FINAL BASIC ASSESSMENT REPORT

for

RESIDENTIAL DEVELOPMENT

on

Remainder of Erf 2833, Great Brak River, Mossel Bay

In terms of the

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

Prepared for Applicant:
New Care Innovations (Pty) Ltd

Date: 21 May 2024

Appointed EAP: Ms Louise-Mari van Zyl
Assisted by Candidate EAP: Ms Mariska Byleveld
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Report Reference: MOS788/08
Department Reference: 16/3/3/1/D6/17/0009/24
Case Officer: Dorien Werth

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Cape Environmental Assessment Practitioners

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APPOINTED ENVIRONMENTAL ASSESSMENT PRACTITIONER:

***Cape EAPrac* Environmental Assessment Practitioners**

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Appointed EAP: Director **Louise-Mari van Zyl** (MA Geography & Environmental Science [US]); Registered Environmental Assessment Practitioner with the Environmental Assessment Practitioners of South Africa, EAPSA, **Registration Number 2019/1444**. Ms van Zyl has over twenty years' experience as an environmental practitioner.

Assisted by: Candidate EAP **Mariska Byleveld** (MSc Geology at the University of the Free State). Registered Candidate Environmental Assessment Practitioner with the Environmental Assessment Practitioners of South Africa, EAPASA, **Registration Number 2023/6593**.

PURPOSE OF THIS REPORT:

Final Basic Assessment Report

APPLICANT:

New Care Innovations (Pty) Ltd

CAPE EAPRAC REFERENCE NO:

GEO788/08

SUBMISSION DATE

21 May 2024

PUBLIC PARTICIPATION

A Draft Basic Assessment Report was available for public review and comment for a period of 30-days, extending from 11 March 2024 – 15 April 2024. All submissions received during this period have been considered and are reflected in this FBAR.

This FBAR is not being circulated for public review and comment. This document contains copies of original submissions and stakeholder contact details which is deemed to be private and protected ito the POPIA legislation.

DOCUMENT TRACKING

DOCUMENT HISTORY

DOC REF	REVISION	DATE
MOS788/06	Draft Basic Assessment Report	2024-03-07
MOS788/08	Final Basic Assessment Report	2024-05-21

DISTRIBUTION

DESIGNATION	NAME	EMAIL / FAX
DEADP, George	Dorien Werth & Admin Registry	Electronic submission

FINAL BASIC ASSESSMENT REPORT

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

RESIDENTIAL DEVELOPMENT

REMAINDER OF ERF 2833, GREAT BRAK RIVER, MOSSEL BAY

Submitted for:

Report Issued by:

Cape Environmental Assessment Practitioners

Tel: 044 874 0365
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PO Box 2070
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ORDER OF REPORT

Basic Assessment Report

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

Requirement	***Details***
(a) Details of - *(i) The EAP who prepared the report; and* *(ii) The expertise of the EAP, including, curriculum vitae.* *(iii) Applicant Details*	Ms Louise-Mari van Zyl for Cape Environmental Assessment Practitioners. EAPASA Registration Number 2019/1444. Assisted by : Ms Mariska Byleveld for Cape Environmental Assessment Practitioners. Registered Candidate EAP. EAPASA Registration Number 2023/6593. Refer to Section A.
(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.*	C05100030000283300000 Remainder of Erf 2833, Great Brak River, Mossel Bay
(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; or* *(ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken.*	Refer to Appendix A & B for location & site plan.
(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 activities to be undertaken including associated structures and infrastructure.*	Refer to main report.
(e) A description of the policy and legislative context within which the development is proposed, including – *(i) An identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report; and* *(ii) How the proposed activity complies with and responds to the legislation and policy context,*	Refer to main report.

Requirement	***Details***
plans, guidelines, tools frameworks and instruments.	
(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.	Refer to main report.
(g) A motivation for the preferred site, activity and technology alternative.	Refer to main report.
(h) A full description of the process followed to reach the proposed preferred alternative within the site, including - *(i) Details of all 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* *(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.*	Refer to main report..
(i) A full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including –	Refer to main report.

Requirement	***Details***
(ii) A description of all environmental issues and risks that were identified during the environmental impact assessment process; and *(iii) An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.*	
(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.*	Refer to main report.
(k) Where applicable, a summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 to these Regulations and an indication as to how these findings and recommendations have been included in the final assessment report.	Refer to main 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.*	Refer to main report.
(m) Based on the assessment, and where applicable, impact management measures from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr.	Refer to main report and Appendix H for EMPr.
(n) Any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation.	Refer to main report.
(o) A description of assumptions, uncertainties and gaps in knowledge which relate to the assessment and mitigation measures proposed.	Refer to main report.
(p) A reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any	Refer to main report.

Requirement	***Details***
conditions that should be made in respect of that authorisation.	
(q) Where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded and the post construction monitoring requirements finalised.	Refer to main report.
(r) 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 rom 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 and affected parties.*	Refer to main report.
(s) Where applicable, details of any financial provisions for the rehabilitation, closure and ongoing post decommissioning management of negative environmental impacts.	Not applicable to this application.
(t) Any specific information that may be required by the competent authority.	-
(u) Any other matters required in terms of section 24(4)(a) and (b) of the Act.	-

BASIC ASSESSMENT REPORT

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

NOVEMBER 2019

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

GENERAL PROJECT DESCRIPTION

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

New Care Innovations (Pty) Ltd, hereinafter referred to as the Applicant, proposes to develop a residential estate on a portion of Remainder of Erf 2833 (RE/2833), Great Brak River (Mossel Bay Municipal District, Western Cape Province) (Figure 1)(Figure 2).

RE/2833 is ±6ha in size and currently zoned Agriculture I. The site is located along Sandhoogte Road and is accessible via an existing, paved servitude road along the property's western boundary (Figure2).

The property is located inside the 'urban edge' of Great Brak River (according to the Mossel Bay SDF 2023) and is bounded by existing residential dwellings and small holdings to the east and south across Sandhoogte Road. The area has existing municipal service connections.

Upon site inspection on 08 May 2023, it was evident that the property consists of a variety of fynbos, thicket and alien invasive species (black wattle and rooikrans) (*Photographs a & b*). The southernmost portion of the site was previously disturbed when utilised as horse grazing and it is dominated by mostly Kikuyu grass (*Photograph c*).

Google Earth imagery shows that this portion was previously used as a horse paddock.

Subsuquently the (previous) owner allowed teams to cut down Black wattle trees for fire wood (*Photograph d*).

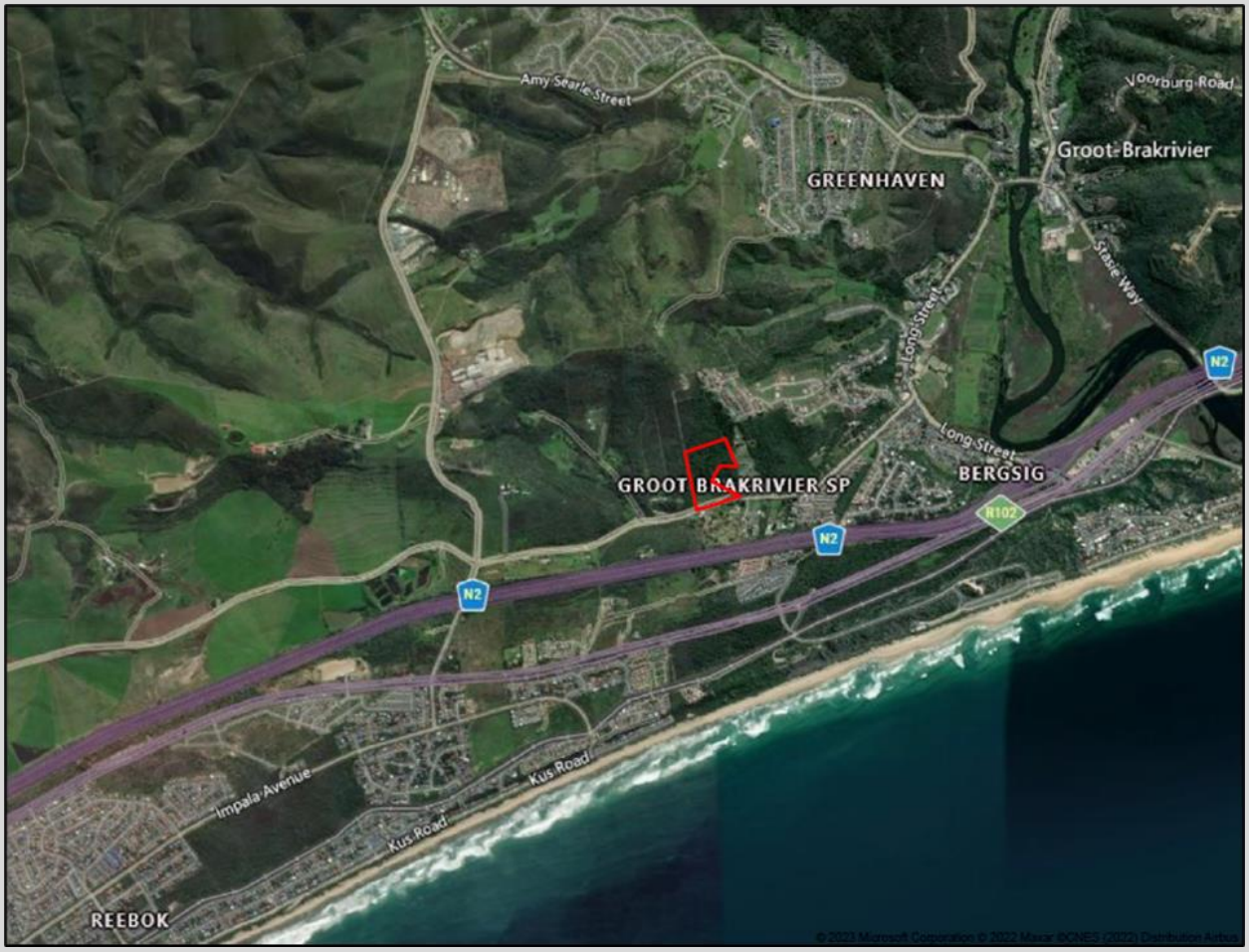


Figure 1: Locality Map of RE/2833, Great Brak River (red outlined area) (CapeFarmMapper, 2023).

- It is noteworthy that under previously ownership, this property was **awarded Environmental Authorisation (EA)** for a residential development in 2010 already (refer to 'Project History').
- The development footprint approved at the time, was substantially larger than what is proposed with this application, with a significant portion of what is now deemed to be sensitive habitat, then **approved for development.**

Figure 2: Location Information of RE/2833 as obtained from CapeFarmMapper (2024). Yellow box indicates the existing servitude access across the property's western boundary directly off Sandhoogte Road allowing to properties further North.

Photograph a

Photograph b

Photograph c

Photograph d

PROJECT HISTORY:

In August 2010, the Department of Environmental Affairs and Development Planning (DEA&DP) granted Environmental Authorisation (EA) for a residential development on RE/2833, Great Brak River (DEA&DP Reference: EG12/2/3/1-D6/16-392/06) (Figure 1)(Figure 2).

The Holder of the EA at that time, Sector 5 Trading 76 (Pty) Ltd, was authorised to develop a residential area consisting of (Figure 3):

- 35 x Residential erven,
- Group Housing site for approx. 15 units,
- Private Open Space erven, and
- Associated Infrastructure (internal roads).

In June 2013, the validity period of the EA was extended to five (5) years from the date of issue (DEA&DP Reference: 16/3/1/5/D6/17/0009/13) as the project had not yet commenced within the validity period due to unforeseen worldwide recession which weakened the property market.

Another Addendum to EA was granted in August 2015 for a period of seven (7) years, from the date of issue of the original EA (until 3 August 2017), as the economic decline has had a negative effect on the selling of serviced erven in Great Brak that influenced the project marketability (DEA&DP reference: 16/3/3/5/D6/17/0015/15).

However, due to ongoing financial constraints, the Holder did not proceed with development as was authorised at the time.

The EA since lapsed and the property was sold to the current land owner.

The current land owner instructed Cape EAPrac to submit an Application for Environmental Authorisation DEA&DP, on behalf of New Care Innovations (Pty) Ltd for a group housing development.

The current land owner (Applicant) has no intention of implementing the original layout as was authorised previously, but cognisance is taken of the fact that the previous approved layout was denser and with much less open space to accommodate the sensitive valley that divides the property in half. The current proposal is well within the footprint of the original (2010) approvals.

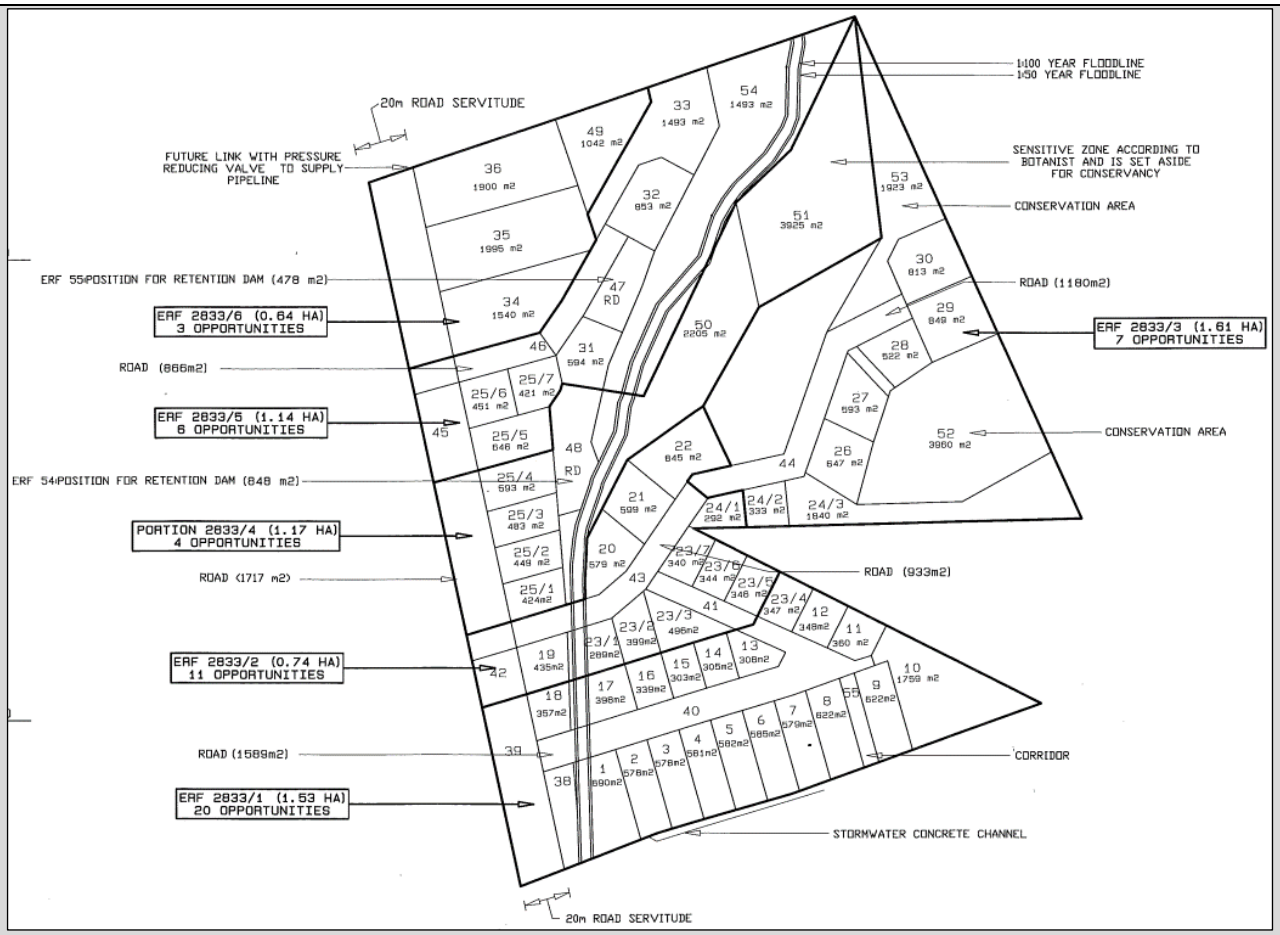


Figure 3: Previously Authorised Layout Plan (source: KCWC Consulting Engineers and Project Managers).

PROPOSAL PROGRESSION:

Prior to the current basic assessment investigations, the Applicant's initial proposal was to rezone and subdivide the property to accommodate for the following (Figure 4):

- 14 x Single Residential Zone I erven on ±1.44ha,
- 37 x General Residential Zone II erven on ±0.83ha,
- 3 x Open Space III erven on ±2.28ha,
- 2 x Transport Zone III erven on ± 1.14ha, and
- 1 x Transport Zone II erf on ±0.35ha.

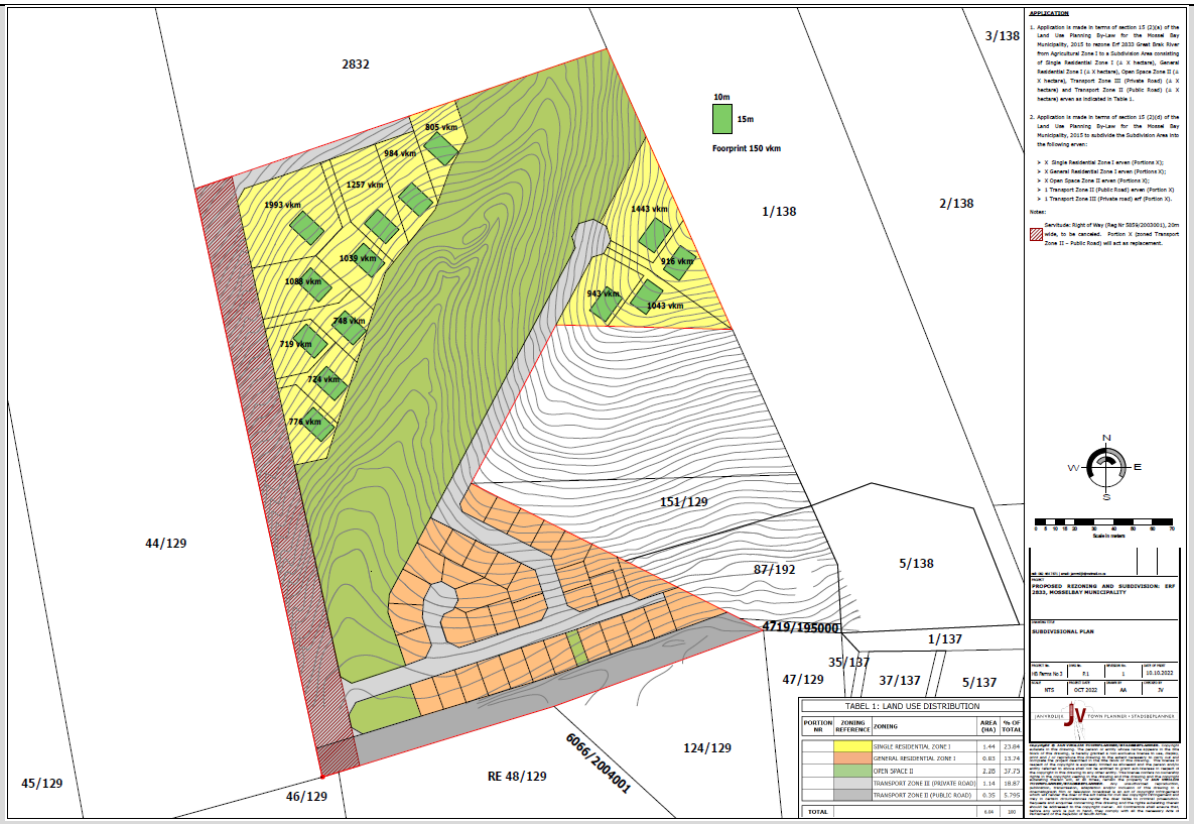


Figure 4: Initial Site Development Plan prior to the undertaking of the Basic Assessment for which a Land Use Planning Application was submitted (Source: Jan Vrolik Town Planners).

Upon starting with the Basic Assessment, based on the **outcome of the Site Sensitivity Verifications** (fauna, biodiversity, botany & aquatic and updated slope analysis) the initial site development plan (SDP) was revised to **remove erven from highly sensitive areas** and **areas deemed to be too steep**, by reducing the development footprint further.

The revised SDP[1] entailed the following (Figure 5):

- 12 x Single Residential Zone I erven on ±0.32ha,
- 31 x General Residential Zone I erven on ±0.83ha,
- 2 x Transport Zone III erven (Private Road) on ±0.95ha,
- 1 x Transport Zone II erf (Public Road) on ± 0.35ha,
- 1 x Utility Zone on ±0.03ha (Conservancy Tank),
- 3 x Open Space II erven on ±3.56ha.

[1] This revised SDP was shared with all Potential I&APs and Organs of State during the Public Participation Period (11 March 2024 – 15 April 2024).

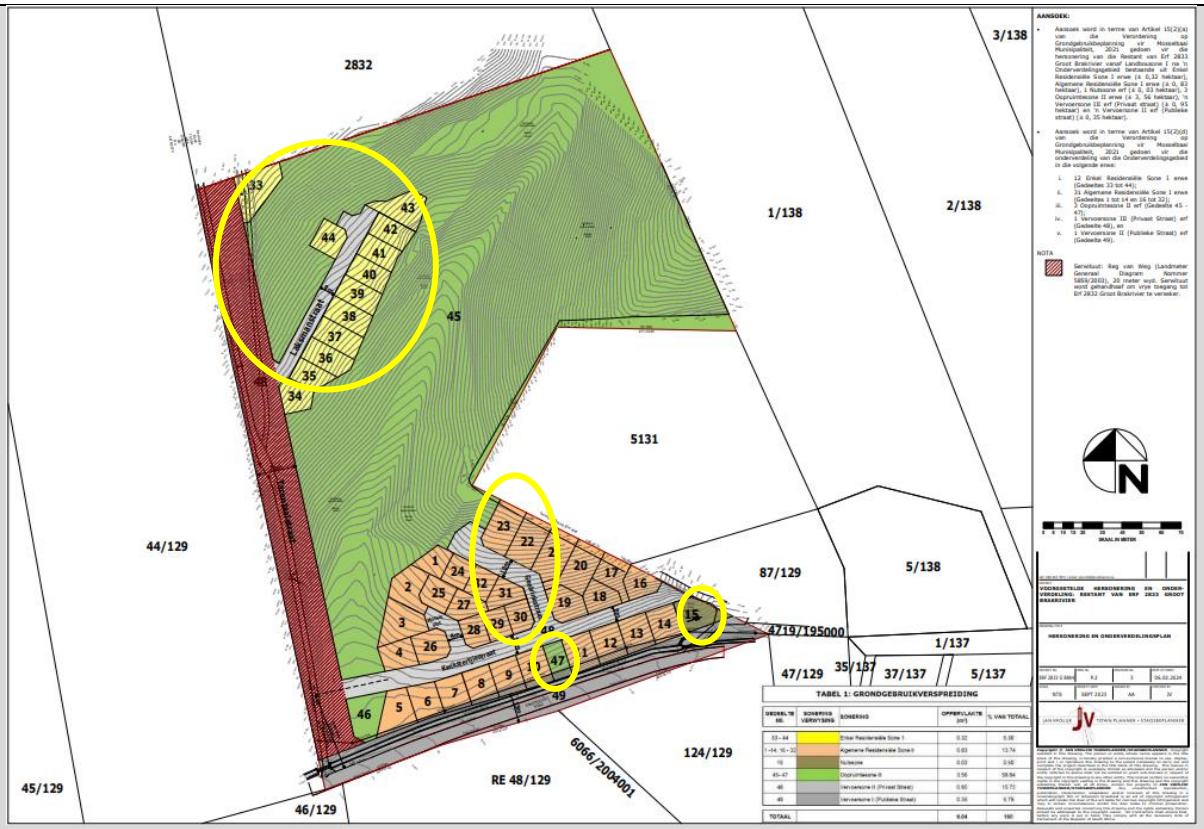


Figure 5: Revised Site Development Proposal for RE/2833 (prior to public participation) (Preferred Alternative) (source: Jan Vrolik Town Planner).

Following comments received during the public participation period of the Basic Assessment process, further changes were made to the SDP to address the most pertinent issues/concerns:

- The alignment of the internal road, Geelvinkstraat.
    - Mossel Bay Municipality recommended that the alignment of the internal roads change to ensure that the roads are not on slopes steeper than 1:5.
- All erven initially indicated as 'Single Residential' erven (Figure 5 – Erven 33 to 44) changed to 'General Residential' (group housing) erven (Figure 6 – Erven 33 to 44).
    - Mossel Bay Municipality recommended changing the residential erven to Group Housing properties.
- Locality of the 'Open Space' erf along Sandhoogte Road.
    - Because of internal road alignment adjustment, the Open Space erf along Sandhoogte Road (Figure 5 - Erf 47) was moved to the west (Figure 6 - Erf 4).
    - In order to accommodate stormwater from Kwikstertjiestraat, another Open Space erf was created adjacent to erf 12 (Figure 6 – Erf 13).
- Locality of the conservancy tank.
    - The conservancy tank's location, which was formerly next to the boundary with Portion 87/129 (Figure 5 – Erf 15), was repositioned further West to Erf 5 (Figure 6) to internalise its potential impacts that may be associated with the conservancy tank that will need to be pumped out regularly and ultimately once the conservancy tank is converted to a pump station (to connect to the Municipal bulk sewer line running along Sandkraal Road).

Figure 6: New Mitigated SDP after Public Participation (New Preferred Alternative) (source: Jan Vrolik Town Planner).

The existing servitude (paved road) that runs along the property's western boundary, provides access to not only the property itself, but also to RE/2832 and Erf 2833 north of the proposed development (Figure 6) (Figure 7).

This servitude connects to Sandhoogte Road, a public Provincial Road which is directly connected with Main Road 344 (R102) (Figure 6) (Figure 7).

Figure 7: Access directly off Sandhoogte Road along the existing servitude road.

To accommodate the proposed development, the Applicant must upgrade the existing road by widening it from its current width of 3m to 6.8m, to accommodate two 3,4m wide lanes (Figure 6) (Figure 7). This upgrade design has been informed by the project engineers responsible for traffic.

The proposed development also entails three (3) internal private roads providing access to the two (2) development nodes namely the top and bottom general residential erven (~8 – 10m wide internal roads) (Figure 6).

Services

Water

Water will be supplied via the available **Municipal water network** from the **existing water pipeline** that runs along Sandhoogte Road. The Mossel Bay Municipality accepts the proposal with regards to the internal water reticulation (Appendix E16).

GLS Consulting (Pty) Ltd was appointed to conduct an independent capacity analysis of the bulk municipal water services on behalf of the Municipality for the proposed development.

It was confirmed that the existing Sandhoogte water **reticulation system (pipe) has sufficient capacity** to accommodate the proposed development and that **no additional reservoir storage capacity** is required (Appendix G7 – Civil Engineering Report, 2024).

Electricity

Electricity will be supplied via the **existing Municipal electrical powerline**.

Clickscales Maughan-Brown (South) (Pty) Ltd was appointed to investigate the capacity of existing municipal electrical services for the proposed development.

Electrical infrastructure requirements for this development include minor work:

- A new **400kVA mini-sub** be installed **inside Sandhoogte Road reserve**.
- A new **low voltage cable** be installed from this new substation to a LV bulk metering / distribution kiosk located on the erf boundary (Appendix G9 – Electrical Services Report, 2023).

The Mossel Bay **Municipality approves the application for an electrical connection** to the capacity of 173.2kVA line for the proposed development (Appendix E16).

Waste

Erf 5 (Utility erf) will be the collection point for all household waste. The municipal refuse truck will access Erf 5 via the internal private road network (Kwikstertjiestraat) on RE/2833 and all solid household waste will be transported to the closest Municipal landfill site.

Sewage

The existing 'cricket field' municipal sewage pumping station, which is located off-site, does not have sufficient capacity to accommodate the sewage coming from this development. Likewise the existing sewer pump line from the 'cricket field' pump station to the Waste Water Treatment Works (WWTW), that runs along Sandkraal Road (directly past the development site) must be

upgraded to accommodate additional load (from this as well as other proposed developments, as well as densification within Great Brak).

The indication by the Municipality is that it may take at least 12 to 18 months before the upgrade of the pump station/sewer line is completed (depending on funding availability). It is confirmed however that the Municipality appointed SkyHigh Consulting Engineers in March 2024 to do the design for the necessary upgrades and *Cape EAPrac* has been appointed to facilitate the Basic Assessment process for said upgrade which is now in the investigative process (inclusive of other municipal bulk sewer upgrades in Great Brak).

In order to cover the gap between when this development is expected to be implemented and when the Municipal sewer upgrades will be implemented, Urban Engineering Consulting Services proposed that this development be fitted with a **dedicated conservancy tank** within the development area. Since the Municipal Waste Water Treatment Works (WWTW) has sufficient capacity to treat additional effluent, the raw sewage from this development can be collected and taken to the Municipal WWTW for treatment until such time as the municipal sewer upgrades are effected, in which case the conservancy tank will be converted to a pump station.

The conservancy tank will be installed on Erf 5 and all sewage from the development will be directed to the conservancy tank.

The Utility Zone will be transferred to the Homeowners Association who will be responsible for the administration, management and maintenance of the conservancy tank.

A private contractor will be contracted by the Homeowners Association to service the conservancy tank on regular intervals. The Homeowner's Association may connect the conservancy tank to the municipal sewer network in the future, when the municipal pumping station/pipeline has been upgraded.

In consultation with the Mossel Bay Municipality about this operational aspect, Urban Engineering that the Municipality is supportive of this proposal. The Municipality has also confirmed that they are proposing budget for the necessary upgrades to be done in support of this and development on the greater Great Brak area.

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

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.

2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 19998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".

3. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.

4. All applicable sections of this BAR must be completed.

5. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.

6. This BAR is current as of **November 2019**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at http://www.westerncape.gov.za/eadp to check for the latest version of this BAR.

7. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.

8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.

9. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.

10. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.

11. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.

12. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.

13. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link https://screening.environment.gov.za/screeningtool to generate the Screening Tool Report. The screening tool report must be attached to this BAR.

14. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('NEM:AQA"), the submission of the Report must also be made as follows, for-

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

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

DEPARTMENTAL DETAILS

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

MAPS

Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.	
Locality Map:	The scale of the locality map must be at least 1:50 000. For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; and • a linear scale. For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken. Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.
Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.	
Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following: • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. • The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan.

	• Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development **must** be clearly indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): o Watercourses / Rivers / Wetlands o Flood lines (*i.e.,* 1:100 year, 1:50 year and 1:10 year where applicable); o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): o Ridges; o Cultural and historical features/landscapes; o Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.
Site photographs	Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as **Appendix C**. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.
Biodiversity Overlay Map:	A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as **Appendix D**.
Linear activities or development and multiple properties	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as **Appendix A3**.

ACRONYMS

DAFF:	Department of Forestry and Fisheries
DEA:	Department of Environmental Affairs
DEA& DP:	Department of Environmental Affairs and Development Planning
DHS:	Department of Human Settlement
DoA:	Department of Agriculture
DoH:	Department of Health
DWS:	Department of Water and Sanitation
EMPr:	Environmental Management Programme
HWC:	Heritage Western Cape
NFEPA:	National Freshwater Ecosystem Protection Assessment
NSBA:	National Spatial Biodiversity Assessment
TOR:	Terms of Reference
WCBSP:	Western Cape Biodiversity Spatial Plan
WCG:	Western Cape Government

ATTACHMENTS

Note: The Appendices must be attached to the BAR as per the list below. Please use a ✓ **(**tick) or a **x** (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

APPENDIX			**✓ (Tick) or x (cross)**
Appendix A:	**Maps**		
	Appendix A1:	**Locality Map**	✓
	Appendix A2:	**Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning**	✓
	Appendix A3:	**Map with the GPS co-ordinates for linear activities**	x
Appendix B:	**Appendix B1:**	**Site development plan(s)**	✓
	Appendix B2	**A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;**	✓
Appendix C:	**Photographs**		✓
Appendix D:	**Biodiversity overlay map**		✓
Appendix E:	**Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality.**		
	Appendix E1:	**Response from HWC**	✓
	Appendix E2:	**Copy of comment from Cape Nature**	✓
	Appendix E3:	**Final Comment from the BOCMA**	✓
	Appendix E4:	**Comment from the DEA: Oceans and Coast**	x
	Appendix E5:	**Comment from the DAFF**	✓
	Appendix E6:	**Comment from WCG: Transport and Public Works**	x
	Appendix E7:	**Comment from WCG: DoA**	x
	Appendix E8:	**Comment from WCG: DHS**	x

	Appendix E9:	**Comment from WCG: DoH**	x
	Appendix E10:	**Comment from DEA&DP: Pollution Management**	x
	Appendix E11:	**Comment from DEA&DP: Waste Management**	x
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	x
	Appendix E13:	**Comment from DEA&DP: Air Quality**	x
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	x
	Appendix E15:	**Comment from the local authority**	✓
	Appendix E16:	**Confirmation of all services (water, electricity, sewage, solid waste management)**	✓
	Appendix E17:	**Comment from the District Municipality**	✓
	Appendix E18:	**Copy of an exemption notice**	x
	Appendix E19	**Pre-approval for the reclamation of land**	x
	Appendix E20:	**Proof of agreement/TOR of the specialist studies conducted.**	x
	Appendix E21:	**Proof of land use rights**	✓
	Appendix E22:	**Proof of public participation agreement for linear activities**	x
Appendix F:	**Public participation information: including a copy of the register of I&APs, the comments and responses Report, proof of notices, advertisements and any other public participation information as is required.**		✓
Appendix G:	**Specialist Report(s)**		✓
Appendix H:	**EMPr**		✓
Appendix I:	**Screening tool report**		✓
Appendix J:	**The impact and risk assessment for each alternative**		In report
Appendix K:	**Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline**		In report
Appendix L:	**Environmental Authorisation (2010)**		✓

SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	~~CAPE TOWN OFFICE:~~		GEORGE OFFICE:
	~~REGION 1~~ ~~(City of Cape Town, West Coast District~~	~~REGION 2~~ ~~(Cape Winelands District & Overberg District)~~	REGION 3 (Central Karoo District & Garden Route District)
Duplicate this section where there is more than one Proponent Name of Applicant/Proponent:	New Care Innovations (Pty) Ltd		
Name of contact person for Applicant/Proponent (if other):	Joe Bezuidenhout		
Company/ Trading name/State Department/Organ of State:	New Care Innovations (Pty) Ltd		
Company Registration Number:	2018/053092/07		
Postal address:	P.O. Box 4984		
	George East	Postal code:	6539
Telephone:		Cell:	060 717 2754
E-mail:	djprojects777@gmail.com	Fax:	
Company of EAP:	Cape Environmental Assessment Practitioners (*Cape EAPrac*)		
Appointed EAP name:	Ms Louise-Mari van Zyl		
Candidate EAP name:	Ms Mariska Byleveld		
Postal address:	PO Box 2070		
	George	Postal code:	6530
Telephone:	044 874 0365	Cell:	071 603 4132
Appointed EAP E-mail:	louise@cape-eaprac.co.za	Fax:	044 874 0432
Candidate EAP E-mail	mariska@cape-eaprac.co.za		
Appointed EAP Qualifications:	MA Geography & Environmental Studies (Stellenbosch University)		
Candidate EAP Qualifications:	MSc Geology (University of the Free State)		
EAPASA registration no:	Appointed EAP: Director **Louise-Mari van Zyl** (MA Geography & Environmental Science [US]; Registered Environmental Assessment Practitioner with the Environmental Assessment Practitioners of South Africa, EAPSA, **Registration Number 2019/1444**. Ms van Zyl has over twenty years' experience as an environmental practitioner.		

	Assisted by Candidate EAP: **Ms Mariska Byleveld** (MSc Geology [University of the Free State]) (Candidate EAPASA **Registration Number 2023/6593**).		
Duplicate this section where there is more than one landowner Name of landowner:	New Care Innovations (Pty) Ltd		
Name of contact person for landowner (if other):	Joe Bezuidenhout		
Postal address:	P.O. Box 4984		
	George East	Postal code:	6539
Telephone:		Cell:	060 717 2754
E-mail:	djprojects777@gmail.com	Fax:	
Name of Person in control of the land:	New Care Innovations (Pty) Ltd		
Name of contact person for person in control of the land:	Joe Bezuidenhout		
Postal address:	P.O. Box 4984, George East	Postal code:	6539
Telephone:	( )	Cell:	060 717 2754
E-mail:	djprojects777@gmail.com	Fax:	

Duplicate this section where there is more than one Municipal Jurisdiction Municipality in whose area of jurisdiction the proposed activity will fall:	Mossel Bay Municipality		
Contact person:	Carel Venter		
Postal address:	PO Box 25		
	Mossel Bay	Postal code:	6500
Telephone	(044) 606 5073	Cell:	
E-mail:	cventer@mosselbay.gov.za	Fax:	

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

1.	Is the proposed development (please tick):	New	✓	~~Expansion~~	
2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.				

The proposed site is a brownfield site with the following existing infrastructure:

- Existing servitude road along the western boundary of the property (Figure 8a) that will be widened to accommodate the development.
- Existing municipal stormwater channel along the property's southern boundary in the road reserve (Figure 8b) that has sufficient capacity to accommodate stormwater from the development site.
- Existing Provincial Road along the property's southern boundary outside the property (Sandhoogte Road) that feeds traffic from all of the properties in this area into and out off Great Break.

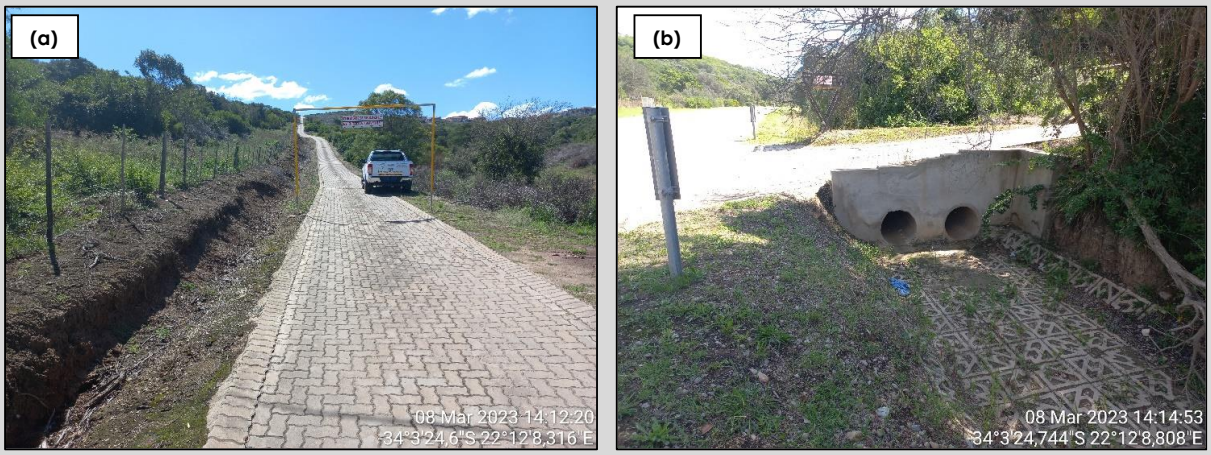


Figure 8: (a) Existing servitude road on the property's western boundary (b) existing stormwater channel on the property's southern boundary along Sandkraal Road.

~~3.~~	~~**For Linear activities or developments**~~																							
~~3.1.~~	~~Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:~~																							
~~3.2.~~	~~Development footprint of the proposed development for all alternatives.~~																		~~m²~~					
~~3.3.~~	~~Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.~~																							
~~3.4.~~	~~Indicate how access to the proposed routes will be obtained for all alternatives.~~																							
~~3.5.~~	~~SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives~~																							
~~3.6.~~	~~**Starting point co-ordinates for all alternatives**~~																							
	~~Latitude (S)~~			~~°~~			~~'~~			~~"~~														

	~~Longitude (E)~~	~~°~~	~~'~~	~~"~~
	~~Middle-point co-ordinates for all alternatives~~			
	~~Latitude (S)~~	**~~°~~**	**~~'~~**	**~~"~~**
	~~Longitude (E)~~	**~~°~~**	**~~'~~**	**~~"~~**
	~~End point co-ordinates for all alternatives~~			
	~~Latitude (S)~~	**~~°~~**	**~~'~~**	**~~"~~**
	~~Longitude (E)~~	**~~°~~**	**~~'~~**	**~~"~~**
~~Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.~~				
4.	**Other developments**			
4.1.	Property size(s) of all proposed site(s):			± 6ha
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):			Not Applicable
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:			± 2.5ha (excluding Open Space areas)
4.4.	Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).			

The Applicant proposes to rezone the property from Agriculture I to Subdivisional Area consisting of the following components (Figure 9):

- **41 x General Residential Zone I** erven on ±1.11ha,
  - This portion will be used for group housing and will have a density of approximately 19.53 units per hectare.
- **1 x Transport Zone III** erf (Private Road) on ±0.99ha,
  - 8 – 10m in width
- **1 x Transport Zone II** erf (Public Road) on ± 0.35ha,
- **1 x Utility Zone** on ±0.03ha (Conservancy Tank),
  - The tank will have sufficient capacity to only need to be cleaned once every 7 days at maximum development capacity.
  - The Conservancy Tank will be 5m x 10m x 3m in size and can be converted to a pump station once the Municipal infrastructure capacity is able to accommodate the development.
- **4 x Open Space II** erven on ±3.56ha.
  - Natural vegetation will be retained, and invasive species removed.

It is noted that the remaining **open space** within this development amounts to approximately **60%** of the site with the remaining **40%** consisting of the proposed **erven, roads and services areas**.

Access

The existing servitude (private road) on the property's western boundary is proposed to be widened from 3m to 6.8m to accommodate two 3,4m wide lanes (Figure 9).

Access onto this servitude road is directly off Sandkraal Road.

The proposed development also entails two (2) internal private roads providing access to the single residential and general residential erven (~8 – 10m wide) (Figure 9).

Traffic

The proposed development is seen as a fairly low trip generator given the low number of units (35 trips during the peak hour period) and therefore the additions of the new generated traffic does not have a major impact on the Level of Service[2] of either of the two intersections (Sandhoogte / Long Street Intersection & Sandhoogte / Main Road 344) (Appendix G8 – Traffic Impact Assessment, 2024).

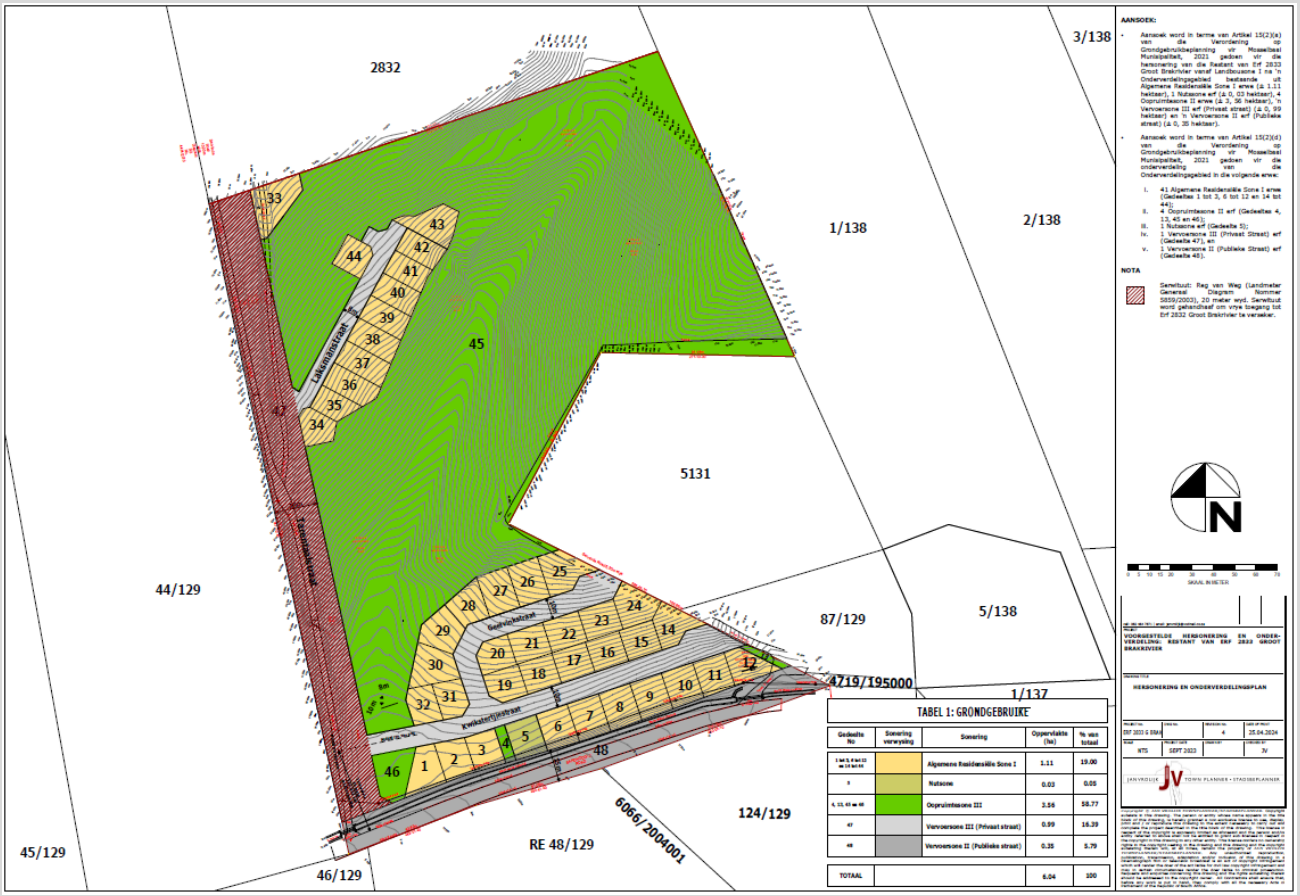


Figure 9: Mitigated Site Development Proposal for RE/2833 (Preferred Alternative) (source: Jan Vrolik Town Planner).

Services

Water

Water will be supplied via the existing Municipal water network.

The following link services will be installed to connect the development to the **existing 200mm Ø pipe** in Sandhoogte Road, and to manage high static pressure at the lower lying erven of the development (Figure 10):

1. 300m x 110mm Ø new supply pipe.
2. Pressure Reducing Valve (PRV) to manage high water pressures.

[2] Level of Service is a term used to qualitatively describe the operating conditions of a roadway based on factors such speed, travel time, maneuverability, delay and safety.

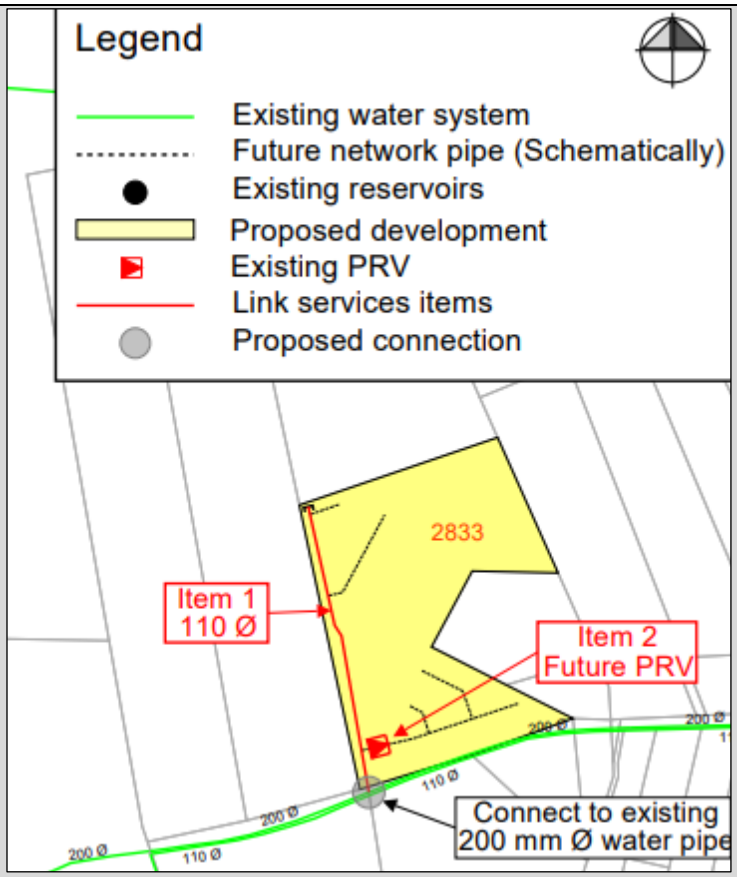


Figure 10: Proposed link services to connect the proposed development to the existing water pipe in Sandhoogte Road (GLS Report, 2024).

Electricity

Electricity will be supplied via the existing Municipal electrical network.

It is proposed that a new 400kVA mini-sub be installed inside Sandhoogte Road reserve. It is further proposed that a low voltage cable be installed from the substation to a LV bulk metering / distribution kiosk located on the erf boundary (Figure 11) (Appendix G9 – Electrical Services Report, 2023).

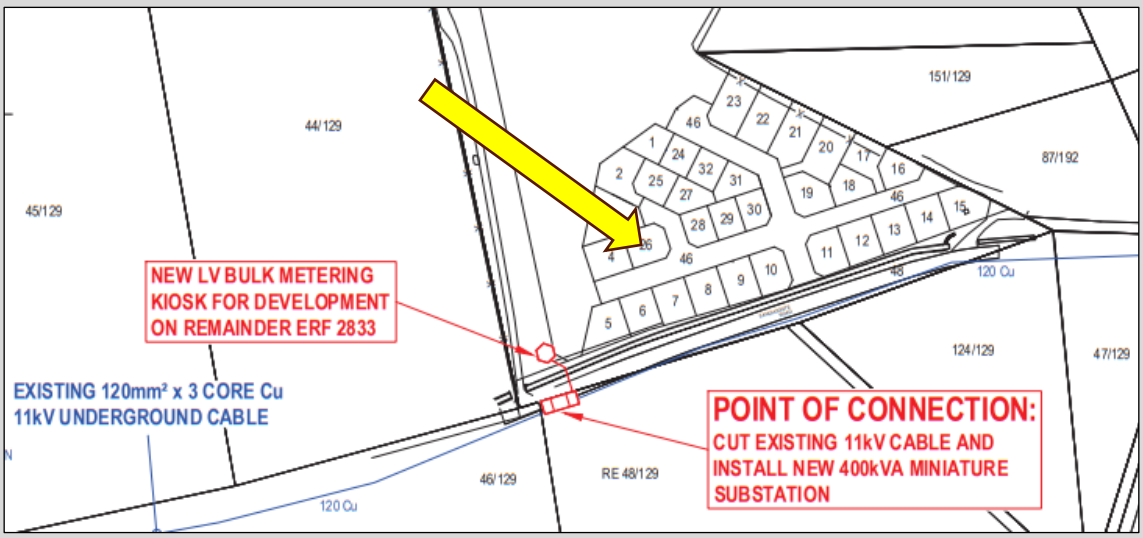


Figure 11: Proposed internal services to connect the proposed development to the municipal network with the YELLOW arrow indicating the southern portion of the site (Electrical Services Report, 2023).

Waste

Erf 5 (Utility erf) will be the collection point for all household waste. The municipal refuse truck will access Erf 5 via the internal road network of the development via the existing (upgraded) servitude road, following internal roads of the development.

Sewage

It is proposed to connect the development to a dedicated on-site conservancy tank within the development area. The conservancy tank will be installed on Erf 5.

The Utility Zone erf where the underground conservancy tank is proposed, will be transferred to the Homeowners Association who will be responsible for the administration, management and maintenance of the conservancy tank.

A private contractor will be contracted by the Homeowners Association to service the conservancy tank. The Homeowner's Association can connect the conservancy tank to the municipal sewer network in the future when the municipal pumping station/sewer line has the necessary capacity at which time the conservancy tank will be converted to a pump station (Figure 12).

Importantly the location of this conservancy tank on the property was repositioned during the Basic Assessment process in response to concerns from the neighbouring property owner to the East regarding internalising potential impacts associated with the conservancy tank i.e. regular emptying of the tank and in future with the tank being converted to a pump station.

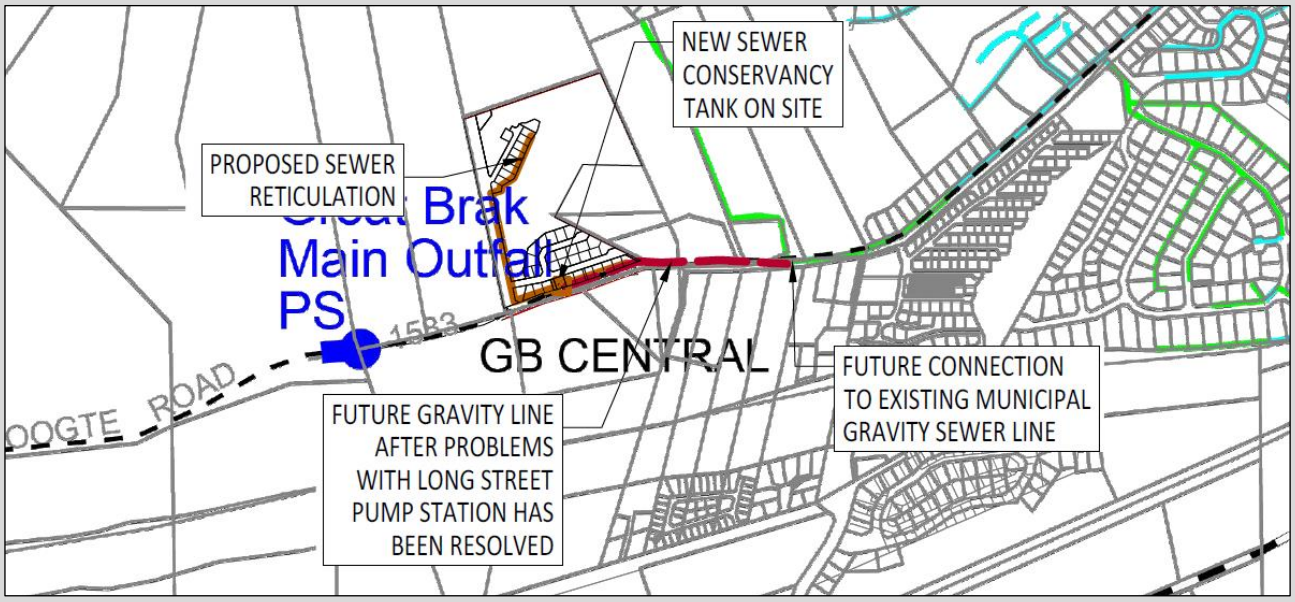


Figure 12: Proposed sewer layout and conservancy tank including future connections (source: Urban Engineering).

4.5.	Indicate how access to the proposed site(s) will be obtained for all alternatives.

RE/2833 has an existing servitude (private road) along its western boundary which provides access to not only the property itself, but also to RE/2832 and Erf 2833 situated north of the proposed development.

This servitude connects to Sandhoote Road, a public Provincial Road which is directly connected with Main Road 344 (R102) (Figure 9) (Figure 13).

The proposed development also entails two (2) internal private roads providing access to the single residential and general residential erven (~8 – 10m wide) (Figure 9). The position of Kwikstertjie Road

is situated approximately 40m away from Sandhoogte road edge, ensuring that the two intersections are not situated within each other's envelope (Figure 13) (Traffic Impact Assessment, 2024).

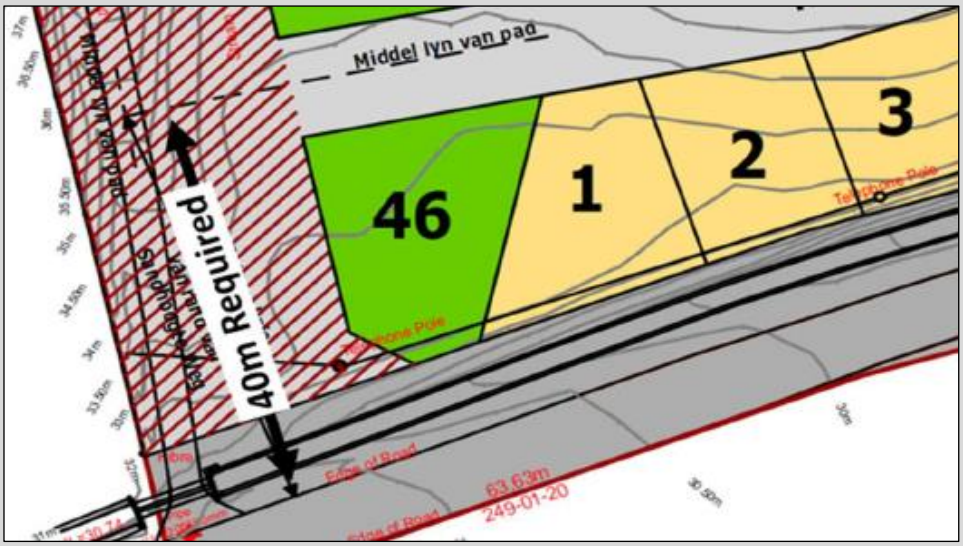


Figure 13: 40m Throat Length Requirement (Traffic Impact Assessment, 2024).

4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	C05100030000283300000		
4.7.	Coordinates of the proposed site(s) for all alternatives:			
	Latitude (S)	34°	03‘	18.86“
	Longitude (E)	22°	12‘	10.04“

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

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

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18.	~~YES~~	NO

2. IS THE FOLLOWING LEGISLATION APPLICABLE TO THE PROPOSED ACTIVITY OR DEVELOPMENT

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19.	~~YES~~	NO
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1.	YES	~~NO~~
The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3.	~~YES~~	NO
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13.	~~YES~~	NO
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	~~YES~~	NO
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	~~YES~~	NO
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	~~YES~~	NO
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.	~~YES~~	NO

3. OTHER LEGISLATION

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

Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) (SPLUMA)

According to the Planning Statement (2024) (Appendix G6), the proposed development is compatible with the five (5) development principles of SPLUMA (2013):

1. Spatial Justice

- The vacant land will be divided into residential erven for middle to high income groups.
- The development is compliant with the Mossel Bay Spatial Development Framework (2022).

2. Spatial Sustainability

- The proposed development is:
  - within the urban edge of Great Brak River as per the Mossel Bay SDF 2023.
  - earmarked for residential development.
  - in line with future land use characters of surrounding areas.
  - will not negatively affect the property value of neighbouring properties.
- The proposed development will have a positive effect on the economy of Mossel Bay.
  - Generate income to the Mossel Bay Municipality through rates/taxes and service levees.

3. Spatial Efficiency

- The residential development will be developed within the provisions and guidelines of the Services Master Planning of Mossel Bay Municipality.

- The proposed development will have no negative financial, social and economic impacts considering its designated urban use.

4. Spatial Resilience

- The proposed development is within the urban edge of Great Brak River and is earmarked for residential infill development.

5. Good Administration

- This land use planning application is drawn up according to the provisions of the By-law.
- This land use planning application will be advertised. All interested & affected parties will have a chance to provide comment.

4. POLICIES

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

4.1 Western Cape Provincial SDF (2014) (WC-PSDF)

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

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

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

(i) Greater productivity, competitiveness and opportunities within the spatial economy,
(ii) More inclusive development and strengthening the economy in rural areas;
(iii) Strengthening resilience and sustainable development.

The proposed activity complies with:

1. **Policy R1** (Protect Biodiversity and Ecosystem Services).
2. **Policy E3** (Revitalise and strengthen urban space-economies as the engine of growth)
3. **Policy E1** (Use regional infrastructure investment to leverage economic growth)
4. **Policy S5** (Promote sustainable, integrated and inclusive housing)

The proposed design retains approximately **3.56ha of natural vegetation** (+/-60%) which will be actively maintained through the removal of alien invasive species. The development will create additional employment opportunities (temporary during construction and permanent during operation) and will generate additional income for the Mossel Bay Municipality in addition to being within the designated urban edge. The proposed development will ensure an optimized urban form to serve the community of Mossel Bay.

According to the Planning Statement (2024) (Appendix G6), the proposed development is in line with the WC-PSDF.

4.2. Eden Spatial Development Framework (2017)

The Eden District Spatial Development Framework was approved in 2017 and aims to establish a strong strategic direction and vision, towards increasing levels of detail in the spatial recommendations that are directive rather than prescriptive and providing guidance to local municipalities in the district regarding future spatial planning, strategic decision-making, and regional integration.

This vision and strategic direction identify the four key drivers of spatial change within the district. These drivers are defined in terms of spatial legacies, current challenges, future risks and prospects.

The proposed development aligns with the following policies:

- **Policy 3.1.** (Redirect and encourage growth to match capacity, resources and opportunity in relation to the regional socio-economic hierarchy of cities and towns).
- **Policy 3.3.** (Optimise existing infrastructure capacity and economic opportunity by directing mixed-use, higher density development to area of opportunity).

The proposed development of the site is regarded as being consistent with the Eden District SDF. Mossel Bay is one of the towns identified by Eden SDF (2017) that has the economic, spatial and social capacity to ensure fiscal sustainability (Figure 14).

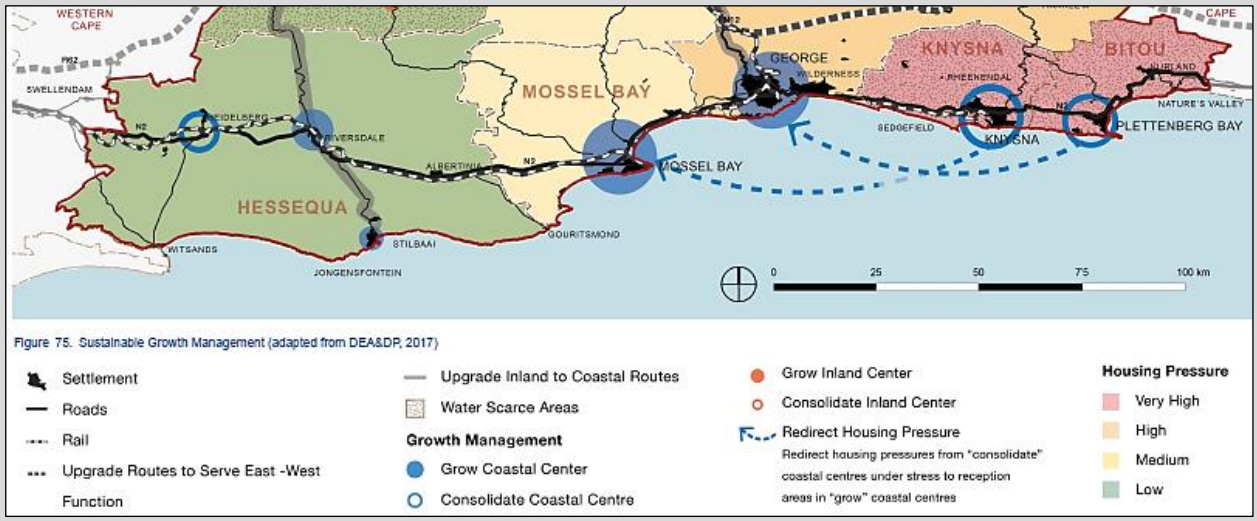


Figure 14: Sustainable growth management (Eden SDF, 2017)

4.3. Mossel Bay Spatial Development Framework (2023) (MSDF)

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

RE/2833 is within the study area of Mossel Bay Spatial Development Framework (2023). According to the MSDF, the property is earmarked for urban development (Figure 15). This application allows

for urban development, and it can therefore be argued that the proposal is in line with the provisions of the MSDF (2022) (Planning Statement, 2024) (Appendix G6).

Figure 15: Great Brak River spatial proposals (MSDF, 2022). RE/2833 is within the blue circle.

The following MSDF policies are related to the proposed development:

Policies	Proposed development
Policy 1A (Manage and preserve the mountains, natural vegetation, streams and rivers in a manner which protects the natural eco-system).	Approximately 3.56ha (+/-60%) of natural vegetation will be preserved and maintained through the open spaces.
Policy 2A (Monitor and manage the availability and use of water).	Municipal water is available and water tanks will be installed on each residential erf.
Policy 3A (Accommodate innovative proposals for alternative energy sources).	Energy saving technology alternatives will be implemented.
Policy 4A (Future urban from design is to be based on future scenario planning in the SDF).	The proposed development complies with the Spatial Planning & Land Use Management Act, 2013 (SPLUMA).
Policy 4B (Prioritise efficient urban form).	The proposed development is located within the urban edge of Great Brak River.
Policy 4C (Creation of an Open Space/Conservation network).	The proposed development allows for private open space to retain sensitive natural vegetation within the residential development.

Policy 4M (Bulk Municipal service infrastructure).	Municipality confirmed services availability and infrastructure capacity (water, electricity, sewage treatment capacity).

4.4. Mossel Bay Integrated Development Plan (2022 – 2027)

In terms of the Mossel Bay Integrated Development Plan (2022 to 2027) eight strategies are formulated to support the spatial planning approach and spatial drivers to direct development in the Greater Mossel Bay area. Each strategy is supported by a set of policies and policy guidelines (Planning Statement, 2024)(Appendix G6).

Strategy 4 specifically deals with urban growth and the restructuring of the urban shape to meet the Mossel Bay Community's needs. This strategy specifically applies to this application (Planning Statement, 2024)(Appendix G6).

The proposed development complies with the following policies (Planning Statement) (Appendix G6):

Policy 4A – "*Future urban form design is to be based on future scenario planning in the SDF*".

- The proposed development is earmarked for residential development.

Policy 4B – "*Prioritise efficient urban form*".

- The development follows a logical development proposal. The layout is planned around the physical restrictions applicable to the erf.

Policy 4C – "*Creation of an Open Space/Conservation network*".

- RE/2833 has a low point in the landscape (valley) with natural drainage albeit not defined as a natural water course. The valley was delineated with a 30m buffer on either side of the valley. This area will be zoned as Private Open Space which will be used as a conservation area. No development will take place within this area and alien vegetation will be removed to enable the restoration of thicket.

Policy 4E – "*Maintain a compact settlement form to facility inclusion and integration and improved service delivery*".

- The proposed development will not give rise to urban sprawl (as it falls within the designated urban edge) and will lead to a more compact urban form.

Policy 4F – "*Provide places of residence closer to places of work*".

- RE/2833 is within the urban edge of Great Brak River. Therefore, within an area within which employment opportunities occur and can be provided.

Policy 4H – "*Apply densification in existing settlements and neighbourhoods to a more compact urban pattern and to reduce cost of services to households*".

- The development proposal provides for infill / densification and will therefore lead to a more compact urban form.

In terms of the Development Plan, long-term urban expansion is possible for various parts of the Mossel Bay Municipal Area. Remainder of Erf 2833 is, in terms of the urban expansion scenario, located in an area for medium to high density residential development. Due to site specific

environmental constraints and slopes, the developable areas have been optimised whilst accommodating the more sensitive environmental features of the site.

The proposal is therefore in accordance with the proposals contained in the Mossel Bay Integrated Development plan for the period 2022 to 2027.

5. GUIDELINES

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

1. Guideline on Need and Desirability, DEA (2017)
   Refer to section E(12) for a detailed Need & Desirability project description.

2. Guideline on Alternatives (March 2013)
   Two design alternatives have been identified:
   - Non-Mitigated Design
     Does not consider sensitive areas or steep slopes (botany, biodiversity, fauna & aquatic).

   - Mitigated SDP (preferred alternative)
     Does consider all sensitive areas as well as steep slopes (botany, biodiversity, fauna & aquatic), and reflects changes to account for issues/concerns raised during the public participation process.

3. Guideline for the Review of Specialist input in the EIA process (June 2005)
   The guideline was followed to:
   - ensure that the specialists inputs meet the terms of reference.
   - ensure that specialist inputs are provided in a form and quality that can be incorporated into the integrated report and can be understood by non-specialists.

4. Guideline for Environmental Management Plans (June 2005)
   The EMPr is included with this Basic Assessment to provide practical and implementable actions to ensure that the development maintains sustainability and minimise impacts through all its phases. The document is finalised as per the Guidelines and requirements of NEMA.

5. Guideline on generic terms of Reference for EAPs and Project Schedules (March 2013)
   Followed guidance on:
   - Generic Requirements for EAPs (what an EAP must manage).
   - Generic Requirements for persons compiling a specialist report.
   - Scope of Work (project description, primary responsibility, anticipated inputs etc.).

6. Guideline for determining the scope of specialist involvement in the EIA process, June 2005
   This Guideline was used to determine the timing, scope and quality of specialist inputs in the EIA process.

6. PROTOCOLS

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

According to the DEA&DP series of guidelines for the involvement of specialists in the EIA process (2005), one of the underpinning generic principles is to **eliminate the unnecessary specialist involvement** through proactive project planning and design to avoid or sufficiently reduce negative impacts. Another is to **maximise the use of existing relevant information** prior to involving a specialist. This includes the input from the EAP and specialists, in the form of site photographs and site inspections. These principles apply to the specialist studies that have been identified in the screening tool and motivated as not necessary in this report. According to the Screening Tool the following themes have been identified as sensitive:

Agriculture

Johann Lanz (Soil Specialist) compiled an **Agricultural Compliance Statement** (Appendix G5).

The **Department of Agriculture** (DoA) was approached for comment as part of the public participation process. However, no comment from DoA was received as they take approximately 90 days to provide their comment. At the time of submission of the FBAR no formal comment was received from the Department of Agriculture. Considering the fact that the site has not been actively utilised for agriculture, as well as its designation with the urban edge of Great Brak, it is anticipated with a high level of confidence that the Department will not oppose this development proposal.

RE: OPPORTUNITY TO COMMENT ON THE PROPOSED RESIDENTIAL DEVELOPMENT ON REMAINDER OF ERF ...

Reply | Reply All | Forward

BL Brandon Layman <Brandon.Layman@westerncap

To Mariska Nicholson

Cc Cor Van der Walt

Wed 2024/04/17 11:5

Follow up. Completed on Wednesday, 17 April 2024.

Hi Mariska

With regards your request on the status of your application. Kindly note that the request are number 072 in the queue – see table below. We work on a first in first out basis. Our office is committed to an estimated turnaround time of 90 days (3 months). In the event of unforeseen circumstances, complexity of applications received, number of site visits required and engagements with relevant stakeholders this time might be extended. We will try our utmost to provide a response within the 90 days.

App number	Applicant	Type of Application	Farm No.	District
072	Cape Eaprac	Other	Erf No. 2833	Mossel Bay

With many thanks and kind regards

Brandon Layman
Administrative Assistant to:
Cor Van der Walt : LandUse Manager
Department of Agriculture
Provincial Government of the Western Cape
Private Bag X1
ELSENBURG
7607
GPS koordinate Elsenburg kantoor: 33.845259 S 18.834722 E.

Civil Aviation

SACAA has been approached for comment during the Public Participation Process. Their comment was received on 29 April 2024. According to SACAA, a formal obstacle assessment must be conducted to assess whether the proposed residential development will affect the safety of flights.

However, it is noted that the residential development **will not exceed** any of the Civil Aviation Regulations in terms of height and does not pose a threat to air traffic in terms of any obstruction. The only reason for Civil Aviation being highlighted in the Screening Tool is because the site is ~16km

on heading 70.19 from George Aerodrome (FAGG George). The development will not trigger the obstacle collision / potential hazard requirements as set out by the CAA and as such there is no reasonable grounds for further administrative application processes to verify the facts which area:

- Buildings or other objects will not constitute an obstruction or potential hazard to aircraft moving in the navigable air space in the vicinity of an aerodrome, or navigation aid, or impact adversely on the performance of the radio navigation or instrument landing systems,
- There are no buildings or objects higher than 45 metres above the mean sea level of the landing area at Mossel Bay Airport,
- No building, structure or object on this development site projects above a slope of 1 in 20 and the site is not located within 3000 metres measured from the nearest point on the boundary of the Mossel Bay Airport,
- No building, structure or other objects on this site will project above the approach, transitional or horizontal surfaces of the Mossel Bay Airport.

There are no reasonable grounds to conduct any specialist studies to confirm this.

Defence

The development will pose no threat to military or defence forces of South Africa. The site is not situated near any military facilities and the Screening Tool has indicated that the sensitivity is low. There are no reasonable grounds to conduct any specialists' studies to affirm this and further consultation with the Department of Defence is **not** necessary.

Aquatic Biodiversity Theme

Dr James Dabrowski compiled an **Aquatic Compliance Statement** which was circulated during the Public Participation Process in which he confirmed that there are no natural watercourse on the property.

BOCMA's comment was received on 15 April 2024. They requested that the extend of watercourses be assessed and delineated to identify if the proposed development will trigger water uses in terms of the National Water Act, 1999. Dr James Dabrowski confirmed that the valley does **not qualify as a natural watercourse**. Therefore, the National Water Act (1999) is not applicable to the proposed development.

Archaeological and Cultural Heritage Theme & Palaeontology Theme

Heritage Western Cape (HWC) confirmed the need for further studies (Heritage Impact Assessment & Paleontological Impact Assessments). These assessments were included in the Draft BAR. The Final Integrated HIA (after Public Participation) was submitted to HWC on 23 April 2024 and is included with this Final BAR.

HWC has been approached for comment as part of the public participation process. However, no comments were received during the commenting period. However considering the outcome of the HIA it is highly unlikely that HWC will not accept the HIA and endorse the development as it is currently proposed.

Plant Species Theme & Terrestrial Biodiversity

Bianke Fouché (Botanical Specialist from Confluent Consulting) refuted the Medium Botanical Sensitivity and confirmed that the sensitivity should be **High** because of the thicket that has the potential to support more SCC.

Bianke Fouché confirmed the **Very High** Terrestrial Biodiversity Sensitivity for the thicket.

A **Botanical & Biodiversity Impact Assessment** was included in this BAR (Appendix G2).

Cape Nature has been approached for comment as part of the public participation process. Their comments were received on 07 May 2024. In terms of biodiversity, Cape Nature requested that the remaining **highly sensitive thicket** area be mapped as a No-Go area but in turn supports the idea behind trails within this area so that residents can learn the value of nature and effective alien clearing can be undertaken in this remaining open space of the development. As per Cape Nature's request, the impact of trails within this area was assessed by the Botanist and included in the report. Given the low level of impact associated with such footpaths and the benefit of making the area accessible for long-term alien clearing, this impact is deemed to be acceptable.

Fauna

Willem Matthee (Faunal Specialist) refutes the high sensitivity rating and confirms that it should be **Medium**.

A **Faunal Impact Assessment** has been compiled (Appendix G3), and **Cape Nature** was approached for comment during the public participation process.

In their comment Cape Nature suggested that a Lepidopterist be appointed to confirm the presence of L.littoralis on the property. However, the fauna specialist confirmed that although Selago corymbose (which is the host plant for L. littoralis) was found on the property, the presence of the species is **highly unlikely** as this species is found in areas containing **limestone (fynbos)** habitat which is completely absent from the site and not found anywhere near the site. This particular species is known to occur further west of Mossel Bay and is restricted to areas consisting mainly of proteas, which were also not found on RE/2833.

Other specialist & technical studies

- A Visual Impact Assessment is not required as the area is similar to the surrounding urban environment with a history of previous township development as was approved.
- A Socio-Economic Assessment is not required, as the development is in line with the spatial development framework for the area.
- Planning Statement (2024) (Appendix G6) – Jan Vrolik
- Engineering Services Report (2024) (Appendix G7) – Urban Engineering
- Traffic Impact Assessment (2024) (Appendix G8) – Urban Engineering
- Electrical Services Report (2023) (Appendix G9) – Clinkscales Maughan-Brown
- Pre-Liminary Geotechnical Report (2024) (Appendix G10) – Outeniqua Geotechnical Services.

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 1**	Describe the portion of the proposed development to which the applicable listed activity relates.
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for – (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	The clearance of approximately 2,5ha of indigenous vegetation. Bianke Fouché compiled a detailed ground truthed vegetation map which shows that the following vegetation types will be affected: senescent Erica peltata dominated fynbos, black wattle dominated thicket and secondary fynbos.
28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: ~~(i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or~~ (ii) will occur outside the urban area, where the total land to be developed is bigger than 1 hectare; Excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	The property is currently zoned Agriculture I. Analysis of early aerial photography (1940) revealed that much of the property has clearly been transformed through cultivation / agricultural activities. Google Earth imagery shows paddocks (and a small outbuilding) established on the southernmost portion up until 2021.
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.
4	The development of a road wider than 4m with a reserve less than 13,5m. (ii) Areas outside urban areas. (aa) Areas containing indigenous vegetation.	Development of two internal roads wider than 4m in areas containing indigenous vegetation (senescent Erica peltata dominated fynbos, black wattle dominated thicket and secondary fynbos).
12	The clearance of an area of 300m^2 or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance	The clearance of an area of 300m^2 or more of indigenous vegetation within a

	purposes undertaken in accordance with a maintenance management plan. (i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEM:BA or prior to the publication of such as list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; (ii) Within critical biodiversity areas identified in bioregional plans.	Critically Endangered Ecosystem & within CBA's.

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

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

~~Activity No(s):~~	~~Provide the relevant **Basic Assessment Activity(ies)** as set out in **Category A**~~	~~Describe the portion of the proposed development to which the applicable listed activity relates.~~

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

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

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.

The preferred alternative is to rezone the property from Agriculture I to Subdivisional Area consisting of the following components (Figure 16):

- **41 x General Residential Zone I** erven on ±1.11ha,
  - This portion will be used for group housing and will have a density of approximately 19.53 units per hectare.
- **1 x Transport Zone III** erf (Private Road) on ±0.99ha,
  - 8 – 10m in width
- **1 x Transport Zone II** erf (Public Road) on ± 0.35ha,
- **1 x Utility Zone** on ±0.03ha (Conservancy Tank),
  - The tank will have sufficient capacity to only need to be cleaned once every 7 days at maximum development capacity.
  - The Conservancy Tank will be 5m x 10m x 3m in size and can be converted to a pump station once the Municipal infrastructure capacity is able to accommodate the development.
- **4 x Open Space II** erven on ±3.56ha.
  - Natural vegetation will be retained, and invasive species removed.

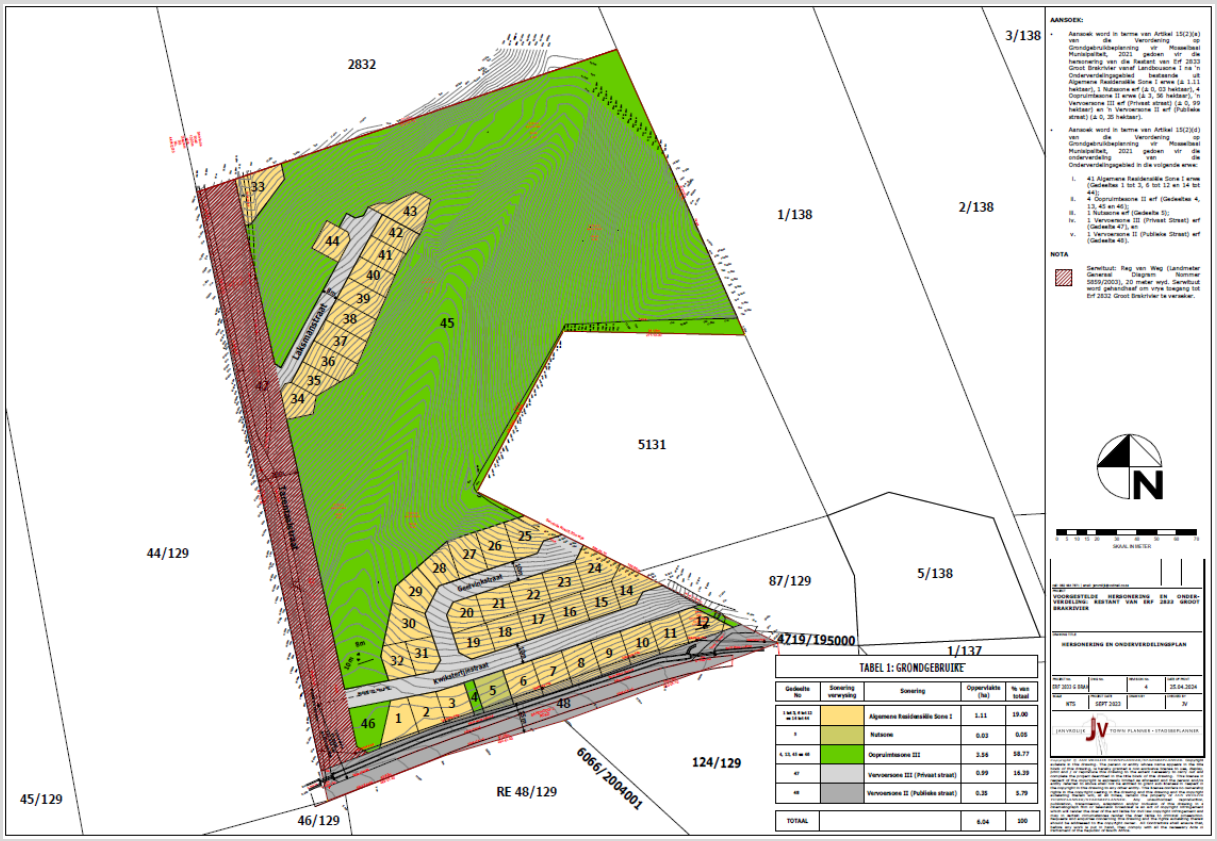


Figure 16: Mitigated Preferred Site Development Proposal for RE/2833 (Preferred Alternative) (source: Jan Vrolik Town Planner).

2.	Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.

The site is currently zoned Agriculture Zone I and will be rezoned to Subdivisional Area to accommodate the proposed project.

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

Existing Approvals: Not to the knowledge of the EAP although it is noted that previous Environmental Authorisation (EA), as well as Land Use Planning approvals were issued for this site (these rights have since lapsed).

4.	Explain how the proposed development will be in line with the following?
4.1	The Provincial Spatial Development Framework.

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

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

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

(i) Greater productivity, competitiveness and opportunities within the spatial economy,
(ii) More inclusive development and strengthening the economy in rural areas;
(iii) Strengthening resilience and sustainable development.

The development will create additional employment opportunities and will generate additional income for the Mossel Bay Municipality in addition to being within the designated urban edge. The proposed development will ensure an optimized urban form to serve the community of Mossel Bay.

The Western Cape Government has made a growing economy its primary objective including investing in new regional economic infrastructure to unlock the potential of the emerging Mossel Bay economic node.

According to the Planning Statement (2024) (Appendix G6), the proposed development is compatible with the WC-PSDF.

4.2	The Integrated Development Plan of the local municipality.

The key pillars of sustainability for the Mossel Bay Municipality are social well-being, economic viability, and environmental integrity. According to the Municipal IDP, the key development priorities for Mossel Bay include:

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

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

- There has been a change in the attitude of most residents towards a positivity regarding growth.
- Growth is inevitable and the focus should be on managing growth within urban areas, to protect what is important to residents.

- When a critical mass development is reached the element of crime will also manifest, therefore development should be strictly managed and guided towards a common goal of maintaining the "ambience" and "free" characteristics of the town.

The IDP recognises the need for property development in the Mossel Bay area, and also the need for growth and development on vacant land within the urban edge.

The proposal is therefore in accordance with the proposals contained in the Mossel Bay Integrated Development plan for the period 2022 to 2027.

4.3.	The Spatial Development Framework of the local municipality.

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

RE/2833 is within the study area of Mossel Bay Spatial Development Framework (2023). According to the MSDF, the property is earmarked for urban development. This application allows for urban development, and it can therefore be argued that the proposal is in line with the provisions of the MSDF (2023) (Planning Statement, 2024) (Appendix G6).

4.4.	The Environmental Management Framework applicable to the area.

Not applicable.

5.	Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.

CapeNature

Cape Nature requested that the highly **sensitive thicket area** be mapped as a No-Go area but in turn supports the idea behind trails within this area so that residents can learn the value of nature.

As per Cape Nature's request, the impact of trails within this area was assessed by the Botanist and included in the report. The highly sensitive valley thicket is identified as a no-go area during construction. No staff/workers are allowed within this area and hence this area must be clearly demarcated and hoarded whenever construction will happen in proximity thereto. However, this area is not considered as a no-go during the operational phase as landowners will be allowed to walk along trails and alien clearing teams are permitted entry to clear invasive alien vegetation within this area by hand. Trails within the valley thicket should only follow disturbed areas that have been cleared of alien vegetation. These trails will also provide access to the HOA should alien vegetation be removed.

Cape Nature also requested that a Lepidopterist be appointed to confirm the presence of L.littoralis on the property. However, the fauna specialist confirmed that although Selago corymbose (host plant for L. littoralis) was found on the property, their presence is highly unlikely as this species is found in areas containing limestone which was not found on the site or anywhere near the site. These species occur only west of Mossel Bay and are restricted to an area consisting of mainly proteas, which were also not found on RE/2833.

CapeNature also recommended the following:

- The mitigation measures from the specialists must be strictly implemented (done).
- The ECO should inspect the site during the breeding season of B.sylvaticus to ensure no construction occurs (specified in the EMP).

- The ECO must monitor the construction and operational phases and ensure the recommended mitigation measures of the specialists are implemented (specified in the EMP).
- The ECO must ensure that heavy machinery remain outside the valley and its buffer (specified in the EMP – area will be hoarded/demarcated when construction activities are planned in proximity to this area.
- CapeNature does not recommend development on steep slopes, and do not support any development on slopes with a gradient that is greater than 1:4 (Preferred SDP avoids steep slopes).

The above recommendations have been considered and included in the Final EMPr. The ECO & Faunal Specialist will inspect the site during the breeding season of B.sylvaticus (end-Aug until early-December). However, considering time & financial constraints, it would be difficult to implement the mitigation measure of no construction during the breeding season. The appointed ECO will ensure that the open space valley is sufficiently demarcated/hoarded to ensure that no machine/staff will be able to enter the valley-thicket.

Furthermore, the contractor must also comply with the Final EMPr which provides certain Management Actions to avoid noise & vibration impacts.

BOCMA

BOCMA requested that the extend of watercourse be assessed and delineated to identify if the proposed development will trigger water uses in terms of the National Water Act, 1999. Dr James Dabrowski confirmed that the valley does not qualify as a natural watercourse for the following reasons:

1. No discernible bed and banks were observed along the valley-bottom indicating that water does not regularly flow through the valley. When water does flow, it is not sufficient to form bed and banks and any associated permanent or temporary aquatic habitat.
2. The lack of hydrophilic plant species, together with the lack of any seasonal, temporary or permanent soil saturation indicators shows that water does not tend to stand or accumulate along the valley-bottom.

Therefore, the National Water Act (1999) is not applicable to the proposed development.

DFFE

Melanie Koen, Mariska Byleveld and Bianke Fouche (Botanical/Biodiversity Specialist) had a site meeting on 15 May 2024 to discuss whether Coastal Forest is present on the property. Ms Koen indicated that she is of the opinion that the valley thicket observation/description should be described as an area transitioning to Coastal Forest.

According to the SACNASP registered Botanist however, the habitat in the valley-thicket is definitely defined as Hartenbos Dune Thicket which has an Endangered ecological threat status and due to its species composition, is not representative of Coastal Forest.

Mrs Koen requested the following to be included in the Final BAR:

1. Alien Management Plan (incorporated into the EMP)

2. Rehabilitation Plan to actively rehabilitate the highly sensitive area (area identified by the Botanist as highly sensitive thicket) to Coastal Forest

- In this regard it is submitted that transforming Dune Thicket (which has an Endangered ecological threat status) to Coastal Forest (with an ecological threat status of Least Concerned) would not provide for a nett-benefit outcome in terms of environmental conservation, therefore the proposal remains to (A) avoid the sensitive valley thicket vegetation on the site and (B) ensure ongoing invasive alien clearing within this area to ensure that it remains in a good natural condition, rather than attempting to change the habitat to Coastal Forest.

3. Fire Management Plan (the remaining natural vegetation is not part of a fire driven ecology and as such does not require controlled burning).

- The Botanist remains of the opinion that the site is not representative of Coastal Forest as Coastal Forest tends to have a much more open understoreys whereas the on-site thicket does not present an open understorey therefore supporting the view of the botanist that the description of thicket is correct.
- There are no records that the valley-thicket on site was (ever) representative of Coastal Forest. Only the south-western portion of the property was mapped as CBA forest; however, according to the Botanist that particular area is mapped incorrectly based on species found to be thicket species. Available records furthermore shows that the site consists of EN Hartenbos Dune Strandveld which resembles Thicket (CapeFarmMapper, Vlok de Villiers (2007) fine scale vegetation maps and the National Biodiversity Assessment).
- All invasive alien vegetation on site will be actively managed and therefore the site will rehabilitate passively back to its original state – but an asserted effort should not be made to transform the vegetation to coastal forest.
- According to the Botanist, the valley-thicket is a low fire-risk vegetation type. All invasive alien vegetation will be removed and disposed of correctly/chipped to avoid creating any fire-risk. The following mitigation measures are also included in the Final EMPr:
    - No open fires permitted anywhere on site during the construction period.
    - No wood may be collected from the property during construction (unless it is part of the invasive alien vegetation clearing).
    - Designated smoking areas, with sand filled containers, must be identified and communicated with staff.

6.	Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.

According to the Western Cape Biodiversity Spatial Plan (WC BSP), majority of RE/2833 falls within a **Critical Biodiversity Area** (CBA1 – Terrestrial Biodiversity) (Figure 17). The south-eastern corner of the site is mapped as Forest CBA and the south-western corner of the site is mapped as an Ecological Support Area (ESA2) (Figure 17). The applicable reasons for the designated BSP layers over the site area are as follows:

1. Bontebok Extended Distribution Range
    - Not observed on site.
2. Water Source Projection
3. Watercourse Protection
    - Dr Dabrowski confirmed that the non-perennial drainage traversing the property is not a natural watercourse.
4. Western Cape Milkwood Forests (not found on the property)

Figure 17: CBA & ESA Map of RE/2833 (CapeFarmMapper, 2024).

The following land use guidelines influenced the proposed development:

WC-BSP	Management Objective	Specific Guidelines
CBA1 (Terrestrial & Forest)	Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.	Ideally, development should be avoided in these areas. If they cannot be avoided it must be shown that the mitigation hierarchy has been applied if there is a proposal within a CBA. A specialist study must form part of the EIA process for all land use applications in these areas, using the services of an experienced and locally knowledgeable biodiversity expert who is registered with SACNASP. Botanical/Biodiversity Assessment undertaken to inform the application.
ESA2	Restore and/or manage to minimise impact on ecological infrastructure functioning; especially soil and water-related services.	These are areas which may already have some form of development (cultivation, mining or even buildings and infrastructure) but which should be providing ecosystem services. Where possible the current land uses should be withdrawn and rehabilitation should be undertaken. Best practice should apply in areas where land uses other than conservation are present e.g. agriculture. These areas should be targeted for habitat rehabilitation and restoration activities e.g. alien clearing.

		Sensitive thicket areas have been excluded from the development proposal and must be managed for conservation outcome.

Bianke Fouche (SACNASP registered specialist) from Confluent Environmental was appointed to compile a **Site Sensitivity Verification (SSV)** including a site-specific vegetation map of the entire site (Figure 18).

According to the SSV, the property consists of (Figure 18):

- Senecent Erica peltata dominated fynbos (Medium Sensitivity).
  - Poor condition with significant rooikrans invasion.
  - SCC found in this area (*Hermannia lavandulifolia – Vulnerable)*. This SCC is not common, and entirely absent in the valley, thicket, secondary fynbos and grass dominated field.

- Disturbed Secondary Fynbos (Medium Sensitivity).
  - Dominated by graminoid.
  - Somewhat invaded (mainly black wattles).

- Introduced and Invasive Alien Plants.
  - Black wattle dominated thicket (Medium Sensitivity).
  - Black wattle trees (Low sensitivity).
  - Limited potential to support SCC.

- Thicket (High Sensitivity).
  - Cheesewood trees in thicket (to be avoided and demarcated – may not be trimmed/removed/relocated with the necessary Forestry Permit).
  - Although not observed on site, there is a high probability that Milkwood trees also occurring in the valley thicket (botanist or ECO to assist with identification of trail within the remaining valley thicket open space area of the development)
  - Although not observed on site, the habitat has the potential to support SCC but the valley thicket area is excluded from the development footprint.

- Grass dominated field & Roadside bush (Low Sensitivity)
  - Contained a lot of invasive kikuyu grass.
  - The roadside bushes do not represent natural thicket vegetation.
  - Limited potential to support SCC.

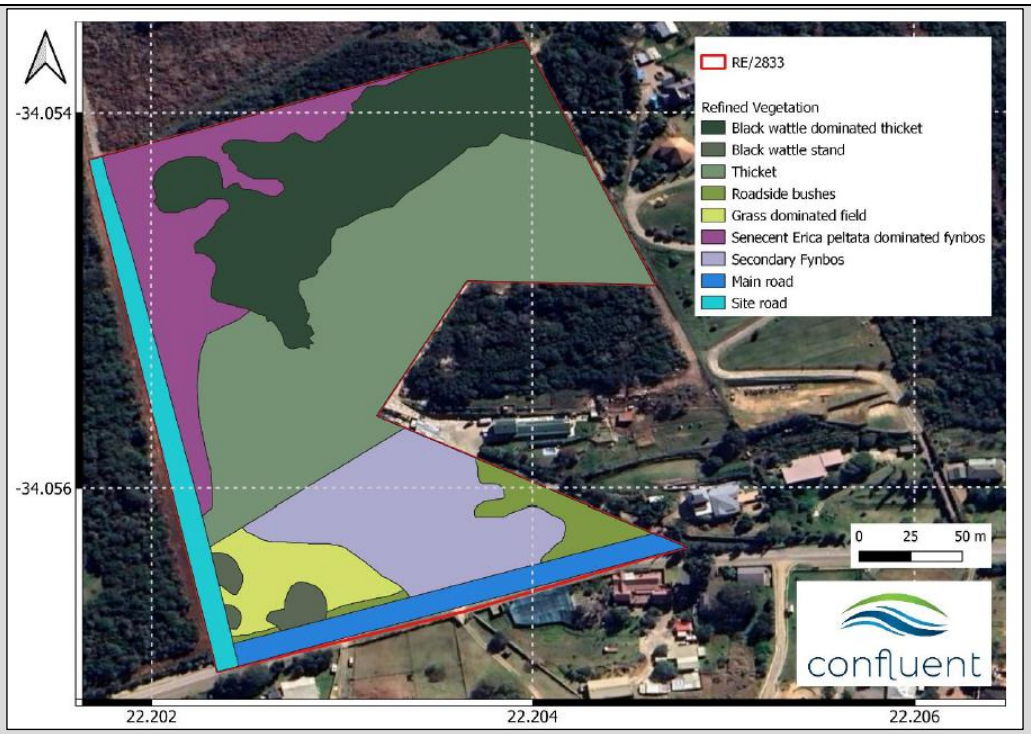


Figure 18: Site-specific vegetation map compiled by Bianke Fouche (Confluent Environmental).

The previously authorised layout plan from 2010 (Figure 19) was not considered as an alternative in this application, as it would've resulted into the permanent loss of most of the sensitive valley thicket. This original approval layout plan also did not include a 30m buffer around the lowest point of the valley.

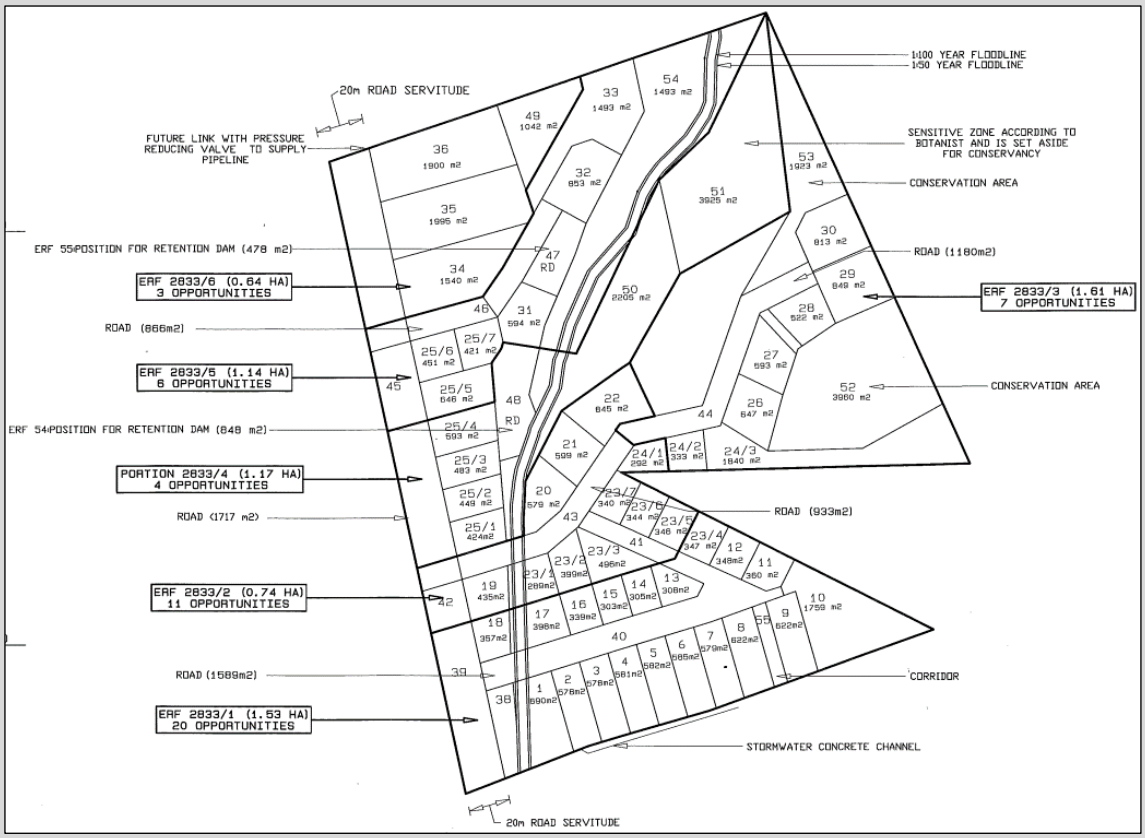


Figure 19: Previously authorised layout plan (source: KCWC Consulting Engineers and Project Managers).

As previously mentioned, it was the Applicant's initial proposal to develop the south-eastern, eastern and north-western corners of the property (Figure 20).

However, based on the **SSV**, the proposed internal road (Figure 20 – yellow arrow), the four (4) residential erven (Figure 20 – red circle) and the ten (10) residential erven (Figure 20 – blue circle) will result in the permanent loss of highly sensitive thicket containing protected tree species (Figure 20 – red & blue circles).

The faunal specialist also indicated that the area within the red circle (Figure 20) is suitable for the establishment of butterfly-friendly fynbos.

Based on the **outcome of the SSV**, this proposal was further **mitigated.** The mitigated (preferred) SDP shows that development will not be within the highly sensitive thicket vegetation, containing protected tree species, and will only be within areas identified as (Figure 21):

- Black wattle stand,
- Grass dominated field & roadside bushes,
- Secondary Fynbos,
- Senescent Fynbos, and
- Black Wattle dominated Thicket.

In conclusion, the proposal is within a CBA which cannot be avoided, however CBA has not yet been adopted for the Western Cape Province and site specific sensitive features have been excluded to minimise the impact on the environmental within an are otherwise developed and earmarked for urban environment.

We submit that the mitigation hierarchy has been applied through the appointment of specialists to inform the layout through site sensitivity verification. The layout was mitigated to avoid the impacts on the loss of highly sensitive thicket and steep slopes. In addition to the SSV, the botanical/biodiversity specialist also compiled a Botanical & Biodiversity Impact Assessment (Appendix G2) which includes mitigation measures to reduce the significance of impact on SCC & Hartenbos Dune Thicket from **Moderate to Minor**.

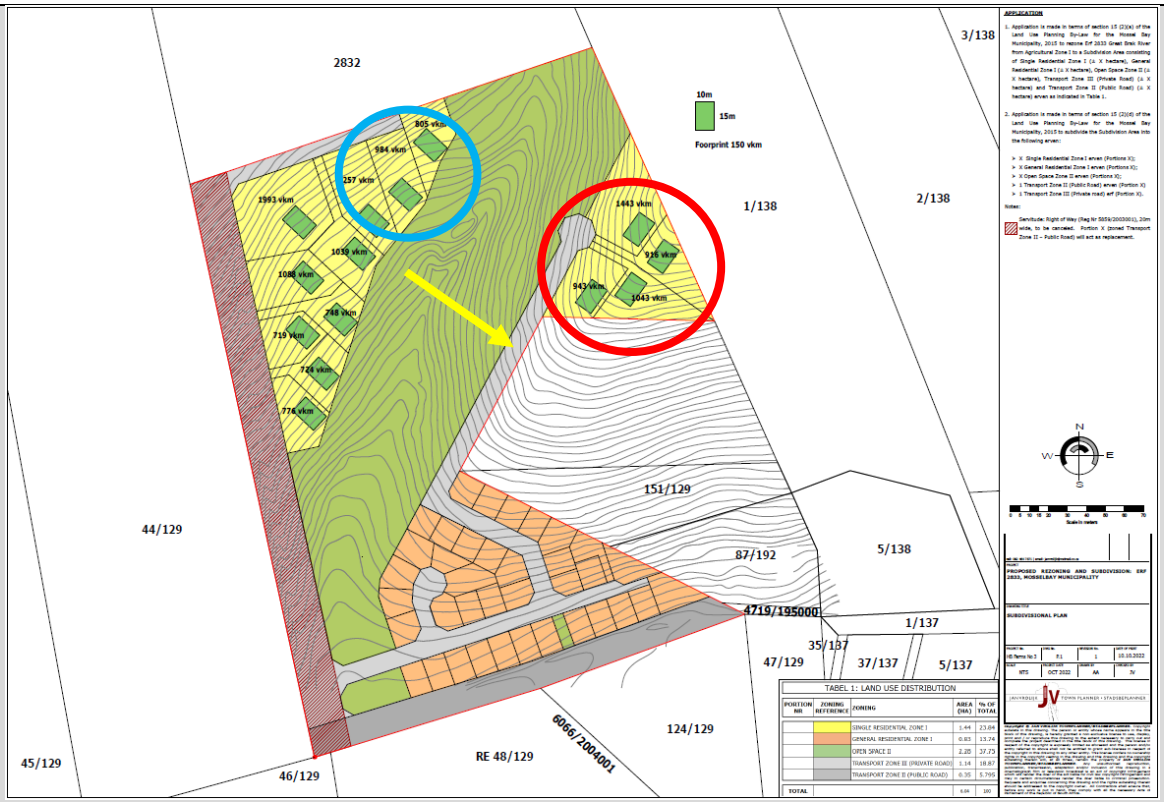


Figure 20: Non-Mitigated Site Development Plan (source: Jan Vrolik Town Planners).

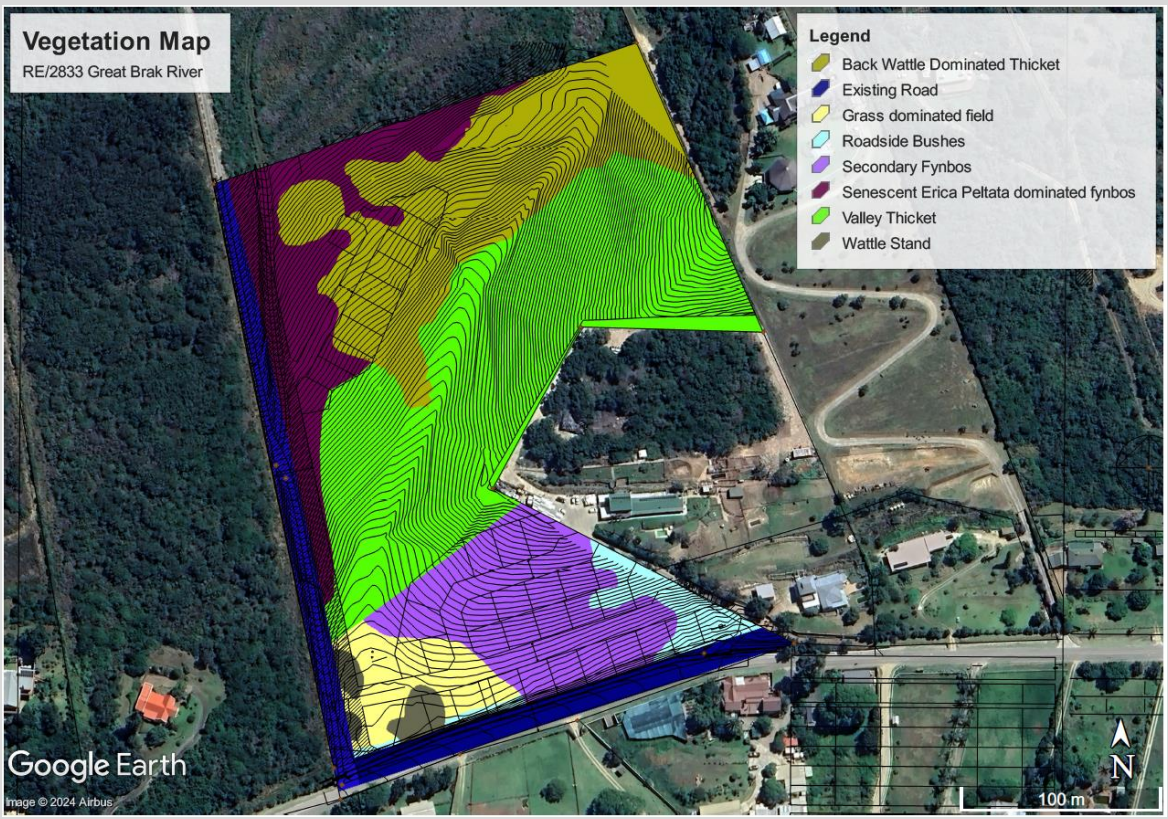


Figure 21: Mitigated SDP & Site-Specific Vegetation Map.

7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.
The proposed development does not fall within the Coastal Protection Zone.	
8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.

Two Screening Tool Reports (earlier dated and most recent dated) are attached as Appendix I:
1. Screening Tool Report as submitted with the Notice of Intent.
2. Screening Tool Report as submitted with the Application Form.

The Sensitivity Rating of the various Themes did not change between the two versions.

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

The proposed development supports greater productivity and opportunities within the economy, and it strengthens the economy by allowing permanent residents rather than seasonal influx/tourism.

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

- Access to the proposed development will be from an existing public street (Sandhoogte Road).
- Electricity and water will be connected into existing municipal services.

11.	Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16).

<u>Water</u>

Water will be supplied via the existing Municipal water network. The **Mossel Bay Municipality** accepts the proposal with regards to the internal water reticulation for the development but requested that the available storage capacity of the water reservoir be determined by GLS (Appendix E16).

GLS Consulting (Pty) Ltd was appointed to conduct a capacity analysis of the bulk municipal water services for the proposed development. It was confirmed that the existing Sandhoogte water reticulation system has sufficient capacity to accommodate the proposed development and that no additional reservoir storage capacity is required for firefighting volumes (Appendix G7 – Civil Engineering Report, 2024).

The following link services will be installed to connect the development to the existing 200mm Ø pipe in Sandhoogte Road, and to manage high static pressure at the lower lying erven of the development (Figure 22):

1. 300m x 110mm Ø new supply pipe.
2. Pressure Reducing Valve (PRV) to manage high water pressures.

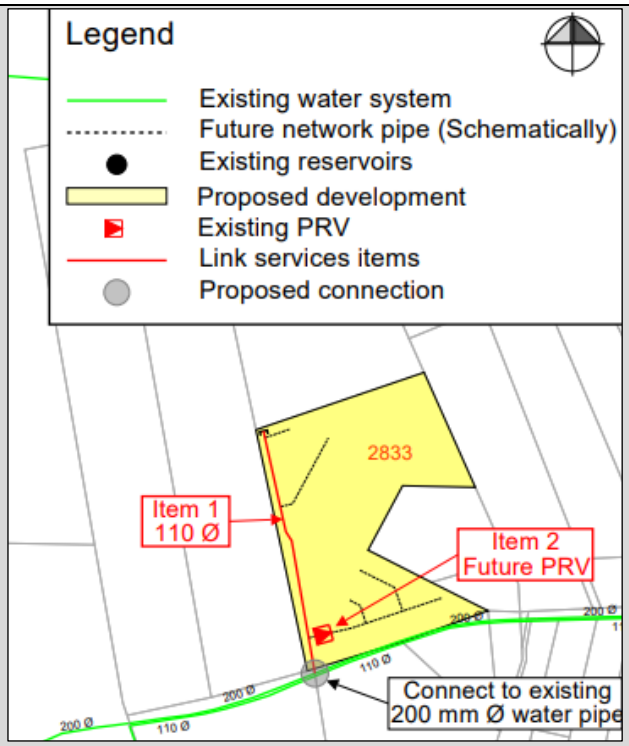


Figure 22: Proposed link services to connect the proposed development to the existing water pipe in Sandhoogte Road (GLS Report, 2024).

Electricity

Electricity will be supplied via the existing Municipal electrical network.

Clickscales Maughan-Brown (South) (Pty) Ltd was appointed to investigate the capacity of electrical services for the proposed development. It is proposed that a new 400kVA substation be installed inside Sandhoogte Road reserve. It is further proposed that a low voltage cable be installed from the substation to a LV bulk metering / distribution kiosk located on the erf boundary (Figure 23) (Appendix G9 – Electrical Services Report, 2023).

The **Mossel Bay Municipality** approved the application for an electrical connection to the capacity of 173.2kVA for the proposed development (Appendix E16).

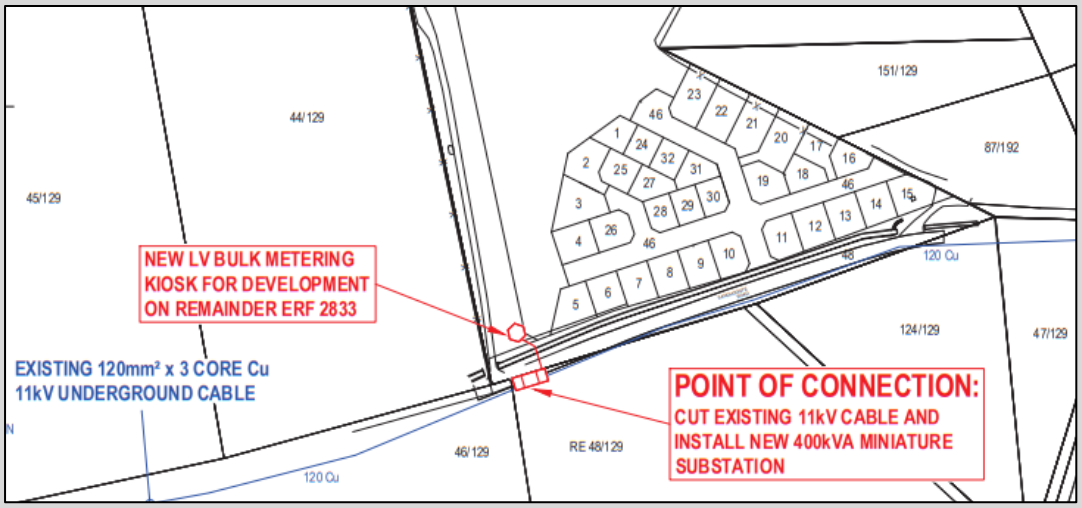


Figure 23: Proposed internal services to connect the proposed development to the municipal network (Electrical Services Report, 2023).

Waste

Erf 5 (Utility erf) will be the collection point for all household waste. The municipal refuse truck will access Erf 5 via the internal private road (Kwikstertjiestraat) on RE/2833.

Sewage

Because the municipal sewage pumping station does not have sufficient capacity to accommodate the sewage coming from the development, and it may take at least 12 to 18 months before the upgrade of the pump station is completed, it is proposed to connect the development to a conservancy tank within the development area. The conservancy tank will be installed on Erf 5 and all sewage from the development will be directed to the conservancy tank (Figure 24).

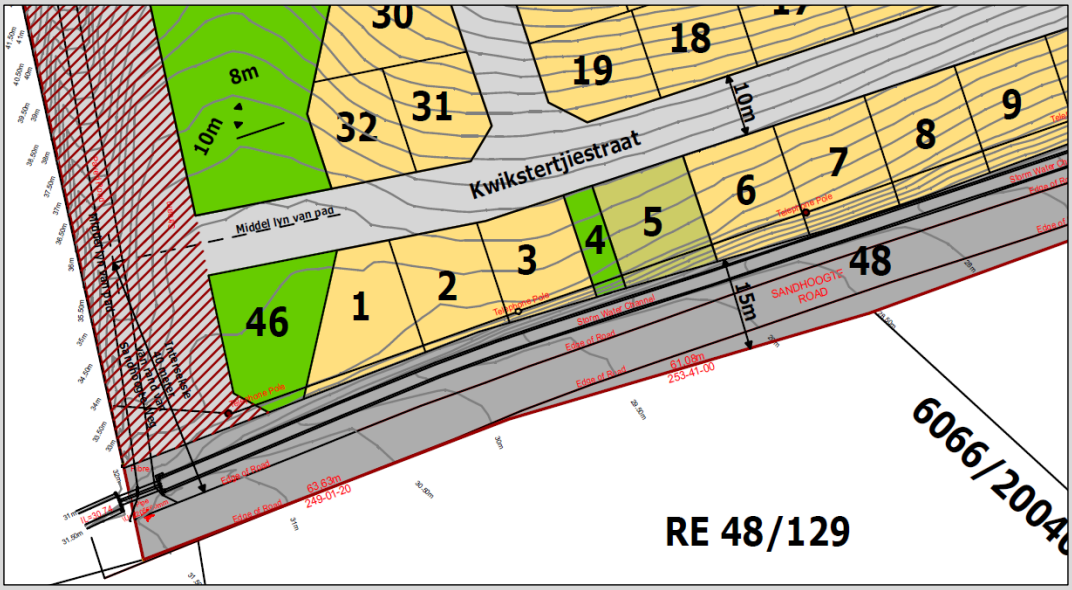


Figure 24: A conservancy tank will be installed on Erf 5 (Mitigated Preferred SDP).

The Utility Zone erf will be transferred to the Homeowners Association who will be responsible for the administration, management and maintenance of the conservancy tank. A private contractor will be contracted by the Homeowners Association to service the conservancy tank. The Homeowner's Association can connect the internal sewer network to the municipal sewer network in the future when the municipal pumping station has the necessary capacity.

The **Mossel Bay Municipality** approves the proposal.

12.	In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.

'Need', as defined by the DEA&DP refers to the timing of the proposal and the 'Desirability' refers to the 'placing' of the proposed development.

Need

The proposed development is in line with all the provincial, district and local development policies.

The timing is correct for this development as it will:

- create employment opportunities, and

- contribute to the economic growth of the town (municipal rates & taxes).

Desirability

The proposal is regarded as desirable because the proposed development:

- is unlikely to impact negatively on existing land use rights of neighbouring property owners,
- it will not prevent any surrounding owner to exercise their legal land use rights (access for the property owners who utilises the servitude must remain unaffected),
- optimise vacant land within urban edge,
- will create employment opportunities.

Questions to be engaged with when considering need & desirability:

1. How will this development impact on the ecological integrity of the area?

   The proposed development will result in the permanent loss of approximately 2.5ha of secondary fynbos, senescent Erica peltata dominated fynbos, black wattle dominated thicket and grass. No development will occur within thicket containing protected tree species. Approximately 3.56ha of indigenous vegetation (fynbos & thicket) will be retained. Few individuals of *Hermannia lavandulifolia* (species of conservation concern) were observed in the northern section of the site, within the senescent *Erica peltata* dominated fynbos. The significance of impact on the loss of SCC and vegetation, with restoration value within mapped Hartenbos Dune Thicket, can be reduced from **Moderate to Minor** if all mitigations measures (recommended by the Botanical Specialist) are implemented. These mitigations measures are included in the Environmental Management Programme.

2. How will this development enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to avoid negative impacts and enhance positive impacts?

   The following measures were and will be explored to enhance the ecosystem:

   - Approximately 3.56ha (+/-60%) of natural vegetation will be retained on the property. The natural vegetation will be actively maintained by implementing alien management as described in the Environmental Management Plan.
   - A plant search & rescue will be conducted, prior to construction, whenever a new dwelling is being constructed on any of the new sub-divided erven. Rescued plants will be re-planted in areas in need of rehabilitation.
   - Topsoil will be protected and re-used.
   - Staff will be informed about the sensitivity of the remaining natural vegetation.
   - No kikuyu grass will be allowed anywhere on the Estate.
   - Gardens to be planted with naturally occurring species from the area.
   - The construction site will be demarcated, and no staff or machine will be allowed in the highly sensitive thicket apart from the invasive alien clearing teams and residents.

3. How will this development pollute and/or degrade the biophysical environment? What measures were explored to avoid or minimise these impacts.

   An experienced and suitably qualified Environmental Control Officer will be appointed to oversee the construction phase of the proposed development to ensure that the biophysical environment will not be polluted/degraded by construction activities. The Homeowners Association will further monitor pollution/any degradation during the

operational phase of the proposed development and ensure that the natural vegetation is maintained, and alien vegetation removed.

4. What waste will be generated by this development? Measures to avoid waste.

   Construction & household waste (paper, plastic etc.) that must be collected and removed by the appointed contractors to a registered solid waste site (records must be kept and provided to the ECO for auditing purposes). Normal household waste will be collected by the Municipality for disposal at a registered landfill site.

5. How will this development use and/or impact on non-renewable resources?

   Municipal electrical distribution network available. Energy saving technologies such as load control, the use of energy efficient lighting, alternative means of water heating to be implemented. Duel flush toilets, low flow shower heads and the utilisation of rainwater.

6. How will this development use and/or impact on renewable resources?

   It is recommended that all houses be fitted with rainwater collection tanks for landscaping and washing of vehicles. These rainwater tanks must have solar pumps to supply the units more effectively.

7. How will the ecological impacts result from this development impact on people's environmental right in terms of the following:

   - Negative impacts (temporary noise during construction – refer to EMPr for mitigation measures).
   - Positive impacts (optimise vacant land & temporary / permanent job opportunities).
   - Positive & negative ecological impacts (Result in loss of vegetation. Open Space between units will be actively maintained and alien vegetation removed).

8. Describe how alternatives resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?

   Two design alternatives were investigated with a mitigated, preferred SDP proposed for consideration/approval.

9. What is the socio-economic context of the area?

   The socio-economic needs of the Mossel Bay Community are primarily jobs, housing and social facilities. Employment and housing are serious needs in a large portion of the Mossel Bay Community (MBSDF, 2022).

   The Mossel Bay area is experiencing a great influx of people and is therefore not sustainable because residential densities are too low.

   It is noted that some of the properties in proximity to this site remains of a rural nature where some landowners are still living on undeveloped plots despite their inclusion in the 'urban edge'. The continued development of properties in this area along Sandkraal Road (where they are included within the designated urban edge) will change the character of the area.

SECTION F: PUBLIC PARTICIPATION

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

1. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

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

Refer to Appendix F for notifications, stakeholder register, site notices and advert.

- Neighbouring property owners were identified using CapeFarmMapper,
- Select neighbouring property owners were compiled into a list sent to the Mossel Bay Municipality for confirmation of contact details,
- Key Authorities were identified according to whether or not they have a mandated interest in the area/site;
- Local Councillor was verified with the Mossel Bay Municipality;
- Site Notices were placed on site calling for I&APs to register and review the DBAR;
- Written notifications were sent to all potential I&APs via email/post informing of the availability of the DBAR and the opportunity to register as an I&AP;
- Advert appears in the *Mossel Bay Advertiser* for I&APs to register and submit comment on the DBAR.

Comments received in response to the DBAR or in request to be registered have been considered and added to the Stakeholder Register and all submissions have been incorporated and reflected in this Final Basic Assessment Report.

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

- Mossel Bay Municipality
- Garden Route District Municipality
- Cape Nature
- Department of Transport: Provincial
- Heritage Western Cape
- SACAA
- Department of Agriculture
- BOCMA (Breede-Olifants Management Catchment Agency – Water Affairs)
- DFFE

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

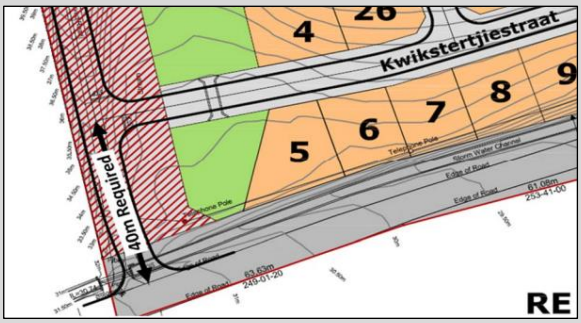
The Department of Defence - The development will pose no threat to military or defence forces of South Africa. The site is not situated near any military facilities and the Screening Tool has indicated that the sensitivity is low. There are no reasonable grounds to conduct any specialist studies to affirm this and further consultation with Department of Defence is not necessary.

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

Department of Agriculture. They indicated that they have a 90-day commenting period and by the time this FBAR had to be submitted ito the Regulated timeframes, the Department's comment had not yet been received.

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

Summary of preliminary comments received from the Mossel Bay Municipality prior to public participation.

Stormwater Comments	Responses
Are the SUDS Principle practical and will the HOA maintain it?	The SUDS Principle is practical and will be included in the detailed design of the internal roads. The HOA will maintain it.
Given the steep topography on the property, the Mossel Bay Municipality requested a more detailed description of stormwater management on site (existing stormwater channel capacity & erosion control).	Urban Engineering conducted a meeting with the Mossel Bay Municipality on 06 November 2023 to discuss the stormwater detail as previously requested. The following points were agreed to: • Only one access into the site will be allowed. • Due to the steep road gradient, the weight of construction vehicles to be restricted. • GLS to provide a report pertaining to the Water reticulation to the site. • The rational method must be used to determine the pre- and post-development stormwater run-off volumes. • To limit stormwater runoff, surface hardening should be restricted to 60% of the erf footprint. After the meeting the shortcomings were addressed and included in the Civil Services Report (2024).
Two (2) site entrances are not allowed.	
If this is going to be a security complex with a gate, there must be enough queue length allowed for 3 / 4 vehicles as well as visitor parking.	The position of Kwikstertjiestraat (entrance into the development lower bottom) is situated approximately 40m away from Sandhoogte Road edge, ensuring that the two intersections are not situated within each other's envelope (Traffic Impact Assessment, 2024). 
Water & Sanitation	**Responses**

We accept the suggestion of conservancy tank for the internal sewer for the development.	Noted. The Utility Zone will be transferred to the Homeowners Association who will be responsible for the administration, management and maintenance of the conservancy tank. A private contractor will be contracted by the Homeowners Association to service the conservancy tank. The Homeowner's Association can connect the internal sewer network to the municipal sewer network in the future when the municipal pumping station has the necessary capacity.
We accept your suggestion with regards to the internal water reticulation for the development. The available storage capacity of the water reservoir must be determined by GLS. The developer will be responsible for the cost of the report.	GLS Consulting (Pty) Ltd was appointed to conduct a capacity analysis of the bulk municipal water services for the proposed development. It was confirmed that the existing Sandhoogte water reticulation system has sufficient capacity to accommodate the proposed development and that no additional reservoir storage capacity is required for firefighting volumes (Appendix G7 – Civil Engineering Report, 2024).

Summary of main issues raised by I&APs and how the issues were incorporated in the SDP.

Main issues raised by I&APs	Incorporation in the development proposal
1. Locality of the Conservancy Tank	
The landowner of 87/129 raised concern regarding the position of the conservancy tank which was proposed to be located adjacent to 87/129 with associated odour/operational impacts	In response to the landowner's concern the conservancy tank was moved further west into the development site (positioned on Erf 5) to internalise any potential impacts from the conservancy tank.
2. Alignment of the Internal Roads	
Mossel Bay Municipality recommended that the proposed internal roads must not be steeper than 1:5.	The Planner changed the alignment of Geelvinkstraat to ensure that it is not steeper than 1:5.
3. Proposed Land Use	
Mossel Bay Municipality recommended that the Single Residential units change to General Residential units to better align with the MBSDF (2022).	All single residential units were changed to general residential (group housing).

Short summary of additional issues raised by I&APs.

1. The landowner of 87/129 recommended that the houses along Sandhoogte Road be moved back to act as an Open Space area to accommodate grey water and to act as a sound barrier. However, considering the property's environmental and gradient constraints, these erven cannot be moved further away as they would encroach into a highly sensitive and steep area. The position of the erven was based on the gradient analysis as development cannot occur in areas steeper than 1:4. Upon these constrains it was decided to rather focus the development on the flatter sections of the property and to leave the steeper sensitive areas as Open Space. As there will be no black water / grey water separation from the conservancy tank, there is no reason for an area to accommodate grey water (for irrigation for instance) on the property.

2. A neighbouring landowner across Sandhoogte Road had a few concerns regarding the proposed development. Please see short summary below (detailed comment and response can be obtained from the comments & response report):

   2.1. Temporary and permanent noise impacts –

   Temporary and permanent noise Environmental Actions and Outcomes have been included in the Final EMPr.

   2.2 Stormwater management.

   A detailed section of stormwater management is included in the Services Report as well as the Final EMPr.

   2.3 Safety & Privacy.

   The landowner requested that a solid wall be installed along Sandhoogte road to ensure privacy to landowners across Sandhoogte road. One of the faunal specialists' biggest concerns is the movement of animals through the property. Another concern is the possibility of Sensitive Species 8 being cut off from each other due to walls, etc., so inbreeding takes place and the population eventually dies out. That why it is very important to the faunal specialist that an animal-friendly fence surrounds the complex. A funnel must also be put in to enable faunal movement. As such a solid wall is not recommended along Sandkraal Road.

   According to the Town Planner, each erf along Sandhoogte Road has a 3m building line.

   2.4 Animals (additional noise disturbance).

   It is a recommendation of this environmental assessment that the Estate be pet-friendly, alternatively all pets must be contained within yards and may not venture into the open space area unaccompanied and when they do, all pets must be on leashes i.e. under the control of the owner at all times.

   2.5 Storage of construction material

   The landowner was concerned that construction material will be stored within the road reserve of Sandhoogte Road. The storage of construction material will be restricted to RE/2833 only.

   2.6 Risks of heavy vehicles losing control on the existing steep servitude along the property's western boundary.

   The engineer recommended that no vehicle (especially construction vehicles) of more than 8 tonne per axle may be allowed to drive past the Tarentaal/Kwikstertjie Street intersection for the lower bottom erven. Smaller construction vehicles must be used for the top portion of the remaining erven.

   No articulated vehicle should be allowed to drive past the Tarentaal/Kwikstertjie Street intersection.

3. Mossel Bay Municipality

   Mossel Bay Municipality: "Although the Eng. Services Report touches on possible means of managing the steep topography SW by means of SUDS, it remains as such a report & concept. The frustration comes in during development stage with the Main Contractor, the Developer, and subsequently the Homeowners Association do not manage/maintain stormwater infrastructure". Mossel Bay Municipality further insists that an ECO be appointed to, amongst others, consider stormwater management during construction.

   The stormwater management actions (SUDS) and outcomes (impacts & risk avoided) are detailed in an Environmental Management Programme (EMPr). The appointed EAP, Engineer, Contractors, and Subcontractors must be compliant with this EMPr during all stages of development (pre-construction design, construction and operational).

4. Sandhoogte Road

   A few neighbouring landowners raised concern about Sandhoogte Road being a dangerous road for motorists and cyclists. According to these landowners, the corner by the development is a blind corner as there are no shoulder on the outer radius of the road. The corner by the development is noted.

   According to the Traffic Engineer, based on the 60km/h posted speed limit, a Shoulder Sight Distance of 125m is required to ensure a safe road condition. A Shoulder Sight Distance of more than 125m was measured by the engineer in both directions at the Sandhoogte / Servitude str. Intersection which is deemed sufficient.

5. Urban Development and Densification

   Neighbouring landowners raised their concerns with urban development and densification within the area as they have small holdings across Sandhoogte Road (south of the proposed development) and is currently farming with animals (sheep, chickens, geese and pigs). They are also concerned that future landowners would complain about their animals/rural lifestyle.

   The site in question has been incorporated into the so-called 'urban edge' of Great Brak and it is designated for urban infill development. The first approval that was obtained for this site was in 2010 (environmental authorisation as well as land use planning authorisation). These authorisations were valid till late 2017. As a result of these approvals, the site has remained within the urban edge even with the latest 2022 spatial development framework. According to the urban planner on this project, the proposal is deemed to be in line with the spatial planning policy and land use management vision for Great Brak. As with all proposals, the owner (and future residents should the Authorities consider this proposal for authorisation) will have to respect and acknowledge existing land uses in the area (which may include ongoing agricultural activities). When 'coming to source' such new developments may not infringe on the existing and/or primary rights of other landowners in the area i.e. may not result in other landowners from exercising their primary / lawful rights. However, landowners must take note of Municipal By-Laws pertaining to the keeping of domestic livestock in urban areas should there be valid complaints about so-called farm animals within a designated urban area.

6. Environmental consideration by Forestry Department

   The Department of Forestry questioned the description of remnant valley thicket on the property and by their own interpretation view the valley thicket to be a transitional area to coastal forest. In light of this opinion they have, they requested that a conservation restoration plan be put in place to actively transform the remaining natural vegetation to forest.

   Considering that Hartenbos Dune Thicket (which the botanist views as being the prominent vegetation type on the property) has an ecological threat status of Endangered, converting/transforming this habitat to Coastal Forest with a Least Concerned ecological threat status, is not deemed in support of conservation outcomes. The fact that the vegetation is excluded from the development footprint and that invasive alien vegetation will be removed from this area is evidence enough of achieving a conservation outcome for endangered thicket on the property.

Note:

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

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

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

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

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

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

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

SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

1. GROUNDWATER

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

2. SURFACE WATER

2.1.	Was a specialist study conducted?	YES	~~NO~~
2.2.	Provide the name and/or company who conducted the specialist study.		
Confluent Environmental (Dr James Dabrowski).			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		

According to CapeFarmMapper (2024), a non-perennial drainage line travers RE/2833. Another non-perennial drainage line runs outside the southern boundary of RE/2833 (Figure 25).

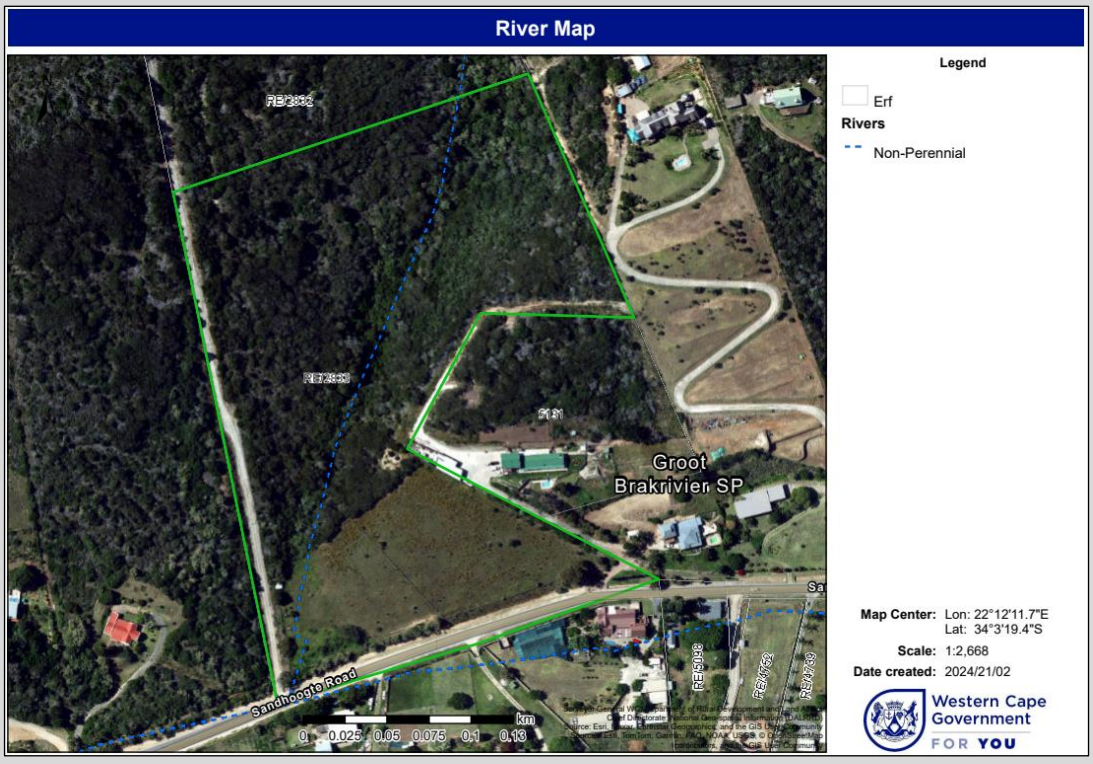


Figure 25: River Map of RE/2833 (CapeFarmMapper, 2024).

According to the aquatic specialist (Dr Dabrowski from Confluent Environmental), the non-perennial drainage line indicated as traversing the property is **not a natural watercourse** given the **lack of defined bed, banks or channel**. There is also no evidence of standing water or that it accumulates along this area given the **lack of hydrophilic plant species** and seasonal, temporary or permanent soil saturation. It is acknowledged as a low point in the landscape (valley) with natural drainage and therefore serve a hydrological function that must be accommodated. The aquatic specialist delineated the valley and recommended a 30m buffer zone on either side of the lowest point along the valley bottom (Aquatic Compliance Statement, 2023) (Appendix G1). This buffer zone is included in the Mitigated Preferred Site Development Plan (Figure 26).

It was also confirmed that the southern non-perennial drainage line is a man-made (municipal) stormwater channel.

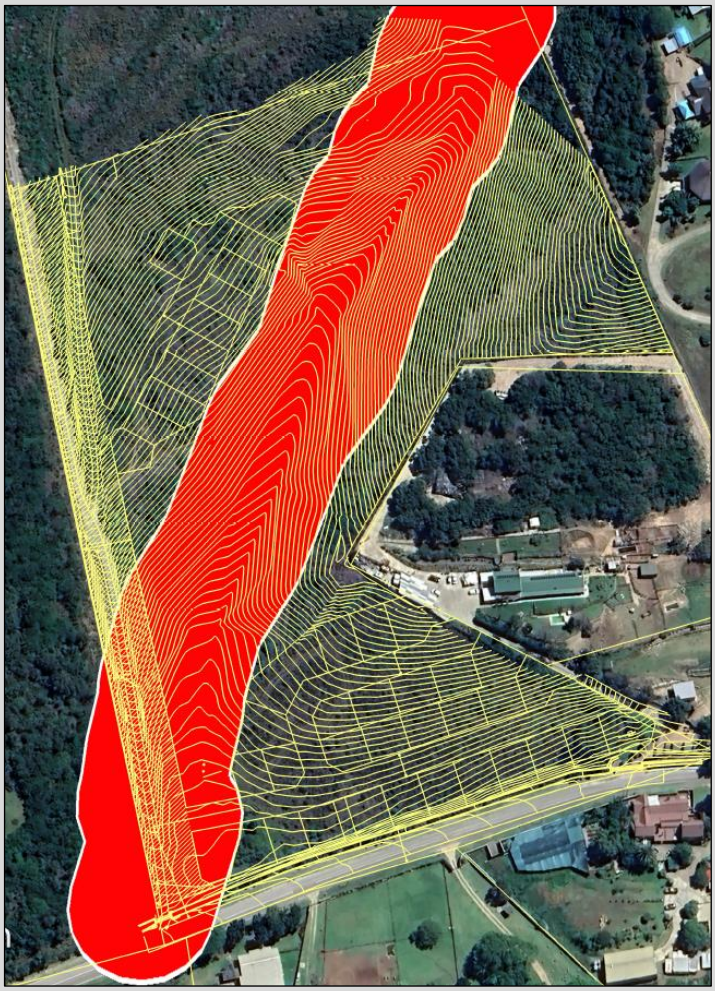


Figure 26: Mitigated SDP showing that all erven are outside the 30m buffer as recommended by Dr Dabroswki.

Stormwater Management

According to the aquatic specialist, it is important that stormwater be managed according to Sustainable Drainage System (SUDS) principles and recommended the following (Aquatic Compliance Statement, 2023) (Appendix G1):

1. Rainwater harvesting tanks must be installed for each unit.
2. Use of swales and detention ponds to attenuate stormwater runoff, encourage infiltration and reduce the speed, energy and volumes at which stormwater is discharged from the site.
3. Use of permeable paving to encourage infiltration into the soil.

4. Use of retention ponds and artificial wetlands to capture stormwater runoff and prevent its discharge from the site.

Urban Engineering compiled a detailed **stormwater management section** in the Civil Engineering Services Report (2023).

In summary

Mossel Bay Municipality recommended that surface hardening be restricted to 60% of the footprint of RE/2833 to limit post-development runoff to avoid erosion (mitigated preferred SDP has a development footprint of +/-40%).

- The proposed development makes provision for 41 residential units, comprising of a mixture of 2- and 3-bedroom units. The two 2-bedroom unit has a floor area (including garage & patio) of approx. 141m^2 while the 3-bedroom unit has a footprint of approx. 163m^2. It can be argued that the total proposed development has the potential to create ~10980m^2 hard surfaces (dwellings, patios, driveways, garages and internal roads). Since the size of RE/2833 is ~60 400m^2, it follows that **~18%** of RE/2833 will be **hardened** surfaces(Civil Engineering Services Report, 2024) (Appendix G7).

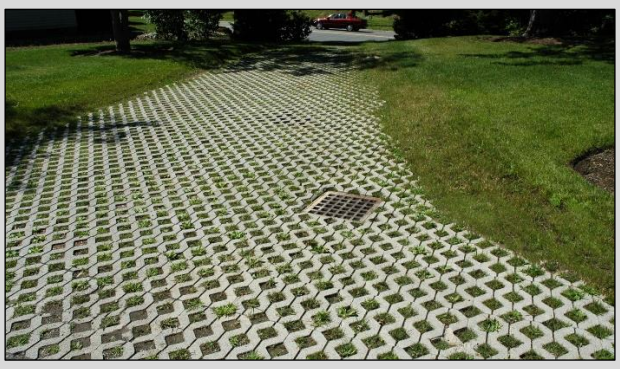
Mossel Bay Municipality also recommended to calculate the peak stormwater to flow pre- and post-development by using the Rational Method to determine whether the peak stormwater flow will increase because of the proposed development.

- Urban Engineering determined a high-level estimate of the expected stormwater run-off for minor (1:5 Year) and major (1:50 Year) storms for the expected catchment area. Based on Urban Engineering's calculations, the introduction of lawns, soft landscaped beds, rainwater harvesting tanks and roads that cut across the general fall of the site, will lead to an increase in time of concentration and subsequent **reduction in Peak Flow Volumes** (Rational Method) (Civil Engineering Services Report, 2023) (Appendix G7).

Based on the above findings, Urban Engineering recommends that the stormwater generated by the proposed development be managed by a Sustainable Urban Drainage System (SUDS) approach.

1. "Source Controls"

    - **Rainwater tanks** must be installed on each erf. Emergency overflows must be included in the detailed stormwater design to allow controlled discharge of water during major storms.
    - **Permeable** pavements/driveways (Figure 27).
    - Incorporate **soakaways** in the detailed design of the internal roads/driveways (Figure 27). Example:



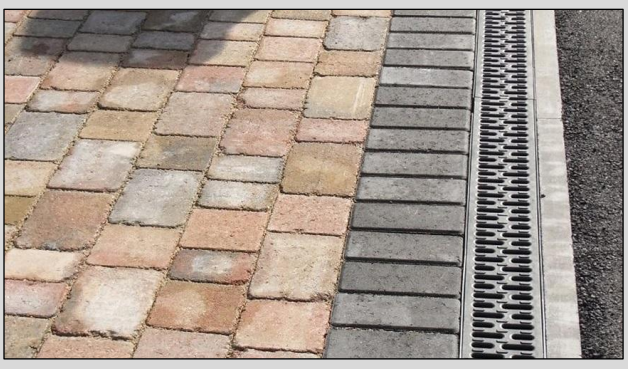


Figure 27: Example of permeable driveways & soakaways.

2. "Local Controls"
    - Incorporate swales in the detailed design of the internal roads.
    - Divert excess water toward the **existing stormwater channel** on the erf (Figure 28). According to Urban Engineering, the existing stormwater channel will be able to handle **stormwater runoff post-development**.

Figure 28: Existing stormwater channel, consisting of grass blocks, on RE/2833. Existing soakaway in access road.

3. COASTAL ENVIRONMENT

3.1.	Was a specialist study conducted?	~~YES~~	NO
~~3.2.~~	~~Provide the name and/or company who conducted the specialist study.~~		
~~3.3.~~	~~Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development.~~		
~~3.4.~~	~~Explain how estuary management plans (if applicable) has influenced the proposed development.~~		
~~3.5.~~	~~Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.~~		

4. BIODIVERSITY

4.1.	Were specialist studies conducted?	YES	~~NO~~
4.2.	Provide the name and/or company who conducted the specialist studies.		
Confluent Environmental (Bianke Fouche).			
4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.		
• NSBA • NFEPA • Cape Farm Mapper • Protected Tree Species List • Western Cape Biodiversity Programme			

- Consideration of rare/endangered species
- Site- and species-specific surveys conducted by the specialist to determine applicability and correctness of the Screening Tool.

4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.

According to the Western Cape Biodiversity Spatial Plan (WC BSP), majority of RE/2833 falls within a Critical Biodiversity Area (CBA1 – Terrestrial Biodiversity) (Figure 29). The south-eastern corner of the site is mapped as Forest CBA and the south-western corner of the site is mapped as an Ecological Support Area (ESA2) (Figure 29). The applicable reasons for the designated BSP layers over the site area are as follows:

1. Bontebok Extended Distribution Range
    - Not observed on site.
2. Water Source Projection
3. Watercourse Protection
    - Dr Dabrowski confirmed that the non-perennial drainage traversing the property is not a natural watercourse albeit a low point in the landscape.
4. Western Cape Milkwood Forests (not present on the property)

Figure 29: CBA & ESA Map of RE/2833 (CapeFarmMapper, 2024).

The following land use guidelines influenced the proposed development:

WC-BSP	Management Objective	Specific Guidelines
CBA1 (Terrestrial & Forest)	Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.	Ideally, development should be avoided in these areas. If they cannot be avoided it must be shown that the mitigation hierarchy has been applied if there is a proposal within a CBA.

		A specialist study must form part of the EIA process for all land use applications in these areas, using the services of an experienced and locally knowledgeable biodiversity expert who is registered with SACNASP.
ESA2	Restore and/or manage to minimise impact on ecological infrastructure functioning; especially soil and water-related services.	These are areas which may already have some form of development (cultivation, mining or even buildings and infrastructure) but which should be providing ecosystem services. Where possible the current land uses should be withdrawn and rehabilitation should be undertaken. Best practice should apply in areas where land uses other than conservation are present e.g. agriculture. These areas should be targeted for habitat rehabilitation and restoration activities e.g. alien clearing.

Bianke Fouche (SACNASP registered specialist) from Confluent Environmental was appointed to compile a **Site Sensitivity Verification (SSV)** including a site-specific vegetation map of the entire site (Figure 30).

According to the SSV, the property consists of (Figure 30):

- Senecent Erica peltata dominated fynbos (Medium Sensitivity).
  - Poor condition with serious rooikrans invasion.
  - SCC found in this area (*Hermannia lavandulifolia – Vulnerable)*. This SCC is not common, and entirely absent in the valley, thicket, secondary fynbos and grass dominated field.
- Disturbed Secondary Fynbos (Medium Sensitivity).
  - Dominated by graminoid.
  - Somewhat invaded (mainly black wattles).
- Introduced and Invasive Alien Plants.
  - Black wattle dominated thicket (Medium Sensitivity).
  - Black wattle trees (Low sensitivity).
  - Limited potential to support SCC.
- Thicket (High Sensitivity).
  - Cheesewood trees in thicket (avoided with preferred footprint) – in the event of individual trees found within erf footprints such trees must be demarcated prior to any site clearing on said erven and may not be trimmed/removed/relocated without the necessary Forestry Permit.
  - Although not observed on site, there is a high probability that Milkwood trees are also occurring on site in the valley thicket (avoided with preferred development footprint).
  - Although not observed on site, the habitat has the potential to support SCC.
- Grass dominated field & Roadside bush (Low Sensitivity)
  - Contained a lot of invasive kikuyu grass.
  - The roadside bushes do not represent natural thicket vegetation.
  - Limited potential to support SCC.

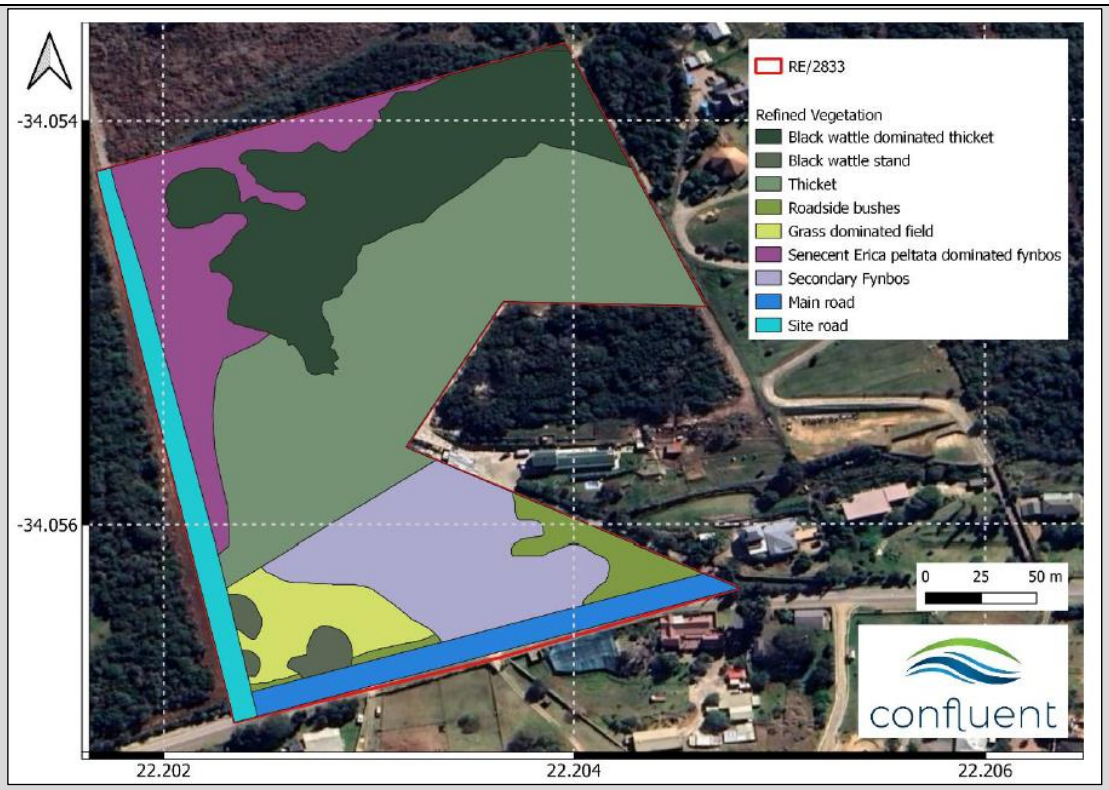


Figure 30: Site-specific vegetation map compiled by Bianke Fouche (Confluent Environmental).

The previously authorised layout plan was not considered as an alternative in this application, as it would've resulted into the permanent loss of highly sensitive thicket (Figure 31). The layout plan also did not include a 30m buffer around the lowest point of the valley.

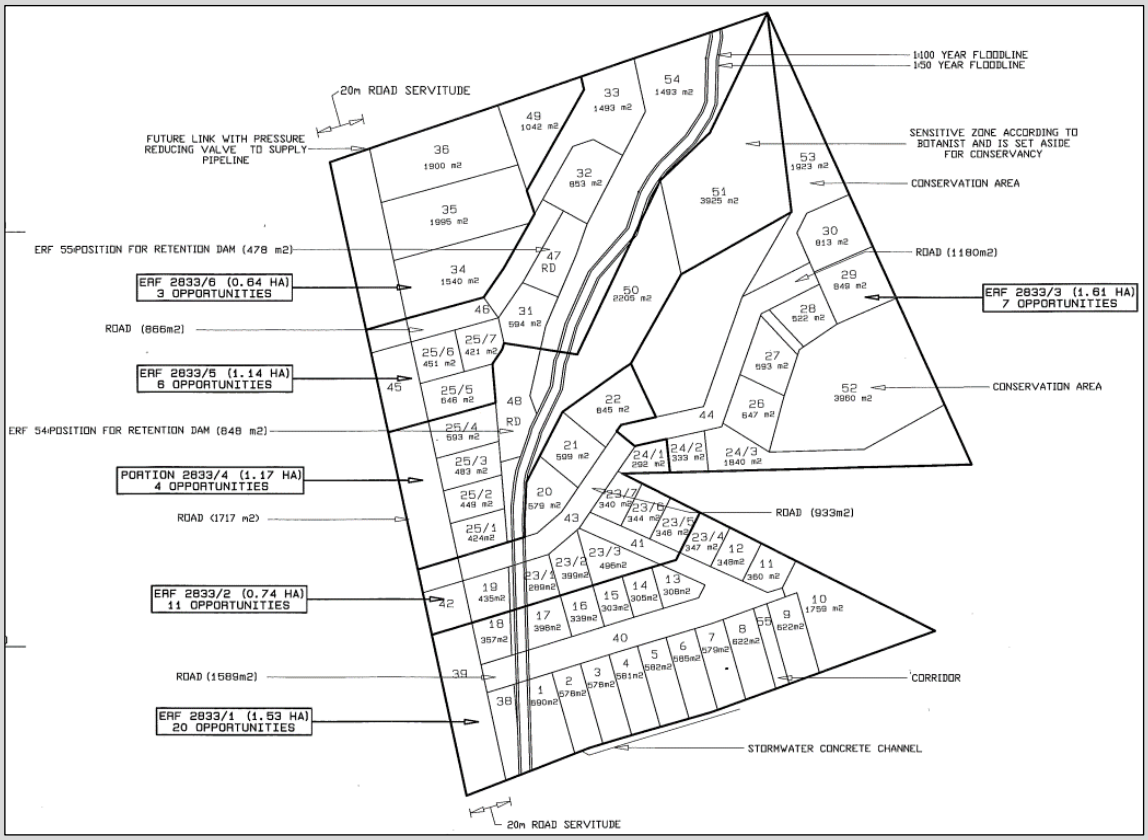


Figure 31: Previously authorised layout plan (source: KCWC Consulting Engineers and Project Managers).

As previously mentioned, it was the Applicant's initial proposal to develop the south-eastern, eastern and north-western corners of the property (Figure 32). Based on the **SSV**, the proposed internal road (Figure 32 – yellow arrow), the four (4) residential erven (Figure 32 – red circle) and the ten (10) residential erven (Figure 32 – blue circle) will result in the permanent loss of highly sensitive thicket containing protected tree species (Figure 32 – red & blue circles). The faunal specialist also indicated that the area within the red circle (Figure 32) is suitable for the establishment of butterfly-friendly fynbos.

Based on the **outcome of the SSV**, this proposal was **mitigated**. The mitigated SDP shows that development will not be within the highly sensitive thicket vegetation, containing protected tree species, and will only be within areas identified as (Figure 33):

- Black wattle stand,
- Grass dominated field & roadside bushes,
- Secondary Fynbos,
- Senescent Fynbos, and
- Black Wattle dominated Thicket.

In conclusion, the proposal is within a CBA which cannot be avoided. Therefore, the mitigation hierarchy has been applied through the appointment of specialists to inform the layout through site sensitivity verification. The layout was mitigated to avoid the impacts on the loss of highly sensitive thicket. In addition to the SSV, the botanical/biodiversity specialist also compiled a Botanical & Biodiversity Impact Assessment (Appendix G2) which includes mitigation measures to reduce the significance of impact on SCC & Hartenbos Dune Thicket from **Moderate to Minor**.

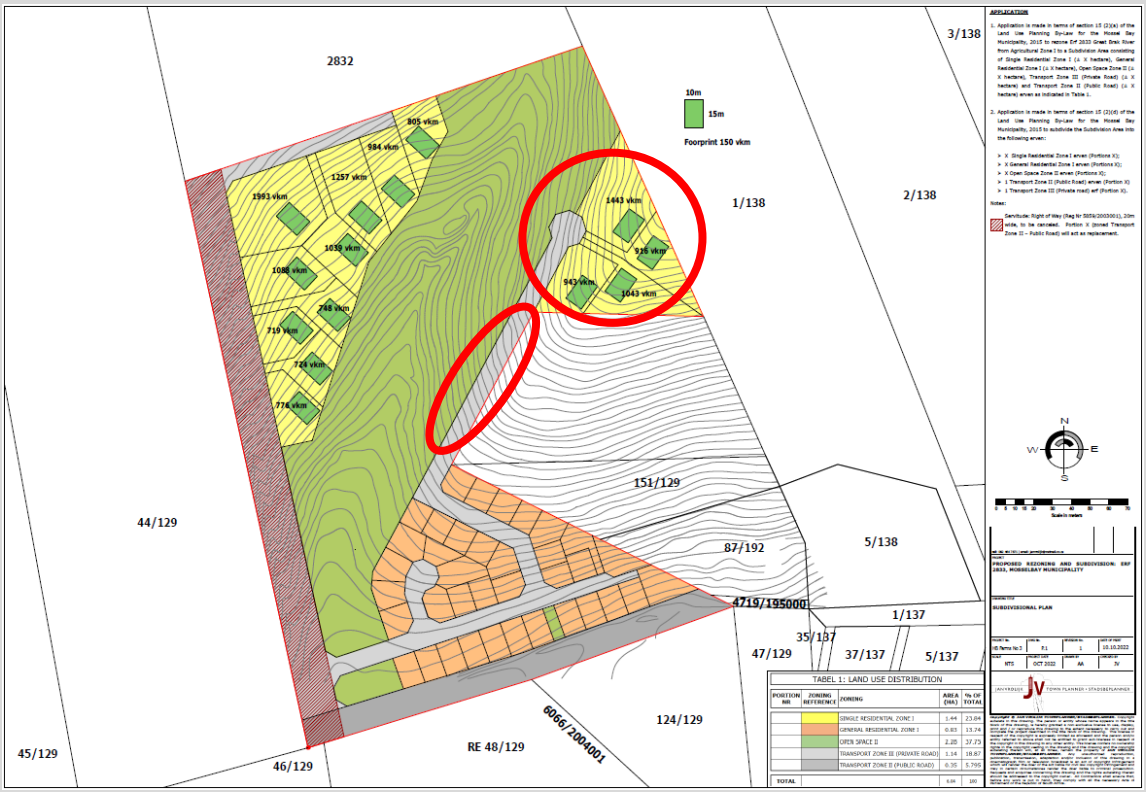


Figure 32: Non-Mitigated Site Development Plan (source: Jan Vrolik Town Planners).

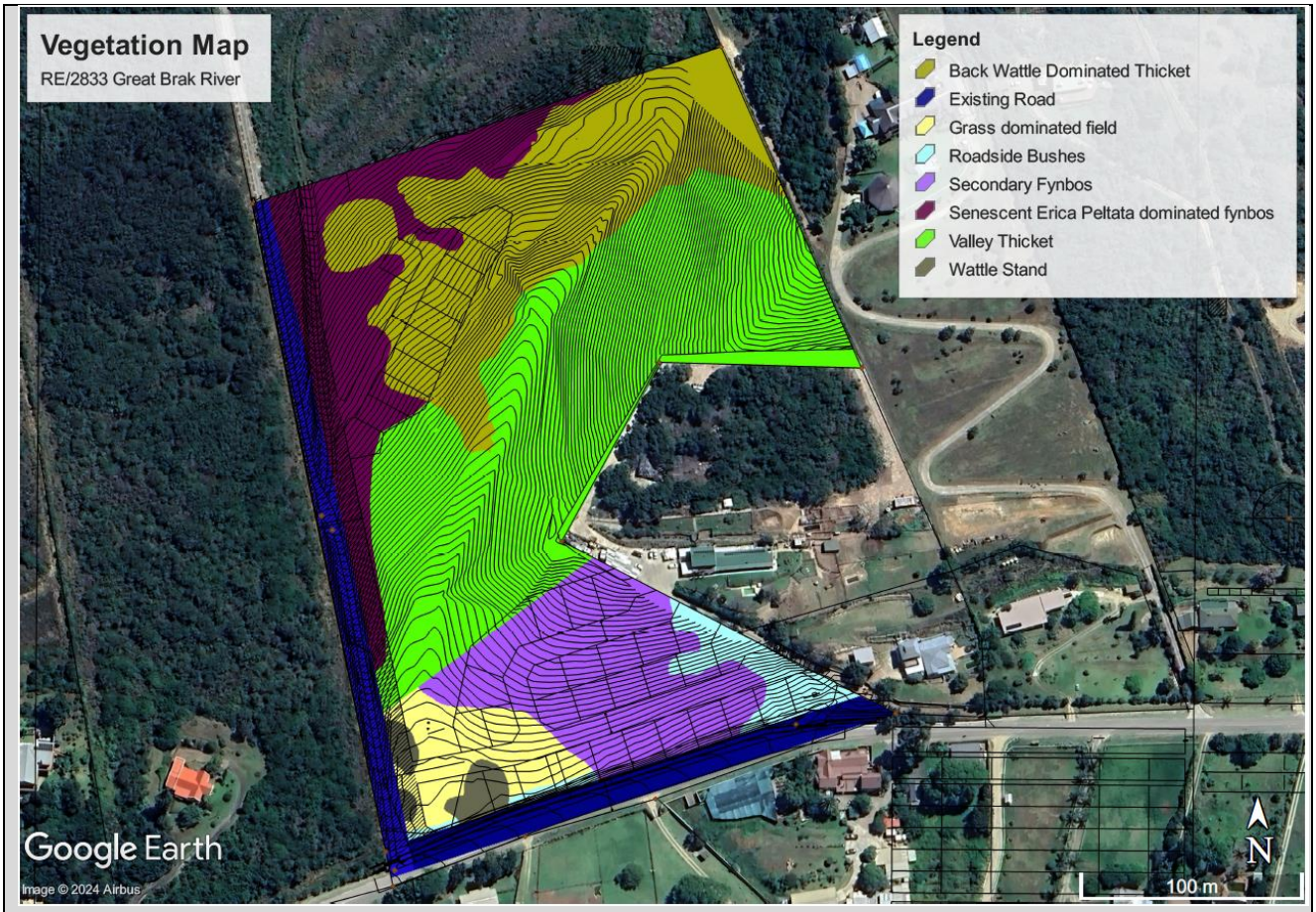


Figure 33: Mitigated SDP & Site-Specific vegetation map.

4.5.	Explain what impact the proposed development will have on the site-specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.

According to the botanical specialist, the proposed development will have the following impacts:

- A loss of SCC and protected trees caused by the clearance of vegetation during construction.
    - The botanical specialist found **Cheesewood** trees in the valley thicket (Figure 33 – bright green) and mentioned that there is a high likelihood for Milkwood trees to be present in this area as well (although not observed). This has influenced the proposed development by avoiding construction within these areas. Extra care will be taken during the construction phase (such as demarcation) to avoid disturbance of the valley thicket. A portion of the proposed development is within wattle dominated thicket (Figure 33). **No protected trees** were observed within this transformed thicket during the field survey but in the event a protected tree is found once vegetation removal commences within an erf, it should either be avoided, or a **Forestry License** will have to be obtained at the Department of Forestry, Fisheries and the Environment should it be removed/trimmed/relocated.
    - *Hermannia lavandulifolia* (Lavender Dollsrose) (SCC) occurs at the northern-most boundary of the erf (Figure 34). These species will be rescued prior to construction and transplanted within the natural vegetation that will be retained on site.

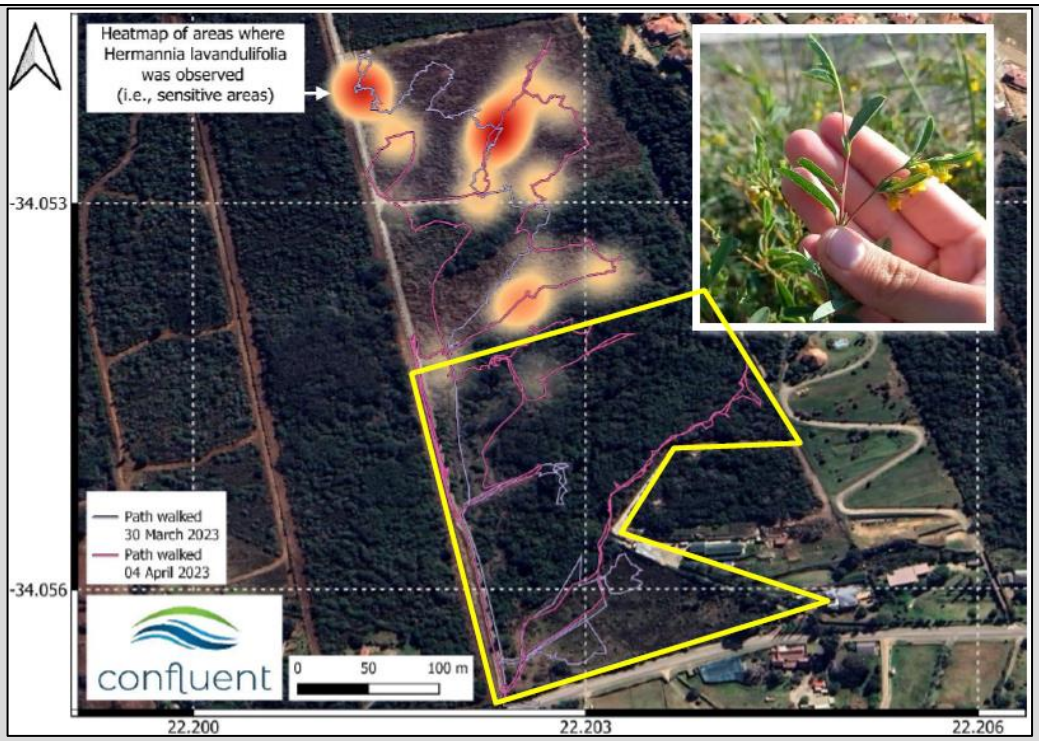


Figure 34: Heatmap of areas where *Hermannia lavandulifolia* was observed by the botanical specialist.

- A loss of vegetation with restoration value within mapped Hartenbos Dune Thicket during construction.
    - This impact will be mitigated from moderate to minor should all botany/biodiversity mitigation measures be implemented (Section H in this DBAR).
- Hartenbos Dune Thicket, remnant fynbos, and SCC on the site is negatively affected by inappropriate landscaping resulting in genetic pollution and potential long-term loss from the replacement of species through cultivation of non-indigenous species to the vegetation type and surrounding landscape.
    - This impact will be mitigated from moderate to minor by implementing mitigation measures recommended by the botanist, for example, gardening will be limited to 100m^2, all rescued natural fynbos species will be replanted during rehabilitation, all alien vegetation will be removed, and fertilisers/pesticides will be avoided.

4.6.	If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.

The proposed development is not located in a protected area.

4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.

The screening tool identified the sensitivity for animal species (fauna) as "high" (Table 1) for the following species:

Table 1: Animal Species Sensitivity Features.

Sensitivity	Feature(s)
High	Aves-Circus ranivorus
High	Aves-Bradypterus sylvaticus
Medium	Insecta-Aloeides thyra orientis
Medium	Insecta-Lepidochrysops littoralis
Medium	Sensitive species 8
Medium	Invertebrate-Aneuryphymus montanus

A fauna specialist (Willem Matthee) conducted an **Animal Species Site Sensitivity Verification** in which he confirmed the following:

SCC	Habitat Suitability	Probability of occurrence on site
Circus ranivorus	Vegetation too dense to support this species.	Unlikely.
Bradypterus Sylvaticus	Vegetation along the seasonal stream might be suitable.	High chance.
Thyra orientis	Dependent on the presence of larval host plants.	Very unlikely.
Thyra littoralis	Dependent on the presence of larval host plants.	Very unlikely.
Sensitive species 8	Prefers dense indigenous forest and thickets, and usually moves away from areas with high levels of disturbance.	Low chance.
Aneuryphymus montanus	Known for more rocky, arid environments. Therefore, probably not suitable.	Very low chance.

The specialist also compiled a fauna site-specific sensitivity map showing areas of low, medium and high sensitivity. The proposed development remains outside areas mapped as medium and high sensitivity (Figure 35).

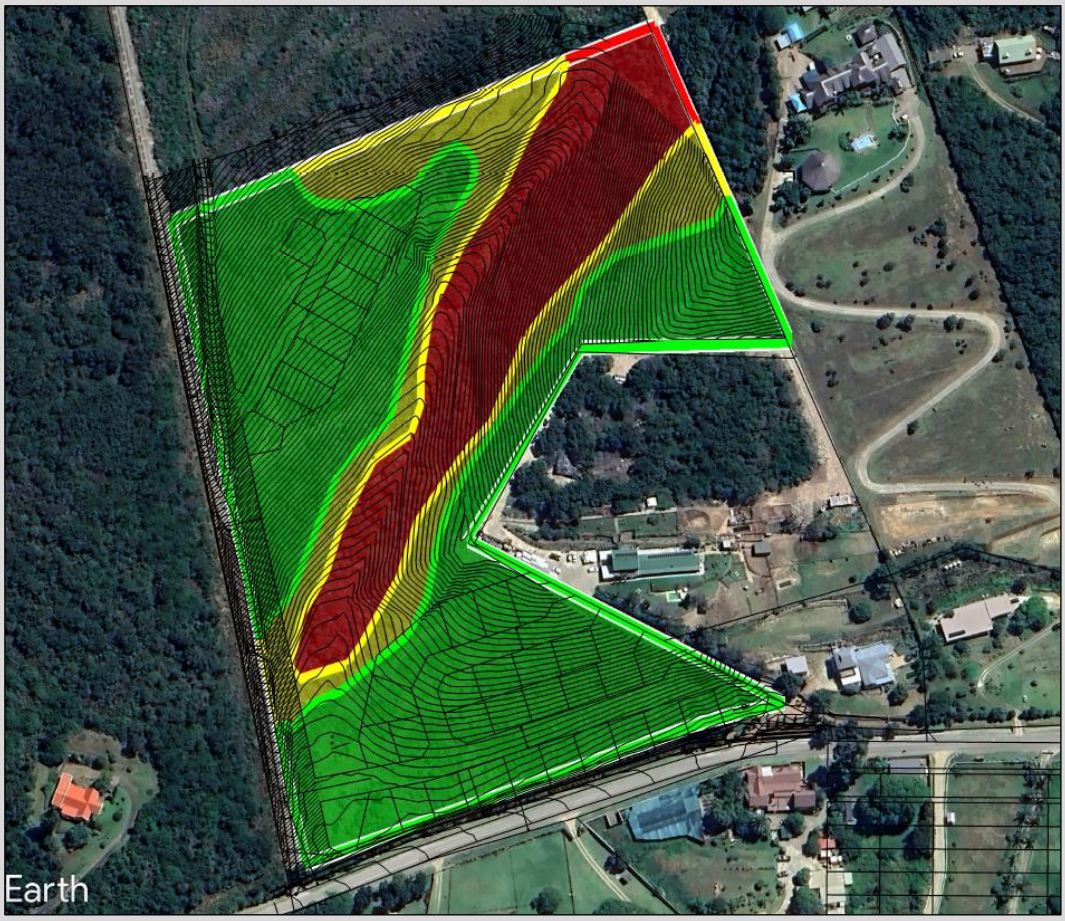


Figure 35: Fauna site-specific sensitivity map and mitigated site development plan.

The property is going to be fenced for security (noted that access to the northern properties will not be compromised in the process). The fauna specialists recommended that small funnel-like structures/gaps be placed in the fence line, especially along the valley, to facilitate the movement of terrestrial animal movement. It is a recommendation of this environmental application that no solid walls be erected as perimeter fences.

This mitigation measure is included in the Environmental Management Plan.

5. GEOGRAPHICAL ASPECTS

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.
No geographical aspects will be affected.

6. HERITAGE RESOURCES

6.1.	Was a specialist study conducted?	YES	~~NO~~
6.2.	Provide the name and/or company who conducted the specialist study.		
Stefan de Kock (Perception planning).			
6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.		

Stefan de Kock (Heritage), Lita Webly (Archaeology) and Marion Bamford (Palaeontology) compiled an **integrated Heritage Impact Assessment (HIA)**.

Heritage

According to Stefan de Kock (Heritage Specialist), no buildings and/or ruins were noted during fieldwork and from early imagery much of the property surface area had been previously transformed through cultivation/agriculture. Therefore, the proposed development would not impact on heritage resources of cultural significance for both design alternatives (Preferred Mitigated & Non-Mitigated design alternatives).

Archaeology

An Archaeological Impact Assessment (AIA) was undertaken on the property as part of a previous development proposal. The specialist at that time (Kaplan, 2009) documented 42 Early Stone Age and Middle Stone age tools during the AIA. These tools were found near the horse paddock alongside Sandhoogte Road within a disturbed / secondary context. They have been identified as having a **low local significance**. The AIA states that there is no significance of impact to pre-colonial archaeological material that will require mitigation prior to construction. The probability of locating important archaeological remains on the steep hills of RE/2833 is **low**.

It is recommended that should any archaeological material or human graves be uncovered during ground clearance or construction, that work is stopped, and that the ECO must report this to **Heritage Western Cape**.

Palaeontology

Prof Marion Bamford conducted a Desktop Palaeontological Impact Assessment (PIA) for the proposed development. According to Prof Bamford, the site is within a very high palaeosensitivity coding for the Enon Formation. This sensitivity coding should rather be downgraded to **moderately sensitive** since this formation consists of large to small well-rounded boulders which gives an indication that they have been transported some distance meaning they would be out of primary context and poorly preserved.

According to Prof Bamford, there is a very small chance that fossils may occur in the underlying conglomerates of the Enon Formation so a Fossil Chance Find Protocol should be added to the Environmental Management Plan (EMPr). This has been added to the EMPr.

7. HISTORICAL AND CULTURAL ASPECTS

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.
None will be affected.

8. SOCIO/ECONOMIC ASPECTS

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.
The socio-economic needs of the Mossel Bay Community are primarily jobs, housing and social facilities. Employment and housing are serious needs in a large portion of the Mossel Bay Community (MBSDF, 2023). The Mossel Bay area is experiencing a great influx of people and is therefore not sustainable because residential densities are too low.	
8.2.	Explain the socio-economic value/contribution of the proposed development.
The proposed development will contribute to the socio-economic value of Mossel Bay Municipality in the following ways: • Create temporary employment opportunities during pre-construction and construction phase. • Create permanent employment opportunities during operational phase. • Create temporary employment opportunities for contractors, small businesses and suppliers during construction and operational phases. • Improve the financial sustainability of the local municipality due to additional rates and taxes being generated.	
8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.
It is recommended that the Applicant make use of local labour and suppliers during the construction phase.	
8.4.	Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.
The development will result in temporary impacts during the construction phase such as noise and dust. These impacts must be managed in accordance with the Environmental Management Plan. The Applicant must appoint an Environmental Control Officer (ECO) for the duration of the construction phase (bulk earth works and services). Individual property owners or the HOA must appoint an ECO to oversee construction of individual homes to oversee the modification and construction associated with these activities.	

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. DETAILS OF THE ALTERNATIVES IDENTIFIED AND CONSIDERED

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred property and site alternative.

Preferred Property: Remainder of Erf 2833, Great Brak River, Mossel Bay District Municipality.

Provide a description of any other property and site alternatives investigated.

No other property / site alternatives were investigated.

Provide a motivation for the preferred property and site alternative including the outcome of the site selection matrix.

- The property located within the urban edge of Great Brak River.
- The property is earmarked for residential development and infill.
- The proposed development is in line with the following:
  - Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) (SPLUMA)
  - Land Use Planning Act, 2014 (Act 3 of 2014) (LUPA)
  - Western Cape Spatial Development Framework (WCSDF)
  - Eden District Spatial Development Framework (2017)
  - Mossel Bay Integrated Development Plan (2022 – 2027)
  - Mossel Bay Spatial Development Framework (2023) (MBSDF)
- The property does not have a potential impact on view corridors, ridgelines, cultural landscape assets and existing vistas.
- Development on the property will contribute to the economy.
- Municipal services are readily available for connection (electrical & water).
- The property has an existing access along its western boundary.

Provide a full description of the process followed to reach the preferred alternative within the site.

The site is owned by the Applicant.

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

No alternative site was considered because:

- The site is owned by the Applicant.
- The site is earmarked for residential development.
- The site is located within the urban edge of Great Brak River.
- Municipal services are readily available for connection (electrical & water).
- The vacant property does not contribute to the economy.
- Previous residential development approved on this site.

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

Preferred Property (RE/2833)	
Positive	**Negative**
The property currently has no land use other than being vacant. It does not contribute to any socio-economic aspects. The proposed development on the preferred property will therefore optimize vacant land in an urban context.	Temporary noise, dust and safety impacts associated with the movement of heavy vehicles. These impacts can be mitigated by implementing the mitigation measures as described in the Environmental Management Programme.

The location of the preferred alternative does not have potential impacts on view corridors, ridgelines and landscape assets.	Development on the preferred property will result in the loss of approximately ±2.5ha of indigenous vegetation including senescent Erica peltata dominated fynbos, secondary fynbos and black wattle dominated thicket.
Development will result in temporary employment opportunities during construction (to semi-skilled and unskilled workers mostly).	Temporary risk of increase crime during construction.
Development will result in permanent and temporary employment opportunities during the operational phase (to skilled and semi-skilled workers mostly).	Temporary increase in construction vehicular traffic.
The development will make use of existing Municipal services - additional income to the local Municipality through municipal rates and taxes.	Additional pressure on non-renewable services.
The remaining natural vegetation on site will be actively monitored and maintained. The homeowner's association will implement ongoing alien clearing on the property.	Continued maintenance cost (alien clearing, access control, clearing of dumped materials).

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

Provide a description of the preferred activity alternative.

Residential development instead of its current land use (vacant).

Provide a description of any other activity alternatives investigated.

The No-Go Alternative (status quo) was also considered as an alternative albeit not deemed compatible with the Mossel Bay SDF that designates the preferred Alternative area for urban expansion.

Provide a motivation for the preferred activity alternative.

The proposed activity:

- The preferred alternative will not encroach beyond the designated urban edge.
- Residential development is the preferred activity in terms of the Mossel Bay SDF.
- It will ensure compact urban settlements (densification) where vacant land within the urban edge is optimised.
- The preferred activity does allow for rehabilitation & active maintenance of the natural vegetation on site as well as the landscaped areas.
- The preferred activity will include alien vegetation management.
- The development avoids the sensitive areas as identified by several participating specialists.

Provide a detailed motivation if no activity alternatives exist.

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

<u>Preferred activity alternative</u>

Positive:

- Optimize vacant land within the urban edge.

- The Mossel Bay area is experiencing a great influx of people and is therefore not sustainable because residential densities are too low. The preferred activity will therefore contribute to densification in the Mossel Bay area to ensure a more sustainable urban environment.
- The preferred activity will create temporary and permanent employment opportunities.
- Additional rates and taxes will be generated for the Municipality.

Negative:

- Permanent loss of approximately 2.5ha of natural vegetation including senescent Erica peltata dominated fynbos, secondary fynbos and black wattle dominated thicket.
- Fragmentation of intact habitat and ecosystem.
- Impacting on Critical Biodiversity Areas.
- Additional pressure on non-renewable resources.
- Temporary impacts including noise, dust and traffic (construction vehicles).

<u>No-Go Activity Alternative (Status Quo)</u>

Positive:

- No removal of natural vegetation (natural habitat will stay intact with no fragmentation of the ecosystem patterns/processes).
- No additional pressure on non-renewable resources.
- No temporary impacts (noise, dust and traffic).

Negative:

- Lont-term degradation of natural habitat. The site will have no residents/homeowners that generally obliges the owners/managers to keep invasive alien vegetation under control.
- Vegetation on-site might degrade due to the lack of appropriate fire rotation.
- No additional temporary/permanent employment opportunities.
- No additional rates and taxes will be generated towards the Municipal income.
- No contributions towards the densification of the Mossel Bay area.

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

Provide a description of the preferred design or layout alternative.

<u>Mitigated Preferred Design Alternative (Alternative 1)</u>

Development Components	# Erven	Size (Ha)	Size (%)
General Residential Zone I	41	±1.11ha	19
Transport Zone III	1	±0.99ha	16.39
Transport Zone II	1	± 0.35ha	5.79
Utility Zone	1	±0.03ha	0.05
Open Space II	4	±3.56ha	58.77

This preferred design avoids highly sensitive areas (Figure 36):

- Valley Thicket containing:
  - Protected Tree Species,
  - Plant Species of Conservation Concern,
  - Fauna Species of Conservation Concern.
- Hydrological Function Zone
  - This design includes a 30m buffer around the Valley bottom which serves as a hydrological function zone.
- Butterfly-friendly fynbos
  - This design avoids development within areas that is suitable for the establishment of butterfly-friendly fynbos vegetation.

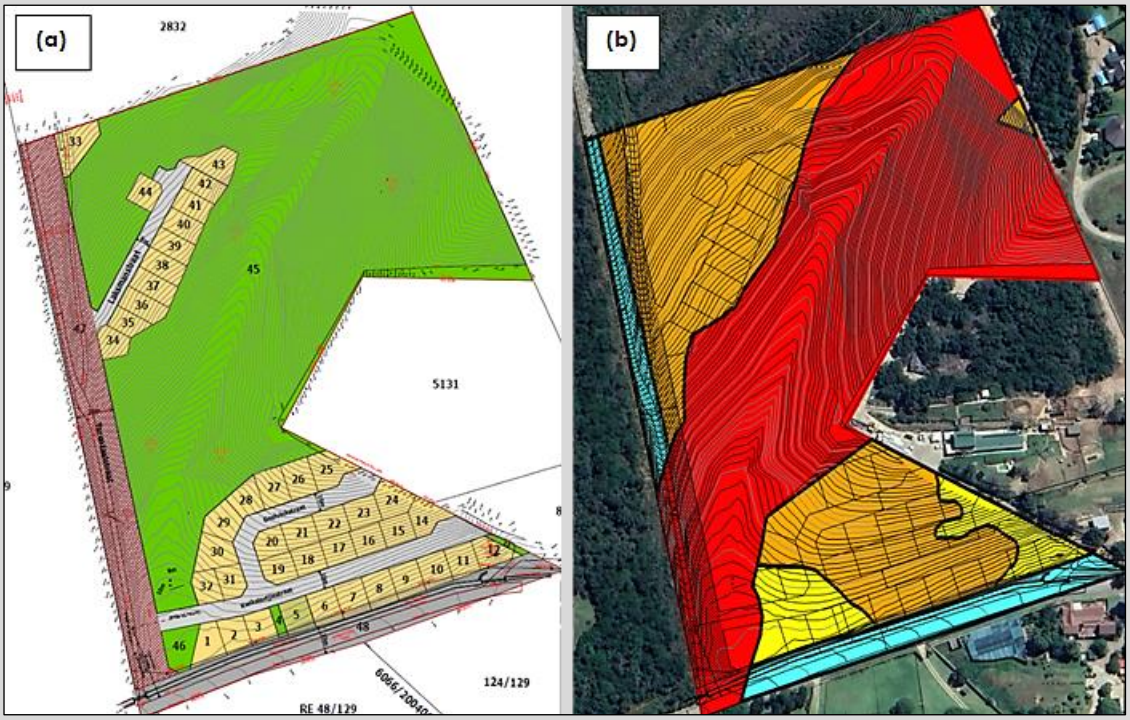


Figure 36: (a) Mitigated Site Development Plan. (b) Mitigated Site Development Plan overlaid onto the Combined Sensitivity Map (Aquatic, Botanical, Biodiversity & Fauna). Development remains within areas identified as having either a medium (orange) or low (yellow) sensitivity. Development within the highly sensitive thicket valley (red) will be avoided leaving +/- 60% of the site undeveloped.

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

Non-Mitigated Design Alternative (Alternative 2)

Development Components	# Erven	Size (Ha)	Size (%)
Single Residential Zone I (Yellow)	14	±1.44ha	23.84
General Residential Zone I (Orange)	37	±0.83ha	13.74
Transport Zone III (Grey)	2	±1.14ha	18.87
Transport Zone II (Red)	1	± 0.35ha	5.79
Open Space II (Green)	2.28	±3.56ha	37.75

It was the Applicant's initial proposal to develop the south-eastern, eastern and north-western corners of the property (Figure 37). Based on the **SSV**, the proposed internal road (Figure 37 – yellow arrow), the four (4) residential erven (Figure 37 – red circle) and the ten (10) residential erven (Figure 37 – blue circle) will result in the permanent loss of highly sensitive thicket containing protected tree species (Figure 37 – red & blue circles).

The faunal specialist also indicated that the area within the red circle (Figure 37) is suitable for the establishment of butterfly-friendly fynbos that can be achieved with the Preferred Alternative, however fynbos is a fire driven ecology and burning such a small fynbos area within an established urban environment is not feasible.

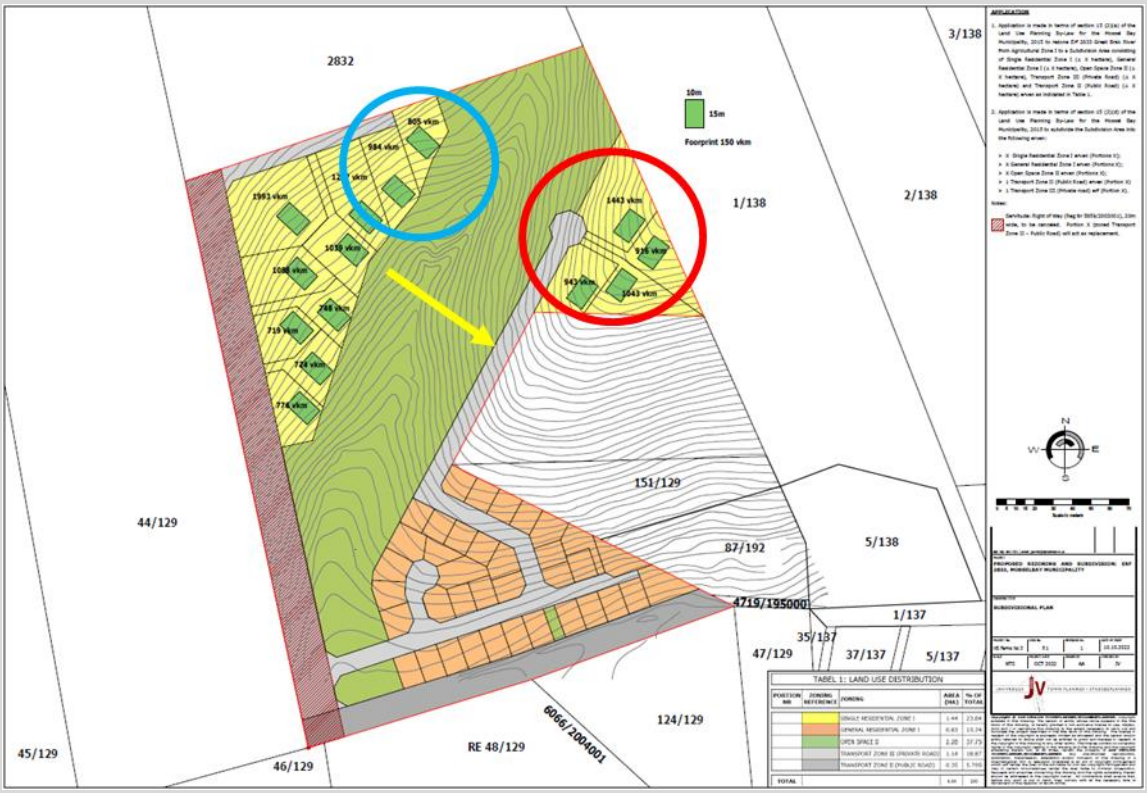


Figure 37: Non-mitigated Site Development Plan (source: Jan Vrolik)

Provide a motivation for the preferred design or layout alternative.

- The preferred design alternative:
  - retains approximately 3.56ha of natural vegetation.
  - retains highly sensitive valley thicket containing protected tree species, plant SCC and fauna SSC.
  - accommodates for sufficient stormwater management through (a) the inclusion of a 30m buffer around the valley bottom and (b) only ±18% of RE/2833 will be hardened.
  - avoids development within areas that is suitable for the establishment of butterfly-friendly fynbos vegetation.
  - avoids areas steeper than 1:4.

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

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

Preferred Design Alternative 1 (Mitigated SDP)

Positive

- Retains approximately 3.56ha of natural vegetation on-site.
- Retains highly sensitive valley thicket containing protected tree species, plant SCC and fauna SCC.
- Accommodates for sufficient stormwater management through (a) the inclusion of a 30m buffer around the valley bottom and (b) only ±18% of RE/2833 will be hardened.
- Avoids areas steeper than 1:4.
- This design avoids development within areas that is suitable for the establishment of butterfly-friendly fynbos vegetation.

Negative

- Loss of approximately 2.5ha of natural vegetation.

- Potential Loss of plant SCC (*Hermannia lavandulifolia*). As a mitigation measure to avoid the loss of plant SCC, a qualified ECO will be appointed prior to construction to identify any plant SCC to be rescued and transplanted.
- The design will put more pressure on non-renewable resources. To mitigate the last-mentioned, it is recommended to include water and energy saving practices during the pre-construction phase (dual flush toilets, low flow shower heads, low flow faucets, rainwater tanks with solar pumps, geyser and pipe insulation).

Design Alternative 2 (Non-mitigated)

Positive

- Retains approximately 3.56ha of natural vegetation.

Negative

- Loss of approximately 3.76ha of natural vegetation.
- Loss of a portion of the highly sensitive valley thicket containing protected tree species, plant SCC and fauna SCC.
- Loss of areas that is suitable for the establishment of butterfly-friendly fynbos vegetation.
- Increased hardened surfaces.

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

Provide a description of the preferred technology alternative:

- Rooftop solar and/or heat pumps and/or gas geysers (or similar) for heating of water.
- rainwater tanks at each residential house.
- LED lights only.
- Dual flush toilets.
- Low flow shower heads.
- Low flow faucets.
- Gas stoves optional, recommended for individual homes by Developer.
- Re-use of filtered grey water for irrigation and landscaping around private homes.

Provide a description of any other technology alternatives investigated.

Provide a motivation for the preferred technology alternative.

The use of solar/heat pumps/gas geysers reduces the demand on (municipal) electricity. The use of rainwater tanks provides households with water for gardening or other uses that reduces the demand on municipal water supply. The use of LED lights reduces the demand for municipal electricity. Use of low flow shower heads and duel flush toilets reduces the pressure on municipal potable water supply. The use of gas stoves in households reduces the demand on municipal electricity supply.

Provide a detailed motivation if no alternatives exist.

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

Positive

- Reduce water demand on municipal supply with rainwater tanks, duel flush toilets and low flow shower heads.
- Reduced electricity demand on municipal supply with use of alternatives such as solar or heat pumps/gas geysers.

Negative

- Reduced income generation potential for Municipality when renewable energy devices are implemented.

- Reduced income generation potential for Municipality when rainwater harvesting replaces municipal water supply.

1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred operational alternative.

Recycling is recommended during operational phase.
Indigenous landscaping only within residential erven.
Invasive alien vegetation control always.

Provide a description of any other operational alternatives investigated.

Provide a motivation for the preferred operational alternative.

- Recycle at source to reduce pressure on landfill sites.
- Indigenous landscaping within open space / communal areas creates micro habitats within the development which ultimately reduces the carbon footprint of the development, it helps maintain the microclimate of the development and it encourages the return of fauna such as birds and a variety of insects/pollinators.
- Long-term invasive alien control ensures that sensitive indigenous habitat does not get invaded and replaced by faster growing invasive plant species.

Provide a detailed motivation if no alternatives exist.

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

Positive
Recycling will reduce pressure on landfill sites.
Indigenous landscaping will enhance the biodiversity of the site.
Negative
N/A

1.6.	The option of not implementing the activity (the 'No-Go' Option).

Provide an explanation as to why the 'No-Go' Option is not preferred.

The reason as to why the 'No-Go' Option is not preferred is that the property is earmarked by the Municipality for residential development. Not developing sites within a designated urban edge amounts to additional pressure on sites that fall outside of urban edges which ultimately results in unwanted urban sprawl.

1.7.	Provide and explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist.

1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.

The site is deemed suitable for development. The following key aspects have been considered:

- The property located within the urban edge of Mossel Bay.
- The property is earmarked for residential development.
- The proposed development is in line with the following:
  - Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) (SPLUMA)
  - Land Use Planning Act, 2014 (Act 3 of 2014) (LUPA)
  - Western Cape Spatial Development Framework
  - Eden District Spatial Development Framework (2017)
  - Mossel Bay Integrated Development Plan (2022 – 2027)
  - Mossel Bay Spatial Development Framework (2022)
- The property does not have a potential impact on view corridors, ridgelines, cultural landscape assets and existing vistas.
- Development on the property will contribute to the economy.

- Municipal services are readily available for connection (electrical & water).
- The property has an existing access along its western boundary.
- The preferred design alternative:
  - retains approximately 3.56ha of natural vegetation.
  - retains highly sensitive valley thicket containing protected tree species, plant SCC and fauna SSC.
  - accommodates for sufficient stormwater management through (a) the inclusion of a 30m buffer around the valley bottom and (b) only ±20% of RE/2833 will be hardened.
  - avoids development within areas that is suitable for the establishment of butterfly-friendly fynbos vegetation.
  - avoids areas steeper than 1:4.

2. "NO-GO" AREAS

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

The highly sensitive valley thicket is identified as a no-go area during construction. No staff/workers are allowed within this area.

However, this area is not considered a no-go during the operational phase as landowners will be allowed to walk along trails within the thicket open space. Trails within the valley thicket should only follow disturbed areas that have been cleared of alien vegetation. These trails will also provide access to the HOA should alien vegetation be removed.

It is recommended that the final trail layout be done with input from a botanist/ECO once invasive alien vegetation found within this area has been cleared.

To this end it is recommended that invasive alien vegetation clearing within this area be done in parallel to bulk earthworks/installation of services so as to ensure maximum environmental benefit from as early as possible in the project implementation phase.

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

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

Criteria for Assessment

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

- **Nature of the impact**

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

- **Extent of the impact**

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

- **Duration of the impact**

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

- **Intensity**

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

- **Probability of occurrence**

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

- **Legal requirements**

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

- **Status of the impact**

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

- **Accumulative impact**

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

- **Degree of confidence in predictions**

The specialist / EAP should state what degree of confidence (low, medium or high) is there in the predictions based on the available information and level of knowledge and expertise.
Based on a synthesis of the information contained in the above-described procedure, you 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 and will result in the "no-go" option on the development or portions of the development regardless of any mitigation measures that could be implemented. This level of significance must be well motivated.

4. ASSESSMENT OF EACH IMPACT AND RISK IDENTIFIED FOR EACH ALTERNATIVE

Note: The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. The EAP may decide to include this section as Appendix J to this BAR.

State Impact e.g Odour, Noise, clearanc **BOTANY & BIODIVERSITY** State Impact e.g Odour, Noise, clearanc			
Alternative:	**Alternative 1 (Mitigated Preferred Alternative)**	**Alternative 2 (Non-Mitigated Alternative)**	**No-Go Alternative**
CONSTRUCTION & OPERATION PHASES			
Potential impact and risk:	**Potential loss of SCC and national protected trees during construction.**		**No loss of SCC and national protected trees. No clearance of vegetation. No Impacts.**
Nature of impact:	Negative	Negative	
Extent and duration of impact:	Without Mitigation: Limited, Long-term With Mitigation: Very limited, Medium-term	Without Mitigation: Limited, Long-term With Mitigation: Very limited, Medium-term	
Consequence of impact or risk:	• A loss of SCC & protected tree species. • Fragmentation of SCC • Loss of suitable habitat for SCC and naturally occurring species. • Increased risk of invasive plant species.		
Probability of occurrence:	Certain	Certain	
Degree to which the impact may cause irreplaceable loss of resources:	Moderate	Moderate	
Degree to which the impact can be reversed:	Low	Low	
Indirect impacts:	None	None	
Cumulative impact prior to mitigation:			
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Moderate	Moderate	

Degree to which the impact can be avoided:			
Degree to which the impact can be managed:			
Degree to which the impact can be mitigated:			
Proposed mitigation:	1. Plant search & Rescue must be conducted prior to construction of a new dwelling or structure. ECO to conduct plant search to identify any SCC plants. 2. Protection and re-use of topsoil that contains valuable seeds and characteristics vital for the success of rehabilitation. 3. Temporary stormwater measures should be in place to reduce silt run-off and erosion during high rainfall events.		
Residual impacts:			
Cumulative impact post mitigation:			
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Minor	Minor	
Potential impact and risk:	**Loss of vegetation with restoration value within mapped Hartenbos Dune Thicket during <u>construction</u>.**		**No Loss of Vegetation. No Impacts.**
Nature of impact:	Negative	Negative	
Extent and duration of impact:	Without Mitigation: Limited, Long-term With Mitigation: Very Limited, Medium-term	Without Mitigation: Limited, Long-term With Mitigation: Very Limited, Medium-term	
Consequence of impact or risk:	• Creation of novel habitat where indigenous species cannot survive in. • Loss of vegetation resilience and habitat quality. • Loss of habitat in a threated ecosystem.		
Probability of occurrence:	Certain	Certain	
Degree to which the impact may cause irreplaceable loss of resources:	Moderate	Moderate	

Degree to which the impact can be reversed:	Low	Low	
Indirect impacts:			
Cumulative impact prior to mitigation:			
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Moderate	Moderate	
Degree to which the impact can be avoided:			
Degree to which the impact can be managed:			
Degree to which the impact can be mitigated:			
Proposed mitigation:	1. Inform staff about the sensitivity of the remaining natural area on site. 2. Ongoing monitoring and clearing of alien invasive plants. 3. No kikuyu grass may be planted. 4. Avoid development within valley vegetation (no-go area). 5. Materials used must be sourced responsibly. 6. Avoid erosion during construction. 7. No leaks/spills from construction vehicles. 8. Adequate ablution facilities must be provided.		
Residual impacts:			
Cumulative impact post mitigation:			
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Minor	Minor	
Potential impact and risk:	**Hartenbos Dune Thicket, fynbos and SCC on the site can be negatively affected by inappropriate landscaping and invasion of alien invasive species during the <u>operational phase</u>.**		
Nature of impact:	Negative	Negative	Negative

Extent and duration of impact:	Without mitigation: Limited, Permanent With Mitigation: Very Limited, Medium-term	Without mitigation: Limited, Permanent With Mitigation: Very Limited, Medium-term	Without mitigation: Limited, Permanent With mitigation: Very limited, Long-term
Consequence of impact or risk:	• Gradual increase in negative effects that result from exotic garden plants outcompeting natural species. • Biodiversity loss from the introduction of invasive and alien plants in thicket & fynbos habitat. • General loss of habitat, not only for plants, but important pollinator species too. • Eventual loss of native vegetation remaining due to the gradual naturalisation of exotic garden plant varieties. • Loss of natural genetic variation. • Altered population of plant community structure and fragmentation of sub-populations of SCC. • Altered soil characteristics, including soil microbes & seed bank changes. • Altered landscape-level fire regimes.		Biodiversity loss from the introduction of invasive and alien plants in thicket & fynbos habitat.
Probability of occurrence:	Almost certain	Almost certain	Almost certain
Degree to which the impact may cause irreplaceable loss of resources:	Medium	Medium	Medium
Degree to which the impact can be reversed:	Medium	Medium	Medium
Indirect impacts:	None	None	None
Cumulative impact prior to mitigation:			
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Moderate	Moderate	Moderate
Degree to which the impact can be avoided:			
Degree to which the impact can be managed:			
Degree to which the impact can be mitigated:			
Proposed mitigation:	1. Additional gardening should be avoided and limited to a maximum of 100m^2 per dwelling.		

	2. The disturbance envelope around the properties must be rehabilitated with fynbos/thicket species rescued prior to site clearance. 3. No planting of kikuyu grass. 4. Remove all invasive plant species. 5. Fertilisers and pesticides must be avoided. 6. Gardens must be designed to be water wise and friendly to the greater natural habitat.		
Residual impacts:			
Cumulative impact post mitigation:			
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Minor	Minor	Minor
State Impact e.g Odour, Noise, clearanc **FAUNA** State Impact e.g Odour, Noise, clearanc			
Alternative:	**Alternative 1 (Mitigated Preferred Alternative)**	**Alternative 2 (Non-Mitigated Alternative)**	**No-Go Alternative**
CONSTRUCTION & OPERATION PHASES			
Potential impact and risk:	**Disturbance of *Bradypterus Sylvaticus* (Knysna Warbler) during the construction phase (noise).**	**Disturbance of *Bradypterus Sylvaticus* (Knysna Warbler) during the construction phase (noise & habitat loss).**	**No construction activities. No habitat loss because of construction. No impacts.**
Nature of impact:	Negative (noise)	Negative (noise & habitat loss)	
Extent and duration of impact:	Study Area. Short-term.	Study Area. Short-term.	
Consequence of impact or risk:	Repeated noise disturbance during the breeding season may result in the species abandoning the study area.	If habitat loss occurs alongside noise disturbance during the breeding season, it would result in the species moving elsewhere and not returning.	
Probability of occurrence:	Probable	Highly Probable	
Degree to which the impact may cause irreplaceable loss of resources:	Locally (without mitigation)	Locally (without mitigation)	

Degree to which the impact can be reversed:	Reversible (with mitigation)	Irreversible (definite habitat loss)	
Indirect impacts:	None	None	
Cumulative impact prior to mitigation:	Medium	High	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium	High	
Degree to which the impact can be avoided:			
Degree to which the impact can be managed:			
Degree to which the impact can be mitigated:	Yes	No	
Proposed mitigation:	1. No construction during the breeding season of this species (end-Aug until early-December). The EAP submits that this condition is not feasible as a construction site cannot be mothballed for a five month period without significant security risk, risk of erosion and cost to the contractor. Rather it is feasible to have the valley thicket area demarcated in areas where work will be undertaken in proximity thereof prior to work commencing in such an area and if possible to reduce working in proximity to the valley thicket during the specified breeding months i.e. focus work in the areas furthest from the thicket. 2. No removal of sensitive valley thicket vegetation. 3. Removal of AIPs (particularly in the valley thicket vegetation).		
Residual impacts:			
Cumulative impact post mitigation:			
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

Potential impact and risk:	**There is a likelihood (although low) that *A. thyra orientis and L. littoralis* (butterfly species) be impacted during the <u>construction phase</u>. These species were not observed on-site but it is still possible that there were unobserved specimens.**		**No construction activities. No habitat loss because of construction. No impacts.**
Nature of impact:	Negative (loss of habitat)	Negative (loss of habitat)	
Extent and duration of impact:	Study Area. Long-term.	Study Area. Long-term.	
Consequence of impact or risk:	Habitat transformation and habitat destruction will impact these species if they are present. However, with some areas remaining as green space, there are still remnants of suitable habitat present.	Habitat transformation and habitat destruction will impact these species if they are present. However, with some areas remaining as green space, there are still remnants of suitable habitat present.	
Probability of occurrence:	Probable	Highly Probable	
Degree to which the impact may cause irreplaceable loss of resources:	Locally (without mitigation)	Locally (without mitigation)	
Degree to which the impact can be reversed:			
Indirect impacts:	None	None	
Cumulative impact prior to mitigation:	Medium	High	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium	High	
Degree to which the impact can be avoided:			
Degree to which the impact can be managed:			
Degree to which the impact can be mitigated:			
Proposed mitigation:	1. Conservation of some intact fynbos vegetation with larval food plants.		

Residual impacts:			
Cumulative impact post mitigation:			
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Potential impact and risk:	**Likely noise, mobility and habitat impacts on *Sensitive Species 8* during the <u>construction phase</u>. Although not observed on site during two (2) field surveys, this species frequents thickets and forested areas.**		**No construction activities. No habitat loss because of construction. No impacts.**
Nature of impact:	Negative (noise, mobility & habitat loss)	Negative (noise, mobility and habitat loss)	
Extent and duration of impact:	Study Area. Long-term.	Study Area. Long-term.	
Consequence of impact or risk:	• The **noise** disturbance of construction is likely to result in individuals of this species moving away. • Reduction of **mobility** associated with fencing of the property is likely to lead to a reduction in the survivability of this species at the site. • Negligible **habitat** loss.	• The **noise** disturbance of construction is likely to result in individuals of this species moving away. • Reduction of **mobility** associated with fencing of the property is likely to lead to a reduction in the survivability of this species at the site. • A larger section of **habitat** loss.	
Probability of occurrence:	Probable	Highly Probable	
Degree to which the impact may cause irreplaceable loss of resources:	Locally (without mitigation)	Locally (without mitigation)	
Degree to which the impact can be reversed:			
Indirect impacts:	None	None	
Cumulative impact prior to mitigation:	Medium	High	

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium	High	
Degree to which the impact can be avoided:			
Degree to which the impact can be managed:			
Degree to which the impact can be mitigated:			
Proposed mitigation:	1. Conservation and management of thicket vegetation. 2. Using a fence that allows this species to move through. 3. No unsupervised workers in the remaining thicket ensuring that no animals are captured on the property.		
Residual impacts:			
Cumulative impact post mitigation:			
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

Potential impact and risk:	**Likely disturbance of *B. Sylvaticus* during the <u>operational phase</u>.**		
Nature of impact:	Negative (noise from houses & predation by cats).	Negative (noise from houses & predation by cats).	Potential habitat loss if the alien invasive plants increase in abundance.
Extent and duration of impact:	Study Area. Long-term.	Study Area. Long-term.	Study area. Permanent
Consequence of impact or risk:	• Noise disturbance in residences adjacent to thicket vegetation during the breeding season resulting in the species moving away from the area. • Reduced breeding success and increased predation by domestic cats.		Likely extinction of the species at the study area due to habitat transformation (AIP invasion).
Probability of occurrence:	Probable	Highly Probable	Probable
Degree to which the impact may cause irreplaceable loss of resources:	Locally (without mitigation)	Locally (without mitigation)	Locally (without mitigation)

Degree to which the impact can be reversed:			
Indirect impacts:	None	None	None
Cumulative impact prior to mitigation:	Medium	High	Medium to High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium	High	Medium to High
Degree to which the impact can be avoided:			
Degree to which the impact can be managed:			
Degree to which the impact can be mitigated:			
Proposed mitigation:	1. No free-roaming domestic cats on the property especially during the breeding season. Homeowners must be notified on the dangers their cats pose on the Knysna Warbler. Preferably the estate must not permit pets, however if they do decide to permit pets, all pets must be contained within yards and when owners take them for walks they must be on leashes at all times. 2. No removal of thicket vegetation in the sensitive thicket valley. 3. If trails are developed through the thicket vegetation, these trails must keep thicket vegetation as intact as possible.		Removal of AIPs, particularly in the thicket vegetation.
Residual impacts:			
Cumulative impact post mitigation:			
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	Low

Potential impact and risk:	**Likely Impacts on *A. thyra orientis and L. littoralis* during the <u>operational phase</u>**		
Nature of impact:	Negative (loss of habitat using pesticides in gardens)	Negative (loss of habitat using pesticides in gardens)	Potential habitat loss if the alien invasive plants (AIPs, mainly the exotic Acacia spp. and kikuyu grass,

			Cenchrus clandestinum) increase in abundance.
Extent and duration of impact:	Study Area. Long-term.	Study Area. Long-term.	Study Area. Long-term
Consequence of impact or risk:	Habitat transformation and habitat reduction will impact these species. However, some areas are still remnants of suitable habitat.	Without suitable habitat, these butterflies are highly unlikely to occur at the site.	Impacts are likely less severe than for B. sylvaticus, but if the existing vegetation with suitable larval food is replaced by stands of AIPs, there would be no suitable habitats left for these species.
Probability of occurrence:	Probable	Highly Probable	Probable
Degree to which the impact may cause irreplaceable loss of resources:	Locally (without mitigation)	Locally (without mitigation)	Locally (without mitigation)
Degree to which the impact can be reversed:			
Indirect impacts:	None	None	None
Cumulative impact prior to mitigation:	Medium	High	Medium to High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium	High	Medium to High
Degree to which the impact can be avoided:			
Degree to which the impact can be managed:			
Degree to which the impact can be mitigated:			
Proposed mitigation:	• Conservation of some intact fynbos vegetation with larval food plants. • Planting suitable larval host plants and butterfly feeding plants in residents' gardens, and promoting planting of indigenous flowering plants in residents' gardens.		
Residual impacts:			
Cumulative impact post mitigation:			

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	Low

State Impact e.g Odour, Noise, clearanc **HERITAGE RESOURCES** State Impact e.g Odour, Noise, clearanc			
Alternative:	**Alternative 1 (Mitigated Preferred Alternative)**	**Alternative 2 (Non-Mitigated Alternative)**	**No-Go Alternative**
CONSTRUCTION & OPERATION PHASES			
Potential impact and risk:	**Potential destruction of heritage resources during the construction phase & operational.**		**No Impacts.**
Nature of impact:	Negative	Negative	
Extent and duration of impact:	Permanent	Permanent	
Consequence of impact or risk:	Loss of heritage resources.		
Probability of occurrence:	Low	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	Low	
Degree to which the impact can be reversed:			
Indirect impacts:			
Cumulative impact prior to mitigation:	Low	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

Degree to which the impact can be avoided:	No	No	
Degree to which the impact can be managed:	Yes	Yes	
Degree to which the impact can be mitigated:	Low Impact	Low Impact	
Proposed mitigation:	1. Fossil Finds Protocol proposed.		
Residual impacts:	None	None	
Cumulative impact post mitigation:	None	None	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

1.	Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.

Archaeology

Findings

- Several Early and Middle Stone tools of low significance.
- The probability of locating important archaeological remains on RE/2833 is low.

Recommendations

- If during ground clearance or construction, any archaeological material or human graves are uncovered, work in that area should be stopped immediately and the ECO should report this to Heritage Western Cape (Tel: 021 483 9689). The heritage resource may require inspection by the heritage authorities, and it may require further mitigation in the form of excavation and curation in an approved institution.

Palaeontology

Findings

- It is unlikely that any fossils occur in the soils that cover RE/2833.
- The very highly sensitive coding for the Enon Formation should rather be downgraded to moderately sensitive.
- It is unlikely that any fossils, even poorly preserved, would be found on the land surface that is covered by soils and vegetation as is the case for the Great Brak River area.
- The palaeontological heritage is low.

Recommendations

- The *Fossil Chance Find Protocol* should be added to the EMPr.
- If fossils are found by the environmental officer, or other responsible person once excavations for amenities, infrastructure and foundations have commenced then they should be rescued, and a palaeontologist called to assess and collect a representative sample.

Heritage

Findings

- The preferred activity alternative would not impact on heritage resources.
- No buildings and/or ruins were noted during fieldwork and from early imagery much of the property surface area had been previously transformed through cultivation/agriculture.

Recommendations

- The *Fossil Chance Find Protocol* should be added to the EMPr.

Biodiversity & Botany

Findings

- Most of the property falls within a Critical Biodiversity Area (Terrestrial).
- The proposed development will result in the removal of secondary fynbos, senescent Erica peltata fynbos (poor condition with rooikrans invasion), black wattle dominated thicket and other disturbed areas consisting of grass & roadside bushes.
- The highly sensitive valley thicket contains Cheesewood trees and has a high likelihood to contain Milkwood trees (although not observed).
- Only one plant SCC was found (*Hermannia lavandulifolia*) in the northern section of the site within the Erica peltata dominated fynbos.
- Many Introduced and Invasive Alien Plants were observed on site including Rooikrans, Black Wattle and Kikuyu grass.

Recommendations

- Avoid construction within highly sensitive valley thicket.

Fauna

Findings

- The Knysna Warbler (*Bradypterus sylvaticus*) has a high likelihood of occurring on the property as the valley thicket provides suitable habitat.
- The African Marsh-harrier (*Circus ranivorus*) and Yellow-winged agile grasshopper (*Aneuryphymus montanus*) has a very low likelihood of occurring on the property – no suitable habitat present at the study area.
- Sensitive Species 8 has a low likelihood of occurring on the property and was not observed on site.
- Brenton copper (*Aloeides thyra orientis*) & Coastal blue butterfly (*Lepidochrysops littoralis*) has a low likelihood of occurring on the property and was not observed on site. However, it is possible that there are larval host plants present on the property, and a low (but still possible) likelihood that there were unobserved specimens of this species at the study site despite this species not commonly occurring in the area of Great Brak.

Recommendations

- Avoid construction in the valley thicket.
- Avoid construction in the fynbos areas that has the potential to become suitable for butterfly species.
- Pets must be kept contained within yards and when pets are allowed outside they must be under the control of the owner on leashes at all times.

Aquatic

Findings

- Given the lack of any defined bed, banks or channel, and according to the classification system developed by Ollis et al. (2013), the non-perennial drainage line traversing the property is not defined as a formal watercourse and is not associated with any aquatic habitat or aquatic biodiversity. Therefore, the aquatic biodiversity of RE/2833 is therefore verified as **Low**.
- The valley bottom does serve a hydrological function.

Recommendations

- A 30m buffer zone on either side of the lowest point along the valley bottom is recommended.

Agriculture

Findings

- The site is not within crop boundaries,
- The site has a classified land capability of 4 to 8,
- The site has a sensitivity rating of low to medium,
- The site falls outside an area that is classified as a Protected Agricultural Area,
- The agricultural land use is limited to grazing only,
- The site is unsuitable for viable crop production because of the following constraints:
    - Slopes are steep.
    - The soils are limited by shallow depths with low water and nutrient holding capacity.
    - The site is surrounded largely by non-agricultural land uses.
    - The site has a lack of cropping infrastructure and inputs.

Geotechnical

Findings

- No signs of any significant slope stability issues were noted in the general site area.
- A small-scale soil slip was noted along the very steep road cutting embankment along the southern boundary. The gradient of this embankment was estimated at 1v:1.5h/34° (very steep).
- The site is underlain by potentially problematic soils.

Recommendations

- Special attention is drawn to the steep embankment along the southern boundary which falls within the proposed erven in this area. Special mitigating measures are recommended

here, e.g. a development set-back line of 3m from the crest of the slope or, alternatively provision should be made to support/retain this embankment with suitable methods.
- Modification of natural slopes can lead to instability and bulk earthworks and excavations should take into account safe slope angles, as this will have an impact on slope batters and/or shoring requirements for temporary excavations exceeding 1m for retaining walls, etc. and this should be designed and supervised by an engineer. Similarly, filled embankments (e.g. on cut-to-fill platforms) will require suitable retaining systems to prevent subsidence and/or sliding.
- Foundations on potentially expansive and/or compressible soils may require special reinforcement and stiffening to resist movement. Bearing pressures may also be restricted, particularly for foundations on or near slopes or retaining walls. Detailed investigations including laboratory testing of soil is recommended in order to provide more information for design purposes.
- Careful consideration should be paid to the expected increased run-off from hard surfaces on individual properties and roads and the handling and discharging of stormwater into natural drainage lines or formalised stormwater systems. Consideration should also be given to the capacity of the natural drainage line and possible flooding which may affect properties in the lower reaches.
- Further investigations are recommended to inform the *detailed* design process.

2.	List the impact management measures that were identified by all Specialist that will be included in the EMPr

Heritage, Palaeontology & Archaeology

- The *Fossil Chance Find Protocol* should be added to the EMPr.
- If fossils are found by the environmental officer, or other responsible person once excavations for amenities, infrastructure and foundations have commenced then they should be rescued, and a palaeontologist called to assess and collect a representative sample.

Biodiversity & Botany

- Plant search and rescues must be conducted whenever a new dwelling or structure is being constructed on any of the new sub-divided erven within Erf 2833.
    - The construction area of influence must be clearly defined, and a nursery spot for rescued plants must be identified and used for each proposed development.
    - Any additional SCC plants that are observed at any point during the construction of any of the proposed dwellings must be reported to the ECO.
    - Naturally occurring plants that are rescued from the development footprints must be re-planted after construction within the disturbance envelope.
- Protection and re-use of topsoil
    - The topsoil on the site contains valuable seeds and characteristics that will be vital for the success of rehabilitation of the site following construction processes. Topsoil in new excavation areas must be stripped to a depth of ca. 30cm and kept in designated piles on site within the footprint of the proposed development(s).
    - Equipment used to handle and excavate the topsoil must be clean of any foreign material.
    - The topsoil piles must be clearly labelled so that it does not mix with subsoils excavated or any other construction material for the site.
    - Topsoil piles must be covered with plastic sheeting for the duration of the construction phase.
- Staff must be informed about the sensitivity of the remaining natural area on the site that will become open space.
- Ongoing monitoring and clearing of invasive alien plants during the construction phase (must be cleared in parallel to bulk earthworks/service installation).
- No kikuyu grass will be allowed anywhere, especially within riparian areas, as this is a listed invasive species.
- Development and sub-divided erven to be developed must be outside of the sensitive valley vegetation with thicket on Erf 2833.
- All new staff must be briefed about the layout of the construction site/s, and no-go natural areas must be clearly communicated.
- Materials used during the construction phase must be sourced responsibly.

  - No waste (including cleared invasive slash) dumping or burning may occur on the site, and especially not in the valley.
  - Regular cleaning of the construction site must take place (at the end of every day). Bins must be available on the construction site. Refuse must be disposed of at the appropriate waste disposal facility.
  - Danger tape that sis broken or that is starting to crumble must be disposed of and replaced. This applies to any construction material that has broken or become weathered.
  - Stockpiles and soil must all be placed within areas that will remain permanently / temporarily transformed and must be covered by a geotextile or plastic covering, which must also be bunded (e.g., sandbags) when the piles are not in use on the site. This will prevent the material from washing away and contaminating the substrate of the site which likely still contains useful seeds and soil organisms.
- Where vegetation will be cleared to make way for construction, a temporary ground net / cover should be placed to prevent potential erosion. Any observed erosion must be addressed immediately with the appropriate erosion control measures.
- Construction vehicles should be checked daily at the start of the day for leaks and other faults.
  - Sandbags or sawdust should be available on the site to ensure that any accidental oil or toxic material spills can be contained and stopped quickly.
  - Any contaminated soil on the site must be removed by a registered hazardous waste service provider (Spill Tech, Interwaste, EnviroServ etc.).
  - Vehicles with leaks must not be allowed to operate on the site until they have been repaired.
- Adequate ablution facilities must be provided for every construction project.
  - Toilets must be placed on a level platform before construction starts.
  - Ablution facilities must be regularly maintained and cleaned.
- At least one toilet per ten to fifteen construction staff should be available.
- It is the HOAs responsibility to ensure that private property owners do not encroach into the private open space (sensitive valley thicket) at all i.e. little garden areas, sitting areas etc.
- Only the rehabilitation of natural fynbos and thicket vegetation rescued from the site around the proposed developments in the disturbance envelope is allowed.
- Ongoing effort to remove all invasive plants species is a requirement by law. As mentioned before, no planting of kikuyu grass will be allowed. Black wattles require ongoing effort to eradicate in accordance with an invasive plant control and eradication plan.
- Landowners are responsible to maintain their gardens, so that plants do not overgrow.
- No garden waste may be dumped in any remaining natural area and must be disposed of in a responsible manner.
- Fertilisers and pesticides must be avoided, and only where absolutely necessary can they be used with due caution to avoid killing indigenous species and natural pollinators in the surrounding landscape.
- Gardens can be designed to be water wise (avoid erosion) and friendly to wildlife and the greater natural habitat.

Fauna

- No removal of valley thicket in the open space areas.
- Removal of alien invasive species in the thicket vegetation.
- Conservation of some intact fynbos vegetation with larval food plants.
  - Planting suitable larval host plants and butterfly feeding plants in resident's gardens and promoting planting of indigenous flowering plants in resident's gardens.
  - Reducing the use of pesticides in gardens would also benefit the two butterfly species of conservation concern that could occur at the site. Ensuring that some fynbos vegetation with suitable larval food plants will also potentially benefit these (and other) species.
- Using a fence that allows movement of Sensitive Species 8.
  - It is also recommended that mammal-funnels are placed in the fence line, at places where there is a high likelihood of species such as Sensitive Species 8 moving through the landscape. These mammal-funnels must be monitored to ensure that animals are not trapped (funnels to be positioned in accessible areas for HOA members to monitor during the operational phase).

- No unsupervised workers in the open space areas and ensuring that no animals are captured on the property.
- No free-roaming domestic cats are allowed within the valley thicket as they might disturbed the Knysna Warbler during its breeding season.
    - Additionally, putting up signage to inform homeowners of the impact their pets could have on the Knysna Warbler, could increase awareness and environmental consciousness of those living on the property. Dogs that are not housebound must be enclosed in a fenced area on erven, to prevent access to more sensitive areas on the property.
- Footpath trails on the estate open space area must be informed with input from a botanist or the ECO once invasive alien vegetation has been cleared within the valley thicket area. It is advised that exotic plants in this vegetation is removed, and the trail follow the section that previously had the highest density of AIPs. This will reduce the disturbance in intact thicket vegetation, while also allowing easy access for follow-up clearing of AIPs.

Aquatic

- Rainwater harvesting tanks must be installed.
- Use of swales and detention ponds to attenuate stormwater runoff, encourage infiltration and reduce the speed, energy and volumes at which stormwater is discharged from the site.
- Use of permeable paving to encourage infiltration into the soil.
- Use of retention ponds and artificial wetlands to capture stormwater runoff and prevent its discharge from the site.
- Ensure that construction activities do not cause any preferential flow paths and concentrated surface runoff during rainfall events.
- Clearly demarcate the valley thicket area and ensure that heavy machinery does not compact soil or disturb vegetation outside of defined work areas.
- Reduce transport of sediment using structures such as silt fences and biodegradable coir logs placed along a contour below the development footprint.
- Ensure that vegetation clearing is conducted in parallel with the construction process to minimise erosion and runoff.
- Revegetate exposed areas once construction has been completed.
- Ensure that stormwater and runoff generated by hardened surfaces is discharged in retention areas, to avoid concentrated runoff and associated erosion.

Geotechnical

Steep embankment along the southern boundary of RE/2833

- A development set-back line of 3m from the crest of the slope **or**, alternatively provision must be made to support/retain this embankment with suitable methods. A Geotechnical Engineer must be appointed should the potential landowner decide to retain the steep embankment in the lower portion of the site. Alternatively, development may only occur 3m from the crest of the slope.
- Bulk earthworks and excavations should consider safe slope angles.

Detailed geotechnical investigations including laboratory testing of soil must be undertaken prior to construction of a house to provide more information for *detailed* design purposes.

3.	List the specialist investigations and the impact management measures that will **not** be implemented and provide an explanation as to why these measures will not be implemented.

Civil Aviation Theme

The site does not exceed the minimum height threshold as stipulated in the CAA Obstacle Guideline and therefore it is not necessary to conduct any studies in this regard. **SACAA has been approached for comment as part of the public participation process.**

Defence Theme

This theme is not relevant nor applicable to township expansion of a town. **No study is required.**

Mitigations measures that will not be implemented

Mitigation Measure	Explanation
Maximum of a 2m disturbance envelope is allowed around proposed development footprints. This is the maximum project area of influence (PAOI) for the site.	Given the steep slope of the property, a disturbance envelope max 4m will be allowed around the proposed development footprint of each dwelling. Additional space is also required to store topsoil & construction material on the erf. The appointed ECO must approve a site plan showing how much vegetation will be removed and where topsoil & construction material will be stored on each erf.
Weather forecasts should be checked daily, and work must stop during and following rainfall events.	Considering time & financial constraints, it would be difficult to implement this mitigation measure. The appointed ECO must ensure that all temporary stormwater & erosion measures are in place to avoid silt runoff within the valley thicket & Sandhoogte Road during rainfall events. When heavy downpours are forecasted the ECO must advise the Contractor of the appropriate mitigation measures to reduce potential erosion in exposed areas of the site.
Avoid construction during the breeding season of this species (end-August until early-December).	Considering time & financial constraints, it would be difficult to implement this mitigation measure. The appointed ECO must ensure that each erf is sufficiently demarcated to ensure that no machine/staff be able to enter the valley thicket. If possible, construction activities in proximity to the valley thicket must be reduced/moved further away.
Introduce a Restoration Plan to restore the thicket to coastal forest.	Hartenbos Dune Thicket which occurs on the property according to the botanist has an ecological threat status of Endangered. Transforming this vegetation type to coastal thicket will not achieve or support a conservation outcome for endangered ecosystems such as Hartenbos Dune (valley) Thicket.

4.	Explain how the proposed development will impact the surrounding communities.

The proposed development is expected to have an overall positive impact on the surrounding community regarding employment and housing opportunities.

Loss of habitat is expected. However, the preferred design alternative retains approximately 3.56ha (nearly 60%) of natural vegetation.

Alien vegetation will be actively maintained, and indigenous vegetation will be protected under management of homeowner's association/managing agent.

All landscaping areas will be covered with site-specific indigenous vegetation to minimise habitat and species loss.

Other impacts are mostly temporary impacts associated with the construction phase, namely noise and potentially dust pollution. The following key mitigation measures are submitted as part of the DBAR (refer to the EMPr for more details):

- Construction activities must be limited to Mondays – Fridays (07h00 – 18h00) and Saturdays (08h00 – 13h00);
- Work outside of these times must be confirmed with the ECO in advance.
- Vegetation clearing must be done in phases to avoid large pieces of land being exposed to wind/erosion (which could result in unnecessary dust pollution);

- Make use of wetting agents should dust be a problem;
- Rehabilitation of work areas to take place as soon as possible to minimise dust pollution;
- An ECO must be appointed to oversee construction and must keep record of any complaints regarding noise/dust pollution
- Construction material must be stored on-site and construction vehicles must not obstruct traffic flows.

5.	Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.

- Water will become a very scares resource as periods of drought will be longer. The use of mandatory rainwater tanks for each house is important.
- Rainfall intervals will become less, but downpours may be more severe. Stormwater management on the site is important to prevent unnecessary erosion and/or flooding.
- Re-use of filtered grey water for landscaping/irrigation and re-use in toilets/washing contributes to resource management to conserve potable water resources.
- The use of locally indigenous and endemic vegetation for landscaping and gardening will reduce the need for increased irrigation in future when dryer climate spells affect the area.
- The use of rainwater tanks will assist with reducing flooding as it will help to retain water.

6.	Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.

There are no conflicting recommendations between specialists.

7.	Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.

All findings and **recommendations by the specialists have been incorporated** into the proposal except for the following:

Mitigation Measure	Explanation
Maximum of a 2m disturbance envelope is allowed around proposed development footprints. This is the maximum project area of influence (PAOI) for the site.	Given the steep slope of the property, a disturbance envelope max 4m will be allowed around the proposed development footprint of each dwelling. Additional space is also required to store topsoil & construction material on the erf. The appointed ECO must approve a site plan showing how much vegetation will be removed and where topsoil & construction material will be stored on each erf.
Weather forecasts should be checked daily, and work must stop during and following rainfall events.	Considering time & financial constraints, it would be difficult to implement this mitigation measure. The appointed ECO must ensure that all temporary stormwater & erosion measures are in place to avoid silt runoff within the valley thicket & Sandhoogte Road during rainfall events.
Avoid construction during the breeding season of this species (end-August until early-December).	Considering time & financial constraints, it would be difficult to implement this mitigation measure. The appointed ECO must ensure that each erf is sufficiently demarcated to ensure that no machine/staff be able to enter the valley thicket.

8.	Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.

1. AVOID IMPACTS

Avoidance mitigation has been applied to the mitigated preferred design:

- Avoid highly sensitive valley thicket containing protected tree species during construction.
- Avoid development within areas that is suitable for the establishment of butterfly-friendly fynbos vegetation (preferred site development plan has removed all erven from this area).

2. MINIMISE IMPACTS

Limit construction activities to specified days and times.

Clear the site in a phased manner to minimise dust pollution i.e. clear house footprints instead of entire erven and only when a house will be constructed.

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

Appointing an ECO to oversee construction to further minimise the potential for unnecessarily direct or indirect impacts.

Implement resource conservation measures as part of the design, construction and operational phase.

Ensure that all external lighting is low level lighting to reduce the visual and night time impact on fauna and insects.

Implement the Environmental Management Plan under ECO supervision.

Ensure that fencing is animal friendly and permeable to enable animal movement.

3. RECTIFY

None necessary

4. REDUCE

None necessary

5. OFF-SITE

None necessary

SECTION J: GENERAL

1. ENVIRONMENTAL IMPACT STATEMENT

1.1.	Provide a summary of the key findings of the EIA.

Planning key findings

- The property located within the urban edge of Great Brak River.
- The property is earmarked for residential development.
- The proposed development is in line with the following:
  - Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) (SPLUMA)
  - Land Use Planning Act, 2014 (Act 3 of 2014) (LUPA)
  - Western Cape Spatial Development Framework (WCSDF)
  - Eden District Spatial Development Framework (2017)
  - Mossel Bay Integrated Development Plan (2022 – 2027)
  - Mossel Bay Spatial Development Framework (2022) (MBSDF)
- The property does not have a potential impact on view corridors, ridgelines, cultural landscape assets and existing vistas.
- Development on the property will contribute to the economy.
- Municipal services are readily available for connection (electrical & water).
- The property has an existing access along its western boundary.

Environmental key findings

- Several Early and Middle Stone tools of low significance were found on the property during a previous AIA conducted on the property.
- It is unlikely that any fossils, even poorly preserved, would be found on the property.
- The preferred activity alternative would not impact on heritage resources.
- No buildings and/or ruins were noted during fieldwork and from early imagery much of the property surface area had been previously transformed through cultivation/agriculture.
- Most of the property falls within a Critical Biodiversity Area (Terrestrial).
- The proposed development will result in the removal of secondary fynbos, senescent Erica peltata fynbos (poor condition with rooikrans invasion), black wattle dominated thicket and other disturbed areas consisting of grass & roadside bushes.
- The highly sensitive valley thicket contains Cheesewood trees and has a high likelihood to contain Milkwood trees (although not observed).
- Only one plant SCC was found (*Hermannia lavandulifolia*) in the northern section of the site within the Erica peltata dominated fynbos.
- Many Introduced and Invasive Alien Plants were observed on site including Rooikrans, Black Wattle and Kikuyu grass.
- The Knysna Warbler (*Bradypterus sylvaticus*) has a high likelihood of occurring on the property as the valley thicket provides suitable habitat, however this area is avoided by development.
- The African Marsh-harrier (*Circus ranivorus*) and Yellow-winged agile grasshopper (*Aneuryphymus montanus*) has a very low likelihood of occurring on the property – no suitable habitat present at the study area.
- Sensitive species 8 has a low likelihood of occurring on the property and was not observed on site.
- Brenton copper (*Aloeides thyra orientis*) & Coastal blue butterfly (*Lepidochrysops littoralis*) has a low likelihood of occurring on the property and was not observed on site. However, it is possible that there are larval host plants present on the property, and a low (but still possible) likelihood that there were unobserved specimens of this species at the study site.
- Given the lack of any defined bed, banks or channel, and according to the classification system developed by Ollis et al. (2013), the non-perennial drainage line traversing the property is not defined as a formal watercourse and is not associated with any aquatic habitat or aquatic biodiversity. Therefore, the aquatic biodiversity of RE/2833 is therefore verified as **Low**.
- The valley bottom does serve a hydrological function.
- The site is not within crop boundaries,
- The site has a classified land capability of 4 to 8,
- The site has an agrcultural sensitivity rating of low to medium,
- The site falls outside an area that is classified as a Protected Agricultural Area,
- The agricultural land use is limited to grazing only,
- The site is unsuitable for viable crop production because of the following constraints:
  - Slopes are steep.
  - The soils are limited by shallow depths with low water and nutrient holding capacity.
  - The site is surrounded largely by non-agricultural land uses.
- The site has a lack of cropping infrastructure and inputs.

1.2.	Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)

Map provided as Appendix B2.

1.3.	Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.

Remainder of Erf 2833

Positive	Negative
The property currently has no land use other than being vacant. It does not contribute to any socio-economic aspects. The proposed	Temporary noise, dust and safety impacts associated with the movement of heavy vehicles. These impacts can be

development on the preferred property will therefore optimize vacant land in an urban context.	mitigated by implementing the mitigation measures as described in the Environmental Management Programme.
The location of the preferred alternative does not have potential impacts on view corridors, ridgelines and landscape assets.	Development on the preferred property will result in the loss of approximately ±2.5ha of indigenous vegetation including senescent Erica peltata dominated fynbos, secondary fynbos and black wattle dominated thicket.
Development will result in temporary employment opportunities during construction (to semi-skilled and unskilled workers mostly).	Temporary risk of increase crime during construction.
Development will result in permanent and temporary employment opportunities during the operational phase (to skilled and semi-skilled workers mostly).	Temporary increase in construction vehicular traffic.
The development will make use of existing Municipal services - additional income to the local Municipality through municipal rates and taxes.	Additional pressure on non-renewable services.
The remaining natural vegetation on site will be actively monitored and maintained. The homeowner's association will implement ongoing alien clearing on the property.	Continued maintenance cost (alien clearing, access control, clearing of dumped materials).

2. RECOMMENDATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

2.1.	Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr

- Planting of any protected trees as part of landscaping in open space areas, must be in areas where they will not have to be trimmed/removed in the future and where they will have the best chance of survival.
- Ligthing for all properties bordering directly on the remaining valley thicket must be low level and these erven may not install flood light / bright external lighting shining into the valley thicket areas as this may deter the nocturnal movement of animals that frequent this habitat.
- Appoint an Environmental Control Officer (ECO) to oversee the construction phase for bulk earthworks and services.
- Individual homeowners or HOA must appoint ECO for construction of individual homes.
- Implement and adhere to an approved Environmental Management Plan.
- Apply for Forestry Permits if any trimming/roots may be required during construction.
- Each housing unit must be fitted with rainwater tanks.
- Each housing unit must be fitted with solar or heat pumps/solar panels (optional) to reduce demand on electrical supply.
- All landscaping must be indigenous vegetation in lieu of the loss of natural vegetation/habitat (which is secondary/degraded under the current and historical land use).
- Restrict working times and hours to minimise noise/dust pollution.

- Resource conservation measures must be implemented.
- Access to the northern two properties that utilise the servitude road must not be compromised as a result of the proposed development.
- The Conservancy Tank must be converted to a pump station once the Municipal sewer upgrades are completed.

2.2.	Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.

Please refer to 2.1, 2.3, as well as sections 3, 4 & 5 below.

2.3.	Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.

The proposed activity can be considered for environmental authorisation for the following reasons:

- Temporary and permanent employment opportunities.
- Optimise land potential within area designated for urban expansion.
- Support for local business / employment opportunities.
- Increase rates/taxes base for the local Municipality.
- Compatible with local spatial planning policies and guidelines.
- Services are available to accommodate the proposed development.
- Existing accesses are available.
- The following conditions must be considered:
    - Development may not proceed until such time as all approvals are obtained.
    - Local employment must be a priority to ensure maximum social benefit to the wider community.
    - An ECO must be appointed prior to construction to oversee site preparation, vegetation removal and construction.
    - DAFF permits must be obtained prior to removal/trimming/cutting of any protected trees on the property.
    - EMP must be implemented.
    - Resource conservation measures must be implemented.

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

The EAP assumes that the necessary approvals such as planning approvals / forestry permits / building plan approvals and contracts i.e., service level agreements, will be finalised within the initial five (5) year commencement period.

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

Standard five-year (5) commencement period for the EA from date of authorisation with a ten (10) year completion period from date of commencement.

3. WATER

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

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

4. WASTE

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

- The contractor must provide recycle bins on the property during construction and must ensure that staff is aware of what products can be recycled/reused.
- At-source separation of waste must be implemented.
- The Managing Agent of the Estate must arrange for private collection or own transport of recyclable materials from the Estate during operational phase.

5. ENERGY EFFICIENCY

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

- Only LED lights must be used within the development.
- Heat and/or solar pumps and/or gas geysers (or similar) must be used throughout the development.
- Use of gas stoves is optional.
- Use of solar panels on roofs.
- Houses facing directly onto the remaining valley thicket open space area may not instal external flood lighting and all external lighting facing onto the remaining valley thicket oper space must be low level lighting only.

SECTION K: DECLARATIONS

1. DECLARATION OF THE APPLICANT

Note: Duplicate this section where there is more than one Applicant.

I .....**Joe Bezuidenhout**...., ID number .....**6407165061087**.....in my personal capacity or duly authorised thereto hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, and any relevant Specific Environmental Management Act and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;
- I am aware that it is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;
- I appointed the Environmental Assessment Practitioner ("EAP") (if not exempted from this requirement) which:
  - meets all the requirements in terms of Regulation 13 of the NEMA EIA Regulations; or
  - meets all the requirements other than the requirement to be independent in terms of Regulation 13 of the NEMA EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the NEMA EIA Regulations;
- I will provide the EAP and any specialist, where applicable, and the Competent Authority with access to all information at my disposal that is relevant to the application;
- I will be responsible for the costs incurred in complying with the NEMA EIA Regulations and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any legitimately person contracted by the EAP;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the NEMA EIA Regulations;
  - Legitimate costs in respect of specialist(s) reviews; and
  - the provision of security to ensure compliance with applicable management and mitigation measures;
- I am responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority, hereby indemnify, the government of the Republic, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which I or the EAP is responsible in terms of the NEMA EIA Regulations and any Specific Environmental Management Act.

Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

2024/05/20

Signature of the Applicant: Date:

New Care Innovations (Pty) Ltd

Name of company (if applicable):

2. DECLARATION OF THE APPOINTED ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I, **Ms Louise-Mari van Zyl,** EAPASA Registration number ……**2019/1444**…….. as the appointed EAP hereby declare/affirm the correctness of the information provided or to be provided as part of this application, and that:

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

2024/05/21

Signature of the EAP: Date:

Cape Environmental Assessment Practitioners (Cape EAPrac)

Name of company (if applicable):

3. DECLARATION OF THE CANDIDATE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I, Ms Mariska Byleveld, EAPASA Registration number ……**2023/6593**…….. as the candidate EAP (**in assistance to the Appointed EAP**) hereby declare/affirm the correctness of the information provided or to be provided as part of this application, and that:

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

MByleveld 2024/05/22

Signature of the EAP: Date:

Cape Environmental Assessment Practitioners (Cape EAPrac)

Name of company (if applicable):

4. DECLARATION OF THE REVIEW EAP

I ....., EAPASA Registration number ..... as the appointed Review EAP hereby declare/affirm that:

- I have reviewed all the work produced by the EAP;
- I have reviewed the correctness of the information provided as part of this Report;
- I meet all of the general requirements of EAPs as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

2022/09/12

Signature of the EAP: Date:

Cape Environmental Assessment Practitioners (Cape EAPrac)

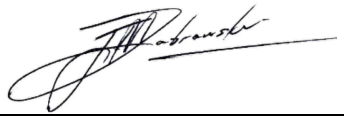
Name of company (if applicable):

5. DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I James Dabrowski, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.



Signature of the Specialist:	Date:
	2024/05/20

Confluent Environmental

Name of company (if applicable):

5. DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I Bianke Fouche....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the Specialist:  Date: 2024/05/22

Confluent Environmental

Name of company (if applicable):

5. DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I Willem Matthee, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the Specialist: Date: 2024/05/20

N/A

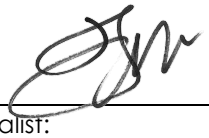
Name of company (if applicable):

5. DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I ..Jan A Venter....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.



2024/05/20

Signature of the Specialist: Date:

Name of company (if applicable):

5. DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I Stefan de Kock, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

2024/05/20

Signature of the Specialist: Date:

Perception Planning

Name of company (if applicable):

5. DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I ..Marion Bamford....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

2024/05/20

Signature of the Specialist: Date:

Marion Bamford Consulting

Name of company (if applicable):

5. DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I Lita Webley....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

L. E. Webley 2024/05/20

Signature of the Specialist: Date:

N/A

Name of company (if applicable):

5. DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I **……Johann Lanz……**, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

2024/05/20

Signature of the Specialist: Date:

SoilZA

Name of company (if applicable):