked with each other as well as with the communal and health care facilities within the Village Precinct by formal walkways. These apartments will provide an alternative residential option for those who require smaller units in close proximity to the communal and health care facilities within the development.

Health Care:

Although this development will not be an exclusive retirement development, provision is made in the development for **specialized facilities** normally associated with retirement resort. The proposed **health care units** and **comprehensive care units** will accommodate those **members of the public** who needs **health care on a continuous basis within an area where they can be monitored and cared for.**

Approximately **34 comprehensive care units** are proposed inside a three (3) storey (ground floor, plus first and second floor) health care centre building on the Village Precinct.

This building will be located immediately north of the proposed clubhouse and will be linked thereto with covered walkways. The proposed health care apartments which are proposed on all three floors comprise a bedroom and a bathroom. These rooms will be accessed from a covered walkway which leads to the staircase and lift shaft. This building will function exclusively as a health care facility and will provide a accessible service to residents of the development.

In addition to the comprehensive care apartments the health care building will also make provision for other facilities directly associated with such care which include but not limited to the following:

- Reception,
- Communal dining and lounge area in the proposed courtyard,
- Doctor's rooms,
- Consulting rooms,
- Nurse's room,
- Private gardens,
- Satellite kitchen,
- Public toilets,
- Slop room,
- Staff room, and

Administrative office.

In addition,+/-**20 one bedroom assisted living units** which will function collectively with the health care centre are proposed on the first and second floor of the proposed clubhouse building. These units with associated storage areas will be linked with the abutting health care building and facility immediately to the north thereof with covered walkways on all three levels as clearly depicted on the attached plans.

In order to facilitate this land use, Portion 294 will have to be rezoned to **General Residential** Zone III (GRZIII) with the primary and Consent Uses.

3.8 PORTION 295:

Portion 295 represents the internal **private road network** which links the proposed development with the existing Hartenbos Heuwels residential neighbourhood at the intersection with Kammeeldoring Avenue. This private road network will be zoned Transport Zone III (TZIII) and comprises a **20m wide main road** reserve which serves as activity spine

through the development with **secondary roads** varying from **10m -15m** reserve in width intersecting therewith at strategic points throughout the development. The secondary roads provide direct access to each of the individual portions not bounding onto the main road.

Provision is also made at the northeastern portion of the property for a **security entrance** to the development. This security entrance will be designed to the requirements of the Mossel Bay Municipality and will include **double lanes a guard house** and associated infrastructure.

The geometric design of the private roads will make provision for hard road surfaces (**5m-7m wide**) as well as **sidewalks** for pedestrian uses and landscaping. The design of these roads will **encourage pedestrian movement** which will ultimately reduce the carbon footprint within the development. Although the private road network comprises ring roads and cul de sacs, the design and layout of the development proposal ensure that the roads are optimized to its fullest potential.

As part of the engineering infrastructure and services within the development, provision will be made for **315kVA electrical sub stations within the road reserve of these private roads**. According to the definition of private road, “utility services” are permissible within this zoning. As mentioned previously in this report a servitude right of way in favour of the Mossel Bay Municipality will be registered over a portion of the private road network to facilitate access to the water reservoir on the subject property. In order to facilitate this land use, Portion 295 will have to be rezoned to **Transport Zone III** (TZIII) with the primary land uses.

3.9 SERVICES AND ACCESS

Civil and Electrical services reports were compiled for the purpose of this application. In addition, focus was put on a detailed stormwater management plan (discharge into watercourses required attention from a freshwater perspective) and also a traffic investigation to consider access.

Please refer to Appendix G4 for the civil report, Appendix G5 for the electrical, Appendix G13 for the stormwater management plan and Appendix G14 for the traffic assessment.

3.9.1 Traffic

It was agreed by the Engineers with the Mossel Bay Municipality that the study area for traffic and accessibility should include the following intersections:

- Waboom Street and R328 (Route to N2 and Oudtshoorn)
- Boekenhout Avenue and Kameeldoring Avenue
- Kameeldoring Avenue and Geelhout Avenue
- Boekenhout Avenue and Louis Fourie Road

It was further agreed by the Engineers with the Municipality that, in view of the reduction in vehicle travel due to the Covid-19 pandemic, historic traffic counts should be used rather than to undertake traffic counts under current depressed traffic conditions. No counts were available at the junction of Kameeldoring Avenue and Geelhout Avenue and specific traffic counts were undertaken during the AM and PM peak hours during May 2021. This is the intersection of two minor local residential access streets and as expected, traffic counts were insignificant.

Based on the outcome of the assessment, the following recommendations have been made to ensure that additional traffic does not result in deteriorating conditions along roads and at intersections:

- A 60m exclusive left turn lane with 60m taper on the southern approach of Louis Fourie Road at the intersection of **Louis Fourie Road and Boekenhout Avenue**. This left turn lane serves both **Erf 3122 and the adjacent Renosterbos development currently under construction**.
- Installation of **traffic signals** and the provision of an **exclusive right turn lane** on **Waboom Street** at the intersection of **Waboom Street, Louis Fourie Road, the R328 to Oudtshoorn and the R102 to Groot Brak**. This improvement was recommended by ITS in **2018 in the TIA for the Outeniquasbosch development.**

3.9.2 Residential and Commercial Water Demands and Supply

The full development water demand has been calculated at approximately **325kl/day** (inclusive of fire fighting requirements). Consultation between the appointed civil engineer and the Municipality has confirmed that sufficient water supply is available for this development. It will be a requirement of the environmental process for the Municipality to re-confirm this in writing so as to avoid putting unnecessary pressure on existing users/systems.

Water saving measures must include **low flow shower heads, duel flush toilets, rainwater storage tanks** for all buildings at ground floor level.

A bulk service report was compiled by GLS Consulting Engineers to inform the Civil Engineering report. The report indicates that Hartenboskop reservoir has **sufficient capacity**. For the development a booster pump station must be constructed that will supply the water reticulation of the proposed development. Allowance is however made for sufficient space to develop a future 1200kl reservoir next to the existing Municipal reservoir.

Furthermore, an existing new 160 dia. 200 meter long pipe is to be installed at the Hartenbos pump station – this cost will be for the developers. A 200 dia. gravity line must be installed from the Hartenboskop reservoir within the road reserve of the new development for future developments.

3.9.3 Sewage

The average daily supply of sewage from the proposed development at full development capacity is estimated at approximately **270kl/day**. Consultation between the civil engineer and the Mossel Bay Municipality has confirmed that sufficient bulk sewage capacity existing to accommodate the proposed development.

Several sewage pump stations are positioned at low points throughout the development. Due to the inherent risk of power failures or load shedding that cause pump stations to fail, the position of these pump stations, as well as risk management measures to prevent potential pollution from sewage spills, have been workshopped between the civil engineer and aquatic specialist who presents on the low risk of water resource contamination.

It will be a requirement of the environmental process for the Municipality to confirm sewage capacity in writing so as to avoid putting unnecessary pressure on existing users/systems.

3.9.4 Stormwater

It is recommended that the stormwater system as indicated on the stormwater management plan be constructed. Detail design must be done to determine pipe size, kerb inlet lengths and detention structure sizes. It is recommended that detention structures are constructed with Gabions and with geo-fabric as proposed in the stormwater management plan.

The provisional stormwater plan has been designed with input from the freshwater specialist and will be assessed in terms of the Water Use License Application and Aquatic Impact Assessment.

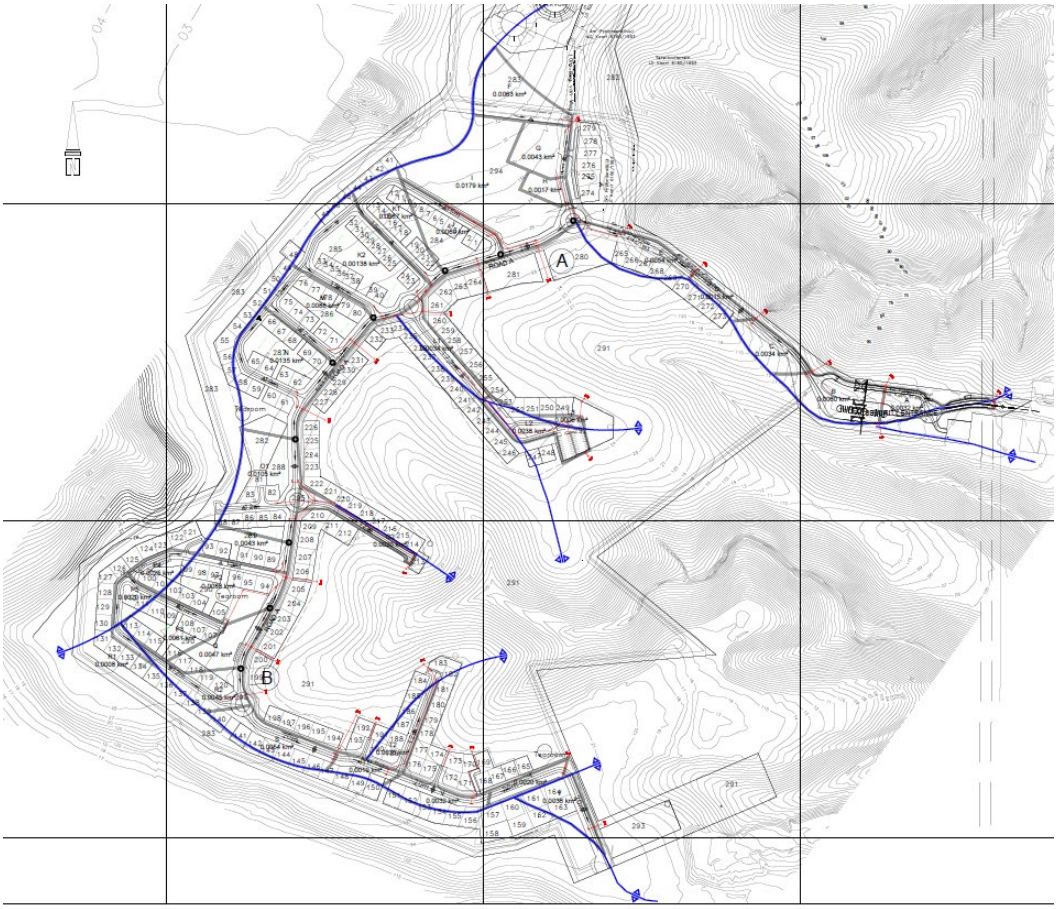


Figure 14: Provisional stormwater layout plan to be assessed.

Rainwater harvesting tanks must be used as outlets, as shown on the plan, be installed and the rainwater harvested used for irrigation of green areas. Furthermore it is recommended to install flow retention channels at green area as indicated on the plan. Buildings are to be fitted with rain harvesting tanks at ground level, where practical.

The Stormwater Maintenance Plan must be implemented to ensure that the stormwater system function over long term.

3.9.5 Solid Waste Management

A central solid waste collection facility will be provided at the entrance of the development. The body corporate/homeowners association will be expected to collect waste from the estate

on a regular basis and such waste will temporarily be kept in an enclosed site for when the Municipality collects solid waste.

The Municipality will be expected to confirm that it services the area and that its landfill sites have sufficient capacity to accommodate the additional household waste from the proposed development.

It is recommended that at-source waste separation be encouraged by the Body Corporate/Homeowners Association so that recyclable materials will be kept separate from organic/non-recyclable materials.

3.10 ELECTRICAL ENGINEERING SERVICES

According to the surveys conducted on site by the appointed electrical engineers, the Local Municipality **have available electricity infrastructure** in the area and will be the authorised supplier of bulk electricity to the proposed development. This was confirmed in writing by the Mossel Bay Local Municipality, Electricity Department to the engineers and will be required again as part of this environmental process.

The new development will be supplied from the existing 11kV overhead line adjacent to the eastern perimeter of the development, in the vicinity of the proposed main entrance. The development will be supplied with a bulk electrical connection from this overhead line.

The Notified Maximum Demand (NMD) of the development as per estimated load is **2,089 kVA** and was calculated as per/according to the supply authority's prescriptions.

Alternative energy sources such as Heat Pumps, Solar Water Heating and Gas Systems will be implemented for water heating and cooking purposes normally required by the supply authorities and applicable statutory regulations.

Given the proximity to the neighbouring municipal conservation area low-level lighting systems will be implemented for the streets and public areas to reduce lighting pollution.

Considering the health care requirements a 200kVA emergency/back-up generator will be supplied for the care facilities to ensure uninterrupted service.

Heat pumps is the preferred method for water heating as it uses a third of conventional heating energy i.e. normal geysers. A combination of solar heating is also recommended to further reduce energy demand. It is furthermore recommended that gas be considered for cooking in single residential units, however given the weight of gas bottles it is not feasible for facilities where elderly people may reside to instal such bottle systems.

On 8 July 2020 the Mossel Bay Municipality confirmed that sufficient bulk capacity is available in their electric network to accommodate the proposed development. This was reconfirmed on 30 April 2021. The Municipality will reconfirm availability prior to the EIA process concluding.

4 LEGISLATIVE AND POLICY FRAMEWORK

The legislation that is relevant to this study is briefly outlined below. These environmental requirements are not intended to be definitive or exhaustive, but serve to highlight key environmental legislation and responsibilities only.

4.1 THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA

The Constitution of the Republic of South Africa (Act 108 of 1996) states that everyone has a right to a non-threatening environment and that reasonable measure are applied to protect the environment. This includes preventing pollution and promoting conservation and environmentally sustainable development, while promoting justifiable social and economic development.

4.2 ENVIRONMENT CONSERVATION ACT, 1989 (ECA)

The **EIA** regulations contained in the Environmental Conservation Act (ECA) have been replaced by the NEMA, however the provisions included in this legislation are still applicable. In particular, compliance with the draft regulations pertaining to noise as published in the province of Western Cape Provincial Extraordinary Gazette as provision made in section 25 of the ECA), as well as **Section 24** of the ECA regarding waste management and Section 20 of the ECA dealing with waste management under Part IV, Control of Environmental Pollution.

The **transitional arrangements** between the **ECA** and the **NEMA,** as well as the transitional arrangements for the various **regulations** published in terms of the NEMA are of importance and must be considered.

4.3 NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA, ACT 107 OF 1998)

The National Environmental Management Act (**NEMA**, Act 107 of 1998, as amended), makes provision for the identification and assessment of **activities** that are potentially detrimental to the environment and which require authorisation from the competent authority **(in this case, the provincial Department of Environmental Affairs and Development Planning)** based on the findings of an Environmental Assessment.

It embraces the notion of **sustainable development** as contained in the Constitution of South Africa (Act 106 of 1996) in that everyone has the right:

- to an environment that is not harmful to their health or wellbeing; and
- to have the environment protected for the benefit of present and future generations through reasonable legislative and other measures.

NEMA aims to provide for cooperative environmental governance by establishing principles for decision-making on all matters relating to the environment and by means of Environmental Management Plans / Programmes (**EMP**).

Principles contained in Section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended (NEMA), which, amongst other things, indicates that environmental management should:

- In order of priority aim to: **avoid, minimise or remedy disturbance of ecosystems and loss of biodiversity;**

- **Avoid degradation of the environment** and **avoid jeopardising ecosystem integrity**;
- Pursue the **best practicable environmental** option by means of **integrated environmental management;**
- **Protect the environment as the people's common heritage;**
- **Control and minimise environmental damage**; and
- Pay specific attention to **management and planning procedures** pertaining to sensitive, vulnerable, highly dynamic or stressed ecosystems.

It is incumbent upon the proponent to show how the proposed activities would comply with these principles and thereby contribute towards the achievement of sustainable development as defined by the NEMA.

The proposed development entails a number of listed activities, which require a **Scoping & Environmental Impact Reporting (S&EIR) process**, which must be conducted by an independent environmental assessment practitioner (EAP). *Cape EAPrac* has been appointed to undertake this process.

4.4 NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY (ACT 10 OF 2004)

This Act controls the management and conservation of South African biodiversity within the framework of NEMA. Amongst others, it deals with the protection of species and ecosystems that warrant national protection, as well as the sustainable use of indigenous biological resources. Sections 52 & 53 of this Act specifically make provision for the protection of critically endangered, endangered, vulnerable and protected ecosystems that have undergone, or have a risk of undergoing significant degradation of ecological structure, function or composition as a result of human intervention through threatening processes.

4.4.1 The National Spatial Biodiversity Assessment (NBA)(2011)

The NBA 2011 assesses the state of South Africa's biodiversity, across terrestrial, freshwater, estuarine and marine environments, emphasising spatial (mapped) information for both ecosystems and species. The NBA is central to fulfilling the South African National Biodiversity Institute's (SANBI) mandate in terms of the National Environmental Management: Biodiversity Act (Act 10 of 2004) to monitor and report regularly on the state of biodiversity, and includes two headline indicators that are assessed across all environments: **ecosystem threat status** and **ecosystem protection level**. Information from the NBA can thus be used to streamline environmental decision-making, strengthen land-use planning, strengthen strategic planning about optimal development futures for South Africa, and identify priorities for management and restoration of ecosystems with related opportunities for ecosystem-based job creation.

4.4.2 Garden Route Biodiversity Sector Plan (GRBSP)

A Biodiversity Sector Plan (BSP) provides a way forward in reconciling the conflict between development and the maintenance of natural systems. It provides biodiversity information needed for land-use planning and decision-making and other multi-sectoral planning processes (between Cape Nature / SANParks, DEA&DP and Department of Water Affairs, district and local municipalities etc.). Central to the Garden Route BSP is the **Critical Biodiversity Area (CBA) Map**, which together with its associated guidelines and GIS maps, have been consulted in the assessment of this development proposal.

The site falls within a designated CBA hence the importance to consider ecological corridors and functionality of open space areas through appropriate linkages.

4.5 NATIONAL PROTECTED AREA EXPANSION STRATEGY (NPAES) FOR S.A. 2008 (2010)

Considering that South Africa's protected area network currently falls far short of sustaining biodiversity and ecological processes, the NPEAS aims to achieve cost-effective protected area expansion for ecological sustainability and increased resilience to Climate Change. Protected areas, recognised by the National Environmental Management: Protected Areas Act (Act 57 of 2003), are considered formal protected areas in the NPAES. The NPAES sets targets for expansion of these protected areas, provides maps of the most important protected area expansion, and makes recommendations on mechanisms for protected area expansion.

4.6 NATIONAL FORESTS ACT (NO. 84 OF 1998):

The National Forests Act provides for the protection of forests as well as specific tree species, quoting directly from the Act: "*no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree or any forest product derived from a protected tree, except under a licence or exemption granted by the Minister to an applicant and subject to such period and conditions as may be stipulated".*

Protected trees most likely to be located at the proposed development sites are:

- *Podocarpus latifolius* (real yellowwood)
- *Podocarpus falcatus* (Outeniqua yellowwood)
- *Podocarpus henkelii* (Henkel's yellowwood)
- *Sideroxylon inerme* (milkwood)
- *Pittosporum viridiflorum*

Should any of the trees listed above, or any other protected tree species not listed here, be harmed or removed a permit must be obtained before doing so.

4.7 CONSERVATION OF AGRICULTURAL RESOURCES ACT (CARA)

CARA provides for the regulation of control over the utilisation of the natural agricultural resources in order to promote the conservation of soil, water and vegetation and provides for combating weeds and invader plant species. The Conservation of Agricultural Resources Act defines different categories of alien plants:

- Category 1 - prohibited and must be controlled;
- Category 2 – must be grown within a demarcated area under permit; and
- Category 3 - ornamental plants that may no longer be planted, but existing plants may remain provided that all reasonable steps are taken to prevent the spreading thereof, except within the flood lines of water courses and wetlands.

There are **alien plant species within the proposed development area**, which will require control and/or removal. **Recommendations in terms of alien plant removal / control**, as well as **erosion control (and rehabilitation)** will be included in future documentation associated with the Environmental Process.

4.8 NATIONAL VELD & FOREST FIRE ACT (NVFFA) (ACT 101 OF 1998)

The purpose of the National Veld and Forest Fire Act is to **prevent and combat veld, forest and mountain fires** throughout the Republic of South Africa and to provide institutions, methods and practices for achieving this purpose. Institutions include the formation bodies such as Fire Protection Associations (FPA's) and Working on Fire. The Act provides the guidelines and constitution for the implementation of these institutions, as well as their functions and requirements.

4.9 NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)

The protection and management of South Africa's heritage resources are controlled by the National Heritage Resources Act (Act No. 25 of 1999). Heritage Western Cape (HWC) is the enforcing authority in the Western Cape and is registered as a Stakeholder for this environmental process.

A Notice of Intent to Develop (NID) has been submitted to HWC who commented on the NID by requesting that a **Heritage Impact Assessment (HIA)** be conducted to assess the following heritage resources: built environment, historic townscape and archaeological.

The HIA must thus consist of an archaeological study, a built environment study as well as an assessment of the impact on the cultural landscape of the settlement. An integrated set of recommendations have been requested by HWC.

The following triggers in terms of the NHRA are applicable to the proposed development:

Section 34 (1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority. **Buildings older than 60 years or with heritage significance will be altered as part of the proposed development – approval for such activities are being applied for from HWC.**

Section 35 (4) No person may destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object, without a permit issued by the SAHRA, or the responsible resources authority. **If archaeological materials are exposed during vegetation clearing and/or earth moving activities, then they must be dealt with in accordance with the National Heritage Resources Act (No. 25 of 1999). An archaeological impacts assessment is being conducted as part of the Environmental Process.**

Section 36 (1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

Section 36 (3) Nor may anyone destroy, damage, alter, exhume or remove from its original position, or otherwise disturb, any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority, without a permit issued by the SAHRA, or a provincial heritage authority, in terms of Section 36 (3).

Section 38 (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50 m in length;

(c) any development or other activity which will change the character of a site—

(i) exceeding 5 000 m2 in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m2 in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

4.10 NATIONAL WATER ACT, NO 36 OF 1998

The National Water Act (NWA) gives effect to the **constitutional right of access** to water. The Act"s overall purpose is to ensure that South Africa's water resources are protected, used and managed in ways which take into account a number of factors, including inter-generational equity, equitable access, redressing the results of past racial and gender discrimination, promoting sustainable and beneficial use, facilitating social and economic development, and providing for water quality and **environmental protection**.

The NWA makes persons who own, control, occupy or use land responsible for taking measures to prevent pollution of water resources, and empowers Government authorities to take measures to enforce this obligation. A Catchment Agency may enforce these obligations and recover costs from those responsible or from those who benefited from the measures.

Due to the presence of pump station locations within 500m from on-site wetlands, the Breede Gourits Catchment Management Agency (BGCMA) indicated that that the proposed development will require a Water Use License (WULA) despite the Aquatic Risk Matrix indicating the risk (for pollution) to be low. The WULA has been completed and submitted to BGCMA and is part of this final scoping report and can be downloaded for comment from the Cape EAPrac website.

4.11 PROVINCIAL BIODIVERSITY STRATEGY & ACTION PLAN

The Provincial Biodiversity Strategy and Action Plan (PBSAP) aligns with the National and Provincial Medium Term Strategic Frameworks 2014-2019 as well as the National Biodiversity Strategy and Action Plan (NBSAP), 2015-2025. It integrates South Africa’s obligations under the Convention on Biological Diversity into the provincial context. The PBSAP is a strategic framework which prioritises and coordinates the collective efforts of stakeholders to ensure that biodiversity and ecological infrastructure is optimally conserved, sustainably utilised; and that benefits are equitably shared.

4.12 GUIDELINE ON NEED & DESIRABILITY (DEADP 2017)

Although there are a number of applicable guidelines the Guideline on Need & Desirability is considered important because it relates directly to the questions of rural development and how/if it should be done. Other relevant guidelines are also considered applicable and listed in 4.14.

The Guideline on Need and Desirability (2017) compiled by the Department of Environmental Affairs contains information on best practice and how to meet the peremptory requirements prescribed by the legislation and sets out both the strategic and statutory context for the consideration of the need and desirability of a development involving any one of the NEMA listed activities. Need and desirability is based on the principle of sustainability, set out in the Constitution and in NEMA, and provided for in various policies and plans, including the NDP. Addressing the need and desirability of a development is a way of ensuring sustainable development – in other words, that a development is ecologically sustainable and socially and economically justifiable – and ensuring the simultaneous achievement of the triple bottom-line.

4.13 APPLICABLE GUIDELINES FOR ENVIRONMENTAL APPLICATION PROCESSES

The following guidelines have been used to inform the process to date as well as relevant specialist studies, although this is not an exhaustive list it does highlight those develop by the Department of Environmental Affairs *inter alia*, the following:

- Guidelines for Resort Developments in the Western Cape (2005)
- Guideline for determining the Scoping of Specialist involvement in the EIA process (2005)
- Guidelines on Alternatives (2013)
- Guideline on Public Participation (2013)
- Guidelines for involving Heritage Specialists in the EIA process (2005)
- Guidelines for involving Social Specialists in the EIA process (2007)
- Guidelines for involving Visual and Aesthetic specialists in the EIA process (2005)
- Guidelines for involving Hydrological specialists in the EIA process (2005)
- Guidelines for involving Biodiversity specialists in the EIA process (2005)
- Guideline for reviewing Specialist Reports in the EIA process (2005)
- Guidelines for environmental management plans (2005)
- Circular EADP 0028/2014: One Environmental Management System
- Generic Environmental Best Practice Guideline for Aquaculture Development and Operation in the Western Cape (2007)
- Specialist Protocols (May 2020 & October 2020)
- EIR from 2016 application (inclusive of specialist studies)

4.14 PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK FOR THE WESTERN CAPE

The PSDF coordinates, integrates and aligns Provincial plans and development strategies with policies of National Government; the plans, policies and development strategies of Provincial Departments; and the plans, policies and development strategies of municipalities. It is the common spatial reference framework for delivering on the Province's strategic Development priorities individually and collectively and therefore serves to guide the location and form of public investment in the natural and built environment, so that the returns on these investments are consistent with the PSGs.

4.15 NATIONAL WASTE MANAGEMENT STRATEGY

The National Waste Management Strategy presents the South African government's strategy for **integrated waste management** for South Africa. It deals among others with: Integrated

Waste Management Planning, Waste Information Systems, Waste Minimisation, Recycling, Waste Collection and Transportation, Waste Treatment, Waste Disposal and Implementing Instruments.

4.16 DEA&DP WASTE MINIMISATION GUIDELINE DOCUMENT FOR ENVIRONMENTAL IMPACT ASSESSMENT REVIEWS (MAY 2003)

This Guideline raises awareness to **waste minimisation** issues and highlights waste and wastage minimization practices. Part B of this document is of particular importance, as it addresses issues of general waste and wastage minimization during construction activities.

4.17 SANS 10400 APPLICATION OF THE NATIONAL BUILDING REGULATIONS

The application of the **National Building Regulations** contains **performance parameters** relating to fire safety, sanitation systems, moisture penetration, structural safety, serviceability and durability. It also takes into account how the above can be established to reflect social expectations in a manner which supports sustainable development objectives.

4.18 NATIONAL BUILDING REGULATIONS

The National Building Regulations and Building Standards Act as amended must be complied with. This act addresses, inter alia:

- Specifications for draftsmen, plans, documents and diagrams;
- Approval by local authorities;
- Appeal procedures;
- Prohibition or conditions with regard to erection of buildings in certain conditions;
- Demolition of buildings;
- Access to building control officers;
- Regulations and directives; and
- Liability.

4.19 LAND USE PLANNING ACT, 2014 (ACT 3 OF 2014) (LUPA)

LUPA gives effect to SPLUMA in the Western Cape Province. Section 49 of the LUPA gives the basis of assessment of land use applications. It states that when a Municipality considers and decides on a land use application, the municipality must have regard to at least:

- the applicable spatial development frameworks;
- the applicable structure plans;
- the principles referred to in Chapter VI (Section 59 - land use planning principles);
- the desirability of the proposed land use; and
- guidelines that may be issued by the Provincial Minister regarding the desirability of proposed land use (none issued to date).

4.20 LAND USE PLANNING BY-LAW FOR MOSSEL BAY MUNICIPALITY

The Mossel Bay Municipality: Land Use Planning By-Law, 2015 lists in Section 65 the general criteria for the consideration of applications in terms of the by-law which includes amongst other:

- the desirability of the proposed utilisation of land;
- the impact of the proposed land development on municipal engineering services;

- the integrated development plan, including the municipal spatial development framework, the applicable local spatial development framework and/or local structure plans;
- relevant municipal policies;
- the provincial spatial development framework;
- Section 42 of SPLUMA;
- the land use planning principles of LUPA; and
- the provisions of the zoning scheme.

The rezoning & subdivision application was submitted to Mossel Bay Municipality in June 2021. The decision on this application is subject to the outcome of the scoping & impact assessment process. The updated June 2022 SDF does however reflect this application as being consistent with the spatial planning of the Hartenbos Heuwels area.

5 ENVIRONMENTAL ATTRIBUTES OF THE SITE

5.1 VEGETATION

From a botanical perspective Erf 3122, Mossel Bay (Hartenbos Hills Garden Estate) can be divided into two main vegetation types namely **low sensitivity renosterveld** and **high sensitivity grassy fynbos**.

These vegetation types occupy **two distinct areas** with the **renosterveld** being found on the **upland plateau** where the development footprint is focussed. It was historically ploughed and this disturbance has carried through despite the area having apparently restored to 'good' vegetation. Analyses of collected data shows that the renosterveld is **relatively poor in plant species** with a significant complement of the **original species having been lost**.

The **grassy fynbos**, on the other hand, is relatively undisturbed and has **high sensitivity**.

It is noted that the botanist has done several investigations on and around Erf 3122 dating back to 2006, again in 2017. He also sourced from botanical reporting of neighbouring conservation area done by Nick Helme in 2016. Further site assessments will be undertaken to inform the impact assessment.

Despite virtually the entire area of Erf 3122, Mossel Bay (Hartenbos Hills Garden Estate) being classified as **Critical Biodiversity Area** (CBA1) in the Western Cape Biodiversity Spatial Plan (WCBSP 2017), it has been determined from **field studies** (ground-truthing in 2017) that the area occupied by renosterveld should at best be **re-classified as Ecological Support Areas (ESA1)** as it better reflects the ecosystem threat status of the habitat. The renosterveld areas have **low botanical constraints** so opportunity exists to propose development of those areas.

5.1.1 Renosterveld on the central plateau and warm, dry west- and north-facing slopes

Renosterveld is the dominant vegetation type on Erf 3122, Mossel Bay (Hartenbos Hills Garden Estate). It is found on the central plateau and on the warm, dry westerly and northerly slopes. The soils are gravelly and have a clay-rich matrix. This vegetation type has a grey appearance due to the colour of the dominant shrub species, *Elytropappus rhinocerotis*, the renosterbos. Shrubs of this species are from 1—1.5 m tall and generally, but not always, form a mid-dense to dense canopy over other lower shrubs. The cover of renosterbos is from 80 – 90 % with other shrubs forming a much lower proportion of the cover. Low & Rebelo (1996) describe the physiognomy of South Coast Renosterveld

as ‘open to mid-dense, cupressoid and small-leaved, low to mid-high shrubland, with emergents generally absent’ and the renosterveld vegetation at Hartenbos fits this description well.

The understorey of the renosterveld can range from being a sparse covering of low shrubs, forbs and grasses to a dense grassy sward with some shrublets and forbs. The pattern in the renosterveld at Erf 3122 is that dominance can change and renosterbos can be completely absent in which case grasses, particularly *Hyparrhenia hirta* (Figure 25), dominate. This results in either a patchy mosaic of small grass-dominated patches within larger renosterbos-dominated stands of vegetation or the opposite where grasses dominate over wide areas with renosterbos either absent completely or occurring in varying density but usually sparsely.

Renosterveld, wherever it occurs, is well-known for its diversity of species and the renosterveld when the author surveyed Erf 3122 Mossel Bay in 2006, it was found that there was a fair species richness in the renosterveld. An exhaustive species list was not compiled for the renosterveld at Erf 3122 but genera and species that were found to occur include, *Asparagus africanus*, *Asparagus* cf. *falcatus*, *Berkheya* sp., *Boophone disticha*, *Brachiaria serrata*, *Bulbine* sp., *Carissa bispinosa*, *Carpobrotus acinaciformis*, , *Chrysocoma ciliolata*, *Commelina africana*, *Cynanchum viminale, Dianthus caespitosus*, *Digitaria eriantha*, *E. rhinocerotis, Ehrharta* sp., *Eragrostis curvula*, *Eriocephalus africana, Euclea undulata*, *Glottiphyllum depressum*, *Gnidia* cf. *polystachya*, *Hermannia flammea, Hibiscus sp., Indigofera* sp., *Jamesbrittennia argentea*, *Lobelia* sp., *Merxmuellera stricta*, *Ornithogalum dubium*, *Osteospermum moniliferum, Polygala myrtifolia*, *Pteronia* spp., *Rhus glauca*, *Ruschia* cf. *hamata*, *Selago* spp., *Tephrosia* sp., *Themeda triandra*, *Ursinia* cf. *nudicaulis* and species in the Acanthaceae (cf. *Blepharis* sp.).

One misinterpretation of McDonald (2006) at the time, was that the lack of geophytes found in the 2006 survey was attributed to season. Subsequently it was realized by Dr McDonald that the lack of geophytes is more likely due to a large area of the central plateau having been exposed to limited dry land cultivation and frequent wildfires and the geophytic flora lost.

The grassveld encountered at Hartenbos Hills Garden Estate is considered to be a ‘sub-community’ of the renosterveld. Species composition of the grassveld is very similar to that of the renosterveld proper except that there is a dominance of grasses, especially *Hyparrhenia hirta.* The grassveld has a different signature on aerial photographs and is clearly distinguishable in the field from the true renosterveld. The grassveld tends to occur on well-drained north-facing and some west-facing slopes where it occurs as pure stands over fairly large areas as opposed to the renosterveld which has its best expression on the relatively flat table-land or plateau. As described above the grassveld can also be in a patchy mosaic with renosterveld.

This is particularly so when the renosterveld has been disturbed and the renosterbos is removed either mechanically, such as alongside roads or by fire. Grasses aggressively colonize these gaps in the renosterveld. Additional species found in the grassveld that were not noted by McDonald (2006), but noted with subsequent site inspections, in the renosterveld include *Albuca* sp., *Aristida junciformis*, *Aspalathus* spp., *Berkheya armata*, *Brunsvigia* sp. (cf. *orientalis*), *Crassula* sp. (2), *Ehrharta scabra*, *Eragrostis capensis*, *Pentaschistis eriostoma*, *Senecio* sp. (succulent leaves).

5.1.2 Scrub thicket

Both Acocks (1988) and Low & Rebelo (1996) recognized the incidence of thicket patches within the renosterveld. Acocks judged that these thickets were probably relics of a once more widespread vegetation type whereas Low & Rebelo suggested that thicket occurs where the relief is greater, rainfall is low and fire cannot spread easily into these protected microhabitats.

The thicket vegetation is dense, thorny and impenetrable and at Erf 3122 Mossel Bay (Hartenbos Hills Garden Estate) the thicket community includes species such as, *Aloe ferox*, *Bulbine* sp., *Carissa bispinosa* (Num num), *Crassula* sp. *Cussonia spicata* (Cabbage tree), *Cynanchum viminale, Diospyros lycioides*, *Gymnosporia buxifolia* (Common spike-thorn), *Olea europaea* subsp. *africana* (Wild Olive), *Rhus lucida*, *Schotia afra* (Boerboon), *Sideroxylon inerme* (Milkwood).

5.1.3 Fynbos on the cool, south-facing slopes

In contrast to the renosterveld on the dry slopes, the cooler south-facing slopes, that are probably also moister, support fynbos vegetation. Even though certain elements of fynbos such as some restios (Restionaceae) and *Bobartia robusta* (Iridaceae) occur in the renosterveld, the clue to the presence of true fynbos communities is the presence of Ericaceae, Restionaceae and Proteaceae growing together. The substrate is similar to that on which the renosterveld is found; the surface of the soil is covered (80%) with round pebbles of varying sizes (10 mm – 200 mm) but is probably gravellier, with a lower clay fraction, than where renosterveld is found. This, however, was not confirmed. The fynbos community has a cover of 80% with two layers and emergent shrubs up to 2 m. *Erica hispidula* is dominant in the upper stratum, <1 m high, with a cover of 60 %. The lower stratum < 50 cm high is graminoid and dominated by grasses and restios. Depending on the location, emergent shrubs such as *Leucadendron salignum*, *Protea lanceolata* and *Erica discolor* var. *speciosa* have variable cover. *L. salignum* and *E. discolor* var. *speciosa* generally have a low cover whereas *P. lanceolata* can form dense stands of a large number of individuals. Another striking aspect of the fynbos vegetation is the occurrence of a large number of plants of *Bobartia robusta* (Iridaceae) which have a relatively low cover but high abundance and are very obvious in the overall appearance of the fynbos in this area.

The bright red geophyte, *Tritoniopsis antholyza*, was in flower at the time of sampling in December 2006/2017. At that time, it was abundant, and from the evidence of porcupine digging it was concluded that the corms are obviously much sought after by these animals. No other geophytes were found while searching through the fynbos and this was most likely because the season was well advanced into summer as opposed to possible historical ploughing as in the renosterveld.

The most important aspect of the fynbos vegetation is the occurrence of *Protea lanceolata* (Lance-leaved Protea). According to Rebelo (1995) this species occurs on the Potberg (De Hoop) and the Riversdale Flats and at the fynbos / thicket ecotone at Mossel Bay on gravels from 0 – 200 m. It was listed in the Red Data list as VULNERABLE (Hilton-Taylor 1996; Raimondo *et al.* 1999) and Rebelo (1995) attributed this to the invasion of its habitat by rooikrans (*Acacia cyclops*). However, in the most recent appraisal (http://redlist.sanbi.org/species.php?species=799-68) it is considered to be Least Threatened.

At Hartenbos Hills Garden Estate, three distinct stands of *P. lanceolata* were found on south-facing slopes in fynbos vegetation by McDonald (2006/2017). At one of these sites the stand of *P. lanceolata* is being heavily impacted by invasive rooikrans (*A. cyclops*) and this situation needs to be remedied. Only one part of the current study area i.e. near the eastern entrance gate on the southern slopes, supports *P. lanceolata* (development avoids this area).

Virtually the entire area of Erf 3122, Mossel Bay is mapped as **CBA1** with small areas mapped as CBA2 and even fewer areas mapped as ESA1. From **field observations** made by the appointed botanist, there is **poor correlation** between the **WCBSP map** and the ground-truthed **sensitivity of the vegetation**.

The areas covered by renosterveld are **not botanically sensitive** and have **low plant species diversity**. The botanist contends that the **renosterveld area should be mapped as ESA1** and **not CBA1 or CBA2**. This contention is taken into account when determining the constraints on the site.

The National We-based Screening Tool was applied for Erf 3122, Mossel Bay and the result was that the site has a medium sensitivity with respect to the relative plant species theme. There are also **not many sensitive species** and regarded as sensitive in the species list.

The relative terrestrial biodiversity theme sensitivity in the Screening Tool is given as very high. Both Helme (2016) and Dr Mcdonald do not agree with the assigning of CBA1 to Erf 3122, Mossel Bay in the Western Cape Biodiversity Spatial Plan (Pence, 2017; Pool-Stanvliet, 2017). According to both botanists the **biodiversity sensitivity of the erf is over-stated** and this has been drawn down into the National Web-based Screening Tool where the 'error' has been perpetuated (Figure 12). The terrestrial biodiversity sensitivity is more realistically **medium**.

As for the study by Helme of the study site and greater area including the municipal conservation area (2016) **no species of conservation concern** were found on the site in this study. Helme (2016) made observations of endangered species and regional endemics that occur in the near vicinity of the study area. He speculated that these species could occur on the site but that the probability of their occurrence is low.

According to Dr Dave McDonald (botanical specialist) the proposed layout reflects the opportunity to develop mainly on the plateau of Erf 3122, Mossel Bay (Hartenbos Hills Garden Estate), while avoiding the fynbos areas on the slopes (mainly south- to east-facing slopes).

A detailed impact assessment will be informed by follow-up site inspections and will follow the Scoping Phase. The detailed impact assessment will also be used to inform the detailed biodiversity assessment.

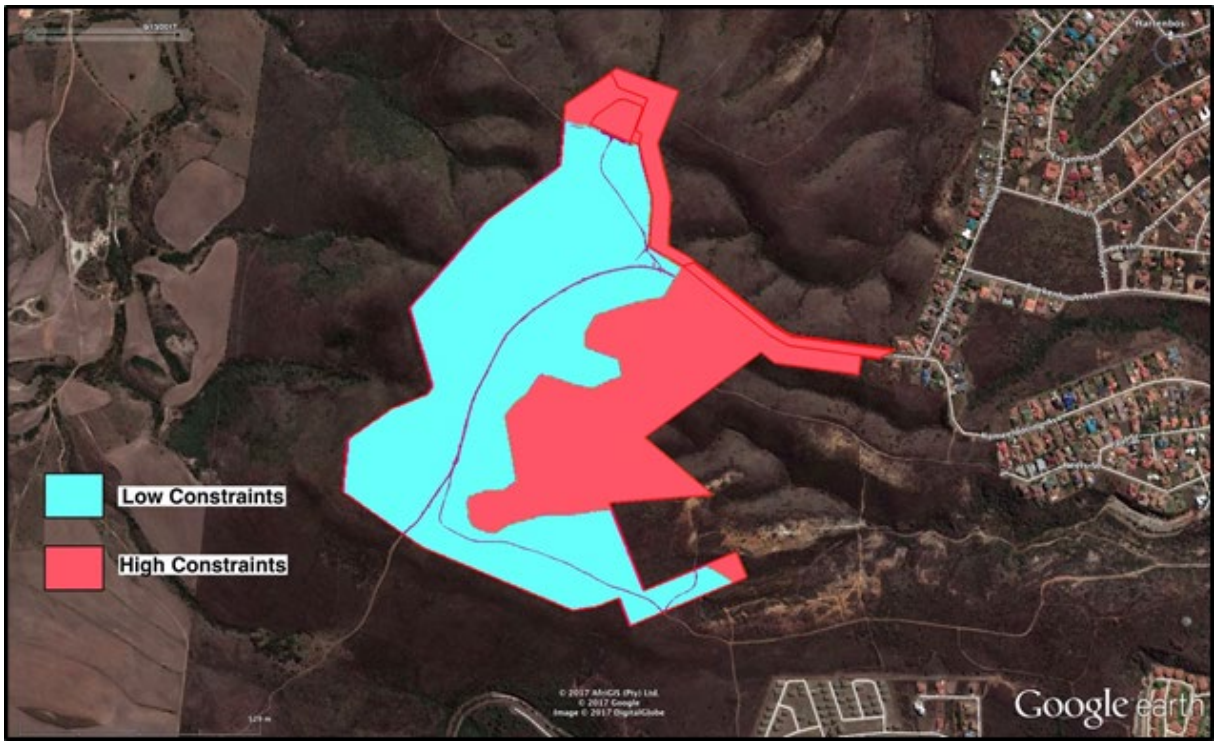


Figure 15: Botanical sensitivity indicated for Erf 3122 (Source: Bergwind Botanical Surveys).

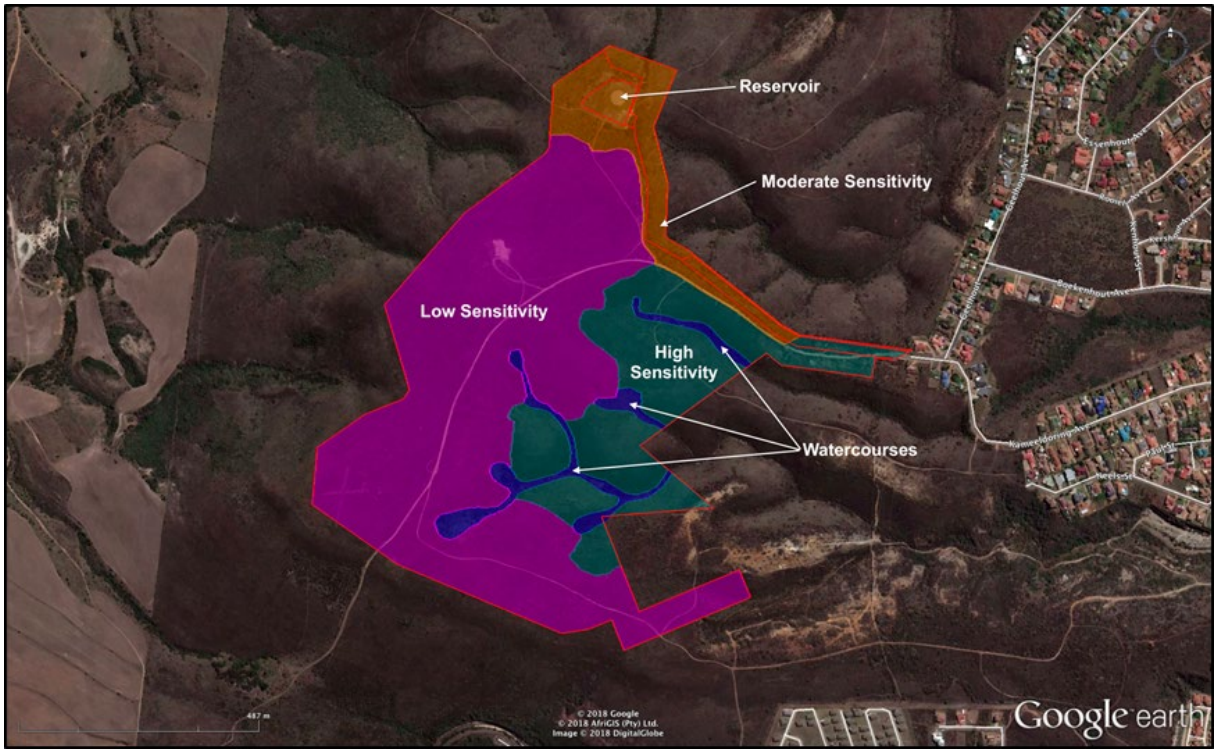


Figure 16: Sensitivity layer for Erf 3122.

6 FAUNAL CONSIDERATIONS

Simon Todd (Todd, 2018) provided baseline environmental information and anticipated impacts to be assessed are discussed in the Plan of Study for EIR. At the time of updating, Mr Todd was unavailable and Dr Marius vd Vyfer (Chepri Consulting) conducted a further updated study (2021) to address compliance with the specialist protocols. Chepri concurs with the Todd report however it highlights the need for additional site inspections to verify the presence of a number of listed birds as per the Screening Tool. The detailed impact assessment will expand on the potential for avifaunal occurrences identified at desktop and site specific level.

The impact assessment process has been initiated and will be completed by Dr Jonathan Conville once the DEA&DP accepts the proposed plan of study. More detailed information pertaining to ecological resources and the impacts of the proposed development will therefore be included in the impact assessment report that will be made available at a later stage as part of the greater Environmental Impact Report. The anticipated faunal impacts listed in this section were determined through feedback from and consultation with the involved specialist.

A site visit and field assessment of the site and the proposed development areas was conducted by two separate faunal specialists in order to identify and characterize the ecological features of the site and develop an **ecological sensitivity map for the site**.

According to Todd the drainage lines of the site and their adjacent slopes are considered the most sensitive feature of the site and are important for landscape connectivity. They are however generally degraded and dominated by alien *Acacia cyclops*. The plateau of the site is flat and fairly homogenous and is not considered highly sensitive from a faunal perspective as a large proportion of this area has been previously transformed. It is however still used by a variety of small mammals, birds and reptiles and retains some value as habitat as well as for broad-scale connectivity. A variety of species including Caracal, Porcupine, Cape Hare and Aardwolf were recorded on the plateau area.

The drainage lines are considered the most sensitive feature of the site and have been buffered by 50m to provide corridors for the movement of fauna. The lower-lying areas and slopes are in a significantly better condition than the plateau area and are considered medium sensitivity, while the plateau is considered low sensitivity as it has been significantly degraded by previous land use. In terms of the implications of this map for development, it is clear that the valleys and drainage lines should be avoided as much as possible.

The plateau area is considered generally low sensitivity for fauna but as the camera trapping clearly illustrates, is still used by fauna and remains important for broad-scale connectivity of the landscape. Under the provisional layout provided for scoping, the footprint is largely restricted to the low sensitivity areas. However, the area to be fenced is significantly larger than the footprint and for the larger mammals of the area, the habitat loss resulting from the development is equivalent to fenced area and not just the footprint.

The faunal specialist indicates that the development will result in impacts on landscape connectivity which given the topography of the site (steep slopes and sensitive valleys) cannot be mitigated fully (development cannot be considered in these sensitive areas). The faunal impact assessment and biodiversity assessments by independent specialists will consider landscape connectivity and corridor functionality in greater detail and should it become evident

that additional corridors/linkages are to be developed, such will be assessed in terms of the impact assessment phase.

Butterfly species of concern were identified on the site by Dr Dave Edge following the faunal and botanical investigations.

The location of the species was found along the existing municipal reservoir and the recommendation is that the area be defined as a butterfly reserve. Invasive alien clearing and controlled burning (at the appropriate time of the year) is important to support this reserve habitat and ensure the butterflies are not impacted negatively by the proposed development.

The butterfly reserve will be excluded from the Estate fencing to allow it to act as an ecological corridor that can link the surrounding and remaining natural areas.

The pre-planning development proposal has been amended to exclude this butterfly area with controlled access permitted for residents/visitors. Dr Edge stipulated that the existing gravel road leading to the reservoir must not be tarred (as this will impact on the symbiotic ant species and burning of the reserve in the long-term will be critical to ensure survival of the species.

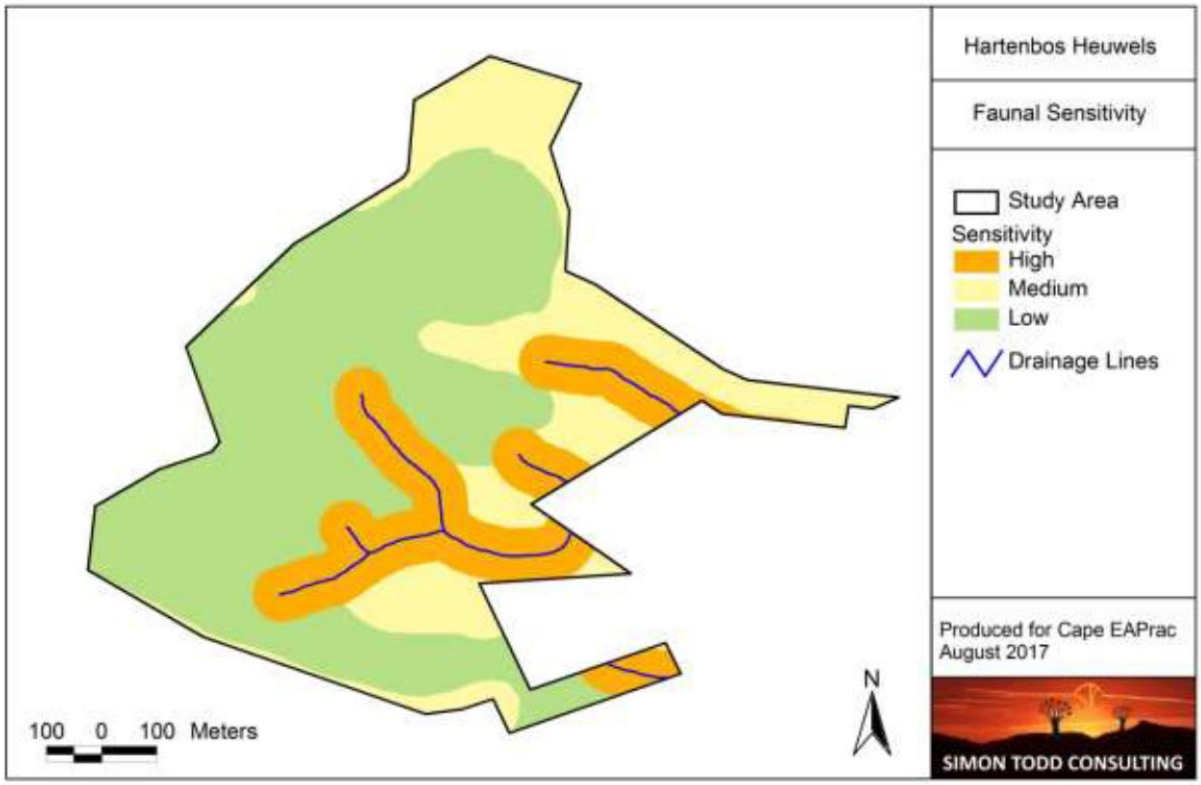


Figure 17: Faunal sensitivity map (Todd 2019).

7 FRESHWATER CONSIDERATIONS

A number of ephemeral watercourses were identified and mapped within the study area as well as along the eastern and northern boundary of the Erf 3122. These were assessed in terms of their key characteristics, condition and ecological importance during the Constraints Analysis Phase of the project and details of the assessment are included in Ewart-Smith (2017) and summarised below.

Watercourses within the study area are fed by seep habitats and the transition from seep to watercourse in all instances was identified by the change from diffuse runoff to the presence of a channel carrying concentrated flows during rainfall events. Watercourses within the study area were characterised by a narrow riparian fringe, dominated by shrubs such as *Searsia glauca* and *Osteospermum monolifera*.

Most hillslope seeps and watercourses within the study area are largely natural with little invasion of alien vegetation. They support vegetation communities that are denser than the upslope terrestrial habitats and thus contribute to ecosystem services such as flood attenuation, streamflow retention, sediment trapping and erosion control. Also these systems fall within a regionally threatened vegetation type and, despite some degradation, still provide ecologically functional habitat for the provision of shelter and food and the movement of fauna.

Considering that Erf 3122 straddles two watersheds and thus the watercourses and seeps represent the source zones of watercourses further downstream, these systems are particularly important for connectivity and genetic dispersal of both fauna and flora between catchments at a landscape level. Besides their ecological importance, ephemeral systems such as those on Erf 3122 are **highly sensitive** to **anthropogenic disturbance**. Even small

changes in peak flows, runoff intensity and channelization can exacerbate erosion and bank destabilisation and elicit the knock-on effects of ecological degradation. Collectively therefore, these habitats are rated as having a ***high Ecological Importance and Sensitivity.***

As a result of the aquatic specialist findings, the services layouts, most notably the stormwater layout (focussing on treatment and discharge) has been informed by the aquatic specialist to ensure that minimum disturbances will occur. The location of the various sewage pump stations have also been considered and the necessary mitigation measures such as having additional overflow capacity with generators as electrical backup (to protect against sewage overflowing into the natural environment during power failures) have been considered as part of the Risk Matrix and Water Use License application and assessment.

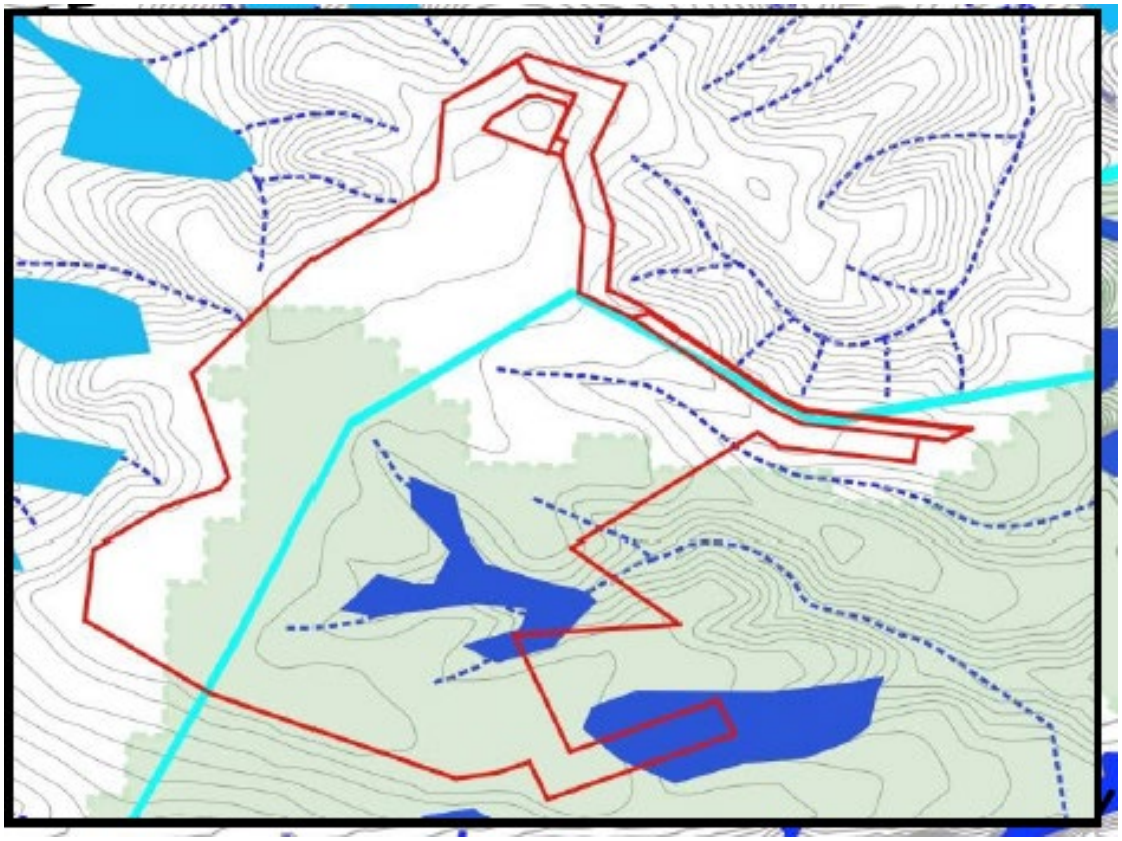


Figure 18: National freshwater priority area map.

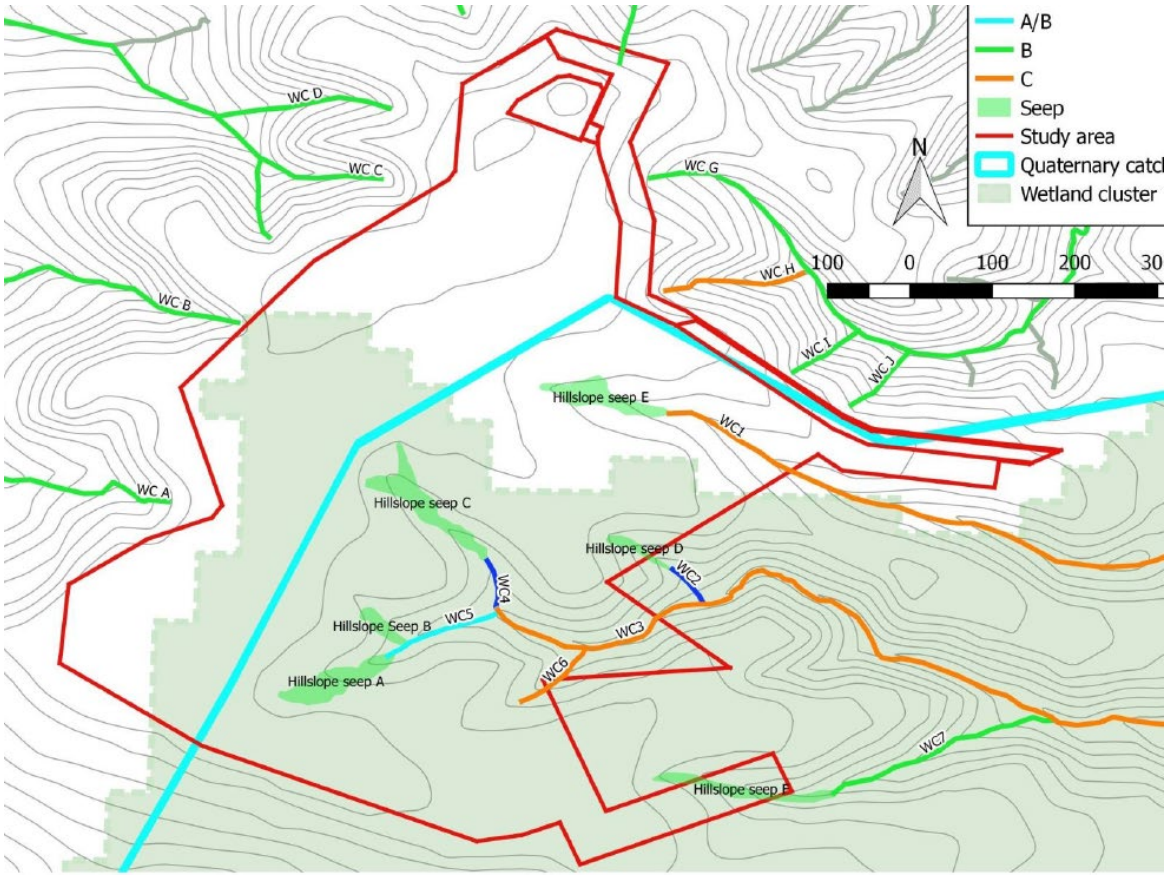


Figure 19: Site verified information on watercourses/wetlands.

Despite the provision of a setback, the ephemeral seeps and watercourses within and surrounding the study area **are particularly vulnerable to water quality and quantity changes** associated with catchment hardening. Without effective mitigation, these impacts may result in the permanent loss or degradation of freshwater ecosystems of high ecological importance. Effective mitigation measures to address these impacts have been identified by the specialist. The extent to which mitigation is feasible and effective will need to be addressed during the EIA phase. In particular, the assessment of the stormwater management will be a focus of the aquatic impact assessment.

The results were presented to BGCMA who concurred that a Water Use License (WULA) is to be undertaken (combined with the Draft and Final Scoping Reports). Comments relevant to the WULA received during the commenting period will be submitted to the aquatic specialist for consideration and feedback to the BGCMA to conclude the WULA process.

8 HERITAGE CONSIDERATIONS

An archaeological scoping report (2021) was prepared by Dr. Nilssen in response to the proposed revised development proposal. The study confirms that of two sensitive archaeological occurrences noted in previous investigations, one (waypoint 34) is situated outside the proposed development footprint whilst the Alternative 2 was changed to accommodate the other (waypoint 127). The report concludes as follows:

"Because the overall archaeological sensitivity of the affected property is considered to be low, there are no further direct, indirect or cumulative impacts that will require amendments to the

development layout. A standard set of recommendations must be included in the final impact assessment to deal with significant archaeological or heritage resources in the event that they are exposed by construction.

A palaeontological scoping report (2021) was prepared by Dr. John Pether in response to the proposed revised development proposal. The report notes that while the property is situated within an area earmarked as "*Very High*" palaeontological sensitivity on SAHRIS Paleo-sensitivity mapping, said mapping was based "on a superseded 1:250 000 geological map" and that "Subsequent, more detailed mapping reproduced herein depicts the geological formations in more detail, also differentiating the fossil potential." (Pether, 2021:iii). The scoping report recommends as follows:

"A practical monitoring and mitigation programme must be implemented during the Construction Phases of the proposed housing development. The following measures apply to all earthworks affecting all four formations listed above.

- *The field supervisor/foreman and workers involved in digging excavations must be informed of the need to watch for fossils and buried potential archaeological material.*
- ***Procedure** provides guidelines to be followed in the event of fossil finds.*
- *It is also recommended that fresh exposures of the marine beds that may be created during construction, such as along the perimeter road, are recorded and sampled by a palaeontologist. To this end the ECO must liaise with the contracted palaeontologist as to the progress of road construction earthworks. It is proposed that exposures of the De Hoopvlei Formation Miocene beds and the overlying Wankoe Formation that may be created along the perimeter road are highlighted by explanatory signage.*
- *Should the fossil content indeed indicate a mid-Miocene age for the De Hoopvlei Formation this site will be an important* (Pether, 2021).

The heritage investigatoin undertaken in relation to the previous development proposal for Erf 3122 relied on analysis of present urban development, rural and natural landscape aspects, settlement morphology and traditional landscape patterns to inform analysis of the cultural landscape context. HWC's final comments dated 7th July 2011 (previous application) regarding the previous proposal point towards the need for a detailed assessment of the potential visual impact of the revised proposal. Furthermore the cultural landscape analysis previously undertaken would have to be updated so as to comply to the standards and requirements specified in HWC's most recent guidelines.

An integrated Heritage Impact Assessment will form part of the Impact Assessment Reporting.

9 SUMMARY OF POTENTIAL RISKS AND IMPACTS

The project team and specialist input has identified the following as potential issues/concerns/impacts to date. The public participation process will help identify any additional potential concerns, risks and impacts (both positive and negative) that may arise from this development proposal.

- Fire risk (the site is situated within a high fire risk area and Hartenbos Heuwels have experienced damaging wild fires in recent years);

- Additional traffic and particularly the potential impact of increased traffic on intersections onto arterial roads during both construction and operational phases;
- Environmental impact associated with the proposed development, most notably biodiversity (ecological patterns and processes), landscape connectivity and impact on habitat/species diversity;
- Management of invasive alien vegetation within undeveloped areas (also linked to fire risk);
- Benefit of creating additional employment opportunities through construction and operational components as well as income generation through rates & taxes;
- The visual impact of the proposed development on ridgeline in particular;
- Historical decisions on previous applications to be considered.

Table 2: Potential impacts/risks associated with the proposed development as broken up into specific disciplines.

Possible Constraints	Specialist Input
Ecological	Active alien clearing is however required for the transformed areas (most notably the ridgeline and watercourses) in order to ensure that the environment will also benefit from the proposed development. It is recommended that an Alien Clearing Management Plan be drawn up to ensure long term clearing is done in a sustainable manner. Fire management is raised as a concern although it is unlikely to be a major risk factor to development nodes themselves, however the area is known for wild fires and therefore a detailed Fire Management Plan should be incorporated as part of the overall management goals for the site.
Fire Management	Proximity of frail care to areas that will require ecological burning. Controlled fires must not be compromised once the area is occupied. Neighbouring areas to the west are conservation areas that must be burned and smoke from such fires may pose a nuisance to residents.
Freshwater	The site contains a number of on-site watercourses. Unnecessary encroachment of development onto these features is unwanted. Aquatic buffers on all major drainage lines and smaller tributaries are recommended to minimise potential impacts. Active alien clearing along all affected watercourses must be implemented as a mitigation measure to help improve the aquatic environment that will be affected by this proposal. Stormwater management (for both quantity and quality) is important and must be assessed in terms of the detailed stormwater management plan.
Heritage	Context of the site and visual issues connected with landscape character. Potential archaeological and palaeontological requirement to be incorporated into integrated heritage impact assessment.

Social	Meeting housing demand specifically for secure (gated) developments as people relocating to the area come from areas deemed to be high-risk and are used to high levels of security. Employment opportunities during construction and operational phase. Skills transfer and training is important to optimise benefit to previously disadvantaged and lower income groups.
Traffic	Access through Hartenbos Heuwels and intersections onto Louis Fourie and R108/R386. Detail the responsibility of upgrading of these intersections (either Municipality ito Arterial Management Plan for their greater mobility study) or responsibility of the Applicant. Must consider construction traffic through residential areas of Hartenbos Heuwels (routes to be identified).
Butterfly	Species identified in proximity to the municipal reservoir have conservation value and their habitat must not be compromised. Alternative 2 accommodates this requirement. Alien clearing and appropriate fire regimes are important which must not be deviated from once the development is occupied. The reserve will not be fenced-in with the Estate to ensure that it can act as a corridor linking neighbouring remaining natural areas.
Visual	Ridgeline development must be managed and mitigated with appropriate setback, architectural guidelines and appropriate landscaping. Potential landscape character aspects must be considered along with the need for height restrictions/repositioning of three storey buildings if deemed necessary by the specialist to ensure compliance with the Ridgeline Guideline.
Open Space	The management of open spaces within the development, along with fencing requirements and controlled ecological burning is a concern that must be considered. Corridor connectivity with neighbouring open space areas to be addressed through the faunal and biodiversity impact assessments.

10 ALTERNATIVES

10.1 ALTERNATIVE 1 (STATUS QUO)

The continued land use type as vacant land poses some threats from a social and property security perspective. Although the site access has a locked gate, numerous informal vehicle access points have been created without permission from the landowner or Applicant. Vehicles access the site without permission and evidence of snaring, cross country motorbike routes and dumping have been noted during site inspections. Pedestrians also access the property for cycling, hiking and walking their dogs. The property is privately owned and the necessary signage advises that trespassing is unlawful. Vacant land within an urban area does however come with risks such as these if not fenced or monitored.

Furthermore unchecked invasive alien vegetation infestation is present. Invasive alien clearing is expensive and with no feasible income to be generated from the primary (agriculture, single dwelling) few landowners comply with the legal requirements in this regard. In addition to the impact of uncontrolled invasive alien vegetation on biodiversity, the increased risk it poses to

neighbouring properties is a reality. The Mossel Bay Municipal Fire Management confirmed that development of this nature will result in a reduction of biomass through removal of vegetation and alien vegetation management) which will ultimately decrease the fire risk to the remainder of Hartenbosch Heuwels compared with the Status Quo.

The site is earmarked for urban development. With no agricultural activities being undertaken on the property for years, no agricultural resources i.e. water for irrigation or drinking for domestic animals, the natural habitat has recovered well, especially along the eastern/southern slopes, thus maintaining the status quo has the potential for full restoration on condition that unauthorised access be prohibited, that invasive alien vegetation be managed and ecological burning be instated.

Reasonably though the cost of secure fencing (and maintaining said fencing) and effective alien clearing without capital input, is not feasible given the spatial planning designations and associated expectations of the owners to develop the property as part of the urban context. The alternative of incorporating the property as part of the Municipal Sonskynvallei Conservation area is not deemed feasible either since it would imply the Municipality to purchase the property and manage it in accordance with a Conservation Management Plan. It is noted that the Sonskynvallei Conservation Area is not effectively managed as per Nick Helme's observations when he was tasked to compile a management plan for the area.

10.2 ALTERNATIVE 2 (preferred alternative)

The preferred alternative to the Applicant is discussed in this final scoping report (Section 5). The proposal allows for development of approximately 60% of the site whilst roughly 40% will remain open space.

The preferred alternative (layout) has been informed by specialist scoping level investigations which have all concurred that such a proposal is feasible with acceptable anticipated environmental impacts given the spatial context of the site, as well as the development of lesser sensitive areas of the property. Detailed specialist assessments will however provide more information in this regard and further changes to the preferred layout cannot be excluded at this point in the investigation.

The outcome of the scoping process will help determine whether any other reasonable and/or feasible alternatives must be considered and investigated. A potential 3rd alternative as specified by the DEADP must consider (a) improved landscape connectivity, (b) corridor functionality, (c) visual reduction along ridgeline and (d) open space management.

10.3 ELIMINATED ALTERNATIVE

As part of the pre-planning phase the Applicant considered a number of layout revisions, most which were never presented to the specialists because of selections by the Applicant deeming them to not be feasible. Those presented to the specialists however include the following layout that's more in line with the original layout rejected in the previous environmental impact assessment.

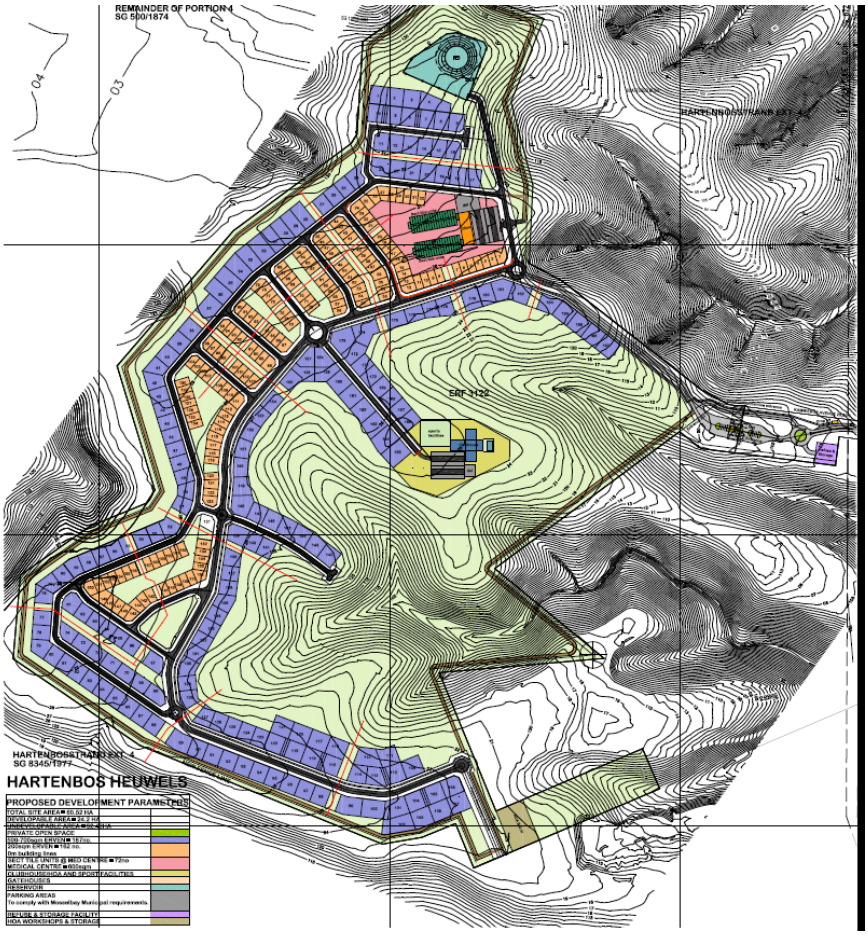
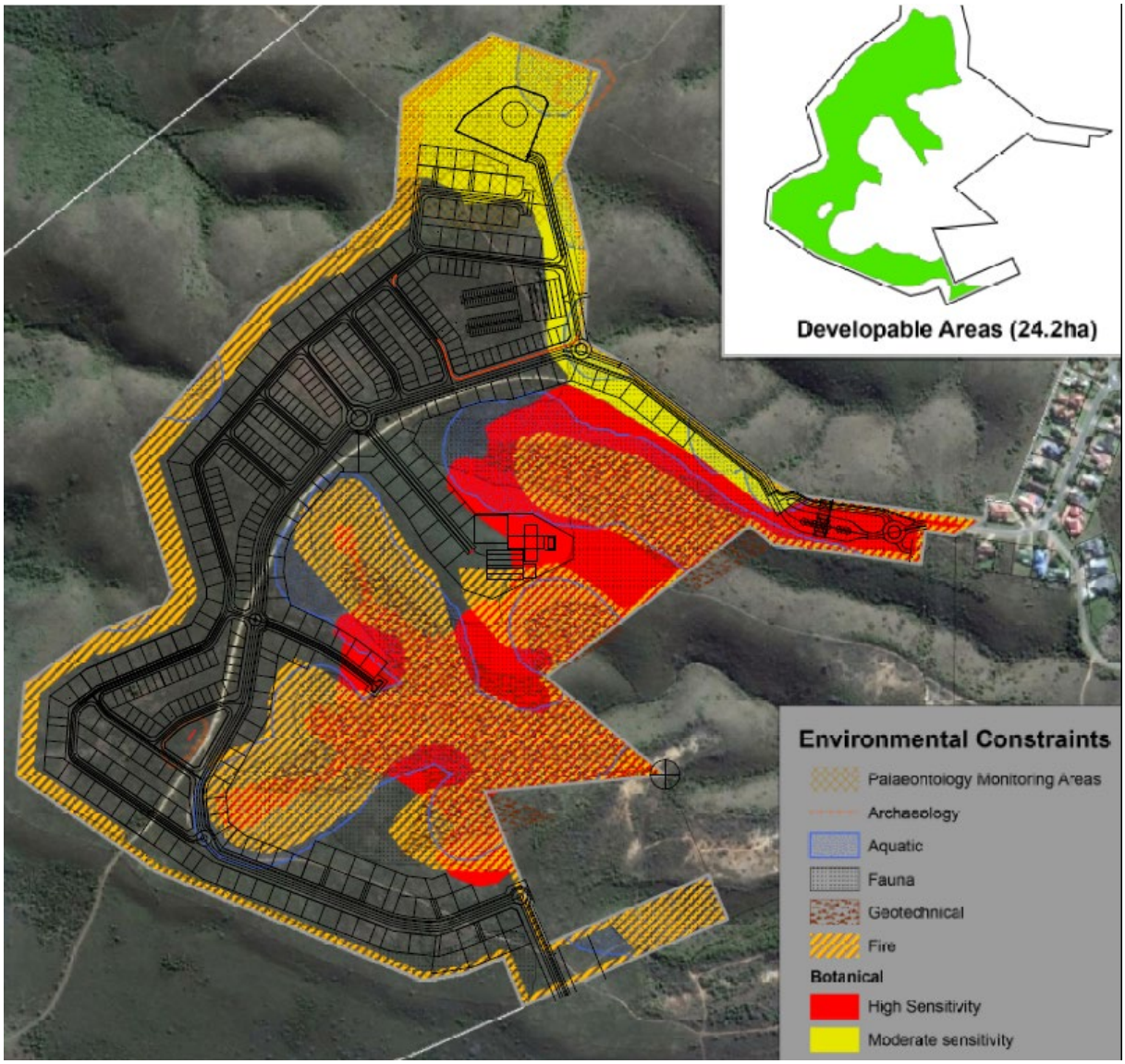


Figure 20: Eliminated alternative January 2018.

This layout was presented to the project team specialists and following their multi-disciplinary site assessments, was deemed to not be feasible, most notably because of constraints associated archaeological key points, aquatic buffers, faunal, botanical and geotechnical constraints. Furthermore this alternative extended into an area identified as a butterfly habitat.

This initial (start-up) layout was amended to conform to the combined 'developable area' of 24.2ha which is a combination of several specialist constraints maps (refer to below key for specifics).

This alternative was eliminated for potentially resulting in too many impact conflicts and is not being considered for comparative assessment.



11 PUBLIC PARTICIPATION PROCESS

Section 41 in Chapter 6 of regulation 982 details the public participation process that has to take place as part of an environmental process. The Environmental Process for the proposed development intends to **comply** with the public participation process (PPP) requirements as stipulated in the Regulations.

This pre-application scoping report has been updated with inputs and comments received. The Draft Scoping Report is was circulated to registered I&APS and the final Scoping Report submitted to the Department for consideration.

The impact assessment phase will provide for additional stakeholder input as well when more detailed about impacts and mitigation measures become available.

Comments received from stakeholders thus far during the process, is captured the **Issues & Response Report.**

- The pre-application scoping report was advertised in the *Mossel Bay Advertiser* on 21 January 2022. The comment period extended from 22 January 2022 till 21 February 2022. A copy of this advert is included;
- Written notifications were sent to potential interested & affected parties via email and post.
- The Mossel Bay Municipality supplied the contact details of immediate neighbouring property owners, whilst Cape EAPrac identified Organs of State and Authorities with a mandate to comment on the development application.
- Comments and requests for registration in response to the pre-application scoping report were received from:
    - Department of Environmental Affairs & Development Planning, George (comment received)
    - CapeNature (comment received)
    - Breede-Gourits Catchment Management Agency / Department Water Affairs (comment received)
    - Department of Forestry (comment received)
    - Mossel Bay Municipality (roads, stormwater, solid waste, disaster fire management) (comment received in response to Planning Application 2021)
    - Heritage Western Cape (provisional comment received)
    - Private – Gert Sieberhagen
    - Private – Charles Robertson
    - Private – Japie Kruger / NumNum Estate
    - Private – Rennie Oosthuizen
    - Councillor – Willem Botha
    - Private – Mornay Beukes / ATKV Hartenbos

A summary of their issues include the following **Issues & Response Report:**

Department of Environmental Affairs & Development Planning	
Evidence of historical agricultural activities must be provided to substantiate findings of the botanical specialist about diversity of vegetation.	Historical aerials reflected in DSR to show visible agriculture from 1940s and 1950s prior to establishment of Hartenbos Heuwels (dry land cultivation). No cultivation has since taken place on the property and the property does not contain agricultural resources.
Potential of increase of through traffic through residential area with village precinct set back from the main access – alternative is closer to the main access to enhance sense of place and reduce through traffic along residential areas when visitors enter.	The entrance of the property is a very long narrow shape which does not accommodate the village precinct, hence its position further inwards but as close as possible to the main entrance. The site has been selected with optimal access to residents.
Need for a tea room in the nature conservation area not justified.	Preferred alternative (Aug 2022) has been amended to exclude this tearoom and only allow for tea rooms in the private open space

	areas interspersed with the residential development nodes.
Management and maintenance of the conservation open space areas must be detailed and the layout practicability of the development in relation to the conservation areas must be detailed.	Biodiversity specialists will address this as part of the impact assessment phase.
Placement of apartments (3-storeys) along the ridgeline is of concern.	Visual impact assessment to determine the level of acceptance and or advise on mitigation or changes in this area.
Protection measures and ecological burning regimes must be detailed for conservation area.	Specialist to expand on these measures as part of their detailed assessments and consult with the fire specialist.
Insufficient information is available about the proposed telecommunications tower.	The preferred alternative has been amended to exclude this aspect since insufficient information is available about design specifications, site location and purpose.
Stormwater management plans must be detailed.	Civil engineers have consulted with the freshwater specialist to inform the stormwater management plan. The water use license considers the structures and outlets towards the on-site watercourses. Detailed aquatic assessment will consider potential impacts.
Faunal study time of site assessment (2018) questioned and outdated SDP considered.	Specialist appointed for initial study was unavailable at the time when the report was updated to comply with the Specialist protocols. Dr vd Vyfer from Chepri Consulting provided additional information after having visited the site in 2021. Dr Jonathan Conville will review the scoping reports and conclude the impact assessment.
Concerned about landscape connectivity as highlighted by faunal specialist and how development will fragment largely intact habitat.	Specialist has identified these key aspects and will confirm through detailed impact assessment whether further changes and/or amendments are required to avoid/mitigate these impacts.
Botanical assessment conducted site inspections in 2017 only. Reporting must expand on succession since historical agriculture and recent fires and to identify	Botanical specialist has conducted multiple site inspections at this property over many years (from 2006 till 2017) and know and understand the property well. He also relied on additional site information from follow

areas with conservation value from succession.	specialist Nick Helme. Further information on succession will be incorporated into the impact assessment phase with follow-up site inspections to confirm any subsequent changes.
SDP reflected in the butterfly study is different to the preferred SDP.	The initial site plan provided to specialists did not account for any sensitivity criteria. Specialists combined a constraints map to identify 'developable areas' and the preferred site plan was developed to avoid the sensitivities include the butterfly reserve area. Due to multiple sensitivity conflict this initial SDP is not deemed feasible and will not be assessed further. It has been eliminated. Report has been corrected.
Must understand how the SDP accommodates the recommended fire buffers.	The original SDP (since eliminated) did allow for fire management breaks. The preferred SDP already accommodates these recommendations and has taken into account those recommended by the fire specialist as well. Fire breaks will be 'fire' landscaped and fire breaks will be maintained along development/conservation area contact areas.
Fire Management Plan must be expanded and updated to reflect an alien clearing plan and firebreak management as well as ecological burning requirement programme that must form part of the EMP.	The detailed fire management plan will be updated and reflected as part of the impact assessment and EMP reports. The EMP will contain an alien management plan as well.
Context and layout highlight pertinent visual aspects that require more detailed assessment. Visual specialist must demonstrate how the Visual Assessment Guideline will be incorporated into the assessment.	Visual impact assessment will detail with potential visual intrusion and mitigation measures to inform the final SDP as part of the assessment phase. Guidelines and Protocols for specialist studies will be adhered to.
Apartments (3-storeys high) could potentially result in less visual intrusion if positioned lower down on the site instead of on the ridgeline.	Visual impact assessment will include modelling to show the level of visual impact and based on that will inform any potential changes to mitigate the potential visual component of height (development) along ridgelines.
Plan of Study must include a further alternative to consider all of the above matters.	A further alternative will be considered once the more detailed impact assessments have been conducted. Specialist attention will be paid to corridor functioning, linkages, open

	space management and where necessary visual mitigation.
CAPE NATURE	
Vlok (2014) indicates the area as having Endangered Groot Brak Dune Strandveld according to the threatened ecosystem gazette. The draft ecosystem listing (updated) rates it as Vulnerable. This vegetation type is highly transformed and very little is formally protected. According to the NBA the vegetation will be classified as Critically Endangered Mossel Bay Shale Rensoterveld which is one of seven high risk vegetation types with a conservation target of 27% and it not protected.	The botanical specialist will provide detailed clarify on the site-specific findings and recommendations to conserve the more sensitive areas of the site with a focus for development on the less sensitive areas. Should further changes to the layout be required following the detailed impact assessment such will be incorporated into the Draft Impact Assessment Report as a further alternative.
Specialist has recommended that the area be mapped as Ecological Support Area instead of Critical Biodiversity Area with objectives to restore and manage the natural environment and minimise impact on ecological processes and to allow for faunal movement. The CBA status must be reported to CapeNature for verification.	Specialists will revisit the site for more updated impact assessment and will verify the CBA status and recommendation for ESA with the necessary notification to CapeNature and SANBI.
Layout must be guided by the WCBSP with regards to its objectives and protection of ESAs.	Noted.
Renosterveld classified as the dominant vegetation type with species that can be limited in extent due to the microclimate and having low sensitivity where the development footprint is proposed whilst the more sensitive grassy fynbos falls within the proposed conservation area (confirmed by both McDonald and Helme).	Development footprint has been focussed on the less sensitive areas with limited development (services for stormwater only) extending into the higher sensitive areas.
No plant species of special concern noted by Helme.	Noted.
Search and Rescue must be implemented and used for rehabilitation purposes.	Noted for incorporation into the EMP.
Endangered species may not be picked or removed without the necessary Conservation Permits which will also ensure that rescued material is accounted for.	Noted and will be stipulated in the EMP.

CapeNature supports the complication of an alien clearing and monitoring plan and must include a suitable map to illustrate the current extent of alien vegetation that must guide rehabilitation, must show areas cleared of alien species and recommend suitable rehabilitation species, include timeframes and methods for clearing and a vegetation map illustrating the extent of existing vegetation on the current property. Preferably a buffer of 50m around the site must also be covered in the alien management plan.	Detailed Alien Management Plan will be compiled to inform the EMP.
The use of pesticides or herbicides must include measures to minimise spray drift to neighbouring indigenous vegetation.	Noted and will be incorporated into the EMP with alien management.
Fire regimes must be maintained and managed in the landscape with fire intervals between 10-15 years. Fire breaks must be considered as part of the development footprint and compilation of a Fire Management plan is supported that must include ecologically acceptable fire regime.	Fire Management Plan will be updated and expanded in the impact assessment phase to reflect any potential changes to the preferred alternative.
Agrees with freshwater specialist on recommendations for buffers.	Noted. WULA in process.
Butterfly reserve must be a No-Go area.	The area will be protected, however it is likely that visitors/residents will have controlled access to benefit from the conservation value of the reserve.
Recommend that the applicant consider a Biodiversity Stewartship for the remaining natural areas to ensure ecological connectivity.	Noted.
Concerned that no ecological corridors are included to the neighbouring conservation area which will result in fragmentation and loss of habitat. CapeNature recommends including ecological corridors that must not be compromised.	The more detailed impact assessments will pay specific attention to ecological corridors. A biodiversity impact assessment will be conducted in addition to the botanical and faunal assessments to specifically look at ecological processes and patterns. Note that the butterfly reserve will not be fenced-in with the Estate in order for it to act as an ecological corridor linking adjoining natural areas.

DEPARTMENT OF FORESTRY	
Indigenous coastal forest patches/indigenous and protected trees must be surveyed and the design must accommodate these as no-go areas.	Detailed impact assessment will include the survey of any protected trees / forest patches if present on the property.
HERITAGE WESTERN CAPE	
A detailed integrated heritage impact assessment must be undertaken that must include an archaeological, palaeontological, visual and social historical study.	Detailed impact assessment studies on these disciplines will be undertaken and inform the Draft Impact Assessment Report.
BREEDE-GOURITS CATCHMENT MANAGEMENT AGENCY	
Initially General Authorisation require, but since changed to full Water Use License Application due to proximity to on-site wetlands.	WULA application has been submitted and 60-day commenting period for this application is running concurrent with that of the DSR.
MOSSEL BAY MUNICIPALITY	
Electrical supply is available from the existing 11kV overhead line and 66/11kVA substation.	Noted.
Upgrades to Louis Fourie as per TIA must be implemented with the understanding that these upgrades are linked to existing/previously approved developments such as Outeniquasbosh and Renosterbos Estate.	Noted.
Waste management on the site must adhere to the Municipality's Community Service specifications and standards.	Noted.
Fire Services do note that fire risk will be reduced among vegetation once the estate is completed.	Noted.
GERT SIEBERHAGEN	
No indication is given of the route that construction vehicles will utilised to limit use of the internal roads in Hartenbos Heuwels.	Access from Louis Fourie via Boekenthout is the shortest route with least crossing through Hartenbos Heuwels having roads that are more windy.

Upgrade of Boekenhout and Geelhoutstreet intersection is not mentioned as it will handle more traffic but is already unsafe.	The TIA refers to upgrades of the Louis Fourie intersection/Boekenhout and upgrade of the R102/Oudtshoorn Road. Council has accepted the outcome of this TIA, however further consultation with the traffic engineers and the municipality's Roads/Stormwater Directorate will inform the process to determine if additional upgrades such as the one queries is necessary.
Design of roads (geotechnical specification) and life cycle projection is important because it is a coastal area (wet) thus cement stabilised granular layer work must be included in the design to ensure a 10-15 year life cycle for roads.	Duly noted and will be shared with the traffic engineers to specific to contractors.

Of importance is that on 26/11/2021 Breede-Gourits Catchment Management Agency (BGCMA) in response to consultation with Dr Justine Ewert-Smith (freshwater ecologist) and the necessary Risk Matrix, confirmed that the development would not require a Water Use License (WULA). As a result, the commenting period on the pre-application scoping report was confirmed to be 30-days.

In response to the pre-application scoping report the BGCMA amended their initial recommendation for a General Authorisation (GA) requesting instead that a WULA be undertaken (31/01/2022). Due to the fact that the pre-application scoping report was available for a 30-day period and so is the draft scoping report, the BGCMA confirmed that do view that as sufficient in terms of the environmental process. The WULA is still advertised for a period of 60-days running in parallel with the commenting period of the draft scoping report.

This decision reversal resulted in additional consultation with the BGCMA to determine the reasoning and explain the implications in terms of the environmental application process.

- Meeting was held with BGCMA in Worcester on 5 May 2022;
- Follow-up site inspection on 30 June 2022;
- Confirmation from BGCMA on 25 July 2022 that they do not require the Draft Scoping Report to also be available for a 60-day period (the 30-days of the pre-application scoping report and the 30-days for the draft scoping report is sufficient given the late change in BGCMAs requirement for a WULA, whilst the WULA is still advertised for 60-days).

The Draft Scoping Report was advertised and written notifications sent to registered I&APs:

- The draft scoping report was advertised in the *Mossel Bay Advertiser* on 26 August 2022. The comment period extends from 1 September – 3 October.
- Written notifications were sent to registered interested & affected parties via email and post.

It is submitted that the provisions of the POPIA legislation prohibits the distribution of private contact details. As such, the contacts registered for this application process will not be published as part of the Draft Scoping Report which will appear in the public domain. The Final Scoping Report to be submitted to the Competent Authority will contain original submissions and the full stakeholder register of those that submitted comment and/or registered for the application process.

12 NEED AND DESIREABILITY

In keeping with the requirements of an integrated Environmental Impact process, the DEA&DP *Guidelines on Need and Desirability (2010 & 2011 & 2013)* were referenced to provide the following estimation of the activity in relation to the broader societal needs. The concept of need and desirability can be explained in terms of its two components, where *need* refers to *time* and *desirability* refers to *place*. Questions pertaining to these components are answered in the Sections below.

12.1.1 Need (time)

Is the land use considered within the timeframe intended by the existing approved Spatial Development Framework (SDF)? (I.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP?

The site falls within the Mossel Bay SDF urban edge. The previous as well as the 2022 SDP incorporates this site into the urban edge and designates it for urban expansion. It form part of the historic Hartenbos Heuwels township development albeit still vacant. The condition of the site however has restored to a natural state mostly and as a result any township development will result in impacts that cannot all be avoided, hence it must be mitigated.

The only way to avoid some impacts would be to allow no development on the site which does not come without impacts of its own.

Should the development occur here at this point in time?

The site borders the Hartenbos Heuwels residential area thus is not deemed leap frogging as it remains within the urban edge. Services are readily available for water, electricity and the site has an existing access. The property is the last remaining vacant area situated between the Municipal Sonskynvallei Conservation Area and Hartenbos Heuwels whereas the conservation area is the furthest edge the town can grow. Subject to how potential environmental impacts can be avoided and/or minimised/mitigated, the location of the site is suitable.

Does the community / area need the activity and the associated land use concerned?

Stakeholders that register for EIA processes typically do so because of concerns they may have about a particular activity. It is not often that stakeholder who favours an activity of this nature, will register and/or participate in the process.

As a result, it is often found that the outcome of public participation reflects a negative approach to the proposed activity.

Negative impacts are anticipated and therefore the need/desirability of the proposal is likely to be questioned by participating stakeholders. The outcome of the scoping phase will help highlight the perception and impression of stakeholders about the proposed activity.

Responses to the pre-application scoping report have not indicated any notable objection to the proposed development.

It is noted that there is a rising demand for secure developments in the Garden Route and for those interested in such developments, the activity is most likely to be deemed necessary.

Are the necessary services with adequate capacity currently available?

Consultation between the electrical engineers, civil engineers and traffic engineers have confirmed that services are available and surplus capacity is sufficient.

Upgrades to intersections identified in the TIA will help prevent unwanted traffic congestion as a result of an increase in vehicles.

Service connections can be make to water, electricity on the site.

The Municipality will have to provide written confirmation of all services availability as part of the ongoing environmental process.

Is this development provided for in the infrastructure planning of the municipality?

Yes. Because the site forms part of the greater Hartenbos Heuwels residential development (Extension 4), it has remained on the Municipality infrastructure planning.

Is this project part of a national programme to address an issue of national concern or importance?

No.

12.1.2 Desirability (place)

Is the development the best practicable environmental option for this land / site?

Reasonable/Feasible alternatives for this site will be comparatively assessed to determine the best practice environmental option for this site.

Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?

The Mossel Bay SDF (updated 2022) includes this property within the urban edge and designates it for urban expansion.

Would the approval of this application compromise the integrity of the existing approved environmental management priorities for the area?

The Municipality's neighbouring conservation area presents an opportunity to align management objections for the site either as a vacant portion of land, or as part of a greater

conservation area with linking corridors. Development of the site must not compromise the conservation outcomes of the neighbouring conservation area.

Do location factors favour this land use at this place?

Yes due to proximity to town. Availability of existing services and access provisions the site is feasible as a potential site for township development. It is also the last vacant property of this scale situated between Hartenbos Heuwels Extensions 1,2 & 3 and the municipal conservation area which is the furthest the town can develop.

How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas?

Alternative 2 has been informed by various specialist investigations. Each discipline provided input as to the areas that must be avoided and/or buffered. The development footprint has taken the specialist recommendations into account.

Alternative 2 is focused on the least sensitive areas of the site and the remaining open space areas contain the more sensitive areas.

Management of the open space areas and how such areas will link with surrounding conservation and natural areas have been pointed out as part of the pre-scoping process as need more attention during the detailed impact assessment with lack of corridors and ecological burning requirement being raised by both DEADP and CapeNature.

How will the development impact on people's health and wellbeing?

Development of the site is unlikely to impact negatively on the health and wellbeing of people in the immediate vicinity. Indirect impacts such as traffic (through residential areas) may cause increased traffic congestion, but the type of development proposal is unlikely to detract from the greater character and sense of place of the area in general.

Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?

Currently the next best land use alternative to the proposed development is the no-go alternative (i.e. no development taking place). However, there is a need for job opportunities and housing at throughout the Southern Cape region that could be argued as more demanding than the sense-of-place / character / conservation potential of an area. The spatial context of the site and its designated land use for residential/urban development over years have created an expectancy and potentially and acceptance amongst people who are aware of the prominence of a spatial development framework.

The economic benefits and opportunities that the proposed development holds for the landowner and the local economy of the municipal area cannot be recovered from the current land use and without private initiative and funding and the local Municipality is highly unlikely to invest money in purchasing the site for incorporation as part of the neighbouring conservation area.

Will the proposed land use result in unacceptable cumulative impacts?

The loss of habitat in an area with remaining natural vegetation is a cumulative loss of a negative nature that follows on all urban developments along the fringes of built-up areas.

A balance of conservation outcomes and development potential is needed to avoid unacceptable outcomes and impacts and the EIA process is aimed at determining such.

13 ASSUMPTIONS AND LIMITATIONS

This section provides a brief overview of *specific assumptions and limitations* having an impact on this environmental application process:

- It is assumed that the information on which this report is based (specialist studies and project information, as well as existing information) is **correct, factual and truthful.**
- It is assumed that all the relevant **mitigation measures** and agreements by specialists will be implemented in order to ensure minimal negative impacts and maximum environmental benefits.
- It is assumed that Stakeholders and Interested and Affected Parties notified during the public participation process will submit all relevant **comments within the designated 30-days** review and comment period, so that these can included in future documentation associated with the Environmental Process.
- The **Planning Application** submitted in June 2021 will follow on the outcome of the EIA process.

14 PLAN OF STUDY FOR ENVIRONMENTAL IMPACT ASSESSMENT

In compliance with section (i) of Appendix 2 of the 2014 Environmental Regulations, the following plan of study for undertaking the Environmental Impact Assessment Report is provided. In terms of these regulations the following must be included in this plan of study.

(i) a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity [No-Go Alternative];
(ii) a description of the aspects to be assessed as part of the environmental impact assessment process;
(iii) aspects to be assessed by specialists;
(iv) a description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists;
(v) a description of the proposed method of assessing duration, significance, nature, status, risk and consequences;
(vi) an indication of the stages at which the competent authority will be consulted;
(vii) particulars of the public participation process that will be conducted during the environmental impact assessment process; and
(viii) a description of the tasks that will be undertaken as part of the environmental impact assessment process;
(ix) identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

14.1 DESCRIPTION OF THE ALTERNATIVES TO BE CONSIDERED AND ASSESSED

Although alternatives can include technology, site and location options, the assessment will focus on the comparative assessment of the following development alternatives unless otherwise determine through the assessments of specialists studies:

- **Alternative 1** (no-go alternative – option of not implementing the activity)
  - Natural grazing with primary dwelling, existing access and tracks
  - Current state of invasive alien vegetation
  - Current state of no fencing, unauthorised vehicle/pedestrian/cycling access
- **Alternative 2** (preferred scoping alternative, Rev 11 dated August 2022)
- **Alternative 3** (to be developed in consultation with specialists following their detailed impact assessments) including the following key points:
  - Must consider **ecological functioning** (how will contact areas between development and conservation areas be managed effectively)
  - **Ecological fire management** (considering neighbouring Municipal Conservation Area, Butterfly Reserve and internal Conservation Area requirements)
  - **Ecological connectivity** (linkages of internal conservation areas with adjacent, functional open space areas)
  - **Visual impact** of (height) development along ridgelines

14.2 ASPECTS TO BE ASSESSED

All potential impacts on social, biophysical, aquatic and historical environments that have been identified in this scoping report will be assessed in the Environmental Impact Assessment phase of this Environmental Process.

Aspects to be assessed by specialists include amongst others the following:

14.2.1 General

- Importantly all impact assessments must consider and reflect on the applicable specialist studies that **informed the previous EIA process** (EAP must ensure that all specialists have access to the applicable reports/findings/recommendations/outcomes);
- All specialist studies must discuss h**ow conditions have possibly changed** from the previous study outcomes, to the current site conditions to inform a thorough assessment;
- All specialists must include a **comparative assessment** of the specified alternatives and/or other reasonable or feasible alternatives identified as a result of the outcome of the impact assessment;
- **Verify** the applicable (conservation/threat status) of identified habitats/species/ecosystems at the time of impact assessment phase to ensure that the correct information is reflected in the final impact assessment reports;
- The site is adjacent to the **Municipal Conservation Area** to the west – this is deemed a sensitive/no-go area and all impacts (construction/operational) must acknowledge this as an existing, primary right;
- The focus of all specialist impact assessments must be aligned with the principles of the **impact hierarchy**, with **practical, outcome-based impact management objectives**, reflecting **sustainable development**.

14.2.2 Ecological (botanical, faunal, biodiversity)

- Construction Phase
    - Consideration must be given the Botanical/Biodiversity/Faunal Impact Assessment Guidelines & Specialist Protocols;
    - Clearance of vegetation within the development footprint, including where infrastructure is proposed
    - Loss of flora species within the development footprint area
    - Loss of faunal habitat due to clearance of vegetation
    - Fragmentation of faunal habitat and corridors with neighbouring functional, open space areas
    - Biodiversity connectivity
    - Deter sensitive fauna from the area (disturbance like noise and light)
    - Removal of alien vegetation in alignment with construction phase(s)
    - Impact of fire regime requirements on construction phase
    - Fencing requirements prior to or during construction
- Operational Phase
    - Long-term management of the butterfly reserve (most notably how the Municipality's management, maintenance and upgrade of services within this area has the potential to impact on the effective management of the butterfly reserve)

  - Fragmentation of faunal habitat (connectivity of on-site conservation areas including the butterfly reserve and conservation areas with adjoining functional, open space areas)
  - Continuous removal of alien vegetation for the duration of the development
  - Impact on broad-scale ecological processes and patterns
  - Open space management requirements (how will internal conservation areas be managed to maintain and improve conservation outcomes)
    - Determine management aims and objectives
    - Detail monitoring requirements and their effectiveness
    - Determine activities that may be permitted in the conservation areas
    - Impact of fencing on connectivity/animal movement
    - Ensure linkages with neighbouring municipal conservation area
  - Fire management and ecological burning
    - Butterfly area must be burned (fire breaks/maintenance)
    - Internal Conservation Area must be burned (fire breaks/maintenance/landscaping/activities)
  - Management of butterfly reserve
    - Access control
    - Fire management
    - Alien clearing
  - Succession of vegetation after historical agricultural activities for remnant conservation area
  - Impact of stormwater management/quality controls for on-site wetlands
  - Ensure compliance with the WCBSP as well as all applicable Guidelines, Protocols and Policies
- Cumulative impacts (general)

Specifically an Alien Clearing Management Plan, Fire Management and Open Space Management Plans must be developed to inform the EMP.

Asses potential long-term impacts of future residents accessing the conservation area inclusive of the on-site wetland areas

14.2.3 Freshwater

- Construction Phase
  - Loss of aquatic/riparian habitat and associated biota
  - Water quality impairment during phases of earthworks/when there are exposed soils
- Operational Phase
  - Loss of aquatic/riparian habitat and associated biota
  - Flow modification (aquatic biota and habitat downstream of the site)
  - Water quality impairment from stormwater outlets/management
  - Erosion of streams downstream of the site
  - Potential of pollution from sewage pump stations
  - Inform open space management plans for the EMP
- Cumulative impacts (general)
  - Asses potential long-term impacts of future residents accessing the conservation area inclusive of the on-site wetland areas

14.2.4 Integrated Heritage

- Construction phase
  - Impact on landscape character of the area
  - Visual impact, especially ridgeline/skyline development with height considerations
  - Exposure of archaeological/palaeontological sites
- Operational phase
  - Long term impact on identified archaeological sites on-site
- Cumulative impacts (general)

14.2.5 Visual

- Construction phase
  - Clearing of land to establish development nodes (phased)
  - Working areas in proximity to the settlement/ridgelines
- Operational phase
  - Scale and bulk of the proposed development especially the Village Precinct with three storey structures in the landscape must be assessed carefully;
  - Consideration must be given the Visual Impact Assessment Guidelines;
  - Architectural style in context of Hartenbos Heuwels and cultural landscape
  - Impact on character and cultural landscape of the area
  - Evaluation of all the different components of the development in their proposed locations
  - Landscaping requirements
- Cumulative impacts (general)

14.2.6 Social

- Construction phase
  - Creation of businesses and employment opportunities
  - Presence of construction workers and potential impacts on family structures and social networks
  - Threat to safety and security
  - Impact of construction related activities (dust, noise, safety etc.)
  - Impact on surrounding landowners
  - Increase in crime levels and pressure on local services
- Operational phase
  - Impact on the sense of place and social character
  - Provision of housing
  - Employment and business opportunities
  - Promotion of tourism/health sector
  - Impact on character and sense of place
  - Substantial increase in the number of families in the area (full capacity of development)
  - Impact should development not succeed
  - Impact on surrounding landowners / businesses
- Cumulative impacts (general)

14.2.7 Services

- **Construction**
  - Earthworks
  - Soil erosion
  - Stormwater management
- **Operation**
  - Resource conservation measures
  - Stormwater management
- **Cumulative impacts** (general)

14.2.8 Traffic

- **Construction**
  - Construction traffic through Hartenbos Heuwels (routes to be designated)
  - Safety of roads for construction traffic
  - Aligning upgrades a per TIA with construction phases of development
- **Operation**
  - Public transport (lack thereof and impact on overall mobility)
  - Daily traffic associated with all phases of the development
- **Cumulative impacts** (general)

14.2.9 Fire Management

- Fire management plan must be updated to include an alien clearing plan (in consultation with the botanist/ecologist/butterfly specialist);
- Fire break management must be detailed for the Assessment and Environmental Management Plan;
- Ecological burning requirements (impact for internal conservation as well as neighbouring Municipal Conservation Area) must be detailed for the Assessment and Environmental Management Plan

As a minimum all specialists must ensure that they consider all relevant legislation and applicable guidelines to inform their impact assessment, these include, but are not limited to the following:

- Western Cape Biodiversity Spatial Plan
- Fynbos Form Ecosystem Guidelines for Environmental Impact Assessments
- Guidelines for Resort Developments in the Western Cape (2005)
- Guideline for determining the Scoping of Specialist involvement in the EIA process (2005)
- Guidelines on Alternatives (2013)
- Guideline on Public Participation (2013)
- Guidelines for involving Heritage Specialists in the EIA process (2005)
- Guidelines for involving Social Specialists in the EIA process (2007)
- Guidelines for involving Visual and Aesthetic specialists in the EIA process (2005)
- Guidelines for involving Hydrological specialists in the EIA process (2005)
- Guidelines for involving Biodiversity specialists in the EIA process (2005)
- Guideline for reviewing Specialist Reports in the EIA process (2005)
- Guidelines for environmental management plans (2005)

- Circular EADP 0028/2014: One Environmental Management System
- Generic Environmental Best Practice Guideline for Aquaculture Development and Operation in the Western Cape (2007)
- Specialist Protocols (May/October 2020)

Furthermore, specialist are required to detail:

- the impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts -

  (aa) can be reversed;

  (bb) may cause irreplaceable loss of resources; and

  (cc) can be avoided, managed or mitigated;

- the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks;
- 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;
- the possible mitigation measures that could be applied and level of residual risk;
- if no alternative development locations for the activity were investigated, the motivation for not considering such;
- an assessment of each identified potentially significant impact and risk, including -

  (i) cumulative impacts;

  (ii) the nature, significance and consequences of the impact and risk;

  (iii) the extent and duration of the impact and risk;

  (iv) the probability of the impact and risk occurring;

  (v) the degree to which the impact and risk can be reversed;

  (vi) the degree to which the impact and risk may cause irreplaceable loss of resources;

  (vii) the degree to which the impact and risk can be mitigated;

- a concluding statement indicating the preferred alternative development location within the approved site.

14.3 ASPECTS TO BE ASSESSED/INVESTIGATED BY SPECIALISTS / PROFESSIONAL TEAM

The following specialist **and** technical assessments/studies/input is proposed to form part of the Environmental Process. This this end we distinguish between **technical studies** and **independent specialist studies** as the latter is obliged to remain objective at all cost and must comply with the relevant environmental Guidelines applicable to their individual disciplines, compared to the technical input from individuals/companies that need not be

independent although they must still be suitably qualified, experienced and act in a professional and responsible manner with regards to their reporting and recommendations.

- Planning Application (technical)
- Civil Engineering Services (technical)
- Faunal Impact Assessment (specialist)
- Botanical Impact Assessment (specialist)
- Biodiversity Impact Assessment (specialist)
- Electrical Engineering Services (technical)
- Freshwater Impact Assessment (specialist)
- Traffic Impact Assessment (technical)
- Visual Impact Assessment (specialist)
- Integrated Heritage Impact Assessment (specialist)
- Social Impact Assessment (specialist)
- Fire Management Assessment (specialist)

14.4 ASSESSMENT METHODOLOGY

All possible impacts need to the assessed – the **direct, in-direct as well as cumulative impacts**. Impact criteria should include the following:

- **Nature of the impact:** impacts associated with the proposed Public Safety Centre development have been described in terms of whether they are negative or positive and to what extent.
- **Duration of impacts: Impact were assessed in terms of their anticipated duration:**
    - Short term (e.g. during the construction phase)
    - Medium term (e.g. during part or all of the operational phase)
    - Permanent (e.g. where the impact is for all intents and purposes irreversible)
    - Discontinuous or intermittent (e.g. where the impact may only occur during specific climatic conditions or during a particular season of the year)
- **Intensity or magnitude: The size of the impact (if positive) or its severity (if negative):**
    - Low, where the receiving environment (biophysical, social, economic, cultural etc) is negligibly affected or where the impact is so low that the remedial action is not required;
    - Medium, where the receiving environment (biophysical, social, economic, cultural etc) is altered, but not severely affected, and the impact can be remedied successfully; and
    - High, where the receiving environment (biophysical, social, economic, cultural etc) would be substantially (i.e. to a very large degree) affected. If a negative impact, could lead to irreplaceable loss of a resource and/or unacceptable consequences for human wellbeing.
- **Probability: Should describe the likelihood of the impact actually occurring indicated as:**

- Improbable, where the possibility of the impact is very low either because of design or historic experience;
- Probable, where there is a distinct possibility that the impact will occur;
- Highly probable, where it is most likely that the impact will occur; or
- Definite, where the impact will occur regardless of any prevention measures.

- **Significance: The significance of impacts can be determined through a synthesis of the assessment criteria. Significance can be described as:**
  - Low, where it would have negligible effect on the receiving environment (biophysical, social, economic, cultural etc), and on the decision;
  - Medium, where it would have a moderate effect on the receiving environment (biophysical, social, economic, cultural etc), and should influence the decision;
  - High, where it would have, or there would be a high risk of, a large effect on the receiving environment (biophysical, social, economic, cultural etc). These impacts should have a major influence on the decision;
  - Very high, where it would have, or there would be a high risk of, an irreversible negative impact on the receiving environment (biophysical, social, economic, cultural etc) and irreplaceable loss of natural capital/resources or a major positive effect on human well-being. Impacts of very high significance should be a central factor in decision-making.
  - Provision should be made for with and without mitigation scenarios.
- **Confidence: The level of confidence in predicting the impact can be described as:**
  - Low, where there is little confidence in the prediction, due to inherent uncertainty about the likely response of the receiving ecosystem, or inadequate information;
  - Medium, where there is a moderate level of confidence in the prediction, or
  - High, where the impact can be predicted with a high level of confidence
- **Consequence**: **What will happen if the impact occurs**
  - Insignificant, where the potential consequence of an identified impact will not cause detrimental impact to the receiving environment;
  - Significant, where the potential consequence of an identified impact will cause detrimental impact to the receiving environment.
  - Provision must be made for with and without mitigation scenarios.

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

- **Status of the impact**

  The specialist 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.

- **Cumulative 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 planned and 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.

  Care must be taken to ensure that where cumulative impacts can occur that these impacts are considered and categorised as **additive** (incremental or accumulative); **interactive**, **sequential** or **synergistic**.

Based on a synthesis of the information contained in the above-described procedure, the specialists are 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 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.

14.5 CONSULTATION WITH COMPETENT AUTHORITY

The competent authority has been identified as the Provincial Department of Environmental Affairs & Development Planning (DEA&DP). Engagement with the competent authority will be on-going throughout the Environmental Process and will include the following as a minimum:

- Pre Application Meeting (Completed);
- Provided with a copy of the Pre-Application Scoping Report for Review and comment (completed);
- Provide with copy of Draft Scoping Report for review and comment (completed);
- Submission of application form and engagement on the contents of the application form [completed];
- Provide a copy of the Final Scoping Report for decision-making (this submission);
- Provided with a copy of the draft and final Environmental Impact Report / Environmental Management plan for review and decision making;
- Undertaking a site inspection with the competent authority if deemed necessary.

14.6 STAKEHOLDER ENGAGEMENT TO BE CONDUCTED DURING THE EIA

The public participation process (PPP) for the proposed development will comply with the requirements for PPP as set out in Section 41 of **Chapter 6 of Regulation 982** of the 2014 EIA Regulations.

Below is a quick reference to the public participation requirements (Chapter 6 of GN R.982) which the Environmental Process intends to comply with.

40. (1) If the proponent is not the owner or person in control of the land on which the activity is to be undertaken, the proponent must, before applying for an environmental authorisation in respect of such activity, obtain the written consent of the landowner or person in control of the land to undertake such activity on that land.

(2) Subregulation (1) does not apply in respect of-. (a) linear activities;

41. (2) The person conducting a public participation process must take into account any relevant guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of an application or proposed application which is subjected to public participation by -

(a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of -

(i) the site where the activity to which the application or proposed application relates is or is to be undertaken; and

(ii) any alternative site;

(b) giving written notice, in any of the manners provided for in section 47D of the Act, to –

(i) the occupiers of the site and, if the proponent or applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;

(ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;

(iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;

(iv) the municipality which has jurisdiction in the area;

(v) any organ of state having jurisdiction in respect of any aspect of the activity; and

(vi) any other party as required by the competent authority;

(c) placing an advertisement in -

(i) one local newspaper; or

(ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;

(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an

advertisement has been placed in an official Gazette referred to in paragraph (c)(ii);and

(e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desirous of but unable to participate in the process due to -

(i) illiteracy;

(ii) disability; or

(iii) any other disadvantage

3) A notice, notice board or advertisement referred to in subregulation (2) must -

(a) give details of the application or proposed application which is subjected to public participation; and

(b) state -

(i) whether basic assessment or S&EIR procedures are being applied to the application;

(ii) the nature and location of the activity to which the application relates;

(iii) where further information on the application or proposed application can be obtained; and

(iv) the manner in which and the person to whom representations in respect of the application or proposed application may be made.

(4) A notice board referred to in subregulation (2) must -

(a) be of a size at least 60cm by 42cm; and

(b) display the required information in lettering and in a format as may be determined by the competent authority.

(5) Where public participation is conducted in terms of this regulation for an application or proposed application, subregulation (2)(a), (b), (c) and (d) need not be complied with again during the additional public participation process contemplated in regulations 19(1)(b) or 23(1)(b) or the public participation process contemplated in regulation 21(2)(d), on condition that -

(a) such process has been preceded by a public participation process which included compliance with subregulation (2)(a), (b), (c) and (d); and

(b) written notice is given to registered interested and affected parties regarding where the -

(i) revised impact report or, EMPr or closure plan, as contemplated in regulation 19(1)(b);

(ii) revised environmental impact report or EMPr as contemplated in regulation 23(1)(b);or

(iii) environmental impact report and EMPr as contemplated in regulation 21(2)(d);

may be obtained, the manner in which and the person to whom representations on these reports or plans may be made and the date on which such representations are due.

6) When complying with this regulation, the person conducting the public participation process must ensure that -

(a) information containing all relevant facts in respect of the application or proposed application is made available to potential interested and affected parties; and

(b) participation by potential or registered interested and affected parties is facilitated in such a manner that all potential or registered interested and affected parties are provided with a reasonable opportunity to comment on the application or proposed application

7) Where an environmental authorisation is required in terms of these Regulations and an authorisation, permit or licence is required in terms of a specific environmental management Act, the public participation process contemplated in this Chapter may be combined with any public participation processes prescribed in terms of a specific environmental management Act, on condition that all relevant authorities agree to such combination of processes.

The Department of Environmental Affairs **approved the Public Participation Plan** for this application.

14.7 TASKS TO BE UNDERTAKEN IN THE EIA PHASE

In terms of the 2014 EIA regulations, an environmental impact assessment report must contain the information that is necessary for the competent authority to consider and come to a decision on the application, and must include -

(a) details of -

(i) the EAP who prepared the report; and

(ii) the expertise of the EAP, including a curriculum vitae;

(b) the location of the activity, including:

(i) the 21 digit Surveyor General code of each cadastral land parcel;

(ii) where available, the physical address and farm name; and

(iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;

(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 -

(i) a linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken;

(ii) on land where the property has not been defined, the coordinates within which the activity is to be undertaken;

(d) a description of the scope of the proposed activity, including -

(i) all listed and specified activities triggered and being applied for; and

(ii) a description of the associated structures and infrastructure related to the development;

(e) a description of the policy and legislative context within which the development is located and an explanation of how the proposed development complies with and responds to the legislation and policy context;

(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;

(g) a motivation for the preferred development footprint within the approved site;

(h) a full description of the process followed to reach the proposed development footprint within the approved site, including:

(i) details of the development footprint alternatives considered;

(ii) details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;

(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;

(iv) the environmental attributes associated with the development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;

(v) the impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts -

(aa) can be reversed;

(bb) may cause irreplaceable loss of resources; and

(cc) can be avoided, managed or mitigated;

(vi) the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks;

(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;

(viii) the possible mitigation measures that could be applied and level of residual risk;

(ix) if no alternative development locations for the activity were investigated, the motivation for not considering such; and

(x) a concluding statement indicating the preferred alternative development location within the approved site;

(i) a full description of the process undertaken to identify, assess and rank the impacts the activity and associated structures and infrastructure will impose on the preferred location through the life of the activity, including -

(i) a description of all environmental issues and risks that were identified during the environmental impact assessment process; and

(ii) 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;

(j) an assessment of each identified potentially significant impact and risk, including -

(i) cumulative impacts;

(ii) the nature, significance and consequences of the impact and risk;

(iii) the extent and duration of the impact and risk;

(iv) the probability of the impact and risk occurring;

(v) the degree to which the impact and risk can be reversed;

(vi) the degree to which the impact and risk may cause irreplaceable loss of resources; and

(vii) the degree to which the impact and risk can be mitigated;

(k) where applicable, a summary of the findings and recommendations of 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;

(l) an environmental impact statement which contains -

(i) a summary of the key findings of the environmental impact assessment:

(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

(iii) a summary of the positive and negative impacts and risks of the proposed activity and identified alternatives;

(m) based on the assessment, and where applicable, recommendations from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr as well as for inclusion as conditions of authorisation;

(n) the final proposed alternatives which respond to the impact management measures, avoidance, and mitigation measures identified through the assessment;

(o) 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

(p) a description of any assumptions, uncertainties and gaps in knowledge which relate to the assessment and mitigation measures proposed;

(q) 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;

(r) where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required and the date on which the activity will be concluded and the post construction monitoring requirements finalised;

(s) an undertaking under oath or affirmation by the EAP in relation to:

(i) the correctness of the information provided in the reports;

(ii) the inclusion of comments and inputs from stakeholders and I&APs;

(iii) the inclusion of inputs and recommendations from the specialist reports where relevant; and

(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 or affected parties;

The Environmental Impact Report for the proposed Development will consider and comply with the legislated requirements.

15 CONTENTS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT

The final impact assessment report should as a minimum include the following sections:

- Executive Summary;
- Introduction And Description Of Study;
- Overview of the process followed to date;
- Methodology for impact assessments undertaken;
- Technical and specialist reporting;
- Assessment of Impacts (Direct, In-direct & Cumulative, including mitigation measures to reduce negative impacts and measures to enhance positive impacts and the completion of impact tables);
- Comparative Assessment between project Alternatives;
- Public Participation / Stakeholder Engagement reporting;
- Discussion and Recommendation for Preferred Alternative;
- Specialist recommendation for Pre-Construction, Construction and Operational Phase mitigation to inform the Environmental Management Plan; and;
- Conclusion

16 CONCLUSION

The scoping exercise was undertaken to present concept proposals to the public and potential Interested & Affected Parties and to identify environmental issues and concerns raised as a result of the proposed development alternatives to date. This allows Interested & Affected Parties (I&APs), authorities, the project team, as well as specialists to provide input and raise issues and concerns, based on the information presented in this report.

The proposed development has been analysed from Ecological, Freshwater, Social, Agricultural, Heritage, Visual perspectives, and the constraints and anticipated risks, impacts and consequences identified.

Feedback on the pre-application and draft scoping reports highlighted the need to conduct a Biodiversity Impact Assessment, conduct and complete a WULA and

consider a further (3rd) alternative as stipulated in this Final Scoping Report and Plan of Study for Impact Assessment.

Anticipated risk, impacts and consequences associated with the proposed development have been identified and will be considered and assessed by relevant specialists in the impact assessment phase of the development. The proposed development comprises of various components which have been explored and described in this report.

Cape EAPrac is of the opinion that the information contained in this Final Scoping Report and the documentation attached hereto is sufficient to allow the general public and key stakeholders to apply their minds to the potential negative and/or positive impacts associated with the development, in respect of the activities applied for.

The draft Scoping Report was available for stakeholder review and comment for a period of 30-days that extended from 2 September – 3 October 2022. All comments submitted during this period have been considered and are reflected in this Final Scoping Report for consideration.

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