Eco Route
ENVIRONMENTAL CONSULTANCY
REGISTRATION NO. 1998/031976/23

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REVISED BASIC ASSESSMENT REPORT

FOR

Proposed Residential Development on Portion 91 of Farm Matjes Fontein 304, Keurboomstrand, Plettenberg Bay, Western Cape Province.

In terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), and the Environmental Impact Assessment Regulations, 2014 (as amended).

PREPARED FOR:	FAMILIE ROUX EIENDOMME PTY
PREPARED BY:	ECO ROUTE ENVIRONMENTAL CONSULTANCY
DEPARTMENT REF:	16/3/3/1/D1/13/0001/25
AUTHOR:	JOCLYN MARSHALL (EAPASA REG 2022/5006)
DATE:	24/06/2025

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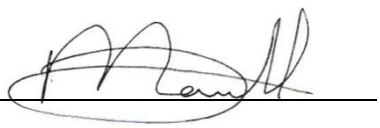
5. This document is prepared exclusively for **Familie Roux Eiendomme (Pty)** and is subject to all confidentiality, copyright and trade secrets, rules, intellectual property law and practices of South Africa.

STATEMENT OF INDEPENDENCE

I, **Joclyn Marshall**, of Eco Route Environmental Consultancy, in terms of section 33 of the NEMA, 1998 (Act No. 107 of 1998), as amended, hereby declare that I provide services as an independent Environmental Assessment Practitioner (EAPASA Reg: **2022/5006**) and receive remuneration for services rendered for undertaking tasks required in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), and the Environmental Impact Assessment Regulations, 2014 (as amended). I have no financial or other vested interest in the project.

EAP SIGNATURE: 

SUMMARY OF CHANGES TO THE BASIC ASSESSMENT REPORT AND APPENDICES

In terms of sub-regulation 19(1)(b) of Government Notice No. R.982 of 4 December 2014, an additional 50-days was requested in order to include additional information and amendments, subjected to an additional 30-day Public Participation Process.

Section 19(1)(b) of Government Notice No. R.982 of 4 December 2014 – Basic Assessment:

A notification in writing that the basic assessment report, inclusive of specialist reports, an EMPr, and where applicable, a closure plan, will be submitted within 140 days of receipt of the application by the competent authority, as significant changes have been made or significant new information has been added to the basic assessment report or EMPr which changes or information was not contained in the reports or plans consulted on during the initial public participation process contemplated in subregulation (1)(a) and that the revised reports or EMPr will be subject to another public participation process of at least 30 days.

1. Draft Basic Assessment Report:

- All new information added to the Revised BAR has been highlighted in red in the report.
- Appendix J Impact Assessment Table updated with changes highlighted red.
- Appendix K Need and Desirability has been updated to respond to public comments.
- Appendix H Draft EMPr has been updated to include additional information, highlighted in red in the report.

2. Specialist Studies:

- The following specialist studies were updated:
    - Appendix G5 - Botanical & Terrestrial Assessment to include the 2023 WCSDP maps and to respond to public comments.

3. Additional Reports:

- WULA Technical Report (Appendix L).

Western Cape Government

Department of Environmental Affairs and Development Planning

REVISED BASIC ASSESSMENT REPORT

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

APRIL 2024

BASIC ASSESSMENT REPORT

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

APRIL 2024

(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)

Portions 91 of the Farm Matjes Fontein 304 is situated in the Keurboom area in the Bitou Municipal Area to the northeast of Plettenberg Bay. The property can be accessed directly from Keurboom Road (Minor Road PO349 Rd) which connects with the N2 via Divisional Road DR1888. The site is approximately 1.8km west of Keurboomstrand.

This site is presently used for a horse riding centre and is directly opposite the Milkwood Glen Residential Complex, which consists of about 50 Group Housing erven and communal open space.

The development concept includes 60 group housing stands with average erf sizes of ±500m². The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.

Figure 1: Location of Portion 91 of the Farm 304 Matjes Fontein, Plettenberg Bay, Western Province

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. *Submission of documentation, reports and other correspondence:*

   The Department has adopted a digital format for corresponding with proponents/applicants or the general public. If there is a conflict between this approach and any provision in the legislation, then the provisions in the legislation prevail. If there is any uncertainty about the requirements or arrangements, the relevant Competent Authority must be consulted.

   The Directorate: Development Management has created generic e-mail addresses for the respective Regions, to centralise their administration. Please make use of the relevant general administration e-mail address below when submitting documents:

   DEADPEIAAdmin@westerncape.gov.za
   Directorate: Development Management (Region 1):
   City of Cape Town; West Coast District Municipal area;
   Cape Winelands District Municipal area and Overberg District Municipal area.

   DEADPEIAAdmin.George@westerncape.gov.za
   Directorate: Development Management (Region 3):
   Garden Route District Municipal area and Central Karoo District Municipal area

   General queries must be submitted via the general administration e-mail for EIA related queries. Where a case-officer of DEA&DP has been assigned, correspondence may be directed to such official and copied to the relevant general administration e-mail for record purposes.

   All correspondence, comments, requests and decisions in terms of applications, will be issued to either the applicant/requester in a digital format via email, with digital signatures, and copied to the Environmental Assessment Practitioner ("EAP") (where applicable).

4. 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.

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

6. 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.

7. This BAR is current as of **April 2024**. 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 to check for the latest version of this BAR.

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.

15. 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: **DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 1)** (City of Cape Town, West Coast District, Cape Winelands District & Overberg District)	**GEORGE REGIONAL OFFICE:** **DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 3)** (Central Karoo District & Garden Route District)
The completed Form must be sent via electronic mail to: DEADPEIAAdmin@westerncape.gov.za Queries should be directed to the Directorate: Development Management (Region 1) at: E-mail: DEADPEIAAdmin@westerncape.gov.za Tel: (021) 483-5829 Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000	The completed Form must be sent via electronic mail to: DEADPEIAAdmin.George@westerncape.gov.za Queries should be directed to the Directorate: Development Management (Region 3) at: E-mail: DEADPEIAAdmin.George@westerncape.gov.za Tel: (044) 814-2006 Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530

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);

	○ Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): ○ Ridges; ○ Cultural and historical features/landscapes; ○ Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow 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:	**Final comment/ROD from HWC**	✓
	Appendix E2:	**Copy of comment from Cape Nature**	✓
	Appendix E3:	**Final Comment from the DWS**	✓
	Appendix E4:	**Comment from the DEA: Oceans and Coast**	✓
	Appendix E5:	**Comment from the DAFF**	**X**
	Appendix E6:	**Comment from WCG: Transport and Public Works**	✓
	Appendix E7:	**Comment from WCG: DoA**	✓
	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**	✓
	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**	**X**
	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**		✓
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**		✓
Appendix L:	**Conservation Management Plan**		✓

SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	~~CAPE TOWN OFFICE: REGION 1~~		**GEORGE OFFICE: BEGION 3**
	~~(City of Cape Town, West Coast District~~	~~(Cape Winelands District & Overberg District)~~	**(Central Karoo District & Garden Route District)**

Name of Applicant/Proponent:	Stephan Roux	
Name of contact person for Applicant/Proponent (if other):		
Company/ Trading name/State Department/Organ of State:	Familie Roux Eiendomme PTY	
Company Registration Number:	1997/000233/07	
Postal address:	215 Soutpansbergweg, Rietondale	
	Pretoria	Postal code: 0084
Telephone:	012 111 9575	Cell: 084 515 1055
E-mail:	sroux@worldonline.co.za	Fax: ( )
Company of EAP:	Eco Route Environmental Consultancy	
EAP name:	Joclyn Marshall	
Postal address:	P.O. Box 1252	
	Sedgefield	Postal code: 6573
Telephone:	( )	Cell: 072 126 6393
E-mail:	joclyn@ecoroute.co.za	Fax: ( )
Qualifications:	MSc. Environmental Science	
EAP registration no:	2022/5006	
Name of landowner:	Familie Roux Eiendomme PTY (Stephan Roux)	
Name of contact person for landowner (if other):	Stephan Roux	
Postal address:	215 Soutpansbergweg, Rietondale	
	Pretoria	Postal code: 0084
Telephone:	012 111 9575	Cell:
E-mail:	sroux@worldonline.co.za	Fax: ( )
Name of Person in control of the land:	Same as Landowner (above)	
Name of contact person for person in control of the land:		
Postal address:		
		Postal code:
Telephone:	( )	Cell:
E-mail:		Fax: ( )

Municipality in whose area of jurisdiction the proposed activity will fall:	Bitou Municipality	
Contact person:	Anjé Minne	
Postal address:	Private Bag X1002	
	Plettenberg Bay	Postal code: 6600
Telephone	044 501 3000	Cell:
E-mail:	aminne@plett.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.				
Greenfield, the development is on a farm portion with no permanent structures.					
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)	°	'	"	
4.	**Other developments**				
4.1.	Property size(s) of all proposed site(s):				147251m²
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):				0m²
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:				
	Preferred Layout				41 484m²
	Alternative Layout 1				43 000m²
	Alternative Layout 2				19 000m²
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).				

Portions 91 of the Farm Matjes Fontein 304 is situated in the Keurboom area in the Bitou Municipal Area to the northeast of Plettenberg Bay. The property can be accessed directly from Keurboom Road (Minor Road PO349 Rd) which connects with the N2 via Divisional Road DR1888. The site is approximately 1.8km west of Keurboomstrand.

This site was used for a horse-riding centre which was relocated in 2024, and is directly opposite the Milkwood Glen Residential Complex, which consists of about 50 Group Housing erven and communal open space.
The Plettenberg Bay area historically has very little housing opportunities for middle-income earners. The recent influx of higher-income families moving to the area has led to a sharp increase in housing prices which has further exacerbated the lack of affordable housing. Many residents are displaced as property values rise to the point of unaffordability. This displacement of the middle class and lack of affordable houses has a tremendous effect on the economy of the town, as the middle-class workforce actively contributing to these economies can no longer afford to live here.

The vision of this development is to create an affordable and sustainable housing product specifically targeting the middle-income group. The aim is to create a pleasant yet affordable residential neighbourhood where the average person can own a home and live with dignity. The architecture will be based on green principles which will include smaller but well-designed houses, which are more cost-efficient, energy-efficient and healthy.

The proposed development includes 60 single residential house stands with average erf sizes of ±500m². The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.

The 60 residential erven are approximately 29 471m² in total, with the internal road network of approximately 12 013m² making a total permanent disturbance footprint of 41,484m². The communal open space II area within the development will be approximately 9 642m² of landscaped gardens and stormwater infiltration ponds systems.

The property is 14.7ha in size and the gross density will calculate at 4 units per ha. The nett density is calculated excluding the undevelopable steep slopes to the north of the site. The identified development area measures approximately 6ha and 60 units will calculate to a net density of 10 units per ha.

The houses will be equipped with solar systems which require maximum exposure to the sun. In the Southern Hemisphere, houses should be orientated to face north. The layout design has as far as possible orientated erven, especially the smaller ones, in such a way that houses can be places with their longer frontages to the north. Energy efficient guidelines will include elements such as having appropriate areas of glazing, correct orientation, suitable levels of shading, insulation, and thermal mass. The use of local building materials and renewable energy applications such as solar water heaters, rainwater harvesting etc. will be encouraged.

The road network will consist of landscaped lanes. A great neighbourhood has safe and friendly streets where people can walk without fear of crime or being threatened by traffic. The streets in this neighbourhood will be private with low volume and speed and will function more like open spaces than traffic ways. The main road reserves are 12m wide which will allow for enough space to accommodate a road surface, services, sidewalks, and landscaping. All secondary Streets measure 10m in width.

The proposed open space system is made up of 9 642m² within the development footprint and 83 512m² of the remaining area. The open space areas within the development will be zoned as Open Space II and correspond to the position of indigenous vegetation, forest, and milkwood trees. The communal open space II area will incorporate landscaped gardens and stormwater infiltration ponds systems. Should it be required, excess effluent will be discharged to the stormwater infiltration ponds system. This will be environmentally acceptable, the effluent being to DWS Special Limits quality. These areas will be part of the landscaping plan of the development and will provide an opportunity for recreational areas such as walking trails, lookout points etc. A play park and picnic area are planned under the Milkwood trees and the small dam can be equipped with a bird hide or benches where the resident can enjoy the greenery.

The remaining undeveloped 83 512m² will be zoned as Open Space III and will be managed as a conservation area in accordance with a Conservation Management Plan (Appendix L). The conservation area also incorporates an ecological corridor for wildlife movement and the historical fountain. The ecological corridor will run between the west and east boundary of the property along the foot of the slope and creates a buffer zone of 20 meters between the development and the forest area. In addition to the wildlife benefitting from this 20 m corridor, the slope base is also then protected in terms of groundwater recharge

Crime is a South African reality and must be a consideration in any new development. The development will be a gated security complex. The development will be fenced but special attention will be given to unobtrusive fencing and animal movement. There will only be one gatehouse that will control access.

SERVICES[1]

The development will aim to be as self-sufficient as possible. There are municipal water sewer and electrical networks available in the area.

Water: The water connection for the development will be off the existing 200mm watermain in Keurboomstrand road.

The projected water demand takes consideration of the following recommendations for daily water consumption

- RED BOOK Chapter 9, Table 9.4 Residential 2 stands 600 to 1000 litres per day
- NPDG Section J, Table J2 High Density Residential 600 to 800 litres per day
- The GLS Report recommendation for the Development 600 litres per day

With due consideration to the proposed recycling and rainwater harvesting for toilet flushing and irrigation usage (see Alternative Water Sourcing below), and the low projected average occupancy, the water demand is based on average daily demand of 600 litres per erf and 60 erven

Average Daily Demand: 36 kl
Based on a peak factor of 4 the maximum peak flow demand will be 1,7 litres per second.

Alternative Water Sourcing: The above demand figures represent the worst case demand from the municipal system. The Developer's intent is to optimise the use of rainwater harvesting for domestic use and the use of treated greywater for irrigation purposes, within economic feasibility. Detailed solutions will be addressed in the detailed design stage and will be to Bitou Engineering Department approval.

The **fire flow** criteria is Low Risk Group 1 which requires provision for a fire flow of 15 litres per second with a minimum residual head of 10 meters.

Sewer: The sewer connection for the Development will be to the existing 160mm reticulation pipe situated immediately opposite the site on the southern side of Keurboomstrand Road.

The projected sewerage discharge takes consideration of the following recommendations for daily sewerage discharge:

- RED BOOK Chapter 10, Table C1 Middle Income Group 750 litres per day based on 6 people per dwelling
- NPDG Section K, Table J2 High Density Residential 480 to 560 litres per day

With consideration to the expected average occupancy of 3 only persons per stand the sewerage discharge is based on average daily discharge of 500 litres per erf. This equates to an average of 3,3 persons per stand.

Average Daily Discharge for 60 stands: 30 kl
Based on a peak factor of 2.5 the maximum peak discharge will be 0,86 litres per second.

Currently, there is no municipal wastewater system with capacity to accommodate the wastewater generated from the proposed development, until upgrades to the rising mains and the wastewater treatment plant at Gansevallei WWTW have been completed by Bitou Municipality. Wastewater from the development will be pumped to a proposed temporary new Bio Sewage System Treatment Plant (WWTP

[1] BULK SERVICES AND CIVIL ENGINEERING INFRASTRUCTURE REPORT. Version 7. Poise Consulting Engineers, January 2025.

method statement; Appendix G3), with 30 kℓ per day capacity plant or similar approved. See Appendix E16 for the Bitou Municipal letter confirming support for the use of the temporary WWTP.

Bulk services constraints will be addressed in the Service Level Agreement between the applicant and the municipality, where the municipality will only support a certain number of houses at a time, i.e. a phased development approach as upgrades to the bulk services is done (Comment provided by Planning Space).

The **Bio Sewage Systems** plant is a containerized bio reactor plant which delivers treated sewerage to the DWAS special limits water quality standard. Bio Sewage Plants are environmentally friendly, chemical free, robust and have been proven to be reliable and simple and easy to maintain. Sludge is recycled within the plant system and there is therefore no requirement for cleaning and sludge removal. This is confirmed by Bio Sewage Systems plants which have been operational for in excess of 15 years with no sludge removal requirements.

The raw sewage will discharge to an anaerobic underground tank from where it will be pumped to the containerised plant. The plant will operate on an "equals in equals out" basis, however, the preceding anaerobic tank will be designed with sufficient capacity to cater for offline situations and will include for emergency storage of 48 hours. That is 60 kilolitres.

The treated discharge from the plant will be pumped to an elevated holding reservoir, also of capacity 60 kilolitres, and situated in the north west corner of the developed area. From this reservoir the effluent will be reticulated with each erf being provided with a connection for irrigation and toilet flushing.

The estimated total average daily usage for toilet flushing will be approximately 7,5 kilolitres, based on an average of 3 occupants per house.

It is intended that the remaining 22,5 kilolitres per day be utilized for irrigation of common property and homeowner's gardens. Excluding road surfaces and pond areas this amounts to a total irrigatable area of approximately 2,5 hectares. Based on a typical garden sprinkler irrigation application rate of 10mm over a 15 minute session, the daily irrigation area required would be 2250m2. If each area was to be irrigated once per week, only 62% of the irrigatable area would be required.

Should it be required, excess effluent will be discharged to the stormwater infiltration ponds system. This will be environmentally acceptable, the effluent being to DWAS Special Limits quality.

Effluent quality will be tested on a monthly basis.

Permanent groundwater sampling wells will be installed, strategically positioned for the purposes of regular monitoring of the quality of groundwater which has been subjected to irrigation infiltration.

Access: The site access will be off Keurboomstrand Road MR395. The development will include the following roads:

- Main Access Collector with a width of 5,5m
- Internal Access Roads with a width of 4,5 to 5.05m

The minimum bellmouth radii will be 7.5m. The main access will have standard SABS pre-cast concrete semi mountable on both sides. The internal roads will have edgings on the high side and mountable kerbing on the low side of the crossfall.

Roads will be constructed of permeable paving or grass block paving to facilitate infiltration.

Fencing: Crime is a South African reality and must be a consideration in any new development. The development will be a gated security complex. The development will be fenced but special attention will be given to unobtrusive fencing and animal movement. There will only be one gatehouse that will control access.

Stormwater: The stormwater will be managed such that roof areas will drain to gardens which will fall towards roads or directly to one of three infiltration attenuation ponds P1, P2 and P3 to be provided.

The main access roads will be surfaced with permeable paving and secondary roads with grass block paving. In either case infiltration will occur through the road structure and roadbed to the natural ground below. Excess runoff to the road surfaces which does not infiltrate will be surface discharged to the infiltration ponds.

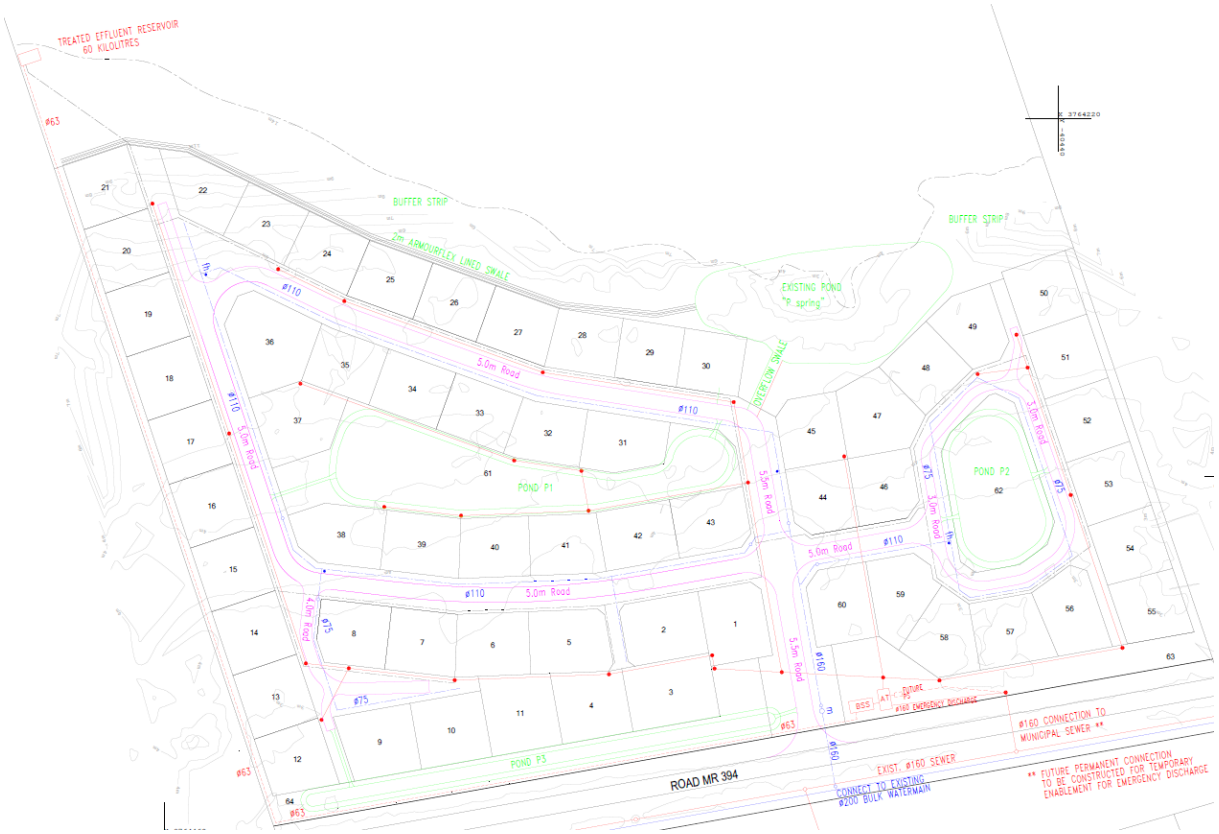


Figure 2: General Layout for roads, stormwater, sewer and water reticulation (Poise Consulting Engineer).

Based on an average roof area of 225m^2 the overall impermeable roof area will be approximately 25 percent of the road reserve and landscaped areas. This impermeable proportion does not increase the total discharge volume of the site, but does reduce the available infiltration area, and therefore increases the required duration of infiltration. Containment of the excess discharge within the ponds, will allow for the longer discharge infiltration time.

Site levels will be designed to ensure the effective implementation of the stormwater management system. The minimum floor level of any stand will be 4.0m MSL. The site slopes and road levels will be designed to flat gradients to enable maximum infiltration whilst draining on surface to the ponds. The levels will also be designed to contain flood runoff within the ponds. The preliminary estimated pond invert levels are such that they will be a minimum of 1.5m above the existing watertable. The site design levels will protect homes from flooding and will also detain excess site runoff from flooding over the Keurboomstrand Road.

TOWNPLANNING

The proposal includes rezoning the property to a "Subdivisional Area". The consolidated stand will then be subdivided into:

- 60 individual General Residential I (Group Housing) erven with average erf size of ±500m².
- 1 Transport Zone III erf (Private Road).
- 2 Transport II erven (Public Road to accommodate the existing divisional road that traverses the southern boundary of the property and the old National Road that traverses the northern section of the property).
- 2 Open Space III erf (conservation area which will include the sensitive forest area and buffer zones).
- 4 Open Space II erven (communal open space that will include private streets and services and landscaped gardens).

ALTERNATIVES:

Layout Alternative 1:

The first development concept includes ± 73 group housing stands with average erf sizes of ±375m². The houses will vary in size but will be built in a similar style that will create a harmonious development. The vision of this development concept was to create an affordable and sustainable housing product specifically targeting the middle-income group. The aim is to create a pleasant yet affordable residential neighbourhood where the average person can own a home and live with dignity. There were several objections from the local residents that express their concern about the density of the development.

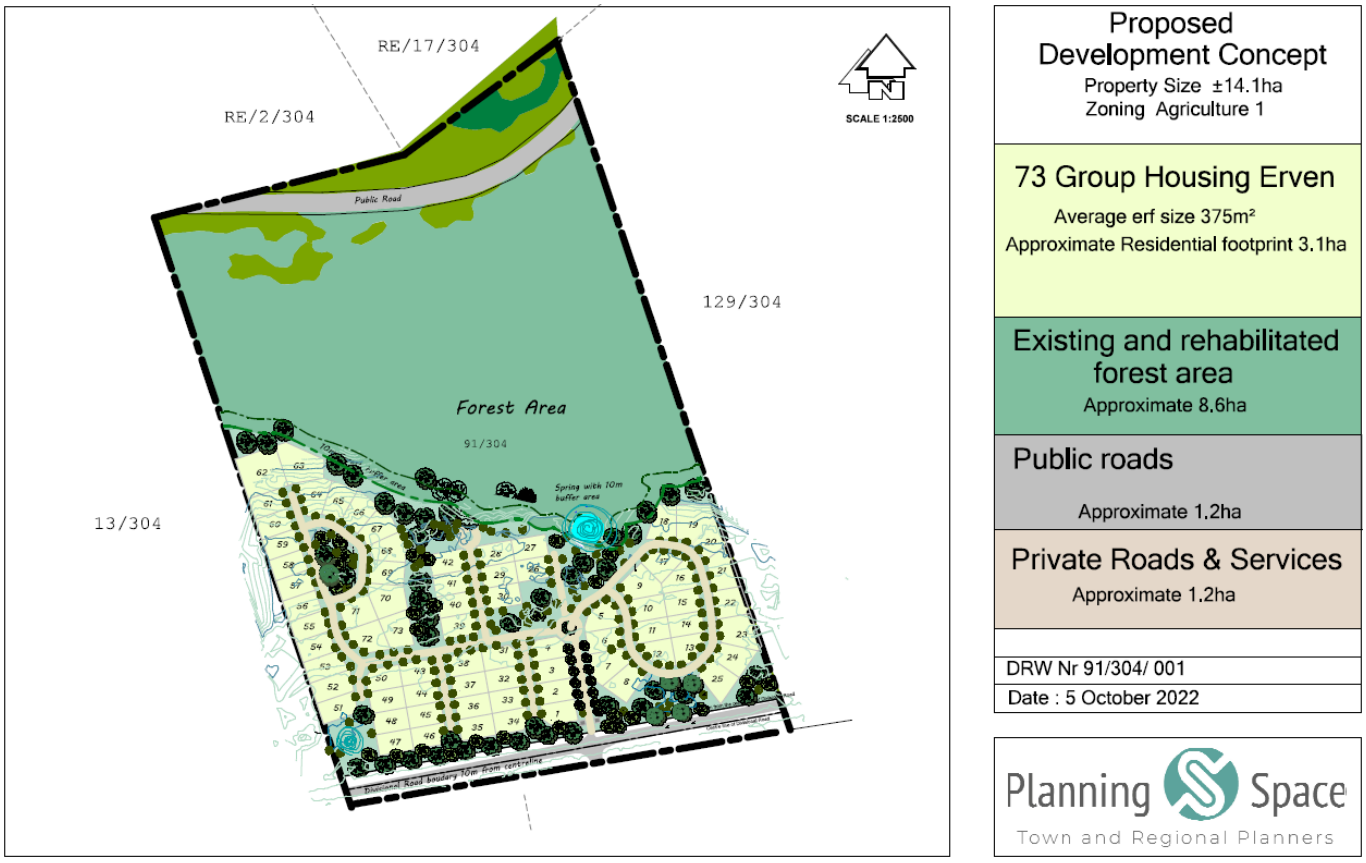


Figure 3: Layout Alternative 1 - ± 73 group housing stands with average erf sizes of ±375m².

Layout Alternative 2:

The second layout option was created in an attempt to comply with the urban edge position being above the 4,5m contour line and the density of 19 unit as proposed in the KELASP. Property sizes are approximately 800m². This option is not financially viable for the landowner and will not reach the affordability levels for the intended target market. It has been scientifically proven through specialist studies that the area below the 4,5m contour line plays no role in the functionality of the estuarine functional zone. There is thus no sound reason why this area should be excluded from the development. This layout has not been further considered as it is not a financially viable alternative.

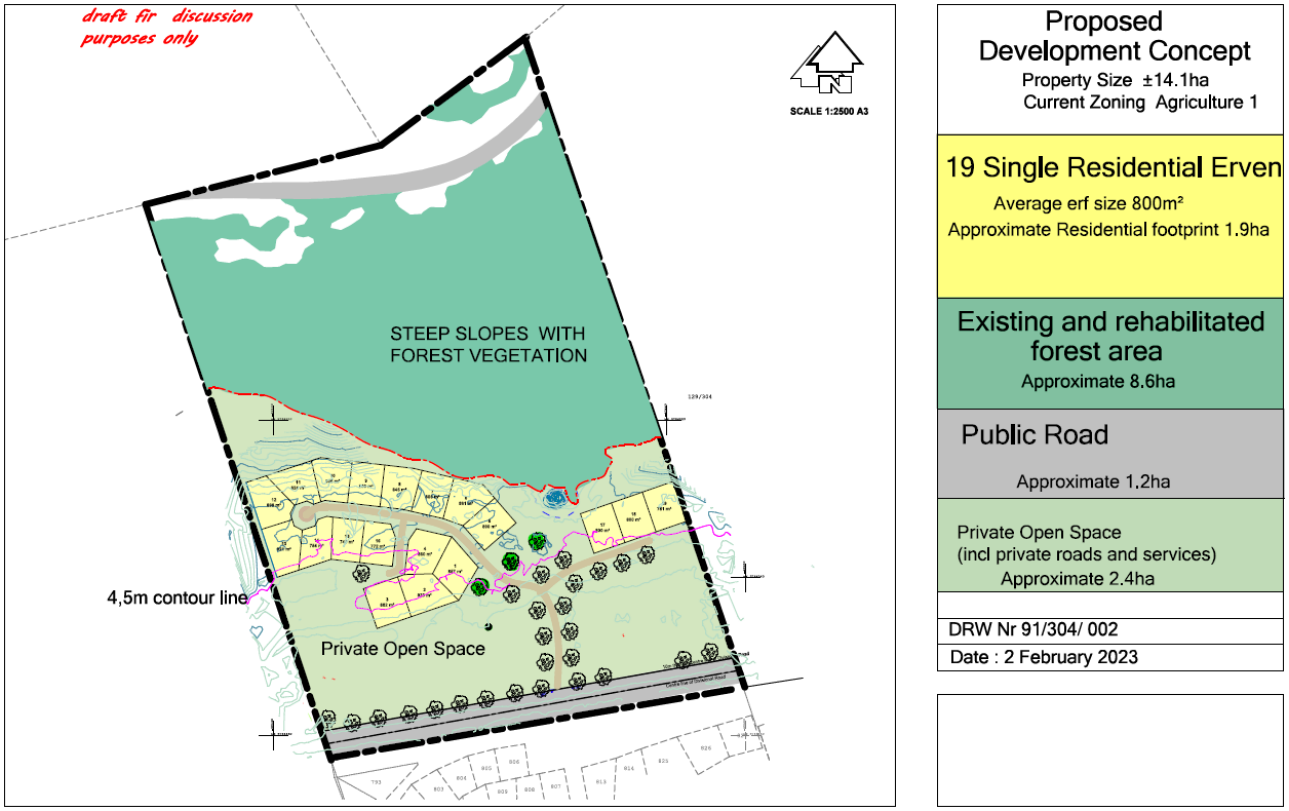


Figure 4: Layout Alternative 2 - 19 unit as proposed in the KELASP with property sizes are approximately 800m².

Preferred Alternative:

The below layout is currently the preferred option. The density has been reduced from 73 to 60 to accommodate concerns raised by the local community. Property sizes has increase from average of 375m² to 500m², to be more in line with surrounding property sizes. Further specialist assessment has also revealed that an animal corridor of at least 20m along the foot of the hill would be more suitable than the previously proposed 10m buffer from the forest vegetation. This option accommodates 20m corridors along the foot of the hill. The layout makes furthermore provision for on-site storm water retention and a private sewer treatment plant.

Figure 5: Preferred Alternative - 60 group housing stands with average erf sizes of ±500m².

	General Residential I	±3.1 ha	21%
	Open Space II	±1 ha	6%
	Open Space III	±8.3 ha	57%
	Transport zone II	±1.1 ha	8%
	Transport zone III	±1.2 ha	8%
TOTAL		±14.7 ha	100%

Figure 6: Subdivision Plan for Preferred Alternative

ANIMAL WILDLIFE CORRIDOR MANAGEMENT

The aim of the wildlife corridor is to maintain functional habitat on more level land with access to water for the wildlife that occur in the area. For this area to remain functional through the operational phase of the development, it would need to be managed effectively. The recommendations for the wildlife corridor would be to:

- A perimeter fence is recommended along the northern section of the property to preserve the wildlife corridor and natural area beyond. The fenceline should not extend into the 20m corridor and should aim to separate the development area from the conservation / wildlife area.
- Use clearVu fencing to separate the corridor from the development area. The spring must be incorporated into the corridor. The fence is to keep domestic animals (cats and dogs, etc) out of the wildlife corridor.
- Clear vu type fencing would have the important benefit of excluding pets (cats and dogs) from the wildlife corridor area where they could deter or kill wildlife large and small.
- No fencing should be permitted along the boundary either side of the corridor. It should be continuous to neighbouring properties to allow free animal movement.
- The fence can have a pedestrian gate or two which can be kept locked. No electric fencing should be permitted. If security is required, cameras can be used to monitor fence lines.
- Dense planting along the corridor side of the fencing should be done using plant species found on the site. This will aim to screen light and sound from the development.
- No garden waste disposal over the fence line into corridor. This must be strictly enforced by the HOA as it will smother indigenous vegetation and introduce alien / exotic species.
- No landscaping, mowing or weedeating should be permitted in the corridor. Only clearance of alien vegetation should be allowed.
- Recreational use of the corridor should be restricted to walking (no dogs) and bird-watching during daylight hours only. The gates should be locked and access restricted from dusk to dawn. No mountain biking should be permitted as this causes too much disturbance.
- Lighting within the development should be minimised as far as possible. Use motion detector lights / bollards instead of tall lights along streets. Minimise insect attraction to lights by installing yellow spectrum vs blue spectrum lights. Provide specifications to all residents for their outdoor lighting and recommend that motion sensor lights be installed instead of permanent lights through the HOA.

Figure 7: Animal wildlife corridor (red line).

4.5.	Indicate how access to the proposed site(s) will be obtained for all alternatives.
The property can be accessed directly from Keurboom Road (Minor Road PO349 Rd) which connects with the N2 via Divisional Road DR1888. The site is approximately 1.8km west of Keurboomstrand.	

4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	C	0	3	9	0	0	0	0	0	0	0	0	0	3	0	4	0	0	0	9	1

4.7.	Coordinates of the proposed site(s) for all alternatives:			
	Latitude (S)	34°	0‘	21.04“
	Longitude (E)	23°	26‘	12.43“

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.

Rezoning in terms of Section 15 (2)a of the said Bylaw: The property is currently zoned “Agricultural I“ in terms of the Section 8 Zoning Scheme applicable to the area. To facilitate the development of the land the property will have to be rezoned to a “Sub-divisional Area”.

Subdivision in terms of Section 15 (2)d of the said Bylaw: The current subdivision plan indicates the subdivision of the property into 60 General Residential I (Group Housing) erven with average erf size of ±500m^2 as well as roads and private open spaces.

National Heritage Resources Act 25 of 1999: The rezoning of more than a hectare of land will require approval in terms of Section 38 of the Heritage Resources Act. A Notice of Intent to Develop (NID) was submitted to Western Cape Heritage.

Subdivision of Agricultural Land Act 70 of 1970: The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for “Recreational” purposes. This means that although the property has farm portion numbers and is zoned for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70). An exemption certificate from the Department of Environmental Affairs and Development Planning has been received.

The South African National Roads Agency Limited and National Roads Act, Act 7 of 1998: The property is not situated within a building restriction area as defined in Act 7 of 1998. A building restriction area means the area consisting of land (but excluding land in an urban area) situated alongside a national road within a distance of 60 metres from the boundary of the national road or situated within a distance of 500 metres from any point of intersection with the road. An application to SANRAL is not required.

Advertising on Road and Ribbon Development Act 21 of 1940: A Surveyor-General may not approve a General Plan or the diagrams of erven situated wholly or partly outside an urban area if any part of any such erf, lot, or holding falls within a distance of 95m of the centre line of a building restriction road or of a main road, or within 500m of an intersection with a similar or national road, without written approval from the controlling authority concerned. The property borders two Provincial Roads, the PO394 and DR1888 and will therefore require approval from the Provincial Roads Authority. There are also Conditions in the Title Deed That prevent the subdivision of the property without the consent of the controlling authority in terms of Act 21 of 1940.

Outeniqua Sensitive Coastal Area Extension Regulations promulgated under Environmental Conservation Act (Act No. 73 of 1989): Certain areas have been designated as sensitive in terms of these regulations and require approval from the local municipality should activities such as clearance of vegetation and earthworks be undertaken. The property falls within the identified OSCAE area.

Table 1: Applicable Legislation

NATIONAL LEGISLATION	**RELEVANT YES / NO**	**ADMINISTERING AUTHORITY**	**TYPE Permit/ license/ authorization/comment / relevant consideration** (e.g. rezoning or consent use, building plan approval)	**DATE (if already obtained):**
CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA. (ACT 108 OF 1996)	**YES**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ **RELEVANT CONSIDERATION**	
ENVIRONMENTAL CONSERVATION ACT (ACT 73 OF 1989) OUTENIQUA SENSITVE COASTAL AREA EXTENSION REGULATIONS	**YES**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	**PERMIT** / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION	Permit to be applied for the construction phase of the development.
NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998)	**YES**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	PERMIT / LICENSE/ **AUTHORIZATION** / COMMENT/ RELEVANT CONSIDERATION	Pending this Application
NATIONAL ENVIRONMENTAL MANAGEMENT	**YES**	**Department of Environmental Affairs, Republic of South Africa.**	PERMIT / LICENSE/ **AUTHORIZATION** / COMMENT/RELEVANT CONSIDERATION	Pending this Application

AMENDMENT ACT (ACT 62 OF 2008)		**All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**		
NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT (ACT NO 10 OF 2004)	**YES**	**Department of Environmental Affairs, Republic of South Africa.** **All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	PERMIT / LICENSE/ AUTHORIZATION / **COMMENT/ RELEVANT CONSIDERATION**	Clearing of AIP
NATIONAL ENVIRONMENTAL MANAGEMENT: INTERGRATED COASTAL MANAGEMENT ACT (ACT NO 24 OF 2008)	**YES**	**Department of Environmental Affairs, Republic of South Africa.** **All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	PERMIT / LICENSE/ AUTHORIZATION / **COMMENT/ RELEVANT CONSIDERATION**	
NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT (ACT 59 OF 2008)	**NO**	**Department of Environmental Affairs, Republic of South Africa.** **All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ **RELEVANT CONSIDERATION**	
NATIONAL VELD AND FOREST FIRE ACT (ACT 101 OF 1998)	**YES**	**Department of Environmental Affairs, Republic of South Africa.** **All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.** ***DAFF Jurisdiction***	PERMIT / LICENSE/ AUTHORIZATION / **COMMENT/ RELEVANT CONSIDERATION**	
NATIONAL WATER ACT (ACT 36 OF 1998)	**YES**	**Department of Environmental Affairs, Republic of South Africa.** **All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.** ***Dept of Water Affairs Jurisdiction***	PERMIT/ **LICENSE**/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION	WULA required – running in parallel.
WATER SERVICES ACT (ACT 108 OF 1997)	**NO**	**Department of Environmental Affairs, Republic of South Africa.** **All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.** ***Dept of Water Affairs Jurisdiction***	PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ **RELEVANT CONSIDERATION**	
SUBDIVISION OF AGRICULTURAL LAND ACT (ACT 70 OF 1970)	**YES**	**Department of Environmental Affairs, Republic of South Africa.** **All State and Provincial Departments as well as Local Authorities that have been**	PERMIT / LICENSE/ AUTHORIZATION / **COMMENT/ RELEVANT CONSIDERATION**	No objection received.

		identified as relevant Competent Authorities. ***Dept. of Agriculture Jurisdiction***		
CONSERVATION OF AGRICULTURAL RESOURCES ACT (ACT 43 OF 1983)	**YES**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.** ***Dept. of Agriculture Jurisdiction***	PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ **RELEVANT CONSIDERATION**	Final comment received 23 April 2024.
NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)	**YES**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	PERMIT / LICENSE/ **AUTHORIZATION / COMMENT**/ RELEVANT CONSIDERATION	Final comment received 30 June 2023.
NATIONAL HEALTH ACT (ACT 61 OF 2003)	**YES**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.** ***Dept. of Health Jurisdiction***	PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ **RELEVANT CONSIDERATION**	
NATIONAL ROAD TRAFFIC ACT (ACT 93 OF 1996)	**YES**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.** ***WC Roads Dpt, Jurisdiction***	PERMIT / LICENSE/ **AUTHORIZATION / COMMENT**/ RELEVANT CONSIDERATION	Pending
LAND USE PLANNING ACT (ACT 3 OF 2014)	**YES**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	PERMIT / LICENSE/ **AUTHORIZATION** / COMMENT/ RELEVANT CONSIDERATION	Pending
SPLUMA (ACT 13 OF 2013)	**YES**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ **RELEVANT CONSIDERATION**	
PROVINCIAL LEGISLATION WESTERN CAPE	**RELEVANT YES / NO**	**ADMINISTERING AUTHORITY**	**TYPE Permit/ license/ authorization/comment / relevant consideration** (e.g. rezoning or consent use, building plan approval)	**DATE (if already obtained):**

WESTERN CAPE CONSTITUTION ACT 1 OF 1998	**NO**	**Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.**	PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ **RELEVANT CONSIDERATION**	
WESTERN CAPE NATURE CONSERVATION LAWS AMENDMENT ACT (ACT 3 OF 2000)	**NO**	**Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. *CapeNature Jurisdiction***	PERMIT / LICENSE/ AUTHORIZATION / **COMMENT**/ RELEVANT CONSIDERATION	
WESTERN CAPE NATURE CONSERVATION BOARD ACT (ACT 15 OF 1998)	**NO**	**Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. *CapeNature Jurisdiction***	PERMIT / LICENSE/ AUTHORIZATION / **COMMENT**/ RELEVANT CONSIDERATION	
WESTERN CAPE PLANNING AND DEVELOPMENT ACT (ACT 7 OF 1999)	**NO**	**Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. *CapeNature Jurisdiction***	PERMIT / LICENSE/ AUTHORIZATION / **COMMENT**/ RELEVANT CONSIDERATION	
MUNICIPAL ORDINANCE 20 OF 1974	**NO**	**Local Authorities that have been identified as relevant Competent Authorities. *Local Government Jurisdiction***	PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ **RELEVANT CONSIDERATION**	
MUNICIPAL PLANNING BYLAW 2015	**YES**	**Local Authorities that have been identified as relevant Competent Authorities. *Municipality***	PERMIT / LICENSE/ **AUTHORIZATION /** COMMENT/ RELEVANT CONSIDERATION	Pending
WESTERN CAPE LAND ADMINISTRATION ACT (ACT 6 OF 1998)	**NO**	**Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. *DEA&DP Jurisdiction***	PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ **RELEVANT CONSIDERATION**	

4. Policies

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

POLICIES AND GUIDELINES	ADMINISTERING AUTHORITY
DEA (2014), Companion to the EIA Regulations 2014, Integrated Environmental Management Guideline Series 5, Department of Environmental Affairs, (DEA), Pretoria, South Africa	**Department of Environmental Affairs, Republic of South Africa. All Provincial Departments that have been identified as Competent Authorities.**
DEA&DP (2014) Guideline on Public Participation, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA&DP)	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
Guideline for Involving Heritage Specialists in EIA Processes June 2005	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
Guideline for Environmental Management Plans June 2005	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
Ecosystem Guidelines for Environmental Assessment in the Western Cape	**Fynbos Forum**

Guidelines for Resort Developments in the Western Cape	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
NEMA EIA Regulations Guideline and Information Document Series: Guideline on Alternatives	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
NEMA EIA Regulations Guideline and Information Document Series: Guideline on Appeals	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
NEMA EIA Regulations Guideline and Information Document Series: Guideline on Exemption Applications	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
NEMA EIA Regulations Guideline and Information Document Series: Guideline on Need and Desirability	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
NEMA EIA Regulations Guideline and Information Document Series: Guideline on Public Participation	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
NEMA EIA Regulations Guideline and Information Document Series: Guideline on Transitional Arrangements	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
Guideline for determining the Scope of Specialist Involvement in EIA Processes	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
Guideline for involving Visual and Aesthetic Specialists in EIA Processes	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
Guideline for involving Social Assessment Specialists in EIA Processes	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
Guideline for involving Hydro-geologists in EIA Processes	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
Guideline for involving Biodiversity Specialists in EIA Processes	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**
Guideline for Environmental Management Plans	**Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**

5. Guidelines

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

The Keurbooms & Environs Local Area Spatial Plan (KELASP) (2013):

The Keurbooms and Environs Local Area Spatial Plan (KELASP) is a Local Area Spatial Plan (LASP) for Keurbooms and its surrounding Environment, which will aid the Municipality in ensuring that the area is protected / conserved and managed / developed in a coherent and sustainable manner. It has been compiled in terms of Municipal Systems Act (Act 32 of 2000) which will afford it formal legal status as a Policy Guideline document to be implemented in conjunction with the broader Bitou Spatial Development Framework (SDF) as well as Integrated Development Plan (IDP).

The KELASP provides land development objectives that take into account existing development and biophysical constraints. Spatial development categories have been provided with general

conditions to guide activities that may occur within each category, as set out and summarised in the table below (Table 2):

Table 2: KELASP Spatial Planning Categories.

KEY SPC DESCRIPTION	POLICIES
CORE1 Formally Protected Conservation Areas	• No conventional urban development • Formally protected areas, including those under SANParks and CapeNature control, should continue to enjoy the highest levels of protection. • Further continuous corridors between the mountains and the sea, such as that between Nature's Valley on the coast and Garden Route National Park in the Tsitsikamma Mountains, should be promoted. • The municipality should engage with the conservation authorities to ensure that economic growth and employment opportunities from these areas are maximised.
CORE 2 River Corridors and Wetlands	• River corridors and wetlands, including ephemeral pans, must be protected from urban, agricultural, and mining activities to a distance of at least 30 m from their banks unless closer setbacks have been determined by a geohydrologist and freshwater ecologist.
BUFFER 1 Endangered vegetation	• Conservation of endangered vegetation areas shall be encouraged through the promotion of conservancies and stewardship projects with limited eco-tourism development rights and/or donations to formal conservation agencies.
BUFFER 2 Extensive Agriculture / Livestock Grazing	• No development beyond 1 unit per 3 hectares. • Development should be clustered. • No further subdivisions below minimum farm size - Dept of Agriculture. • Rotational grazing nd other veld management best practices shall be promoted so as to improve biodiversity and stocking rates.
INTENSIVE AGRICULTURE Irrigation and Dry Land Crop and Pasture Farming	• No development beyond 1 unit per 3 hectares. • Development should be clustered (no further subdivisions below minimum farm size - Dept of Agriculture). • All existing and potential land suitable for intensive agriculture shall be protected from conversion to other uses including conservation. • Agriculture water demand management must be practices and intensive agriculture water supplies shall be protected and not diverted to other uses. • Investigate methods to bring the agricultural land currently lying fallow back into production if possible.
URBAN SETTLEMENT All land used for Urban purposes in Towns, Villages and Hamlets	• Increase gross average densities to 25du/ha in settlements requiring public transport. • Increase gross average densities to 15du/ha in small rural settlements that do not require public transport. • Urban development shall be promoted within urban settlements according to the settlement planning principles provided for in the broader Bitou SDF.
URBAN EDGE	• Outer boundary of urban settlement aligned to protect natural and agricultural resources and to promote more compact settlements. • Urban settlement should primarily be located and encouraged within the Urban Edge. • No urban development shall be permitted outside of the urban edge or identified Development Nodes.

	• The Urban Edge / Development Nodes should enclose sufficient land to accommodate the settlement growth for the next 10-20 years.

The Spatial Plan has identified development nodes for this area. For these nodes, a gross density profile of 12 units per ha of the identified transformed footprint area is proposed. The latter is based on the guideline of 15 units per hectare proposed for smaller rural settlements as contained in the Draft Bitou SDF (2013).

The extent of the proposed development nodes as conceptually indicated on the plan are based on the measured footprint of the identified transformed area. The proposed development nodes are strictly located within areas that have been identified as being transformed with no natural remnants remaining.

The entire southern portion of the site, where the development is planned, is identified as a transformed area, according to the KELASP Environmental Sensitivity Map (Appendix B2). The prosed density of the development is between 10 and 12 units per ha of the identified transformed footprint, as proposed in the document. Given that the transformed area is approximately 6ha as per the KELASP (see Table 2) this calculates to a maximum of 72 units.

The document also determined "no go" development areas based on the various bio-physical constraints which determine that no development should be considered:

- below the 1:50 and 100: year flood lines;
- on any slopes with a gradient steeper than 1:4;
- below the 4,5m coastal setback line;
- within the 100m high water mark setback; and
- within the Tshokwane Wetland system.

The proposed development footprint complies with all the parameters as set out above, except for the 4,5m coastal setback line. Taking the 4.5m contour line into account, only about 1.6ha of the 6ha transformed area has been identified as being suitable for development. This calculates to a maximum of 19 units.

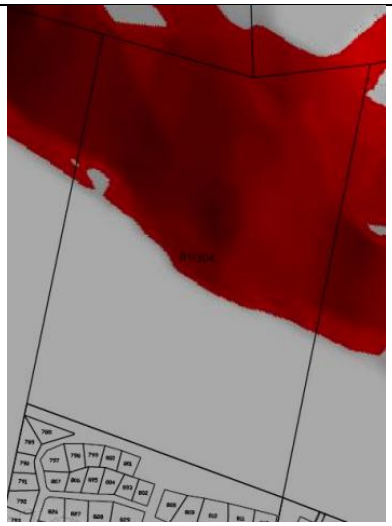
This 4.5m coastal setback recommendation was taken from the 4.5m swash contour and 4.5 m estuary/river flood contour that was a recommendation by the 2010 Eden District Municipality Sea level rise and flood risk model of 2010, commissioned by The Provincial Department of Environmental Affairs and Development Planning. The purpose of this model was to identify areas that are vulnerable to migrating shorelines and tidal reaches, storm associated extreme sea levels and estuary/river flooding. It is submitted that this property is not within 100m of the coastline and is not in the 100-year flood line of the estuary flood plain as defined in the Keurbooms Bitou Estuarine

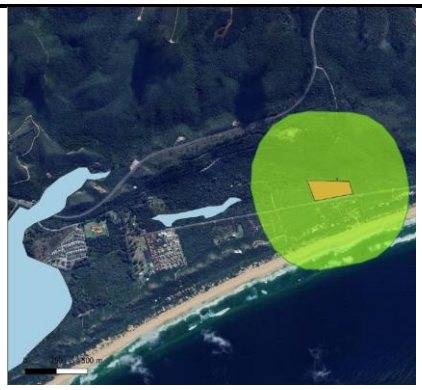
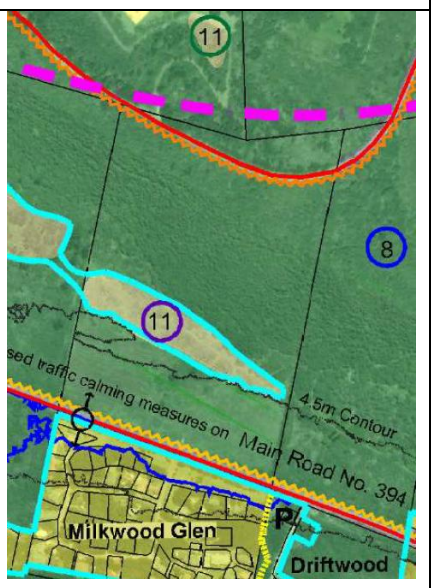
Management Plan 2018 and the reference to the 4.5m inland contour line are therefore less relevant to properties inland of these vulnerable areas.

The KELASP (2013) report includes a thorough assessment of the Tshokwane Wetlands including various classifications of different wetland units, delineation of wetland areas, and development recommendations (Freshwater Consulting Group, 2013). Findings in the report relevant to proposed development at the site are summarised as follows[2]:

[2] Freshwater Compliance Statement by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated April 2023.

Table 3: Summary of the "no-go" development areas in KELASP.

KELASP recommendations and guidelines	Graphic
Development is not supported in areas below the 1:50 and 1:100 year floodline. Lines indicated are: dark blue = 1:100 year floodline, and light blue area is an 'island' below the 1:50 year floodline. The purple line is the 100m urban coastal setback line. The proposed development area is located outside of all these features and is therefore not flagged from a heightened flood risk perspective.	
Development on steep slopes with a gradient > 1:4 is not supported. The area highlighted in red represents the steeply sloping land on 91/304.	
Development is supported in transformed areas. The related graphic maps the southern portion of the site (proposed for development) as a 'Transformed Area' less sensitive to disturbance with opportunities for development and no natural habitat remaining. The relevant area is mapped in yellow. ***Map Unit 4: Forest*** is excluded from the development footprint, but ***Map Unit 8: Fynbos invaded with aliens*** is partly included within the proposed development footprint.	

Not Within the Tshokwane Wetland system. The 500m regulated area for wetlands around the approximate development area (green). Desktop delineated wetlands are the Tshokwane and slope-base wetlands identified by the Freshwater Consulting Group report in the KELASP (light blue). According to the Keurbooms-Bitou Estuarine Management Plan the property and proposed development area are located above the 100-year floodline and outside of any ecologically sensitive areas associated with the estuary or Tshokwane wetlands. The latter point was confirmed during two site assessments by the aquatic specialists.	
The parameter restricting development below 4,5m contour line was investigated by the freshwater specialist, and was determined to play no role in the functionality of the wetland and is not within an EFZ. Ground truthing by specialists indicated that there is no sound reason why the area below 4,5m contour line should be excluded from the development, as long as all mitigation measures are adhered to. Given this determination, the 6ha of transformed area, as per the KELASP, could be considered for development within the parameter of the coastal corridor node of 12 units / Ha. Lines indicated are: light blue = urban edge, light yellow = Future Proposed Development Nodes, and dark yellow = Existing Development. The 4,5m contour is shown as a black line.	

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
A *Screening Tool* has been completed as well as a *Site Sensitivity Verification Report* (Appendix I).

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.
12	The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more;	The dam and associated spring are identified as a watercourse as defined in the National Water Act. The development will be within 32 meters of the watercourse, with a 10 meter buffer around the pond and spring.

	where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —	
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.	The development has a footprint of approximately 4.2ha, requiring more than 1 ha of vegetation to be cleared, but less than 20ha.
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 an urban area, where the total land to be developed is bigger than 1 hectare;	The land is currently zoned as Agriculture 1 in terms of the Section 8 Zoning Scheme and is used for equestrian purposes (riding school). The property will be rezoned to Subdivisional Area to allow for the residential development.
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 4 metres with a reserve less than 13,5 metres. **i. Western Cape** i. Areas zoned for use as public open space or equivalent zoning; ii. Areas outside urban areas; (aa) Areas containing indigenous vegetation; (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii. Inside urban areas: (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	The development will consist of private roads and services of approximately 1.2ha. The minimum bellmouth radii will be 7.5m. The site is identified as being within the estuarine functional zone, although there are no aquatic features present on the site and no hydromorphic indicators in the soil.
12	The clearance of an area of 300 square metres or more of indigenous vegetation	The development has a footprint of approximately 4.2ha, requiring more

	except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. **i. Western Cape** i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister	than 300 square meters of vegetation to be cleared within sections of an endangered ecosystem (Garden Route Shale Fynbos), and within the EFZ. The site is identified as being within the estuarine functional zone, although there are no aquatic features present on the site and no hydromorphic indicators in the soil.
14	The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or	The dam and associated spring are identified as a watercourse as defined in the National Water Act. The development will be within 32 meters of the watercourse, with a 10 meter buffer around the dam and spring. The site is identified as being within the estuarine functional zone, although there are no aquatic features present on the site and no hydromorphic indicators in the soil.

	(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour. **i. Western Cape** i. Outside urban areas: (aa) A protected area identified in terms of NEMPAA, excluding conservancies; (bb) National Protected Area Expansion Strategy Focus areas; (cc) World Heritage Sites; (dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (ee) Sites or areas listed in terms of an international convention; (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (gg) Core areas in biosphere reserves; or (hh) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined.	

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 vision of this development is to create an affordable and sustainable housing product specifically targeting the middle-income group. The aim is to create a pleasant yet affordable residential neighbourhood where the average person can own a home and live with dignity. The architecture will be based on green principles which will include smaller but well-designed houses, which are more cost-efficient, energy-efficient and healthy.

The development concept includes 60 group housing stands with average erf sizes of ±500m² (Appendix B1). The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.

The property is 14.7ha in size and the gross density will calculate at 4 units per ha. The nett density is calculated excluding the undevelopable steep slopes to the north of the site. The identified development area measures approximately 6ha and 60 units will calculate to a net density of 10 units per ha.

The preferred layout includes a 20m buffer along the forest margin and also incorporates portions of the secondary vegetation area to form part of the open space system within the development, which will link up with the forest area. the 20m wide buffer runs along the forest and foothill to allow for animal movement along the foothill of the ridge.

The proposed open space system corresponds to the position of indigenous vegetation. These areas will be part of the landscaping plan of the development and will provide an opportunity for recreational areas such as walking trails, lookout points etc. These facilities will be formally laid out to avoid unnecessary informal path formation in the sensitive forest habitat. A play park and picnic area are planned under the Milkwood trees and the small dam can be equipped with a bird hide or benches where the resident can enjoy the greenery. A great neighbourhood has places for people to meet, talk and be neighbourly.

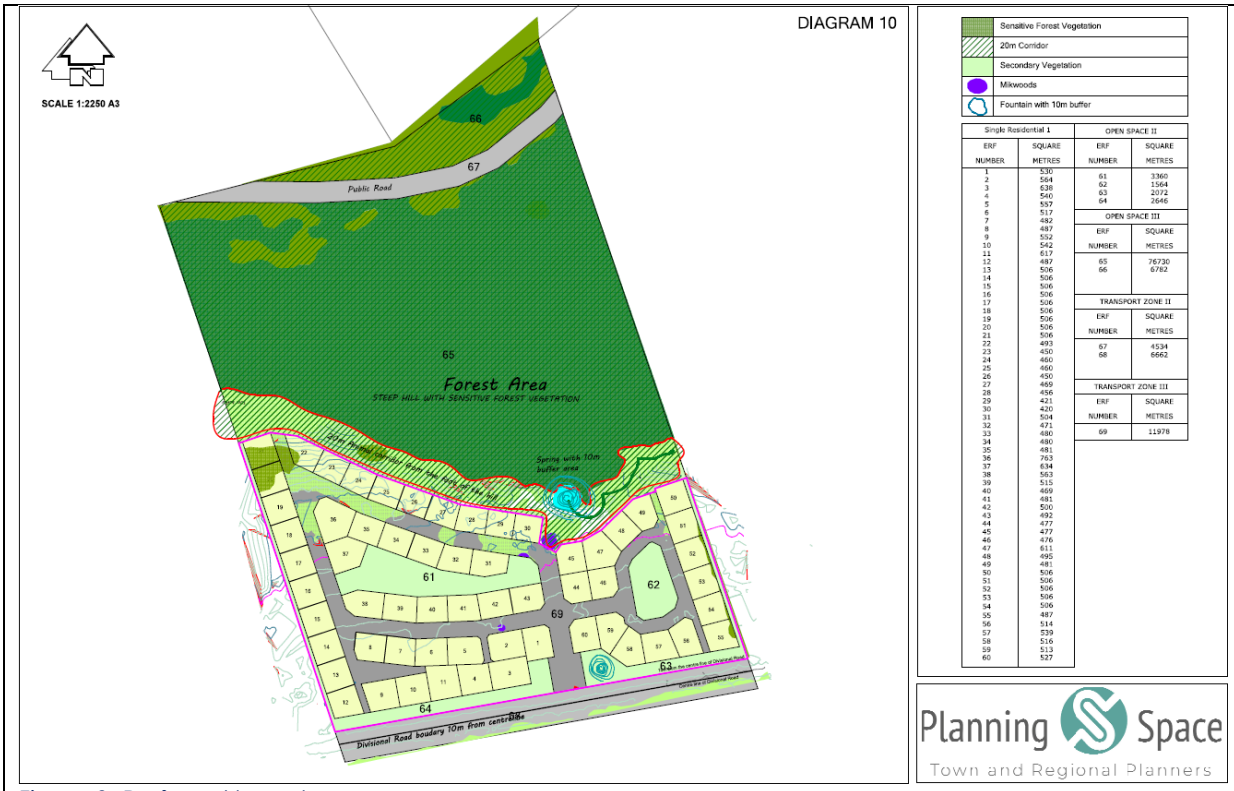


Figure 8: Preferred layout.

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 property will be rezoned from "Agricultural 1" to "Sub-divisional Area" to allow for the Group Housing erven. The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for "Recreational" purposes. This means that although the property has farm portion numbers and is zoned for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70).

The following is being applied for in terms of land use approval / consent:

(i) Rezoning in terms of Section 15 (2)a of the said Bylaw: The property is currently zoned "Agricultural I" in terms of the Section 8 Zoning Scheme applicable to the area. To facilitate the development of the land the property will have to be rezoned to a "Sub-divisional Area".

(ii) Subdivision in terms of Section 15 (2)d of the said Bylaw: The current subdivision plan indicates the subdivision of the property into 60 individual General Residential I (Group Housing) erven with average erf sizes of ±500m² as well as roads and private open spaces.

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.

Subdivision of Agricultural Land Act 70 of 1970: The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for "Recreational" purposes. This means that although the property has farm portion numbers and is zoned for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70). An exemption certificate from the Department of Environmental Affairs and Development Planning has been received.

The South African National Roads Agency Limited and National Roads Act, Act 7 of 1998: The property is not situated within a building restriction area as defined in Act 7 of 1998. A building restriction area means the area consisting of land (but excluding land in an urban area) situated alongside a national road within a distance of 60 metres from the boundary of the national road or

situated within a distance of 500 metres from any point of intersection with the road. An application to SANRAL is not required.

Advertising on Road and Ribbon Development Act 21 of 1940: A Surveyor-General may not approve a General Plan or the diagrams of erven situated wholly or partly outside an urban area if any part of any such erf, lot, or holding falls within a distance of 95m of the centre line of a building restriction road or of a main road, or within 500m of an intersection with a similar or national road, without written approval from the controlling authority concerned. The property borders two Provincial Roads, the PO394 and DR1888 and will therefore require approval from the Provincial Roads Authority. There are also Conditions in the Title Deed That prevent the subdivision of the property without the consent of the controlling authority in terms of Act 21 of 1940.

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

The PSDF 2014 has been approved by the Executive Authority, Minister Anton Bredell, Minister of Local Government, Environmental Affairs and Development Planning, and endorsed by the Provincial Cabinet. The Western Cape PSDF sets out to put in place a coherent framework for the Province's urban and rural areas.

The Provincial SDF indicates George as the regional center for the eastern part of the province, with Knysna and Plettenberg Bay being smaller centres along the Regional Connector Route (N2). It earmarks the area along the Garden Route as a tourism route with leisure activities of provincial significance.

The sustainable use of provincial assets is one of the main aims of the policy. The protection of the non–renewable natural and agricultural resources is achieved through clear settlement edges for towns by defining limits to settlements and through establishing buffers/transitions between urban and rural areas. The urban fringe must ensure that urban expansion is structured and directed away from environmentally sensitive land and farming land; agricultural resources are reserved; environmental resources are protected; appropriate levels of services are feasible to support urban fringe land uses, and land use allocations within the urban fringe are compatible and sustainable.

4.2	The Integrated Development Plan of the local municipality.

The Garden Route SDF aims to promote balanced development that supports the integration and densification of settlements within the District. In general, it promotes the creation of a walkable, integrated, and compact urban environment. The report states that the financial and economic viability of towns in the District should be improved by promoting the intensification of existing urban areas. This can be achieved through infill, densification, and redevelopment, which in turn makes the use of existing infrastructure capacity and services more efficient. This vacant site presents an ideal opportunity for densification and urban infill.

4.3.	The Spatial Development Framework of the local municipality.

The Bitou Spatial Development Framework 2021 was approved by Council in March 2022. The main objective of this development framework is to achieve a balance between development and the environment to ensure that growth is spatially just, financially viable and environmentally sustainable by working towards compact, vibrant, livable, and efficient settlements serving all communities.

The protection of natural environmental resources of the area is fundamental to future economic development in the area as the two key economic sectors of the municipality (tourism and agriculture) are both resource-based. To protect these valuable resources, the Bitou SDF has defined an urban edge aimed at containing lateral urban sprawl within the municipality.

The Bitou Municipality has provided a consistent ruling that the development is in line with the Spatial Development Framework and specifically stated that sufficient motivation has been provided to include the section that is not on the urban edge. See the letter from the Spatial Planning Department attached as Appendix E16.

4.4.	The Environmental Management Framework applicable to the area.

A detailed Local Area Spatial Plan was compiled for the Keurbooms area in 2013. The area has a fairly homogenous holiday/resort character. The document states that altering its character by permitting commercial and other non-residential development could detract from the area's attraction. The theme should thus be a low-density residential one. The proposal complies with this theme.

The property is situated in the Coastal Corridor which is defined by a number of smaller properties located within an approximate 1km offset from the high watermark extending from the Bitou River in the direction of the Keurboomstrand settlement. The Spatial Plan has identified development nodes for this area. For these nodes, a gross density profile of 12 units per ha of the identified transformed footprint area is proposed. The latter is based on the guideline of 15 units per hectare proposed for smaller rural settlements as contained in the Draft Bitou SDF (2013).

The extent of the proposed development nodes as conceptually indicated on the plan is based on the measured footprint of the identified transformed area. The proposed development nodes are strictly located within areas that have been identified as being transformed with no natural remnants remaining.

The entire southern portion of the site, where the development is planned, is identified as a transformed area, according to the Environmental Sensitivity Map Nr 6 and Biodiversity Map Nr 7 attached to the Keurboom and Environs Local Area Spatial Plan Report. The prosed density of the development is 12 units per ha of the identified transformed footprint, as proposed in the document

The document also determined "no go" development areas based on the various bio-physical constraints which determine that no development should be considered:

– below the 1:50 and 100: year flood lines;
– on any slopes with a gradient steeper than 1:4;
– below the 4,5m coastal setback line;
– within the 100m high water mark setback; and
– within the Tshokwane Wetland system.

The proposed development footprint complies with all the parameters as set out above, except for the 4,5m coastal setback line. Taking the 4.5m contour line into account, only about 1.6ha of the 6ha transformed area has been identified as being suitable for development. This calculates to a maximum of 19 units.

This 4.5m coastal setback recommendation was taken from the 4.5m swash contour and 4.5 m estuary/river flood contour that was a recommendation by the 2010 Eden District Municipality Sea level rise and flood risk model of 2010, commissioned by The Provincial Department of Environmental Affairs and Development Planning. The purpose of this model was to identify areas that are vulnerable to migrating shorelines and tidal reaches, storm associated extreme sea levels and estuary/river flooding. It is submitted that this property is not within 100m of the coastline and is not in the 100-year flood line of the estuary flood plain as defined in the Keurbooms Estuary Estuarine Management Plan 2023 and the reference to the 4.5m inland contour line are therefore less relevant to properties inland of these vulnerable areas.

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

A map was produced that determined the site constraints and limitations of the site. This was based on the specialist's studies conducted for terrestrial biodiversity and freshwater, as well as other factors such as slope analysis. The KELASP was also considered in the preferred layout and alternative layout regarding slopes, floodlines, and transformed areas.

Limitations include the following:

1. The proposed development will be restricted to the lowland areas that were previously cultivated. The forest areas are therefore outside the proposed development footprint.

2. The mapped spring and dam have been protected by a 10 m buffer as recommended, which constitutes the regulated area as per GN509 as this incorporates riparian vegetation in the immediate vicinity of the features.

3. The slope analysis indicated that the entire southern section of the site has a gradient of less than 25% and is therefore suitable for development.

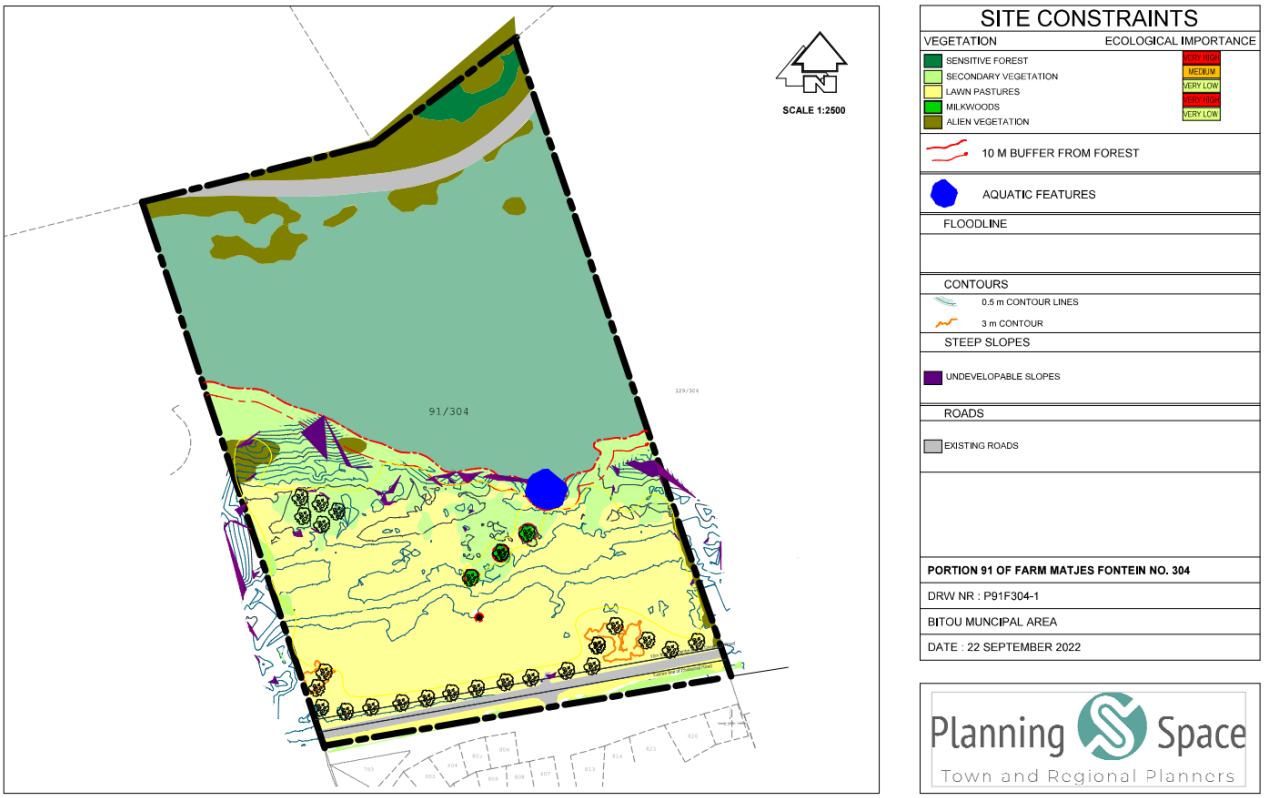


Figure 9: Site constraints.

As per the Aquatic Impact Assessment (2025) attached as Appendix G2 - During site assessments for this property as well as adjacent properties to the east (unrelated to this project), it is evident that surface water features, such as the spring on this property, occur at the base of the steep slope. For wildlife at the site, this provides a source of fresh water. In most cases development is not proposed nor supported on the steep slopes but focusses on maximizing density on the flatter and historically disturbed areas. The risk of this is that water sources become isolated 'islands' within developed areas which cannot be accessed by wildlife, and animals must adapt to life on steep slopes as level land is all developed.

This issue was highlighted with the development team and it was suggested that in addition to the 10m buffer around the pond, a 20 m wildlife corridor be established along the base of the steep slope which is continuous with neighbouring properties and remains unfenced. The purpose is to

provide animals with sustained access to water and opportunities for movement in areas of low gradient. This also protects the slope base in terms of groundwater recharge which is an important function of this zone.

In most cases the layout provides a greater corridor than 20 m and the area around the pond is more extensive than the 10 m buffer. The only major 'pinch point' is the erf located on the north-east of the development indicated as plot no. 50 (Figure 10). Note that the red X indicates Unit 50 which was subsequently moved back and out of the wildlife buffer, as reflected on the Preferred Layout.

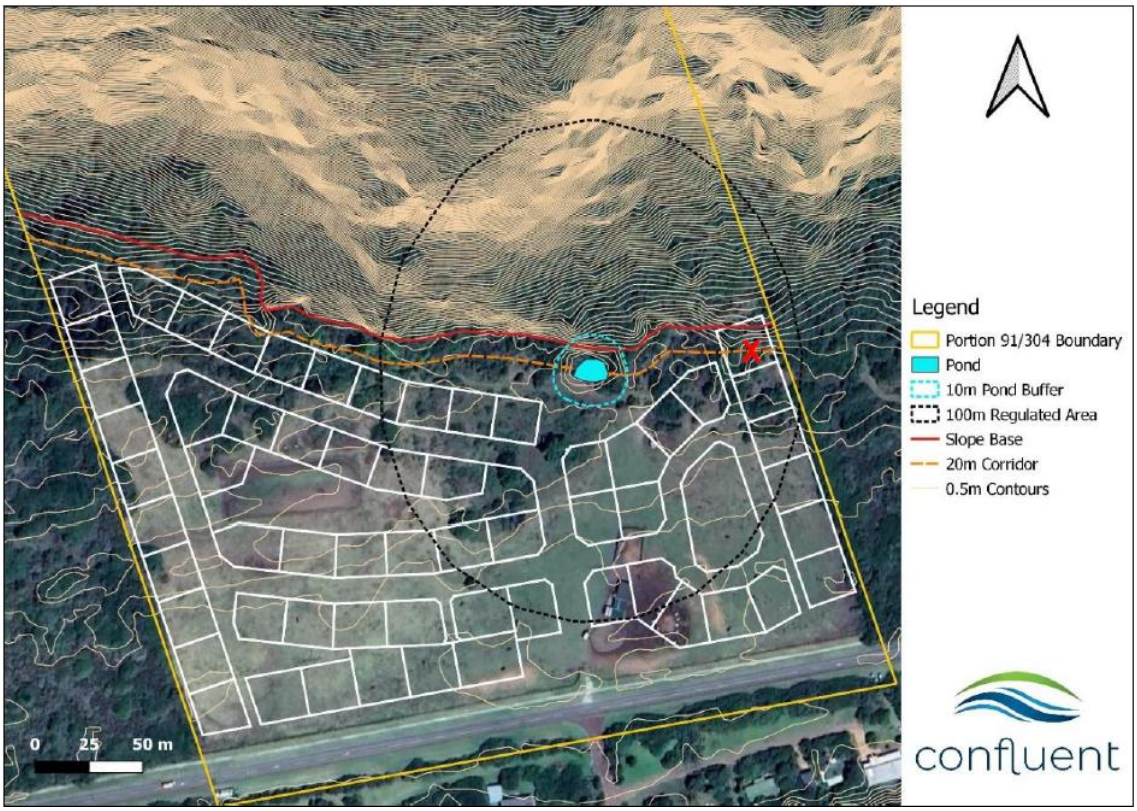


Figure 10: Preferred site development plan overlaid with 0.5 m contours, indicating the pond and buffer, the 100m regulated area of the spring, and the 20m wildlife corridor at the base of the slope. Note that the red X indicates Unit 50 which was subsequently moved back and out of the wildlife buffer (Confluent, 2025).

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

The Western Cape Biodiversity Spatial Plan (WCBSP) was developed by Cape Nature, in collaboration with the Department of Environmental Affairs and Development Planning as a spatial tool that comprises the Biodiversity Spatial Plan Map (BSP Map) of biodiversity priority areas, accompanied by contextual information and land-use guidelines.

Permissible land uses are those that are compatible with maintaining the natural vegetation cover of CBAs in a healthy ecological state, and that do not result in loss or degradation of natural habitat. The following guidelines are extracted from the Western Cape Biodiversity Spatial Plan Handbook 2017.

Land uses that should not be located in terrestrial CBAs because they cause loss of natural habitat or ecosystem functionality, include:

- Any form of mining or prospecting;
- Conversion of natural habitat for intensive agriculture (cultivation) or plantation forestry;
- Buildings or infrastructure associated with residential, commercial or industrial developments;

- ❖ Complete-barrier fencing (i.e. game-proof fences) in CBA corridors;
- ❖ Linear infrastructure of any sort that disrupts the connectivity of CBA corridors;
- ❖ Extensive or intensive grazing that results in species diversity being lost through selective or over-grazing.

The general guidelines for terrestrial CBA 1 are as follows:

- ❖ Biodiversity loss and land use change in CBAs should not be permitted. Unauthorized land use change or degradation by neglect or ignorance must be monitored as a matter of priority.
- ❖ Where appropriate and in accordance with the Protected Area Expansion Strategy (and where capacity exists), these areas should be incorporated into the formal Protected Area system through biodiversity stewardship agreements (contract Nature Reserves or Protected Environments).
- ❖ Ideally, conservation management activities should be the primary land use in all irreplaceable areas, OR they should at least be managed in ways that have no negative impact on species, ecosystems or ecosystem services.
- ❖ Extensive (low-intensity) livestock or game ranching, if well-managed, may be compatible with the desired management objectives for these areas. These land uses are acceptable if they take into account the specific biodiversity features (e.g. rare species or vegetation remnants) and vulnerabilities (e.g. infestation by invasive alien plants) at each site, if they comply with recommended stocking rates and if any associated infrastructure (required to support the ranching activities) is kept to low levels.
- ❖ Conservation efforts should focus on conserving Species of Conservation Concern and populations of keystone species and species responsible for pollination and seed dispersal.

The Western Cape Biodiversity Spatial Plan (WCBSP) shows that the entire northern area (60%) of the site (except the road) is within a CBA1 area for terrestrial and forest, while the remaining area is transformed. Development is not permitted in the CBA area but is generally permitted in transformed areas.

With approximately 57% of the property zoned as Open Space III and managed as a conservation area, the primary land use of the property in the forest habitat / irreplaceable area is conservation. Species of Conservation Concern will also be conserved in this area. A Biodiversity Stewardship Agreements will be investigated for the conservation area with CapeNature, if Environmental Authorisation is granted.

7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.

The site is within the coastal protection zone and a portion to the south is within the coastal management lines as shown in Figure 11 below.

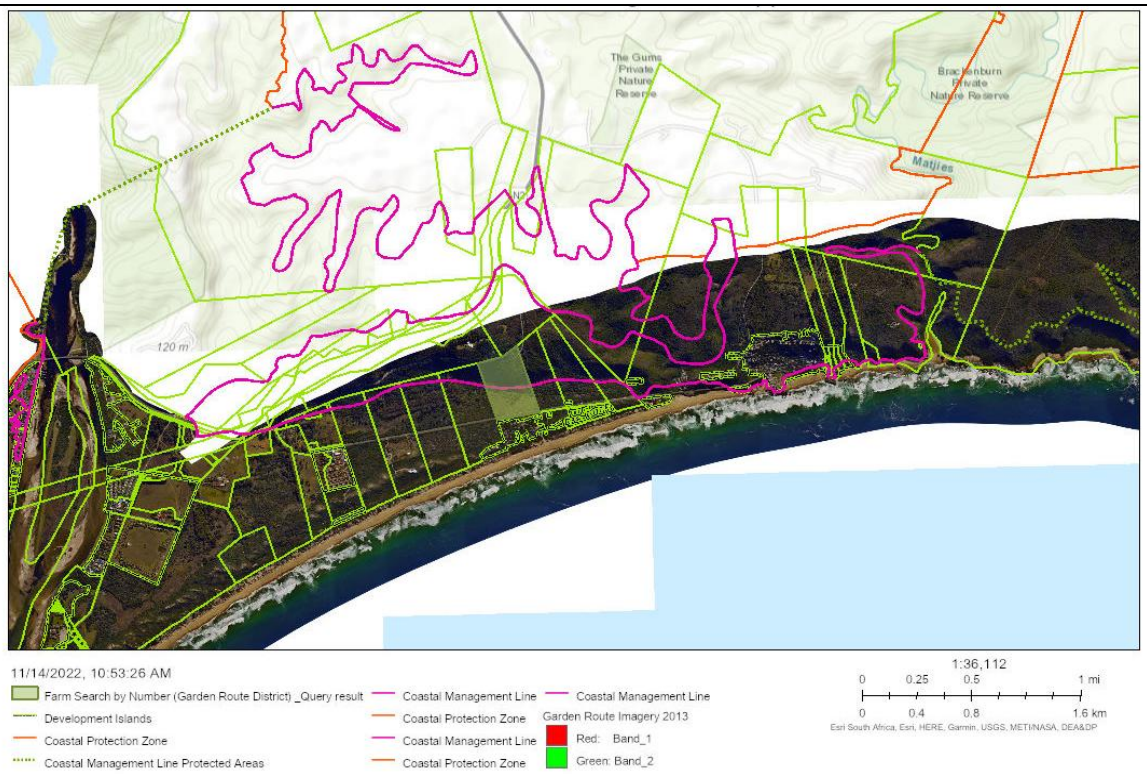


Figure 11: DEA&DP Coastal Management Lines for the Keurbooms area. Portion 91 of 304 Matjes Fontein is highlighted green.

The property is situated in the Coastal Corridor which is defined by a number of smaller properties located within an approximate 1km offset from the high watermark extending from the Bitou River in the direction of the Keurboomstrand settlement. The Keurboom and Environs Local Area Spatial Plan has identified development nodes for this area. For these nodes, a gross density profile of 12 units per ha of the identified transformed footprint area is proposed. The latter is based on the guideline of 15 units per hectare proposed for smaller rural settlements as contained in the Draft Bitou SDF (2013).

8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.

The Screening Tool Report submitted with the application is attached as Appendix I with Site Sensitivity Verification Report. Additional Screening Tool Reports have been included to address the listed activities as per NEMA.

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

The proposed development (preferred option) is on unutilised vacant land which falls within the urban edge and is therefore in alignment with the above-mentioned guidelines as stipulated in the SDF.

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

The municipal services for the proposed development are available on the boundary of the property. The main supplier of bulk services and electricity is the Bitou Municipality, nevertheless the Applicant will investigate / research the latest technology with respect to water supply (tanks) and energy saving devices, such as heat pumps, solar energy, bollard lighting and solar panels.

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).

Engineering Report and GLS Report (Appendix G3) are attached.

The GLS Report concluded that accommodation of the development in the present water reticulation system will require no upgrading of the existing reticulation system to comply with the pressure and fire flow criteria as set out in the master plan. It is however noted that for future developments the bulk water system to the Matjiesfontein reservoir should be upgraded.

The existing bulk sewer system downstream of the Matjiesfontein pump station has insufficient capacity to accommodate the proposed development. The minimum upgrades required to accommodate the proposed development in the existing sewer system are to upgrade capacity of the Aventura PS's rising main and replace existing rising main from the Matjiesfontein PS.

The Bitou Municipality have confirmed that Masterplanning is in place for the necessary upgrade to the bulk sewerage system. However the implementation of upgrades is entirely dependent on the availability of finance, and no time frame can be guaranteed for such implementation.

Implementation of the master plan (GLS Report (Appendix G3):

The minimum upgrades required to improve the existing bulk supply system in order to accommodate the proposed development in the existing system are:

- Master plan item 2 (3,6 km x 400 mm Ø replace existing 300 mm Ø abandoned AC pipe).
- Master plan item BPW.B39 (0,9 km x 400 mm Ø replace existing 150 mm Ø bulk pipe).
- Portion of master plan item BPW.B67 (1,0 km x 355 mm Ø replace existing 150 mm Ø bulk pipe).

The minimum upgrades required to accommodate the proposed development in the existing sewer system are:

- 5 400 m x 355 mm Ø Upgrade existing Aventura PS rising main.
- 1 800 m x 315 mm Ø Upgrade Matjiesfontein PS rising main.

Letter regarding service capacity from the Local Municipality is attached as Appendix E16. Conditions relevant to potable water and sewage are as follows:

- That the developer enters into and sign a Service Level Agreement with Bitou Municipality,
- That the developer makes payment of the prescribed Augmentation contributions in order for the municipality to implement the bulk upgrade of services as detailed and required.
- That the developer implements and maintain a temporary wastewater treatment plant until the upgrades to the Ganzevallei WWTW has been completed. The temporary wastewater treatment plant must be approved by the relevant authorities as part of the civil engineering services for the development. A bulk connection to the Bitou sewer network must be commissioned once the Ganzevallei WWTW has been upgraded and the temporary WWTP must be decommissioned and removed from site. All costs for construction, operation, maintenance and decommission will be for the account of the developer.

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.

THE NEED FOR AFFORDABLE HOUSING

The first question that needs to be asked when any development is considered is whether there is a need for the contemplated land use. This is normally a question that the potential investor would answer before he embarks on a long and expensive application process. Development, like any other business, is about supply and demand.

The Garden Route is becoming increasingly popular among people who want to seek a quieter lifestyle and move out of the cities. According to the Bitou Lm Growth Projections and Land Use Budget, the actual population growth in Bitou LM for the period 2001 –2016 has been about 1999 people per annum and this growth rate has dramatically increased in the last 2 years. Statistics show that historically most people moving to the Bitou area are from the Eastern Cape. Most of

these people are poor, low-skilled individuals who are searching for employment opportunities. Although most of the population growth and subsequent housing needs are in the poorer communities, there is also a known need for middle-income properties in Plettenberg Bay.

There is currently a "semigration" trend, with many people from Gauteng and KwaZulu/Natal moving to smaller towns in the Western Cape. It seems that Covid-19 has caused a lot of people to introspect and re-evaluate their priorities, which has led to the current influx of affluent city dwellers to the Garden Route. Recent unrest and increased crime and violence in Gauteng and Natal will be likely to create an even higher demand for housing in safer areas. This leads to a situation where demand, and therefore property prices, are well above national averages even though affordability is relatively low.

The Plettenberg Bay area historically has very little housing opportunities for middle-income earners. The mentioned influx of higher-income families moving to the area has led to a sharp increase in housing prices which has further exacerbated the lack of affordable housing. Many residents are displaced as property values rise to the point of unaffordability. This displacement of the middle class and lack of affordable houses has a tremendous effect on the economy of the town, as the middle-class workforce actively contributing to these economies can no longer afford to live here.

This development aims to address the housing need of the middle-income earners who lives and work in the area. According to the report by Helen Melon Properties (2021) Between 2014 and 2020, nearly 50% of property sales handled by Helen Melon Properties were to Gauteng buyers, followed by 26.6% local buyers from Plettenberg Bay and 11.8% from elsewhere in the Western Cape. Traditionally a market for holiday and retirement homes, the area has seen a shift toward permanent relocations driven by remote working and a preference for coastal living. This is especially evident among younger families leaving Gauteng, reflecting the broader semigration trend to the Western Cape's Garden Route.

Helen Melon Properties also indicated that Post-Covid recovery has been strong[3]:

- 60% increase in property sales valued between R4 million and R5 million.
- 68.75% of all sales occurred in gated estates and farms, showing demand for secure, lifestyle-focused properties.
- Sales in the R3 million to R4 million range declined by 37.87%, possibly due to bracket creep as lower-priced stock diminished.

SOCIO-ECONOMIC NEED OF THE LARGER COMMUNITY

South Africa has an ever-increasing challenge of high unemployment and skills shortages. With the destructive impact of Covid 19 on the world economy this problem has worsened. At the end of 2018, the unemployment rate was reported to be 27,2%5. One of the main goals that South Africa has set itself in the National Development Plan, is to cut the unemployment rate to 6% by 2030.

The planned residential estate will create construction jobs for local contractors and labourers. The employment opportunities associated with the construction phase are frequently regarded as temporary employment. However, while these jobs may be classified as "temporary" it is worth noting that the people employed in the construction industry by its very nature rely on "temporary" jobs for their survival. In this regard "permanent" employment in the construction sector is linked to the ability of construction companies to secure a series of temporary projects over a period of time.

[3] Plettenberg Bay: Proof that Gautengers prefer Plett

Each development, such as the proposed development, therefore, contributes to creating "permanent" employment in the construction sector.

The construction industry is an important player in job creation, not only in the construction sector but in other sectors of the economy as well. The construction industry uses a wide range of inputs such as manufacturing of construction materials and equipment, mining of raw materials, forestry, transportation, real estate, finance, and professional services which all contribute indirectly to more jobs that are created across several sectors.

Plettenberg Bay has a very similar demographic profile to the rest of the country. Socio-economic studies indicate high levels of poverty and unemployment. The social needs of the larger community form part of the "surrounding environment" and should receive due consideration when new developments are investigated. The "ripple effect" that a development of this scale has on the local economy and social well-being of the community cannot be ignored.

The Needs and Desirability section also assesses the rationale and appeal of the proposed development based on its strategic location and contribution to municipal objectives.

From a **needs** perspective, the development is shown to align with the Bitou Local Municipality's Spatial Development Framework (SDF) and Integrated Development Plan (IDP). It supports key priorities such as community growth, job creation, and economic empowerment. The proposal also outlines potential positive contributions to biodiversity (conservation zoning, stewardship agreement, prompting connectivity through wildlife corridors, etc), and infrastructure capacity (augmentation contributions, onsite package plant, rainwater harvesting, etc), while offering opportunities to stimulate the local economy. Although not linked to a national strategic initiative, the development demonstrates clear local relevance and value.

The **desirability** assessment focuses on the development's environmental implications, with specific emphasis on achieving the Best Practicable Environmental Option. It confirms consistency with municipal planning policies and highlights the potential for increased community income and employment. The evaluation stresses the importance of responsible land use, environmental stewardship, and the consideration of cumulative impacts.

In terms of the KELASP, the "no-go" development areas where taken into consideration in the preferred layout (see table 3), and the proposal is aligned with its 'Envisaged Outcome' - *It will on the one hand protect and enhance the identified conservation worthy areas through potentially "consolidating" and managing these areas by means of an appropriate conservation management agreement / arrangement, and on the other hand identify appropriate opportunities for spatial development which could support local economic development.*

The municipal growth projections and land use budget outlined in Annexure A of the Bitou Spatial Development Framework (BSDF) provide a clear indication of demand across various housing segments, including both high- and middle-income markets. According to the BSDF, the demand for high- and middle-income housing was estimated at approximately 2,800 units by 2025, with projections exceeding 8,000 units by 2040. The unreferenced figures cited by the Ratepayers Association are therefore not particularly relevant, as they fall well below the municipality's long-term demand projections. On a more practical level, the significant increase in property prices within the area indicates an undersupply in the market. To ensure alignment with market needs, the final building designs will be guided by comprehensive market research, allowing for an informed response to prevailing demand at the time of construction (Planning Space, Appendix F4).

Based on the objections received during the first round of public participation, it was evident that the local community was predominantly concerned about the perceived high density of the development and the potential demographic it might attract, and how this may impact on their own property values. In an effort to address the concerns of neighbouring residents, the development concept was revised by reducing the density from 73 to 60 units, and increasing property sizes from approximately 375m² to approximately 500m². As a result, the development's gross density now stands at approximately 4 units per hectare, while the net density is approximately 10 units per hectare. These adjusted figures align more closely with the surrounding neighbourhood densities. It will, however, result in higher property prices and not reaching the target market that was initially intended (Planning Space, Appendix F4).

PHYSICAL SITE CONSTRAINTS AND OPPORTUNITIES

The table below provides a summary of the physical site constraints and opportunities identified to date:

OPPORTUNITIES	CONSTRAINTS
Municipal Infrastructure: Bulk municipal services are available, and access is available through an existing road network. Municipal sewer and water lines are situated along this road, making a cost-efficient connection to this network possible.	There is 2 public road that traverses over the properties, taking away valuable development land. The capacity of the existing infrastructure needs to be further investigated.
Agricultural Value: The property has no agricultural value due to, its small size, and limited irrigation potential. For this reason, the property has not been identified for Agricultural purposes in the SDF.	
Low conservation value: The southern side of the property has a low conservation value due to historical agricultural practices.	The northern part of the property is covered with sensitive forest and cannot be developed.
Topography: The site has an even gradient which will allow for cost-effective services and design.	A large part of the property is too steep to develop The low-lying nature of the land (below 5m MSL) results in the property being identified as part of the EFZ
	High visibility: The development area is situated adjacent to Keurboom Road. A Landscape Plan and an architectural design guideline will be a requirement to mitigate the potential visual impact.

It can be concluded that the site has limited constraints and that the unique site characteristics will be preserved within the planned development. The site characteristic described above makes this site highly desirable for development.

COMPATIBILITY WITH THE SURROUNDING AREA

The Keurboom village is a seasonal holiday town with a homogeneous single residential holiday character. The property is about 1.8 km west of the town along a stretch of road that contains several gated residential developments. The Zoning Plan attached hereto indicate that the study area mainly consists of Single residential and Group housing zoned residential estate of varying densities. The proposal is compatible with the existing land uses.

Table 4: Development Densities in the Keurboomstrand area. Extracted from the Town Planning Report by Planning Space Town and Regional Planners, dated 11/01/2022 (Appendix G6).

DEVELOPMENT DENSITIES IN THE AREA					
Development Name	**Property description**	**Status**	**Nr of Units**	**Property size**	**Gross Density**
Candle wood	Pt 129, 92, 16 of 304	Lapsed but intention to reapply	50	37ha	1.3dupa
Whale Haven		Implemented	17	3.9ha	4.4du/ha
Driftwood	Ptn 15/304	Implemented	5	3ha	1.7du/ha
Ptn 91/304	Ptn 91/304	Lapsed but intention to reapply	60	14.7ha	4.1du/ha
Milkwood	Ptn 14/304	Implemented	50	6.5ha	7.7du/ha
Keurbaai	Ptn of ptn 13	Implemented	11	1.3ha	8.46du/ha
Dolphin Wave	Ptn 12/304	GP approved 2016, road constructed - lapsed?	62	10,3ha	6,2du/ha
Ptn 10/304	Ptn 10/304	Rights granted in 2018 for 32 units	32	22ha	1.45du/ha
The Dunes	Re9/304	Implemented	143	11.7ha	12.6du/ha
Dune Park	Ptn 74/304	Implemented	41	2.1ha	19.5du/ha
Natures Path	Ptn 10 and 192 / 304	EIA granted 2018	98	6.8ha	14.4du/ha
Plett Manor	Ptn 3/304	Implemented	130	9.7ha	13.4 du/ha
Nautilus estate	Erf 1169	2 implemented	6	9.7ha	0.6du/ha

According to the Lightstone Report (2025) attached as Appendix G13, Keurboomstrand is a high-income, predominantly LSM 10 (Living Standards Measure) suburb with strong property values, particularly in estate freeholds and non-estate freehold properties. Demand remains steady, with newer buyers and sellers showing a high level of activity in recent years. The area is well-serviced by key amenities and offers proximity to beaches, making it attractive for mature homeowners and retirees.

Below is a summary of the report findings from June 2024 to May 2025.

Property Composition

The suburb comprises the following property types:

- Sectional Title Units: 43.28%
- Freehold Properties in Estates: 40.07%
- Freehold Properties (non-estate): 16.65%
- Sectional Titles in Estates: 0%

This distribution reflects a balanced mix between estate living and sectional title options, catering to a range of homeowner preferences.

Demographic Profile

- Adult Population: 1,544
- Average Monthly Household Income: R85,000 – R105,000

- Predominant LSM (Living Standards Measure): LSM 10 Low

Ownership is concentrated among older adults, particularly pensioners and mature individuals aged 50–64. A notable portion of current owners (34%) have held their properties for over 11 years, indicating long-term stability.

Property Transactions and Values

- Sales Activity (June 2024 – May 2025):
- Total Transfers: 63
- Total Sales Value: R261,631,875
- Average Sales Price: R4,152,886

Sales by Price Band:

- R800,001 – R1,500,000: 8 transfers
- R1,500,001 – R3,000,000: 18 transfers
- Over R3,000,000: 5 transfers

Sales by Property Type:

- Estate Freeholds (21 transfers): Avg. R6,205,000
- Developed Sectional Titles (31 transfers): Avg. R2,286,129
- Freehold Land Only in Estates (6 transfers): Avg. R2,308,333
- Developed Freeholds (Non-Estate, 5 transfers): Avg. R9,321,375

There is strong market activity in both sectional title and freehold estate properties, with the highest values recorded in non-estate developed freeholds.

Ownership Trends

Ownership Duration:

- Less than 5 years: 34%
- More than 11 years: 34%

Recent Sellers: 50% sold within 5 years of ownership
Buyer Age Profile: Predominantly pensioners and mature adults

The ownership and transaction patterns indicate a healthy market with both long-term residents and ongoing turnover.

Valuation Rankings

Keurboomstrand ranks among the top suburbs nationally based on median property values:

- Freehold Ranking: 202nd out of 6,704 suburbs (Median: R5.6 million)
- Sectional Title Ranking: 207th out of 2,708 suburbs (Median: R2.45 million)
- Neighbouring high-value suburbs include Keurbooms Lagoon, with a median value of R10.43 million.

Amenities and Accessibility

Keurboomstrand is located within convenient proximity to essential services:

- Beaches: Keurboomstrand, Lookout Beach (within 5 km)
- Shopping: Market Square, Look Out Centre (4.7–5.5 km)
- Healthcare: Mediclinic Plettenberg Bay, local clinics (approx. 5.9 km)
- Education: Several primary and pre-primary schools within 6–7 km
- Police Services: 6–9 km to nearest SAPS stations

There are no bus stations in immediate proximity, indicating limited public transport access.

Lending Activity

Primary lending institutions active in the area include:

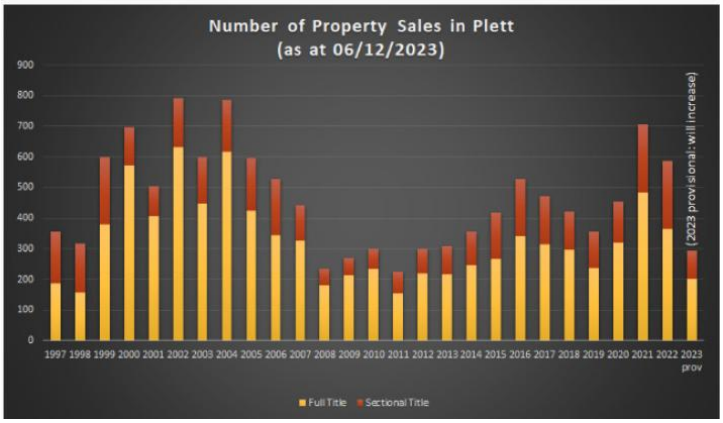
- ABSA
- FNB
- Nedbank
- Standard Bank (SBSA)
- Investec
- Discovery
- SA Home Loans

This indicates a diverse and healthy mortgage finance environment.

According to a recent Article in the Financial Mail[4], the average value for a property in Plettenberg Bay increased by 24% from 2020 to 2021 to R3million, a further 9% in 2022 to R3,3million and 26% to R4,2million in 2023. Entry level asking prices in Plettenberg Bay have increased considerably over the past 4 years. It is currently difficult to find full title homes below R3,500,000.

In the coming years it is critical that the housing shortage in the middle-income bracket be addressed to ensure the efficient functioning of the Plettenberg Bay economy. This development aims to address the housing need of the middle-income earners who lives and work in the area (Planning Report, Appendix G6).

Table 5: Property sales and prices between 1997and 2023.



[4] This report was compiled by Steven Neufeld, Manager Principal of Lew Geffen Sotheby's International Realty Plettenberg Bay and Professional Valuer and Court Appointed Appraiser for South African Property Valuations®: 072 417 7731 (or) steven@sapv.co.za

Freehold properties in estates form a substantial portion of Keurboomstrands housing market and attract high-end buyers. Over 57% of the estate freehold sales were above R3 million, with an average transaction value of R6.2 million (Lightstone 2025). The proposed residential estate development allows opportunity for middle income earners to afford freehold property within an estate by providing properties in an affordable price bracket (R2.5 million – R3 million) relative to the area.

Many of the objectors echoed the assertion that the proposed middle-income residential development, characterised by what they perceived as high-density, is incongruous with the existing character of Keurboomstrand. However, it is important to note that this development shares significant similarities with other developments in the area, such as Milkwood Glen, and is unlikely to have a profoundly adverse impact on the character of the area. The development neither introduces exceptionally high densities nor a land use that is out of sync with its surroundings; it essentially represents a continuation of the prevailing housing landscape. Furthermore, mitigation measures proposed in the Visual Assessment will ensure landscaping along the road which will soften the impact of the new development (Planning Report, Appendix G6).

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.

N/A

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

All comments received from the pre-application PPP and Draft PPP are addressed in the Comment and Response report (Appendix F).

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

The following Departments have been notified of the Draft BAR:

Organisation	**Notified**
Department of Environmental Affairs & Development Planning	08/05/2023 & 24/03/2025
Provincial Health Department	08/05/2023 & 24/03/2025
Department of Water and Sanitation	08/05/2023 & 24/03/2025
Provincial Roads Department	08/05/2023 & 24/03/2025
Department of Transport & Public Works	08/05/2023 & 24/03/2025
Western Cape Department of Agriculture: Land Use Management	08/05/2023 & 24/03/2025
SANRAL	08/05/2023 & 24/03/2025
Heritage Western Cape	08/05/2023 & 24/03/2025

Cape Nature: Land Use Advice	08/05/2023 & 24/03/2025
SANParks	08/05/2023 & 24/03/2025
Breede-Olifants Catchment Management Agency	08/05/2023 & 24/03/2025
Department of Environment Forestry Fisheries & Environment DFFE (Knysna)	08/05/2023 & 24/03/2025
Coastal Management Unit: DEA&DP	08/05/2023 & 24/03/2025
SCFPA	08/05/2023 & 24/03/2025
SACAA	08/05/2023 & 24/03/2025
Bitou Municipality	08/05/2023 & 24/03/2025
Garden Route District Municipality	08/05/2023 & 24/03/2025
DFFE: Oceans and Coasts	24/03/2025
DFFE: Protected Areas	24/03/2025
DFFE: Biodiversity Conservation	24/03/2025

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

N/A

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

Organisation	**Response Received**
Provincial Health Department	None
Provincial Roads Department	None
Department of Transport & Public Works	None
SANRAL	None
SANParks	None
Department of Environment Forestry Fisheries & Environment DFFE (Knysna)	None
SCFPA	None
SACAA	None
Garden Route District Municipality	None

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.

See Comments and Response Report (Appendix F).

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.		

OUTENIQUA GEOTECHNICAL SERVICES
Geotechnical Report dated 8 March 2023 and Addendum dated 10 January 2024.

DHS GROUNDWATER CONSULTING SERVICES
Groundwater Impact Assessment dated 12 February 2025

1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.

- The site is underlain by a low-yielding, intergranular aquifer consisting of shallow, unconsolidated formations, making it highly vulnerable to contamination.
- Groundwater was encountered at shallow depths (1.95m and 2.3m below ground level) in geotechnical test pits, confirming the need for careful contamination management.
- A hydrocensus identified three boreholes, a spring, and a groundwater spike within a 3 km radius, with groundwater users present at MG01 and MF01.
- Groundwater quality is moderate, with electrical conductivity (EC) values ranging from 150 to 370 mS/m; however, samples from MG01 and MF01 exceed drinking water standards due to elevated chloride (Cl), sodium (Na), manganese (Mn), iron (Fe), and turbidity levels.
- Based on national-scale DRASTIC data, the aquifer vulnerability is classified as "moderate," but localized conditions (high permeability and proximity to contamination sources) increase the rating to "high."
- The Aquifer System Management Index and Groundwater Quality Management Index confirm a high-risk classification for the site.

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.

According to the Geotechnical Report (January 2024), the fine sandy soil conditions generally had moderate permeability and drainage characteristics, but surface water was expected to accumulate temporarily after heavy rainfall events. A surface water body, fed by a perennial spring, was also identified at the base of the slope on the eastern side of the site. Groundwater was identified in test pits on the southern (lower) side of the site (TP1 & TP5) at an average depth of 2m. Seepage and run-off from the slopes to the north were therefore expected to have an influence on the engineering design. Groundwater was also expected to affect deep excavations (>1.5m below NGL) in some areas.

The lower portion of the property where development is proposed was also assessed in a geotechnical report (Outeniqua Labs, 2023). The report provides more detailed information on the soil drainage features and level of groundwater at the site. Test pit locations are indicated in Figure 5. Soil at the site was described as dominated by estuarine sandy soils with moderate permeability and drainage characteristics. Surface water is expected to accumulate temporarily following heavy rainfall events. Groundwater was detected in 2 of the test pits at an average of 2 m (Outeniqua Geotechnical Report, 2023). This represents a perched water table over a portion of the site. While the associated water levels can rise and fall, there would need to be a very large volume of water (extremely high rainfall) for the water table to rise from 2 m to within 50 cm of the soil surface where wetland features (wetland plants and changes to soil morphology) typically occur[5]. Furthermore, the rise and fall of the water table is transient in nature and would not persist long enough for wetland conditions to occur (pers. comm. I. Paton, Outeniqua Labs).

[5] Aquatic Impact Assessment by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated March 2024.

An additional five test pits were excavated along the northern boundary of the development footprint with a TLB/back-actor to max depth of 2.5m or refusal. Positions are indicated on Figure 12 below. The test pits were slightly variable, but generally exposed a dominantly sandy or silty sandy profile consisting mainly of naturally transported soils (aeolian/ alluvial/colluvial). Some localised deposits of imported fill/disturbed soil of variable thickness were also encountered above the naturally occurring soil horizons (refer specifically to TP12). Residual soils were encountered below the transported soils in one test pit (TP16) which were derived from the insitu weathering of the underlying shale rock, which was also exposed towards the base of TP16. ***No ground water was encountered in any of the test pits.*** The additional tests did not encounter any perched water tables or groundwater seepage, but this may be due to the generally dry conditions at the time of the investigation.

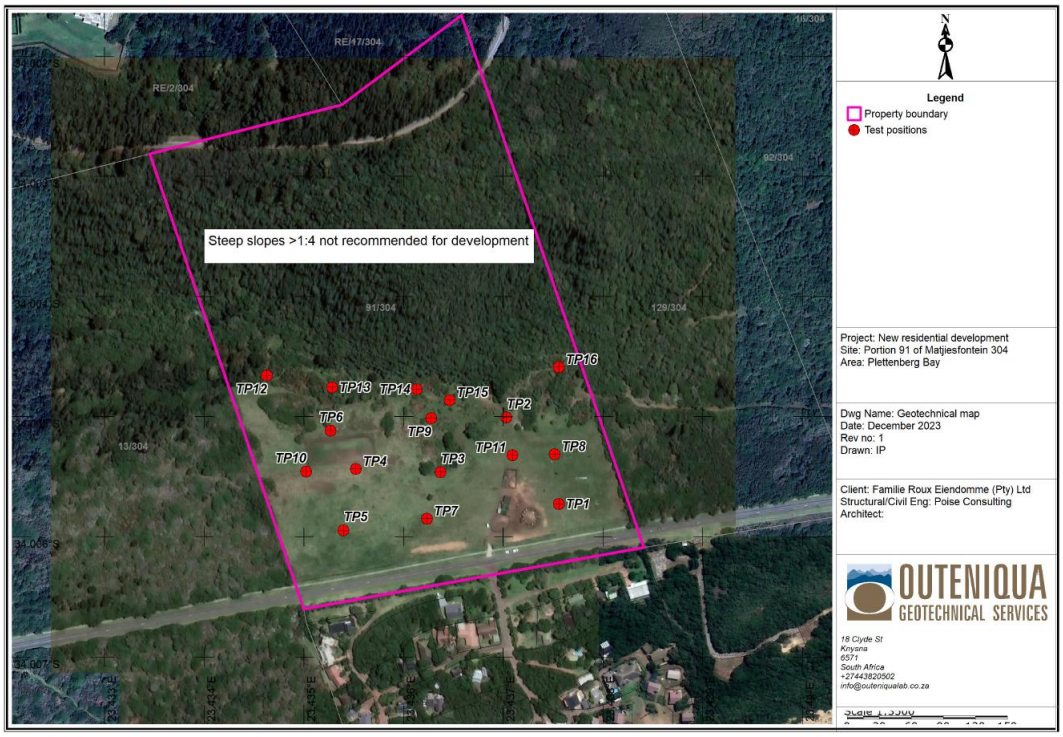


Figure 12: Geotechnical map.

As per the Groundwater Impact Assessment (February 2025), the aquifer(s) underlying the project area were classified in accordance with "A South African Aquifer System Management Classification, December 1995" by Parsons. Based on the available information it can be concluded that aquifer system in the study area can be classified as a "Minor Aquifer System". The aquifers are mostly important to maintain baseflow to the ecosystem and seldom produce large quantities of groundwater.

In conclusion, while the development poses a potential risk to both groundwater quality and natural hydrological processes, the implementation of stringent mitigation measures—such as early detection systems, regular monitoring, and appropriate stormwater management—can significantly reduce these risks. By carefully managing the construction and operational phases and addressing the identified vulnerabilities, the impacts of the development on the groundwater system can be minimized, preserving the integrity of both the aquifer and the surrounding environment (DHS Groundwater Consulting Services, 2025).

2. Surface water

2.1.	Was a specialist study conducted?	**YES**	~~NO~~
2.2.	Provide the name and/or company who conducted the specialist study.		

Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd: Aquatic Biodiversity Impact Assessment for Portion 91 of Farm 304, Matjesfontein, Plettenberg Bay, dated March 2024 (Updated). See Appendix G2.	
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.

The site has been classified as having 'Very High' aquatic biodiversity by the Department of Environment, Forestry and Fisheries (DFFE) screening tool. This classification is based on the site being located within the mapped Estuarine Functional Zone (EFZ) for Keurbooms Estuary (Figure 13) and areas indicated by the Western Cape Biodiversity Spatial Plan (WCBSP) as Aquatic Critical Biodiversity Areas (Figure 14).

The site is quaternary catchment K60E and within the Tsitsikamma Strategic Water Source Area (SWSA). No freshwater features such as drainage lines, rivers or wetlands are indicated to occur within the footprint of the property or within close proximity to the property (Figure 12). The only mapped aquatic feature is the Estuarine Functional Zone (EFZ) which is identified as any area below 5 m.a.m.s.l. (metres above mean sea level). It must be stressed that the 5 m contour is a desktop delineation of estuarine habitat intended to indicate likely areas of estuarine habitat. However, this must always be groundtruthed to confirm the presence / absence of estuarine conditions. The northern portion of the property is fairly steep and forested, while the southern portion is very flat with pasture currently grazed by horses. The development will be focussed on the southern, flatter portion of the property where historical clearing of vegetation has taken place. This area is also aligned with the lower-lying contours of the site mapped as the EFZ.

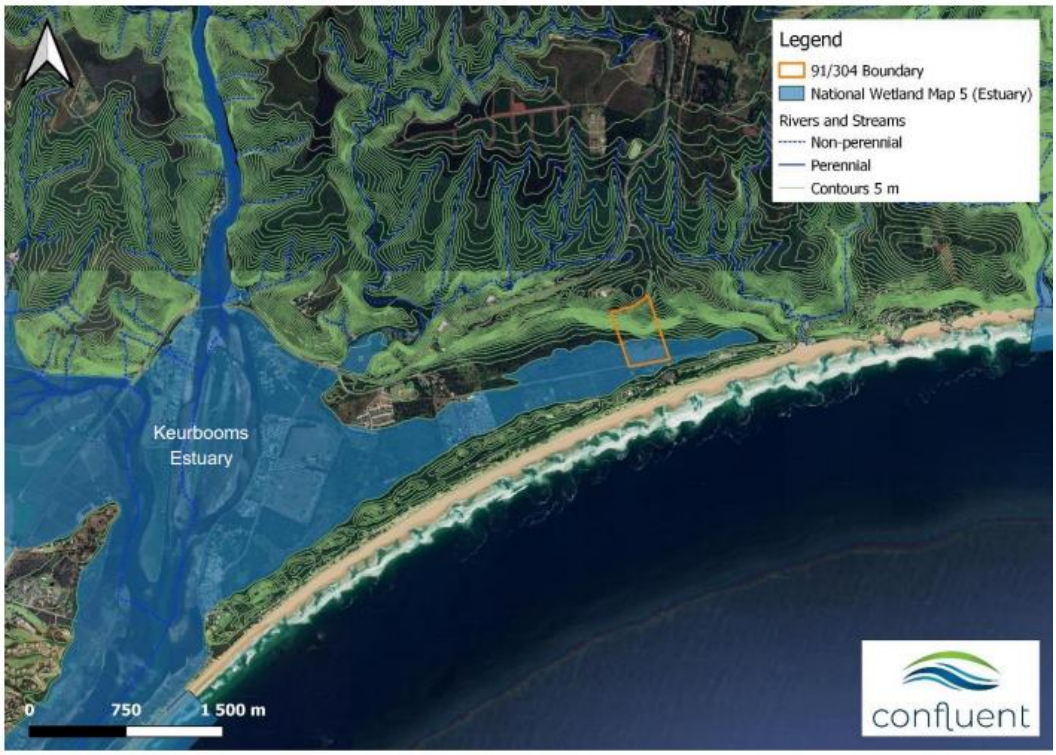


Figure 13: Location of 91/304 Matjesfontein in relation to the mapped Keurbooms Estuarine Functional Zone, contours and other watercourses.

A small natural spring is present on the site and was identified by the landowner. Water flowing from the spring is stored to a minor extent in a small, excavated pond measuring approximately 2-3 square metres (Figure 15). Soil is very sandy on the site and should therefore be relatively well drained. The dam is roughly circular, and measures approximately 90m^2 in extent.

The pond and associated spring are identified as a watercourse as defined in the National Water Act. According to GN509 of the NWA, the regulated area of a spring is classified as the outer edge of 1:100 year floodline and/or delineated riparian habitat (whichever is greater) from the middle of the spring or dam. As the floodline is not relevant in this situation, and riparian vegetation was indistinguishable from the surrounding vegetation, a buffer of 10 m for this feature is recommended. Development should be planned to exclude this buffer area during the construction and operational phase[6].

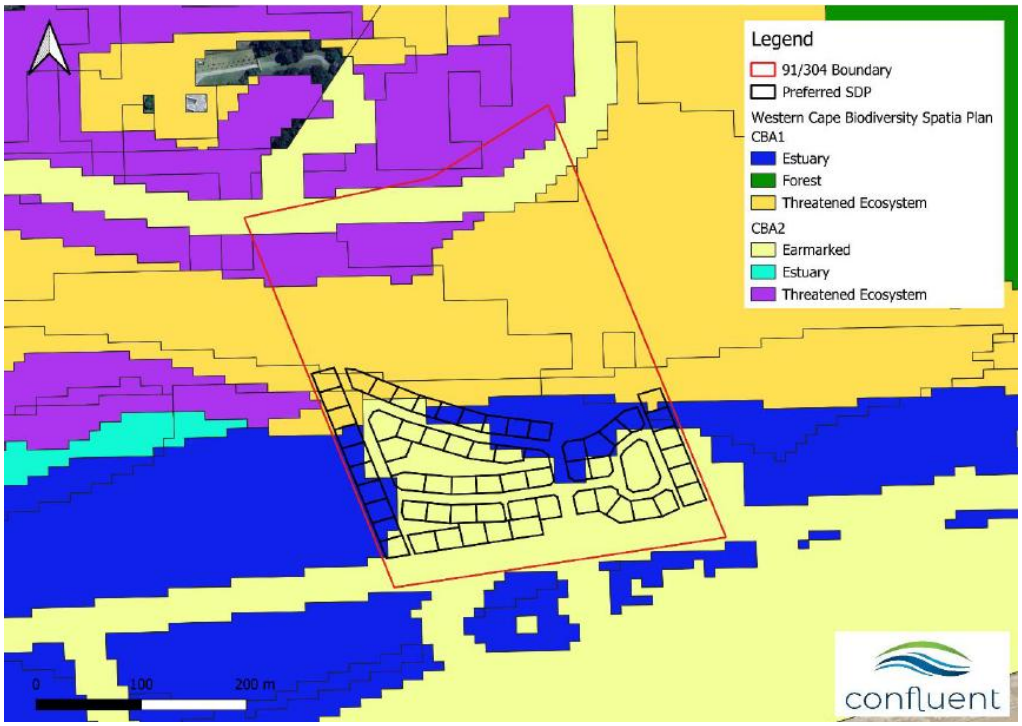


Figure 14: Critical Biodiversity Areas indicated in the Western Cape Biodiversity Spatial Plan (2023).

Figure 15: Photographs indicating the location of the spring and associated dam.

[6] Aquatic Impact Assessment by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated March 2024.

During the site visit in March 2024 additional augering was undertaken in the horse paddock area as indications from Interested and Affected Parties were that the area becomes waterlogged under very heavy rainfall. Soil augering indicated no mottling features in the upper 50 cm of the profile, and zero wetland plants were present in the area of the horse paddocks. To the contrary the plants that have escaped grazing in this area are indicative of terrestrial habitats and certainly do not reflect waterlogging associated with wetland or estuarine conditions. Compaction of the soil by horses combined with addition of layers such as bark chips could reduce permeability of the soil surface exacerbating standing water during periods of very high rainfall (Dabrowski 2024).

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.		
N/A			
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.		

Due to the subject property's location within the CPZ, Section 63 of the NEM: ICMA must be considered where an authorisation is required in terms of Chapter 5 of the NEMA. Furthermore, Section 62 of the NEM: ICMA obliges all organs of state that regulates the planning of land to apply that legislation in a manner that gives effect to the purpose of the CPZ. As such, Section 63 should be considered by local authorities for land use decision making.

According to Section 63(1)(c) of the ICMA, where an environmental authorisation in terms of Chapter 5 of the National Environmental Management Act is required for coastal activities, the competent authority must take into account all relevant factors, including whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development or activity is consistent with the purpose for establishing and protecting those areas.

The purpose for which a coastal protection zone is established as set out in section 17 of ICMA, is as follows:
The coastal protection zone is established for enabling the use of land that is adjacent to coastal public property or that plays a significant role in a coastal ecosystem to be managed, regulated or restricted in order to -

a) *protect the ecological integrity, natural character and the economic, social and aesthetic value of coastal public property:*
b) *avoid increasing the effect or severity of natural hazards in the coastal zone:*
c) *protect people, property and economic activities from risks arising from dynamic coastal processes, including the risk of sea-level rise;*
d) *maintain the natural functioning of the littoral active zone;*
e) *maintain the productive capacity of the coastal zone by protecting the ecological integrity of the coastal environment; and*
f) *make land near the seashore available to organs of state and other authorised persons for - (i) performing rescue operations; or (ii) temporarily depositing objects and materials washed up by the sea or tidal waters.*

The development does not affect coastal Public Property, or coastal access land. The property is located within the Coastal Protection Zone. Comment from the Coastal Management Department (DEA&DP) will be requested, and their inputs incorporated into the assessment.

Section 63. Environmental authorisations for coastal activities

(1) Where an environmental authorisation in terms of Chapter 5 of the National Environmental Management Act is required for coastal activities, the competent authority must take into account all relevant factors, including –

(a) the representations made by the applicant and by interested and affected parties;

This report will be subject to a public participation process which will generate representations by I&APs. These will be included in the final BAR submitted to the competent authority for their consideration.

(b) the extent to which the applicant has in the past complied with similar authorisations;

Not Applicable, the applicant has not applied for any similar authorisations.

(c) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development or activity is consistent with the purpose for establishing and protecting those areas;

The property is approximately 200m from the high-water mark of the sea, and at an average height above sea level of approximately 4 meters. The property is separated from coastal area by the Milkwood Glen Residential Estate and the Keurbooms Road. As such it is not subject to coastal erosion effects such as the risks arising from dynamic coastal processes, including the risk of sea-level rise. There are no impacts on the littoral active zone, coastal public property, or ecological integrity of the coastal environment due to its position.

(d) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area;

The property will not be affected by risk zones as per the Department's coast risk modelling for the Garden Route District project.

(e) the socio-economic impact if the activity –

(i) is authorised;

Residential units and provision of accommodation in a predominantly residential area and popular holiday destination can have numerous socio-economic benefits, including economic growth, increased tourism income, job creation, community development, and diversification of the local economy

(ii) is not authorised;

Loss of socio-economic benefits as described above.

(g) the likely impact of coastal environmental processes on the proposed activity;

(Section 63(1)(g) amended by section 33(c) of Act 36 of 2014)

Due to the property's proximity to the highwater mark (280m) and the "buffer" from coastal area by the Milkwood Glen Residential Estate and the Keurbooms Road, it is unlikely to be subjected to coastal erosion effects and risks arising from dynamic coastal processes.

(h) whether the development or activity—

(i) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations;

No, the development is located on private property.

(ii) is situated within the coastal protection zone and is inconsistent with the purpose for which a coastal protection zone is established as set out in section 17;

The subject area in its entirety is located within the Coastal Protection Zone ("CPZ") as defined in Section 16 of the NEM: ICMA and partially seaward of the Garden Route District coastal management line ("CML") delineated by the Department in the project for the coastal management line.

The development is not inconsistent with the purpose of the CPZ as it does not play a significant role in a coastal ecosystem. It is unlikely to be subjected to coastal erosion effects and risks arising from dynamic coastal processes, and will not be affected by risk zones as per the Department's coast risk modelling for the Garden Route District project.

(iii) is situated within coastal access land and is inconsistent with the purpose for which coastal access land is designated as set out in section 18;
The property is not located within coastal access land.

(iv) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal environment that cannot satisfactorily be mitigated;
No. The property is approximately 280m from the high-water mark of the sea and is "buffered" from coastal area by the Milkwood Glen Residential Estate and the Keurbooms Road, therefore will not impact on the littoral active zone, coastal public property, or ecological integrity of the coastal environment due to its position.

(v) is likely to be significantly damaged or prejudiced by dynamic coastal processes;
No. The property is approximately 280m from the high-water mark of the sea and is "buffered" from coastal area by the Milkwood Glen Residential Estate and the Keurbooms Road and therefore will not impact on the littoral active zone, coastal public property, or ecological integrity of the coastal environment due to its position.

(vi) would substantially prejudice the achievement of any coastal management objective;
No. The development does not play a significant role in a coastal ecosystem. It is unlikely to be subjected to coastal erosion effects and risks arising from dynamic coastal processes, and will not be affected by risk zones as per the Department's coast risk modelling for the Garden Route District project. The development as proposed will not prejudice any coastal management objective.

(vii) would be contrary to the interests of the whole community;
No. The developer's intention is to offer houses and properties at an approximate price range of R2 500 000 to R3,000,000. While this may still be beyond the means of many, it does present an opportunity for certain families to attain homeownership. Currently, there are no houses available in this price range, as confirmed by a brief search on Property 24.

(Section 63(1)(h) substituted by section 33(d) of Act 36 of 2014)

(i) whether the very nature of the proposed activity or development requires it to be located within coastal public property, the coastal protection zone or coastal access land;
The property is located within the coastal protection zone, however it is 280m from the high water mark of the sea and will not affect coastal public property or coastal access land.

(j) whether the proposed activity or development will provide important services to the public when using coastal public property, the coastal protection zone, coastal access land or a coastal protected area;
Not Applicable, it is private property.

(5) The competent authority must ensure that the terms and conditions of any environmental authorisation are consistent with any applicable coastal management programmes and promote the attainment of coastal management objectives in the area concerned.
The Basic Assessment Report and specialist studies assist the Competent Authority in their consideration of the application for environmental authorisation.

(6) Where an environmental authorisation is not required for coastal activities, the Minister may, by notice in the Gazette list such activities requiring a permit or licence.
Not applicable.

3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.

See point 3.5.

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.

The Keurboom Bitou Estuarine Management Plan includes the mapping of an Estuarine Functional Zone. An Estuarine Functional Zone is defined in the NEMA Regulations as "the area in and around an estuary which includes open water areas, estuarine habitats, and the surrounding flood plains. The mapped Estuarine functional Zone is however identified as any area below the 5m above mean sea-level, which does not accurately identify the Estuarine Functional Zone as defined above. The ground truthing of the site by freshwater specialists Confluent Environmental, confirmed that there are no aquatic features present on the site and no hydromorphic indicators in the soil. Furthermore, according to the Keurboom-Bitou Estuary Management Plan the property is located above the 100-year flood line, so there is also no flood risk associated with the property. The following findings were extracted from the Freshwater study:

- Remnant patches of vegetation were present on 91/304 and these contained a couple of large specimens of Milkwood trees (Sideroxylon inermeis) intermingled with Searsia sp. Shrubs which make up thicket areas. In the grazed open area which corresponds with the mapped EFZ, the dominant plant species are numerous bloodlilies (Haemanthus sanguineus), Stenotaphrum secundatum (Buffalo Grass), Mesembryanthemum spp. (ice plants), Romulea spp. (Froetangs), Carprobrotus sp., Searsia crenata (Dunekraaibessie), Salvia aurea (brown sage), and Massonia longipes (coastal hedgehog lily). While these species are typically associated with coastal, sandy habitats, they are not strictly associated with estuarine systems including the upper extent of the tidal zone. Furthermore, no estuarine species from any of the tidal habitats including saltmarsh or supra-tidal vegetation were identified at the site. These species would typically include rushes and sedges such as Juncus kraussii, Cyperus laevigatus, or Phragmites australis.

- Soil augering at the site indicated deep, sandy, fairly well drained soil with no textural change at 50 cm which could promote the development of wetland habitat. This is consistent with the mapped soil type in the area which is described as soils with limited pedological development (young soils with minimal organic matter), and a low clay content (< 15%).

- Findings that the site is largely terrestrial are consistent with the spatial assessment provided in the Keurbooms-Bitou Estuary Management Plan (Figure 16). This figure excludes the floodplain area from the 1000 m buffer around the Keurbooms-Bitou estuary. The EFZ as defined by the 2014 EIA Regulations (GNR985) under the NEMA as "the area in and around an estuary which includes the open water area, estuarine habitat (such as sand and mudflats, rock and plant communities) and the surrounding floodplain area…".

- One of the development risks within the EFZ relates to flooding which can be exacerbated by climate change and associated sea level rise. The K-BEMP (2018) includes mapped 1:50 and 1:100 year floodlines which are shown in Figure 17. The property is located on the edge of the

1:100 year floodline, which is not mapped to extend beyond the boundary of the property. In reality, the frequency of 100-year flood events is increasing due to climate change, and when coincident with sea-level rise and high tide events, it is not impossible that minor flooding could affect the low-lying area of the property in future. This should be considered in the design and layout of the property, and stormwater management should not further exacerbate the flood risk. To this end, Sustainable Drainage Systems (SuDS) should be fully implemented should the development proceed.

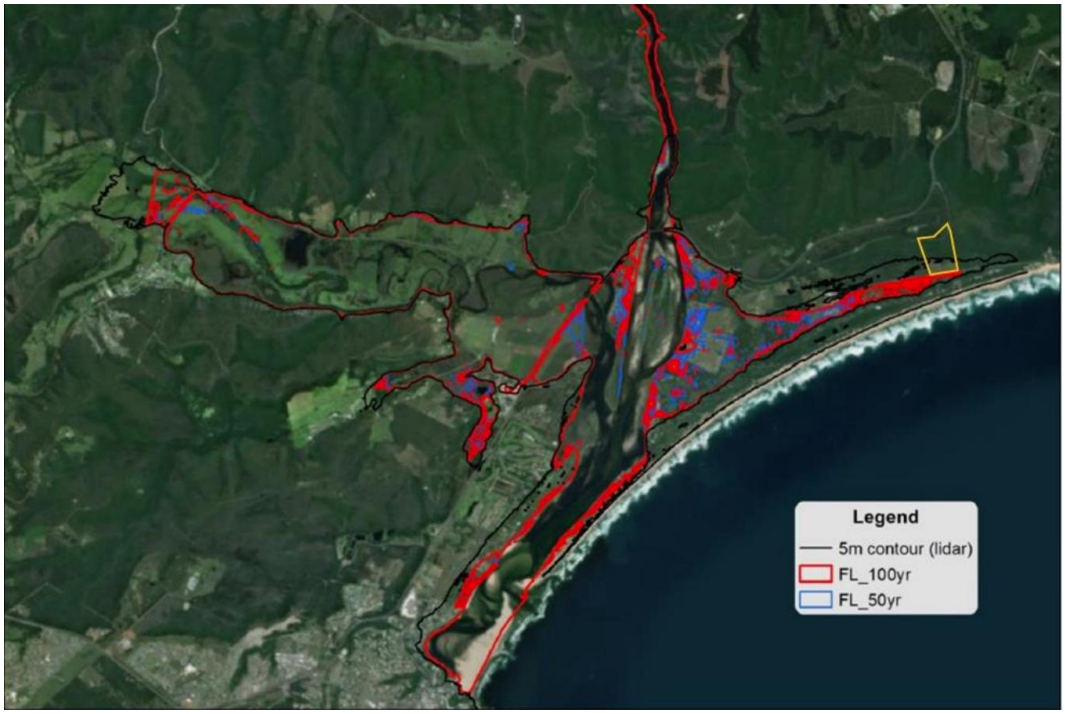


Figure 16: Mapped floodlines according to the Keurbooms-Bitou Estuary Management Plan indicating.

The site is outside the 1:50 and 1:100-year floodlines indicated in KELASP, and is also outside of the Tshokwane Wetland system, as well as outside the 100 m high water mark setback (Figure 17).

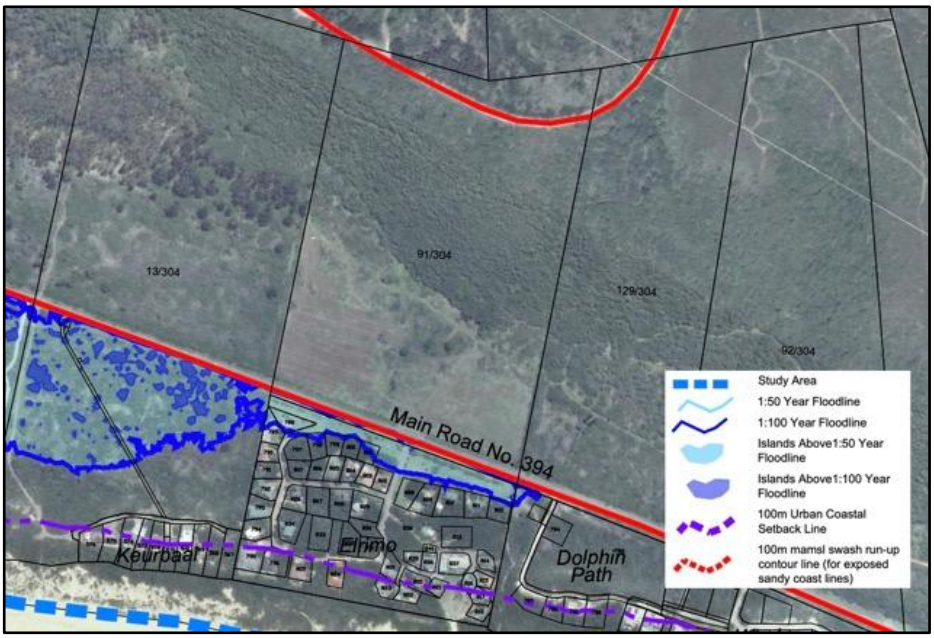


Figure 17: Floodlines and wetlands from KELASP.

The impacts associated with risks of flooding and groundwater have been included in Appendix J. The impact was assessed in the Groundwater Impact Assessment (Appendix G9) and was found that after the implementation of mitigation measures, the consequence becomes negligible, and the significance remains as negligible - negative. The recommended mitigation measures are as follows:

i) Permeable pavement and green infrastructure (limit coverage of surface area by infrastructure as far as possible.
ii) Rainwater Harvesting.
iii) Sustainable Urban Drainage Systems (SUDS).
iv) Retention and Detention Basins.
v) Design stormwater drainage systems to handle increased rainfall events by incorporating overflow pathways, sump pumps, and flow control structures.
vi) Installation of piezometers to track groundwater level.
vii) Inspect and maintain drainage systems, stormwater infrastructure, and mitigation features.

Furthermore, risks of flooding are discussed by the Engineer in Appendix F3.

As per the Engineer - All roads and driveways will remain permeable. The impermeable roof areas will amount to approximately 25% of the development area. By nature of the stand layout roof areas will not be in a concentrated location but will be distributed around the development area. Roofs will discharge to Rainwater Harvesting tanks from which excess water will discharge on surface between and around the units. The landscape levels will be modified however the gradients will remain extremely flat and the majority of runoff will therefore infiltrate the ground before reaching the ponds. Under heavy rainfall conditions runoff reaching the ponds will be stored in the ponds whilst the infiltration process is in progress.

Water infiltration around the houses and from within the ponds will spread laterally by capillary action. The impermeable areas will have no negative impact on the groundwater recharge process.

The site levels will be reshaped to drain toward the new ponds, and the surrounding pond catchment crest levels will be designed such that the overall site flood storage volume is not reduced from that of its current natural state. The site will continue to serve as a soakaway.

The site levels will be designed to ensure that homes are not flooded, the floor levels of which will all be set higher than the level of the Road 394, the existing southern flood containment level.

As per the Aquatic Impact Assessment and Stormwater Management Plan - Stormwater runoff from the steep vegetated slopes is expected to infiltrate at high rates due to the sandy soil and high permeability of the site. The state of the slopes is not proposed to change, and the dense vegetation will further reduce the velocity of runoff reaching the development area. For any surface runoff generated down the slope, the proposal is to develop an armourflex-lined swale which would transfer any surface water along the slope base and towards the natural pond. The runoff is not expected to contain pollutants of any sort and is therefore considered fit for diversion towards the pond. The proposal within the development is to direct stormwater to three retention ponds to be located within the development area.

4. Biodiversity

4.1.	Were specialist studies conducted?	**YES**	~~NO~~
4.2.	Provide the name and/or company who conducted the specialist studies.		

David Hoare Consulting (Pty) Ltd: Plant Species, Animal Species and Terrestrial Biodiversity Assessment Report for Portion 91 of Farm 304 Matjes Fontein, Keurboomsstrand, Plettenberg Bay in the Western Cape Province. Dated 24 June 2025. See Appendix G5.	
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.

The entire site is mapped as occurring within one regional vegetation type, namely Garden Route Shale Fynbos (Figure 18). The vegetation that occurs on site does not match the mapped units shown in the latest national vegetation map. Mesic Thicket that is verified as occurring on site and which is clearly visible on aerial photographs is shown in the vegetation map as Garden Route Shale Fynbos, but should be shown as a (presently) unmapped thicket unit. Studies by the author on this and other nearby sites indicate that this entire south-facing slope (from Keurboomstrand to the N2) should be mapped as Mesic Thicket (or forest). Fynbos is only present on the exposed summits of slopes where the gradient decreases and which are more vulnerable to natural fires. This is acknowledged in the Keurbooms and Environs Local Area Spatial Plan (KELASP), where "Forest" is shown as the main vegetation type occurring through the centrl part of the site.

The southern parts of the site on the flatter lowlands is also more likely to have originally contained some form of coastal thicket (not fynbos), but this is difficult to verify due to historical cultivation of these areas - the evidence for this statement is based on vegetation recovery at other nearby sites within this topographical position of the slope, where mixed thicket emerges, rather than secondary fynbos.

Figure 18: Regional vegetation types of the site and surrounding areas.

The national vegetation map also shows Southern Afrotemperate Forest as occurring nearby, but this is also contested and should be mapped mostly as Mesic Thicket. The description for Southern Afrotemperate Forest is provided below and it is clear from the published description that this not an accurate description of the vegetation occurring on site (described as dominated by yellowwoods). However, a description provided in Cowling et al. (2023) provides an accurate description of the milkwood-dominated "forest" on site, and is called Mesic Thicket. Currently, this Mesic Thicket is mapped as included within a newly described vegetation unit called Goukamma Strandveld

Garden Route Shale Fynbos:

Distribution:

This vegetation type is found in the Western and Eastern Cape Provinces: Patches along the coastal foothills of the Langeberg at Grootberg (northeast of Heidelberg), the Outeniqua Mountains from Cloete's Pass via the Groot Brak River Valley, Hoekwil, Karatara, Barrington and Knysna to Plettenberg Bay. Patches from the Bloukrans Pass along coastal platform shale bands south of the Tsitsikamma Mountains via Kleinbos and Fynboshoek to south of both Clarkson and the Kareedouw Mountains. Altitude 0–500 m.

Vegetation & Landscape Features:

Undulating hills and moderately undulating plains on the coastal forelands. Structurally this is tall, dense proteoid and ericaceous fynbos in wetter areas, and graminoid fynbos (or shrubby grassland) in drier areas. Fynbos appears confined to flatter more extensive landscapes that are exposed to frequent fires—most of the shales are covered with afrotemperate forest. Fairly wide belts of Virgilia oroboides occur on the interface between fynbos and forest. Fire-safe habitats nearer the coast have small clumps of thicket, and valley floors have scrub forest (Vlok & Euston-Brown 2002).

Geology & Soils:

Acidic, moist clay-loam, prismacutanic and pedocutanic soils derived from Caimans Group and Ecca (in the east) shales. Land types mainly Db and Fa.

Climate:

Non-seasonal rainfall dominates the region, with MAP 310–1 120 mm (mean: 700 mm), relatively even throughout the year, but with a slight low in winter. Mean daily maximum and minimum temperatures 27.6°C and 6.5°C for January and July, respectively. Frost incidence 2 or 3 days per year.

Important Taxa:

Growth form	Species
Tall shrubs	*Leucadendron eucalyptifolium* (d), *Protea aurea* subsp. *aurea* (d), *P. coronata* (d), *Leucospermum formosum*, *Metalasia densa*, *Passerina corymbosa*, *Protea neriifolia*, *Rhus lucida*[T]
Low shrubs	*Acmadenia alternifolia*, *A. tetragona*, *Anthospermum aethiopicum*, *Cliffortia ruscifolia*, *Elytropappus rhinocerotis*, *Erica hispidula*, *Helichrysum cymosum*, *Leucadendron salignum*, *Pelargonium cordifolium*, *Phylica axillaris*, *P. pinea*, *Psoralea monophylla*, *Selago corymbosa*.
Herbs	*Helichrysum felinum*
Geophytic herb	*Pteridium aquilinum* (d), *Eriospermum vermiforme*
Succulent herb	*Crassula orbicularis*
Herbaceous succulent climber	*Crassula roggeveldii*
Graminoid	*Ischyrolepis sieberi* (d), *Aristida junciformis* subsp. *galpinii*, *Brachiaria serrata*, *Cymbopogon marginatus*, *Elegia juncea*, *Eragrostis capensis*, *Ischyrolepis gaudichaudiana*, *Restio triticeus*, *Themeda triandra*, *Tristachya leucothrix*.

Southern Afrotemperate Forest:

Distribution

Western Cape, Eastern Cape and (only few patches) in Northern Cape Provinces. The largest complex is found in the southern Cape along the narrow coastal strip (250 km long) between Humansdorp in the east and Mossel Bay (Knysna-Tsitsikamma forest region)—here occurring on sheltered seaward slopes, plateaux and coastal scarps. The easternmost outlier forest patches occur near Port Elizabeth, while westwards floristically impoverished forms of these forests occur along the feet of south- and east-facing slopes and in deep kloofs and ravines of the Cape Fold Belt mountains as far as the Cape Peninsula in the west. The northernmost localities are near Vanrhynsdorp Pass and

in the Matsikamma Mountains. At altitudes ranging from about 10 m (Tsitsikamma region) to 600 m (most of patches), with notable outliers occurring as high as 1 060 m.

Vegetation & Landscape Features
Tall, multilayered afrotemperate forests dominated by yellowwoods (*Afrocarpus falcatus* and *Podocarpus latifolius*), *Ocotea bullata, Olea capensis* subsp. *macrocarpa, Pterocelastrus tricuspidatus, Platylophus trifoliatus* etc. In scree and deep-gorge habitats *Cunonia capensis, Heeria argentea, Metrosideros angustifolia, Podocarpus elongatus* and *Rapanea melanophloeos* predominate. The shrub understorey and herb layers are well developed, especially in mesic and wet habitats.

Geology & Soils
Soils varying from shallow (and skeletal) Mispah, Glenrosa and Houwhoek forms to sandy humic Fernwood form, derived from Table Mountain Group sandstones and shales of the Cape Supergroup and partly also from Cape Granite.

Important Taxa
Tall Trees: *Afrocarpus falcatus* (d), *Cunonia capensis* (d), *Curtisia dentata* (d), *Nuxia floribunda* (d), *Ocotea bullata* (d), *Olinia ventosa* (d), *Podocarpus elongatus* (d), *P. latifolius* (d), *Pterocelastrus tricuspidatus* (d), *Rapanea melanophloeos* (d), *Ilex mitis*, *Olea capensis* subsp. *macrocarpa*.
Small Trees: *Canthium inerme* (d), *Cassine peragua* (d), *Diospyros whyteana*.
Tree Fern: *Cyathea capensis* (d).
Herbaceous Climber: *Cissampelos torulosa*.
Epithytic Herb: *Angraecum pusillum*.
Tall Shrubs: *Burchellia bubalina* (d), *Trichocladus crinitus* (d), *Sparrmannia africana*.
Geophytic Herbs: *Blechnum capense* (d), *B. tabulare* (d), *Dietes iridioides* (d), *Rumohra adiantiformis* (d), *Todea barbara* (d), *Oxalis incarnata*.
Graminoid: *Oplismenus hirtellus* (d).

Biogeographically Important Taxa
([C]Endemic of Capensis, [W]Western distribution limit)
Tall Trees: *Brabejum stellatifolium*[C], *Ochna arborea* var. *arborea*[W].
Small Trees: *Gonioma kamassi*[W] (d), *Heeria argentea*[C] (d), *Metrosideros angustifolia*[C] (d), *Allophylus decipiens*[W], *Brachylaena neriifolia*[C], *Cassine schinoides*[C], *Lachnostylis hirta*[C], *Virgilia divaricata*[C].
Woody Climber: *Asparagus scandens*[C].
Epiphytic Herb: *Mystacidium capense*[W].
Tall Shrub: *Laurophyllus capensis*[C].
Herb: *Gerbera cordata*[W], *Streptocarpus rexii*[W].
Geophytic Herbs: *Liparis capensis*[C].
Graminoids: *Ischyrolepis subverticillata*[C], *Schoenoxiphium lanceum*[C].

Endemic Taxon
Tall Tree: *Platylophus trifoliatus* (d).
Small Trees: *Apodytes geldenhuysii*, *Cryptocarya angustifolia*, *Virgilia oroboides* subsp. *ferruginea*, *V. oroboides* subsp. *oroboides*.
Megaherb: *Strelitzia alba* (d).
Geophytic Herbs: *Amauropelta knysnaensis*, *Clivia mirabilis*, *Freesia sparrmannii*, *Polystichum incongruum*.
Graminoid: *Schoenoxiphium altum*.

A total of 69 plant species were recorded on site within the proposed development footprint and along the margins of the forest (see Appendix G5: Plant, Animal and biodiversity Assessment), of which three are declared weeds and/or alien invader plants, three are naturalized exotic species, and the remainder are indigenous species, some of which are weedy species commonly found in disturbed places or are species that commonly colonise areas of disturbance.

The alien invasive species are as follows:

- *Acacia cyclops** (NEMBA Category 1b)
- *Pinus* sp* (NEMBA Category 2)
- *Paraserianthes lophantha** (Invader category 1b)

According to the National Web-Based Environmental Screening Tool, a number of plant species of concern are flagged as of concern for the site. These are mostly fynbos species, or forest species. There are two species that could occur within forest habitats on site. These are *Ocotea bullata* (Endangered) that has a high probability of occurring on site, and *Faurea macnaughtonii* (Rare) that has a moderate possibility of occurring there.

There are therefore two threatened, near threatened or rare species that could occur in the study area. It is therefore verified that the Plant Species Theme has **MEDIUM** sensitivity for this site.

The conservation status of Garden Route Shale Fynbos is Vulnerable according to the 2018 NBA (Skowno et al. 2019) (Figure 19). The threat status in accordance with the Revised National List of Ecosystems (Government Notice No 2747 of 18 November 2022) published under the National Environmental Management: Biodiversity Act (Act No. 10, 2004), which lists national vegetation types that are afforded protection on the basis of rates of transformation, is listed as Endangered.

Figure 19: Ecosystem Threat Status.

As per the Plant, Animal and Terrestrial Biodiversity Assessment, a map of combined habitat sensitivity on site for the Plant Species Theme and Animal Species Theme is provided in Figure 20, mapped according to the calculations provided through the process of calculating Site Ecological Importance.

The footprint of the proposed development is within areas mapped as "lawns/pasture" (Very Low sensitivity), "Secondary Vegetation" (Medium sensitivity) and "Alien Trees" (Very Low or Low sensitivity).

No plant species of concern were found on site, but a small number of free-standing, relatively large milkwood trees (*Sideroxylon inerme*) were found on site that are protected under the National Forests Act. These are shown as being retained within the proposed development (both options).

There are two sensitive animal species that are likely to use that particular habitat / part of the site. They can use it for foraging on rare occasion (e.g. the Bustard and raptor species). The other listed (e.g. the insects) have a low probability of presence while the small antelope may use the transition zones near dense trees and shrubs on rare occasions.

Following the procedures within the Species Environmental Assessment Guidelines, the forests on site have been assessed as having Very High sensitivity / Ecological Importance, secondary vegetation as having Medium sensitivity / Ecological Importance, and remaining areas Low or Very Low sensitivity.

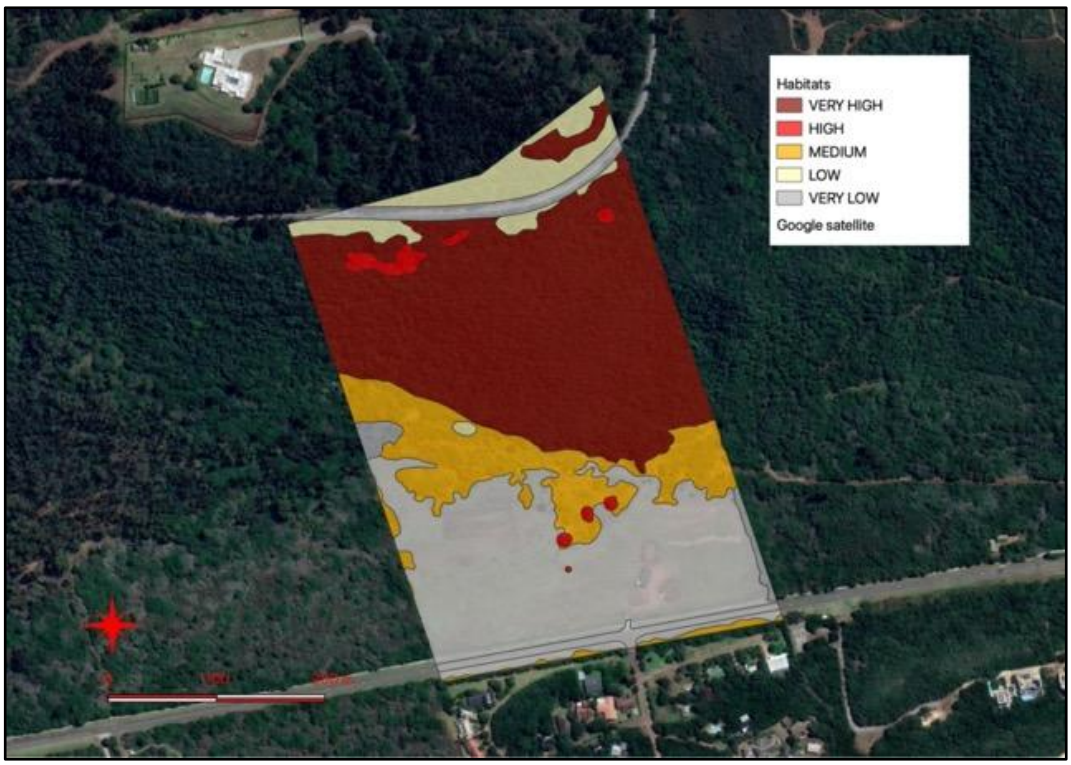


Figure 20: Habitat sensitivity on site as per the Plant, Animal and Terrestrial Biodiversity Assessment.

The "no-go" development areas in KELASP are determined based on various bio-physical constraints, including the following:

- below the 1:50 and 1:100 year floodlines;
- on any slope with gradient steeper than 1:4;
- below the 4,5 m coastal setback line;
- within the 100m high water mark setback; and
- within the Tshokwane Wetland system.

"No-go" areas also include any of the following Habitat Mapping and Sensitivity Analysis units:

- Map Unit 3: Fynbos.
- Map Unit 4: Forest.
- Map Unit 5: Dune Thicket/Dune Fynbos Mosaic.
- Map Unit 6: Coastal fore dune and seashore.

- ❖ Map Unit 7: Wetlands (in general in addition to specific delineation of Tshokwane Wetland).
- ❖ Map Unit 8: Fynbos invaded with aliens.

The site includes significant areas that are steeper than a gradient of 1:4. A comparison with the proposed development shows that these are excluded from the development footprint.

No-go mapping units from KELASP that occur on site are ***Map Unit 4: Forest*** and ***Map Unit 8: Fynbos invaded with aliens*** (Figure 21). A comparison with the proposed development shows that ***Map Unit 4: Forest*** is excluded from the development footprint, but that ***Map Unit 8: Fynbos invaded with aliens*** is partly included within the proposed development footprint, but not within the Alternative 2 footprint.

Figure 21: Habitat Units from KELASP.

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.

The 2023 Western Cape Biodiversity Spatial Plan (WC BSP) was formally adopted into law on the 13th of December 2024 (Gazette Extraordinary 9017) in alignment with the Western Cape Biodiversity Act (No. 6 of 2022), and marks the replacement of the 2017 WC BSP with the 2023 WC BSP. All investigations, studies and/or legal processes initiated prior to the 13th December 2024 will still recognise the 2017 WC BSP as the official biodiversity prioritisation data informant.

The Western Cape Biodiversity Spatial Plan (WCBSP) classifies the habitats of the province according to conservation value in decreasing value, as follows:

1. Protected Areas (PA);
2. Critical Biodiversity Areas 1 (CBA1);
3. Critical Biodiversity Areas 2 (CBA2);
4. Ecological Support Area 1 (ESA1);
5. Ecological Support Area 2 (ESA2);

The WCBSP2024 map shows that the entire central part of the site (corresponding to mesic thicket) is within a CBA1 area (Figure 22). This CBA1 area continues beyond the boundaries of the site. The reason for the CBA1 area is for the protection of Garden Route Shale Fynbos. This indicates that the vegetation on site is considered to be critical for the conservation of this biodiversity pattern in the Province as well as for maintaining ecological patterns in the landscape that support this vegetation type. However, it is argued above that woodland is the natural vegetation occurring in this area and that fynbos only occurs in specific fire-prone and exposed sites at the summit of hillslopes (which do not occur on this property).

The 2023 WCBSP map for the property shows that the northern area of the site below the public road (±41.34%) is within a Critical Biodiversity Area (CBA1: Terrestrial) (Figure 22). This indicates that the Garden Route Shale Fynbos on site is considered to be highly important for the conservation of biodiversity in the province as well as for maintaining ecological patterns in the landscape. However, the forest exists in the areas designated as Critical Biodiversity Area 1. A small section along the foot of the slope, is shown as CBA Estuary. The area of the site north of the CBA1 is classified as Degraded CBA2 (Terrestrial), and to the south it is classified as Degraded CBA2 (Earmarked). The proposed development is within the Degraded CBA2 (Earmarked) and overlaps with the CBA1 areas, as shown in figure 14. However, the Degraded CBA2 (Earmarked) is shown as being uncategorized in figure 22, as per the most recent mapping available.

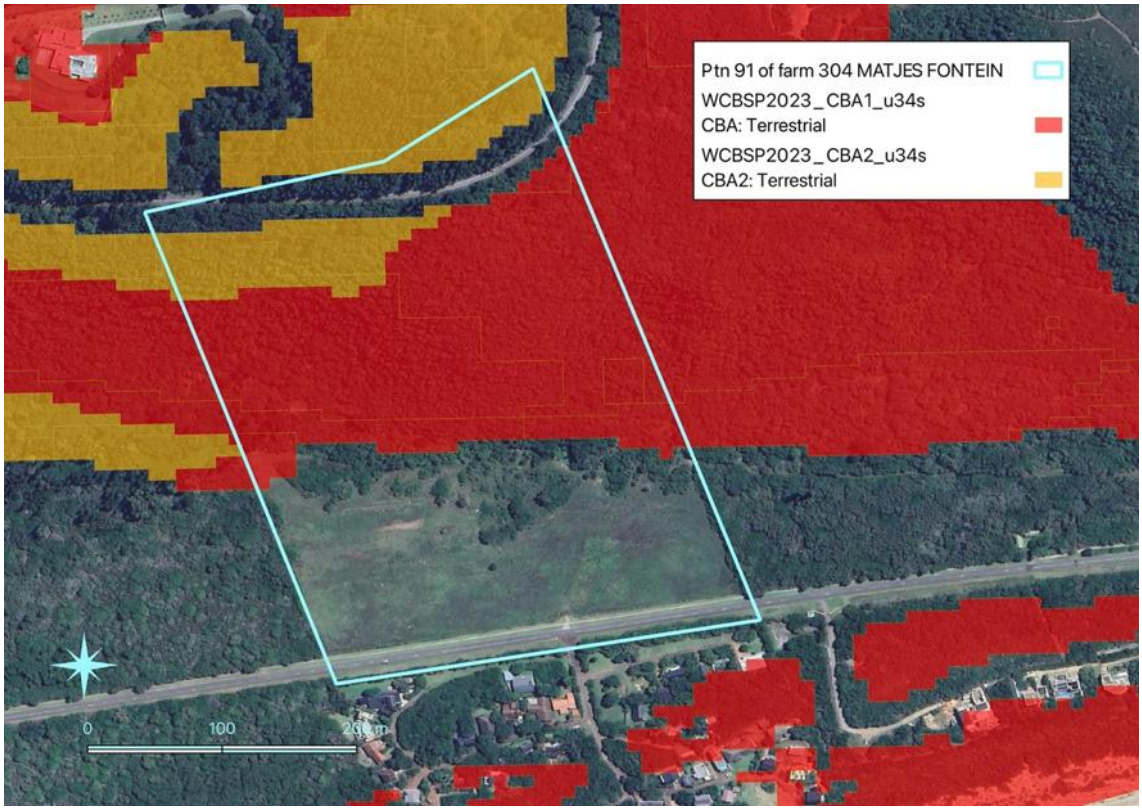


Figure 22: 2023 Western Cape Biodiversity Spatial Plan of the site and surrounding areas (Dr. Hoare 2025).

Critical Biodiversity Areas:

Name:	Garden Route Shale Fynbos
Condition:	Natural
Category 1:	CBA: Terrestrial
Category 2:	CBA: Threatened Ecosystem

Definition:	Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.
Objective:	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.

Name:	Keurbooms
Condition:	Natural
Category 1:	CBA: Aquatic
Category 2:	CBA: Estuary
Definition:	Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.
Objective:	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.

Critical Biodiversity Areas (Degraded):

Name:	Garden Route Shale Fynbos
Condition:	Degraded
Category 1:	CBA2: Terrestrial
Category 2:	CBA2: Threatened Ecosystem
Definition:	Areas in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.
Objective:	Maintain in a natural or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land-uses are appropriate.

Category 1:	CBA2: Terrestrial
Category 2:	CBA2: Earmarked
Definition:	Areas in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.
Objective:	Maintain in a natural or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land-uses are appropriate.

On the basis of the presence of natural habitat within a CBA1 area and within a listed ecosystem, it is verified that the site occurs partially within an area of **VERY HIGH** sensitivity with respect to the Terrestrial Biodiversity Theme. These areas are not affected by the proposed development.

Conservation targets were taken into account through reference to national and provincial biodiversity planning tools, ground-truthed specialist assessments, and the design of the development to support ecological integrity and persistence of biodiversity features.

The site was assessed using several key biodiversity planning tools including:

- Western Cape Biodiversity Spatial Plan (WCBSP) – which identifies Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) based on conservation targets for vegetation types and ecological processes.

- Keurbooms & Environs Local Area Spatial Plan (KELASP) – which overlays sensitivity and sets local spatial development limits.

These tools helped identify which areas on the property are essential for meeting conservation targets (e.g., intact Garden Route Shale Fynbos and indigenous forest).

The development footprint was restricted to a transformed portion of the site, with natural areas avoided to the greatest extent possible. Areas supporting conservation targets (e.g., the forest patch) were excluded from the development footprint, and included in a designated conservation area (Open Space III – 8.35 ha of the total site). The layout was adapted based on specialist advice to improve alignment with conservation planning—for instance, setting the developable area back from the forest edge and adjusting the development to remain within already disturbed zones.

Provision for a Functional Ecological Corridor:

- A 20-metre-wide ecological corridor along the forest edge was established as a buffer zone, meeting both biodiversity persistence goals and contributing to broader landscape connectivity.
- This helps support conservation targets for species movement and ecosystem functioning across the landscape, especially in the context of climate change adaptation.

Restoration of indigenous vegetation in CBAs:

- Areas identified as secondary vegetation (medium sensitivity) within the 20m wildlife corridor will be restored. Steps will be taken to rehabilitate areas within the buffer zone and encourage growth of species, such as Pterocelastrus tricuspidatus and Sideroxylon inerme, that are mesic and fire-resistant. An open space management system will be developed to formalize such steps for forest protection.
- Rehabilitate and improve the small dam on site, including introducing pond margin vegetation typical of mountain ponds in forested areas. This will provide good habitat for various frogs, including potentially Afrixalus knysnae.
- Rehabilitation of disturbed areas, as well as previously invaded areas, should promote establishment of site-appropriate indigenous species.

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.

Based on a detailed field survey by Dr Hoare to verify conditions on site, a detailed landcover and habitat mapping exercise was undertaken for the site. This identified three main habitats occurring on site, shown in Figure 23. These are mapped as Forest, Secondary vegetation and Pastures. There are also transformed areas associated with roads, localised patches of alien trees, and residual individual milkwood trees (*Sideroxylon inerme*). The habitat assessment is important for understanding the suitability of habitat on site for various plant and animal species of concern, which usually have very specific habitat requirements.

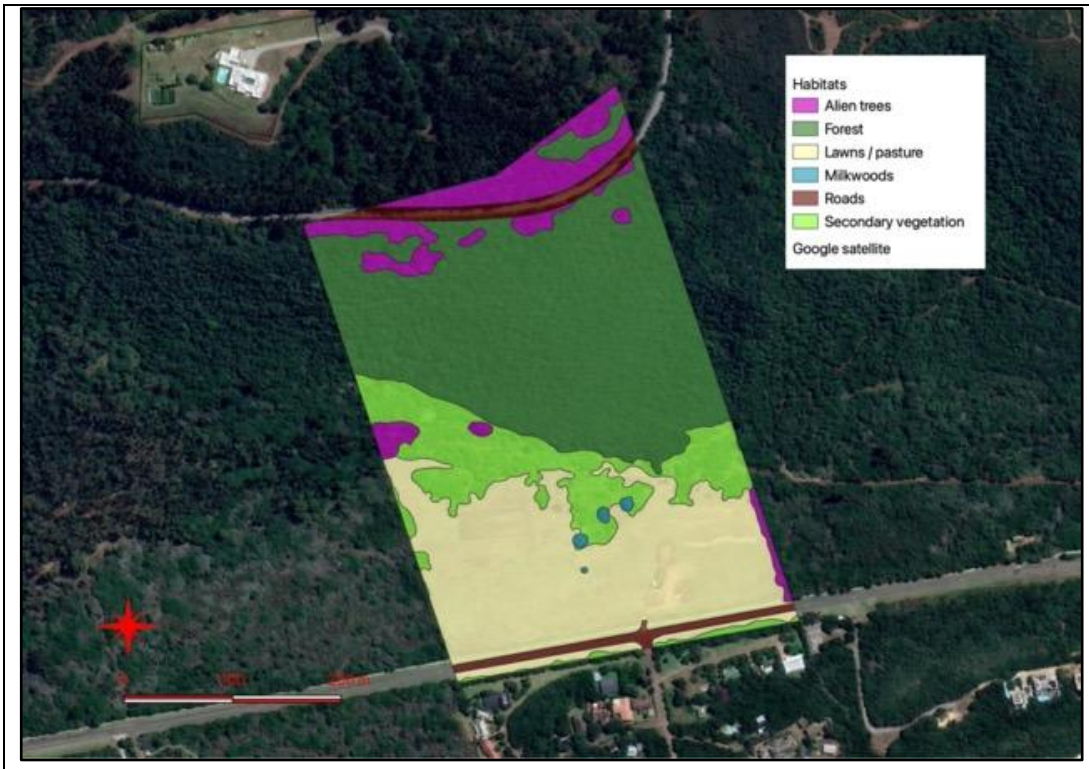


Figure 23: Map of habitats on site as per the Plant, Animal and Terrestrial Biodiversity Assessment.

Forest

The steep-sided slopes in the northern half of the site contain indigenous forest that should probably be classified and mapped as Southern Afrotemperate Forest. It has a closed canopy, open understorey and relatively tall structure, therefore does not qualify to be mapped as thicket. No detailed vegetation survey was undertaken within this area because it had already been decided that these forested areas would be excluded from any development. Based on observations of peripheral species, it resembles mesic forest in other coastal parts of the Garden Route.

Secondary vegetation

Between the forest and the pastures is an irregularly-shaped band of vegetation that contains a mixture of shrubs and weeds that indicates that it is various stages of post-disturbance development. Historical aerial photographs show that this entire area was once cultivated but has gone through various iterations of being cleared and then recovering somewhat.

Tall woody shrubs and small trees found here include the following: *Buddleja saligna*, *Capparis sepiaria*, *Clausena anisata*, *Dovyalis rhamnoides*, *Grewia occidentalis*, *Gymnosporia buxifolia*, *Pterocelastrus tricuspidatus*, *Putterlickia pyracantha*, *Scutia myrtina*, *Searsia crenata*, *Searsia lucida*, *Rhoicissus digitata*, and *Mystroxylon aethiopicum*, as well as *Lauridia tetragona* and *Trimeria grandifolia*, but these last two are probably forest margin species detected along the forest margin. Lower shrubs included *Acalypha* sp, *Euryops virgineus, Nidorella ivifolia, Helichrysum cymosum, Helichrysum petiolare, Helichrysum teretifolium, Osteospermum moniliferum, Otholobium stachyerum*, *Passerina corymbosa, Podalyria myrtillifolia*, and *Polygala myrtifolia*, many of which are typical colonisers of cleared plantation areas. Herbaceous species included a mixture of understorey species, such as *Anemia caffrorum, Asparagus asparagoides, Dietes cf bicolor, Isoglossa sp, Rubia petiolaris*, and *Stachys aethiopica*, and weedy species, such as *Cerastium glomeratum, Felicia amoena, Pelargonium elongatum, Rubus pinnatus* and *Vicia sativa*.

Alien invasive and exotic species detected in this area included *Acacia cyclops, Paraserianthes lophantha, Pinus* sp., and *Yucca aloifolia*.

Pastures

The pastures occur in the entire southern part of the site in areas that were historically cultivated. The landscape here is flat. They are currently being used as pasture for horses and are therefore grazed relatively short.

The pasture areas were dominated largely by the grasses, *Stenotaphrum secundatum* and *Cenchrus clandestinus*, along with a large number of weeds and species that are tolerant of disturbance, including *Abutilon sonneratianum, Arctotheca prostrata, Carpobrotus deliciosus, Cerastium glomeratum, Chenopodium sp., Euphorbia helioscopia, Felicia amoena, Medicago sp., Moraea sp Hebenstretia integrifolia, Lepidium africanum, Lycium ferocissimum, Lysimachia arvensis, Massonia depressa, Mesembryanthemum aitonis, Rumex hypogaeus, Salvia aurea, Senecio inaequidens, Solanum linnaeanum*, and *Brunsvigia orientalis*.

Milkwood trees

There are a small number of scattered milkwood trees (*Sideroxylon inerme*) that, based on their size, are possibly remnants of the original vegetation that occurred there. It was common practice to leave large trees as shade within agricultural areas. Alternatively, they became established after the cessation of active cultivation, but this would not have given them time to grow to their current stature. Three large and one small tree were counted on site, in the area between the secondary vegetation and the pastures. The milkwoods are protected trees and removal would require a permit.

Ecological linkages and connectivity

The most important linkage associated with the site is the lateral (east-west) forest linkage along the entire slope between Keurbooms settlement in the east and the Keurbooms River in the west. This is a uniform area of forest that is intact and in relatively good condition (blue-shaded area in **Error! Reference source not found.**). Maintaining this a single block of vegetation is critically important for the health of the entire system. The forest on site must be maintained in order to maintain the health of all the similar forest on the slope going to the west. There are strong connections between this system and the more inland forests that joins just before Keurbooms (linkages shown as yellow arrows). This is also approximately where the strongest spatial links are to the coastal dune systems that extend westwards to the mouth of the Keurbooms River.

The main physical barriers in the landscape (purple lines) are the N2 road and the older (DR1888) road on the inland side (including the degraded and invaded areas associated with these), and the Keurbooms road and scattered coastal developments on the southern side. Towards the west, closer to the mouth of the Keurbooms River, are several coastal developments that form strong physical barriers in the landscape. The Keurbooms road is not a severe barrier and is narrow enough and surrounded by sufficient natural habitat to be easily crossed.

The pasture area on site, if rehabilitated to secondary thicket (the most likely successional outcome, based on surrounding dynamics) would result in stronger inland-coastal linkages. Development of the site would create additional barriers, but the effect would only be critical if surrounding sites are also developed. The impact would therefore be part of a cumulative effect that extends existing impacts and preceds future possible impacts. Currently, the barrier is of low significance, but would increase with development of the site.

Figure 24: Ecological linkages and barriers in the landscape (Hoare 2025).

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.

N/A

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

There is habitat on site that is suspected habitat for threatened plant and animal species. This is the forest habitat, which is outside the proposed development footprint and will not be affected by the proposed development. The species that could potentially occur within this habitat are as follows[7]:

- Knysna Warbler (Vulnerable) has a moderate probability of occurring in forest margin areas.
- Crowned Eagle (Near Threatened) - the forests on site may constitute part of the general foraging range but it is unlikely that they are resident on site, or are dependent on it.
- Tunnelling Dung Beetle (Endangered). The type locality of the species is forest habitats in the Keurboomstrand area.
- Small antelope (Vulnerable). There is a moderate to high probability of it occurring in the forests on site.
- *Ocotea bullata* (Stinkwood, Endangered) probably occurs in the forests on site.

None of these species are expected to be negatively affected by the proposed development (both options). On the basis that it has been recorded from Plettenberg Bay and the site has suitable habitat, the Knysna Warbler (Vulnerable) has a moderate to high probability of occurring in forest margin areas on site. The forests on site may constitute part of the general foraging range of Crowned Eagle (Near Threatened), but it is unlikely that they occur on site, or are dependent on it. The type locality of the Tunnelling Dung Beetle (Endangered) is forest habitats in the Keurboomstrand area. It therefore has to be assumed that there is a high probability of it occurring there. There is a moderate to high probability of the small antelope (Vulnerable) occurring in the forests on site. It is therefore verified that the Animal Species Theme has **MEDIUM** sensitivity for the site.

[7] David Hoare Consulting (Pty) Ltd: Plant Species, Animal Species and Terrestrial Biodiversity Assessment Report. Dated 16 March 2023.

5. Geographical Aspects

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

The climate is warm and temperate. The Köppen-Geiger climate classification is Cfb, which is considered wet all seasons, summers long and cool. The average annual temperature is 16.9 °C. Rainfall is evenly distributed throughout the year, with an annual precipitation of about 663 mm. The site has a humid climate.

The official geological mapping of the area indicated that the lower/southern portion of the site was underlain by estuarine/alluvial sand deposits of Quaternary age which overlie sandstone and conglomerate of the Enon Formation (red/orange on map) of the Uitenhage Group on the northern slopes. The Enon Formation then overlies shale of the Gydo Formation and sandstone and shale of Baviaanskloof Formation which outcrop along the Keurboomstrand road to the east of the site. No major geological faults were mapped in the vicinity of the site and the risk of seismic activity was low. The geology was generally considered macro stable for development purposes with due consideration paid to local geotechnical constraints.

As per the Geotechnical Report by Outeniqua Labs (Appendix G4), the soil profile was broadly consistent across the site, and dominated by estuarine sandy soil. The profile broadly included a sporadic upper horizon of imported fill soil (disturbed or dumped soil), underlain by an insitu topsoil horizon, consisting of silty sand, roots and organic humus, which was underlain by unconsolidated to semi consolidated sand with scattered marine shell fragments. At the south west corner of the property, a pedogenic calcrete hardpan layer (very soft rock) was encountered just below the topsoil horizon. The calcrete was highly to completely weathered in places to a sandy gravel, angular cobbles and/or small boulders.

The southern portion of the property has a very even gradient and is situated between 3m and 6m above sea level. From here the gradient steeply inclines to about 125m above sea level, forming a steep south-facing ridge (Figure 25). The development is planned on the even southern portion of the site. A detailed contour plan of the southern section was prepared by VPM Surveys and is attached as Appendix B3. The slope analysis (Appendix B3) indicates that the entire southern section of the site has a gradient of less than 25% and is therefore suitable for development.

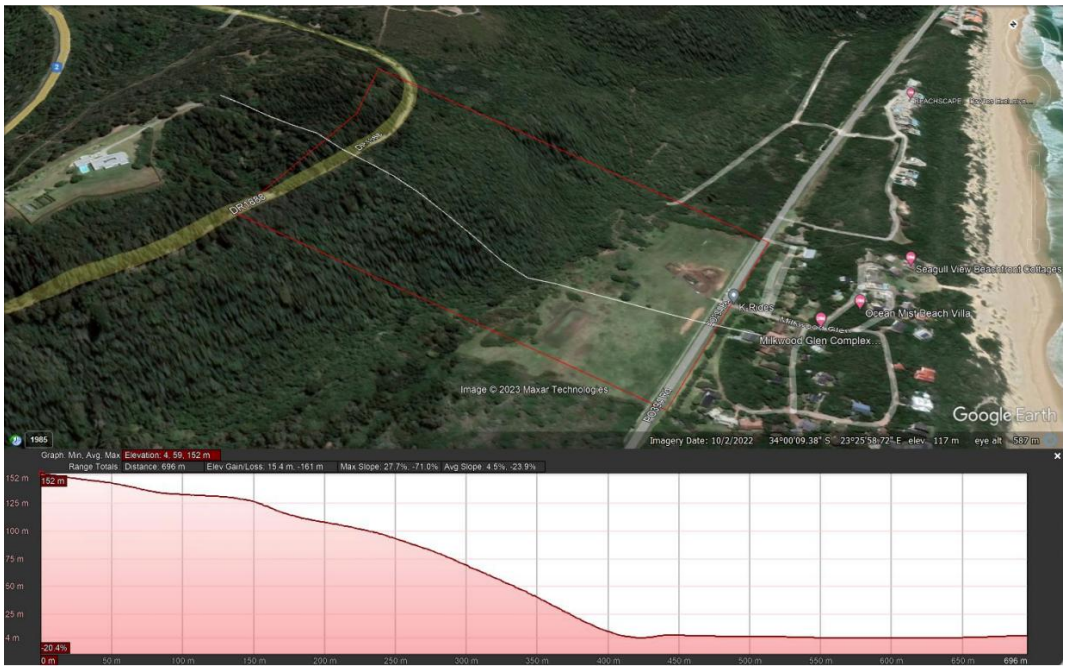


Figure 25: Elevation profile from Google Earth.

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.		
Dr. Peter Nilssen: Heritage Statement in support of Heritage Western Cape Notification of Intent to Develop (HWC NID – Section 38) dated 11 April 2023.			
6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.		

The palaeontological sensitivity of the development footprint is low and even though Mr Pether recommends the inclusion of the Fossil Finds Procedure in the EMPr for the development, geotechnical test pits to a depth of 2 to 3 m have revealed no palaeontological resources. Excavations for bulk services and foundations are not expected to exceed 1, 5 m in depth.

The proposed development footprint on 91/304 has been impacted by farming activities (ploughing, cultivation and grazing) since at least 1818 and more likely since the mid- to late-1700s. As a result, the context of pre-colonial heritage resources in surface sediments was damaged, disturbed or destroyed. Colonial period heritage resources – structures and old road – were demolished or destroyed by the late 1900s or early 2000s.

Furthermore, as described by Mr Steele and as revealed in the geotechnical test pits, sediments containing fragmented marine shell, some bone and a few stone artefacts were imported, dumped and dispersed on the property in the last 4 to 5 years. The geotechnical test pits lack any evidence of archaeological horizons or shell midden deposits and are archaeologically and palaeontologically sterile to depth.

The archaeological walk-through identified the imported and dispersed sediments with fragmented marine shell, some bone and a few stone artefacts as described by Mr Steele and as detected through geotechnical test excavations. These sediments have no sub-surface origin and were clearly imported and dispersed on 91/304. Identified modern building rubble and rubbish, as well as isolated Stone Age pieces are considered to be of low heritage value and are not conservation worthy.

Due to the absence of significant heritage resources, the proposed activity will have no cumulative impacts on the archaeological or heritage value of the area.

This baseline investigation has shown that heritage resources on the affected part of the property are of low significance and are given a field rating of Not Conservation Worthy. Since there are no significant heritage resources associated with the proposed development footprint, it does not meaningfully contribute to the cultural landscape of the area.

For reasons given above, and due to the planned screening from the PO394 road, the proposed activity will have a negligible to no negative impact on the aesthetic value of the area.

The positive socio-economic impact, including several short, medium and long term jobs as well as the provision of middle income housing outweigh the negligible to zero negative impacts this project may have on heritage resources.

Because of the above, and because there is no reason to believe that significant heritage resources will be impacted by the proposed development on 91/304, it is recommended that no further heritage-related specialist studies (as listed in the NID) are required and that a Heritage Impact Assessment is not warranted for the project.

Nevertheless, recommendations made by the specialists and/or Heritage Western Cape will be included in the Environmental Management Program.

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.
No culturally or historically significant elements will be affected.

8. Socio/Economic Aspects

This section is taken from the Town Planning Report by Planning Space, dated 01 February 2024

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.

The Plettenberg Bay area historically has very little housing opportunities for middle-income earners. The recent influx of higher-income families moving to the area has led to a sharp increase in housing prices which has further exacerbated the lack of affordable housing. Many residents are displaced as property values rise to the point of unaffordability. This displacement of the middle class and lack of affordable houses has a tremendous effect on the economy of the town, as the middle-class workforce actively contributing to these economies can no longer afford to live here.

The Keurboom village is a seasonal holiday town with a homogeneous single residential holiday character. The property is about 1.8 km west of the town along a stretch of road that contains several gated residential developments. The Zoning Plan attached hereto indicate that the study area mainly consists of Single residential and Group housing zoned residential estate of varying densities. The proposal is compatible with the existing land uses.

DEVELOPMENT NAME	ERF	NR OF UNITS
Dolphin Waves	12/304	64 Group Housing stands
Keurbaai	13/304	11 Group Housing Residential
Milkwood Glen	14/304	51 Group Housing Stands
Driftwood	15/304	5 Single Residential Stands
Whales Haven	16/304	17 Group Housing Stands

8.2.	Explain the socio-economic value/contribution of the proposed development.

The planned residential estate will create construction jobs for local contractors and labourers. The employment opportunities associated with the construction phase are frequently regarded as temporary employment. However, while these jobs may be classified as "temporary" it is worth noting that the people employed in the construction industry by its very nature rely on "temporary" jobs for their survival. In this regard "permanent" employment in the construction sector is linked to the ability of construction companies to secure a series of temporary projects over a period of time. Each development, such as the proposed development, therefore, contributes to creating "permanent" employment in the construction sector.

The construction industry is an important player in job creation, not only in the construction sector but in other sectors of the economy as well. The construction industry uses a wide range of inputs such as manufacturing of construction materials and equipment, mining of raw materials, forestry, transportation, real estate, finance, and professional services which all contribute indirectly to more jobs that are created across several sectors.

Plettenberg Bay has a very similar demographic profile to the rest of the country. Socio-economic studies indicate high levels of poverty and unemployment. The social needs of the larger community form part of the "surrounding environment" and should receive due consideration when new developments are investigated. The "ripple effect" that a development of this scale has on the local economy and social well-being of the community cannot be ignored.

As the site is currently vacant and not generating any revenue, its continued underutilisation is likely to have a negative impact on the local community. The proposed development is anticipated to improve the quality of life for residents. The lack of development on the site results in an opportunity cost—reflecting the benefits foregone by selecting the "no-go" alternative. As an economic principle, opportunity cost highlights the trade-offs inherent in decision-making. In this context, it signifies the loss of the projected socio-economic benefits. Not proceeding with the project would result in missed economic opportunities.

The anticipated economic impact of the residential development is based on the estimated capital (CAPEX) and operational (OPEX) expenditure costs associated with the development.

Capital expenditure (CAPEX) outlines the potential economic impact during the construction phase of the proposed development. These impacts are temporary occurring for the duration of the construction period, and involves labour-intensive work, professional input, and machinery to complete the development.

Economic Benefits of the Proposed Development during the construction phase:

- Increased Demand for Goods and Services: Local suppliers of construction materials—such as cement, steel, and timber—as well as equipment rental companies, are expected to experience a rise in sales due to increased demand during the construction phase.
- Boost in Business Productivity and GDP: The project will contribute to economic growth, with construction activity driving an increase in output, labour demand, and sector-specific expertise, thereby positively impacting GDP.
- Job Creation: The development will generate temporary employment opportunities, particularly in construction, engineering, and project management. Direct jobs will be created through labour-intensive activities.
- Higher Household Incomes: Employment generated by the project will result in increased household income, stimulating the local economy through greater spending on essential goods and services.

Following the completion of the construction phase, the development will continue to generate economic impacts through its ongoing annual operational activities such as maintaining and upkeeping the common property.

Economic Benefits of the Proposed Development during the operational phase:

- Sustained Demand for Goods and Services: The ongoing requirements for maintenance, security, and local retail will generate continuous business opportunities for service providers in the area.
- Consistent Contribution to GDP: The operational phase of the development is projected to contribute to GDP primarily through services such as property management and utilities.
- Creation of Long-Term Employment: The project will establish permanent positions in property management and maintenance, supporting the long-term upkeep and functionality of the estate. the project will continue supporting local employment and economic activity, aligning with the Bitou Municipality's SDF and IDP goals.

- Stable Growth in Household Income: The operational phase will provide consistent earnings for workers involved in facilities and maintenance services.
- The proposed development is anticipated to enhance the revenue of the Bitou Local Municipality through utility payments generated during its operational phase. Furthermore, it will contribute to municipal income through property rates and taxes paid by residents within the development.

8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.

South Africa has the challenge of high unemployment and skills shortages. The employment opportunities associated with the construction phase of development is frequently regarded as temporary employment. However, while these jobs may be classified as "temporary" it is worth noting that the people employed in the construction industry by its very nature rely on "temporary" jobs for their survival. In this regard "permanent" employment in the construction sector is linked to the ability of construction companies to secure a series of temporary projects over a period of time.

The construction industry is an important player in job creation, not only in the construction sector but in other sectors of the economy as well. The construction industry uses a wide range of inputs such as manufacturing of construction materials and equipment, plantation forestry, transportation, real estate, finance and professional services which all contribute indirectly to more jobs that are created across several sectors.

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 Keurboom Road is a scenic route and as such, the visual quality along the way is a relevant consideration. There is a 10m wide open space system proposed along this road. This strip of land will be densely vegetated to obscure the development. This vegetation buffer will allow for a visual barrier between the development and the Road, which will reduce the visual impact of the development, and reduce noise levels emanating from the Road. A Landscape Plan and an architectural design guideline will be a requirement to mitigate the potential visual impact.

Property values are shaped by multiple factors, including the reputation of the area, distinctive property features, access to amenities such as retail centres, schools, and employment hubs, as well as overall security. The proposed development, with its planned facilities and services, is likely to increase investment interest in the area and enhance its overall attractiveness. By generating employment opportunities, the development may stimulate further investment and contribute to the upliftment of local real estate values.

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.	
The preferred property is that of Portion 91 (a portion of portion 14) of the farm Matjes Fontein 304 in the Bitou Municipality and Administrative District of Knysna, Western Cape Province.	
Provide a description of any other property and site alternatives investigated.	
There are no other site alternatives available.	
Provide a motivation for the preferred property and site alternative including the outcome of the site selectin matrix.	
In the consideration of alternative land, the principles of sustainable development should be practicable, feasible, reasonable, and viable.	

A portion of the property has been identified as a strategic development area within the urban edge. This proposal aligns with the proposed development nodes as identified in the Keurboom local Area Structure Plan. The urban edge has been defined by the steep sloped to the north and the 5m contour line which defines the Estuarine Functional Zone to the south. The proposed development area extends beyond the identified urban edge as the Aquatic Assessment confirmed that the area contains no estuarine habitats and is not within the 1:100-year flood line of the estuary.

The SDF states that the urban edge is to be viewed as a conceptual, indicative measure (growth management tool) aimed at illustrating a concept, rather than being in exact line with statutory status. The SDF also explains that the urban edge is a proposed limit for expansion of any urban node beyond which development should not occur unless the land is already provided with or can connect directly to existing municipal services infrastructure. In this case available municipal water and sewer pipelines traverse the south boundary of the property so the development can connect directly to the network

Furthermore, the SDF confirms that all land development applications for the use of land abutting an urban edge should be considered consistent with the SDF if the land has at any time in the past been used or designated for any urban development, which includes all development of land where the primary use of the land is for the erection of structures. In this case, the land was previously approved for a resort with 50 units (Appendix E12), this has also been acknowledged in the Keurboom Local Environs Spatial plan.

The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for "Recreational" purposes. This means that although the property has farm portion numbers and is zoned for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70). An exemption certificate from the Department of Environmental Affairs and Development Planning is attached as Appendix E7.

Although the site is zoned as Agricultural 1, the property has low agricultural potential as determined in the Agricultural Assessment by DSA in their study dated May 2023 (Appendix G1). The development will not have a significant impact on agricultural in the area and poses no threat to food security. It also has a small footprint and low impact on existing agricultural activities. According to the specialist, in terms of agricultural sensitivity, the development should thus be allowed to proceed[8].

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

In 1978 approval was granted by the Provincial Administration for the development of a Resort with 100 units on Portion 14. Portion 91 was created when Portion 14 was subdivided in 1997. Fifty-one units were approved to the south of the Keurboom Road that bisects the property, and 49 units were approved above the road (See Appendix E21). The development was implemented in phases. Phase 1 gained approval in 1978, Phase 2 was approved in 1981, and Phase 3 in 1991. These phases were all implemented below the road and are today known as Milkwood Glen.

In 1997 the remainder of Portion 14 was subdivided to separate the undeveloped portion above the road from the resort. At the time it was recommended that the zoning of Portion 91 reverts to Agriculture 1 and that a new application is submitted for development on the northern portion in the event of the owner deciding to develop it.

The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for "Recreational" purposes. This means that although the property has farm portion numbers and is zoned

[8] Dr Darren Bouwer of Digital Soils Africa: Agricultural compliance Statement for Portion 91 of Farm 304, Matjes Fontein, Plettenberg Bay. May 2023.

for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70).

The property has therefore been earmarked for development since 1978 and has been included as a development node in various Spatial Development Plans for the area.

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

The site is physically suitable for development and can cost-effectively connect to the existing municipal services networks that are located along the south boundary of the property.

Previous development rights allowed for the development of ±50 units on the property but these rights were not implemented and have lapsed (Appendix E12). Both the Bitou Spatial Development Framework and the Keurbooms Environ Local Area Structure Plan earmarked a portion of the property for development. The proposal extends beyond the identified development area, based on the aquatic specialist study that confirms that the site does not contain any estuarine habitats and is not within the demarcated estuarine floodplain.

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

Specific Aspect of Proposal	Positive	Negative
Planning Policy, Documentation and Urban Edge.	This particular property is in proximity to existing developments and is partially within the urban edge of expansion for the Bitou Municipal District. The proposal is compatible with various planning policies and documents. A portion of the property will remain as *Open Space* to be rehabilitated with indigenous shrub and trees which will 'soften' the visual impact.	The proximity to scenic area and the coastline may have visual impacts. These can be managed and mitigated.
Bulk Services supply	There already is a connection point for the proposed development and there will be no pressure / demand on the current system. Access to the property is currently available through the existing road network.	All wastewater, water supply and storm water will need to be managed but this is achievable with all the correct mechanisms and mitigation in place.
Conservation Status / value	The area identified for the development footprint is not within a CBA and the vegetation on site has been transformed over the years resulting in a low to medium conservation value within the proposed development footprint.	Loss of potential habitat and species of conservation value.
Aquatic features	There are no wetlands or watercourses that will be affected by the development. A 10-m buffer around the spring and pond is proposed.	There are no aquatic features at risk on site.
Sufficient ecological corridors	The proposed open space system corresponds to the position of indigenous vegetation and the	The proposal would not greatly compromise on

	inclusion of a 20m wide animal corridor. The open space areas will be part of the landscaping plan of the development and will provide an opportunity for recreational areas such as walking trails, lookout points etc. These facilities will be formally laid out to avoid unnecessary informal path formation in the sensitive forest habitat. A play park and picnic area are planned under the Milkwood trees and the small dam can be equipped with a bird hide or benches where the resident can enjoy the greenery. A great neighbourhood has places for people to meet, talk and be neighbourly.	landscape connectivity given that the forest area will remain undisturbed. However fencing and encroachment into the forest margin may impact certain species such as the Knysna Warbler, Crowned Eagle, and small antelope.
Erosion	Rehabilitation of disturbed areas with indigenous vegetation.	Erosion due to removal of organic rich topsoil and disturbance of vegetation.
Noise and Visibility	The Development will have Architectural Guidelines in terms of aesthetics and 'sense of place' that will be adhered to.	Visual and noise Impacts to adjacent residents during construction phase.
Alien Vegetation	Systematically remove invasive alien vegetation (also in the operational phase).	Loss of natural vegetation and increased fire risk if not removed.
Fire risk	Removal of alien vegetation to reduce fuel load.	Fire risk may be high if alien vegetation is not removed.
Storm water	Implementation of stormwater management plan and the use of SUDs and retention ponds.	Pollution into sub-surface water and accelerated erosion.
Site Access	Access will be restricted.	Potential increased vehicle movement will require suitable guidelines and recommendations to be adhered to as stipulated, with regards to access.

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

Provide a description of the preferred activity alternative.

No activity alternatives have been investigated for this development.

Provide a description of any other activity alternatives investigated.

N/A

Provide a motivation for the preferred activity alternative.

N/A

Provide a detailed motivation if no activity alternatives exist.

N/A

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

N/A

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.

The preferred layout concept includes 60 group housing stands with average erf sizes of ±500m² (Appendix B1 – preferred SDP). The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood. An animal corridor of at least 20m is proposed to run along the foot of the hill to buffer the forest vegetation.

The property is 14.7ha in size and the gross density will calculate at 4 units per ha. The nett density is calculated excluding the undevelopable steep slopes to the north of the site. The identified development area measures approximately 6ha and 60 units will calculate to a net density of 10 units per ha.

The layout makes furthermore provision for on-site storm water retention and a private sewer treatment plant.

Figure 26: Preferred layout.

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

Layout Alternative 1: 73 group housing stands

This development concept includes ± 73 group housing stands with average erf sizes of ±375m². The houses will vary in size but will be built in a similar style that will create a harmonious development. The vision of this development concept was to create an affordable and sustainable housing product specifically targeting the middle-income group. The aim is to create a pleasant yet affordable residential neighbourhood where the average person can own a home and live with dignity. There were several objections from the local residents that express their concern about the density of the development.

An animal corridor of 10m is proposed to run along the foot of the hill to buffer the forest vegetation.

Figure 27: Layout Alternative 1 with 73 erven.

Layout Alternative 2: 19 single residential stands

This Layout was prepared to comply with the recommendations contained in the Keurboom and Environs Local Area Spatial Plan. This Plan has identified development nodes for certain properties. For these nodes, a gross density profile of 12 units per ha of the identified transformed footprint area is proposed. The latter is based on the guideline of 15 units per hectare proposed for smaller rural settlements as contained in the Draft Bitou SDF (2013).

These nodes were identified by excluding certain "no go" development areas based on the following bio-physical constraints which determine that no development should be considered:

- below the 1:50 and 100: year flood lines;
- on any slopes with a gradient steeper than 1:4;
- below the 4,5m coastal setback line;
- within the 100m high water mark setback; and
- within the Tshokwane Wetland system.

The entire southern portion of the site, where the development is planned, is identified as a transformed area, according to the Environmental Sensitivity Map Nr 6 and Biodiversity Map Nr 7 attached to the Keurboom and Environs Local Area Spatial Plan Report (Appendix B2).

The proposed development footprint for Preferred Layout complies with all the parameters as set out above, except for the 4,5m coastal setback line. Taking the 4.5m contour line into account, only about 1.6ha of the 6ha transformed area has been identified as being suitable for development. This calculates to a maximum of 19 units. Alternative 2 is contained within the 4.5m contour line and complies with the density recommended for this node. The unit density of Alternative 2 is not financially viable for the developer and does not affectively utilise the available transformed areas (very low habitat sensitivity) that would become Private Open Space for beneficial and sustainable development opportunities. Due to the position of the development within the determined urban edge, the development encroaches into the CBA1 and secondary vegetation areas. This also does not allow for a wildlife corridor and buffer area to the forest as it cannot be setback into the transformed areas.

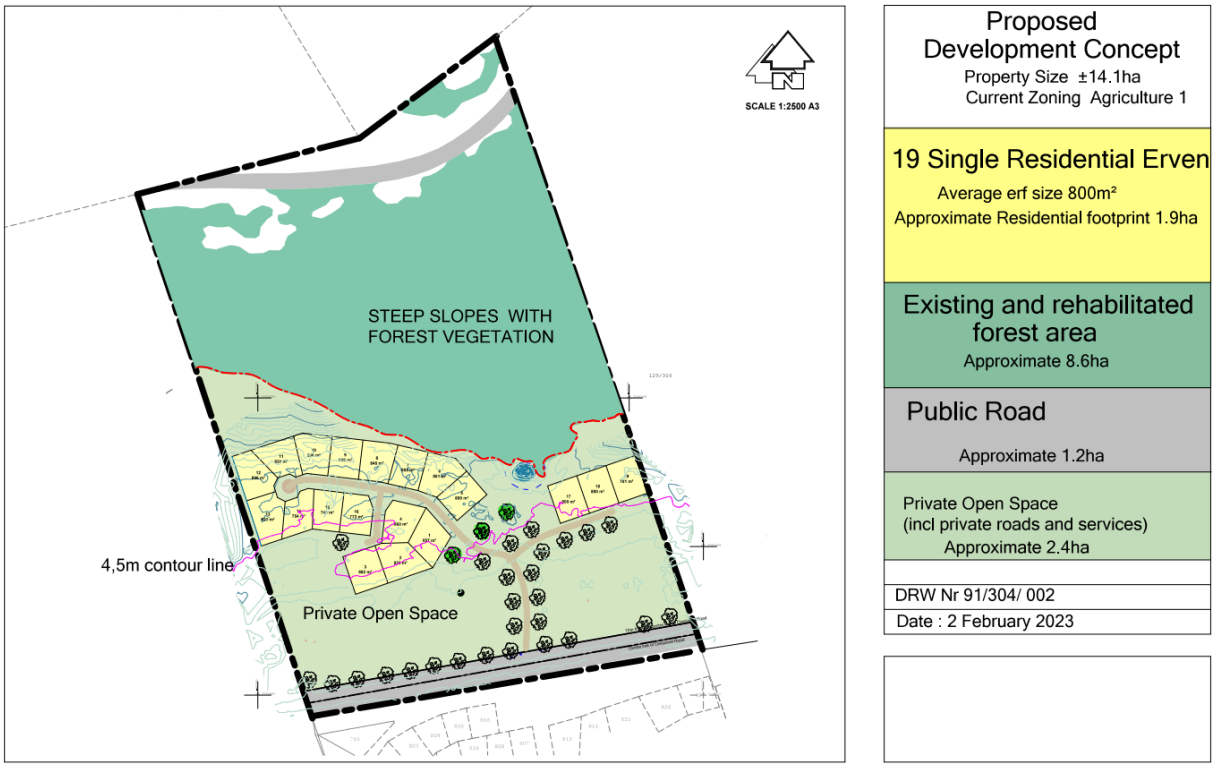


Figure 28: Site Development Plan for the Alternative 2 Layout.

This layout option was created in an attempt to comply with the urban edge position being above the 4,5m Contour line and the density of 19 unit as proposed in the KELASP. Property sizes are approximately 800m². This option is not financially viable for the landowner and will not reach the affordability levels for the intended target market. It has been scientifically proven through specialist studies that the area below the 4,5m contour line plays no role in the functionality of the wetland. There is thus no sound reason why this area should be excluded from the development. This layout has not been further considered as it is not a feasible alternative.

No-go Alternative: Undeveloped land

The No-go option is the option of not undertaking the proposed project or alternatives and can be used as a baseline from which impacts can be compared. If the proposed estate is not developed the following will occur:

1. The site will remain as is and continue to support what remaining fauna and flora make use of the area. There will be no further disturbance to the secondary vegetation on site.
2. Protected species and SCC that may potentially occur in the area will not be further impacted.
3. Rehabilitation of forest margins that have already been impacted, and creation of vegetated open spaces in transformed areas will not be undertaken.
4. There will be no further impacts on landscape connectivity beyond the impacts that already exist due to the riding school and horse paddocks.
5. Management of alien invasive plants may not be implemented or monitored effectively.
6. The transformed land may continue to be used as a riding-school which will continue to impact the site.
7. The potential socio-economic benefits to the town and communities will be lost.
8. Much needed housing opportunity for middle-income earners will be lost.
9. The potential for job creation and skills development will be lost.

A vacant site does not generate any revenue; its continued underutilisation is likely to have a negative impact on the local community. The proposed development is anticipated to improve the quality of

life for residents. The lack of development on the site results in an opportunity cost—reflecting the benefits foregone by selecting the "no-go" alternative. As an economic principle, opportunity cost highlights the trade-offs inherent in decision-making. In this context, it signifies the loss of the projected socio-economic. Not proceeding with the project would result in missed economic opportunities, as highlighted in Section 8.2 (Socio/Economic Aspects) of this report.

Provide a motivation for the preferred design or layout alternative.

The developer wants to provide a high-quality yet affordable housing product. To make this project financially viable and responsive to the target market, the cost of land, services and build cost need to be limited and in order to do so, a certain economy of scale needs to be attained. The most relevant design aspect to achieve this, is through development density.

The property is 14.7ha in size and **Alternative 1** proposed 73 units of approximately 375m², which calculates to a gross density 5 units per ha. The nett density is calculated excluding the undevelopable steep slopes and forest vegetation to the north of the site. The identified development area measures approximately 6ha and 73 units will calculate to a net density of 12 units per ha, which is not regarded as high density. This density correlate with the proposed density profile of 12 units per ha of the identified transformed development nodes as set out in the Local Spatial Plan.

To bring the above density into perspective, medium-density housing is generally characterized by a density of 30 to 40 dwelling units per hectare (gross), while high-density residential areas, typically situated in inner urban locales with high-rise structures and mixed-use components, can exhibit densities ranging from 40 to 100 units per hectare.

Based on the objections received during the initial public participation phase conducted as part of the Basic Assessment process, it is evident that the local community is predominantly concerned about the perceived high density of the development and the potential demographic it might attract, and how this may impact on their own property values. In an effort to address the concerns of neighbouring residents, the original development concept has been revised by reducing the density from 73 to 60 units, concurrently increasing property sizes from approximately 375m²to approximately 500m². As a result, the development's gross density now stands at approximately 4 units per hectare, while the net density is approximately 10 units per hectare. These adjusted figures align more closely with the surrounding neighbourhood densities while is still allows for enough units to be financially viable and affordable to the end user.

The proposed density is high enough to be financially viable, yet low enough to fit into the surrounding area.

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

N/A

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

Preferred Layout – 60 group housing stands	
Positives	**Negatives**
- There are no aquatic features at risk on site. - The area identified for the development footprint is not within a CBA and the vegetation on site has been transformed over the years resulting in a low to medium conservation value within the proposed development footprint. - A 20m wide corridor at the foot of the forest / slope will allow for animal movement.	- Loss of natural vegetation. The vegetation type (Garden Route Shale Fynbos) is listed as Endangered. - Potential impact on a small number (3 to 4) of established *Sideroxylon inerme* trees within the development footprint. - Loss of habitat and possible fragmentation in the secondary vegetation. - Potential erosion in steep areas. Storm water management must be a priority.

- The proposed development site is on the flat lowlands area and within combination of pasture / lawns and secondary scrub vegetation - The forest areas on site fall within a CBA1. These forested areas are completely excluded from the proposed development and are not directly affected. - The proposed development will be restricted to the lowland areas that were previously cultivated. - The lowland part of the site is not considered to be good habitat for any of the animal species flagged for the site. - Management of the remaining property area as an Open Space III zone will promote conservation outcomes. Sustainable rehabilitation and restoration of indigenous vegetation supported by sustainable income. - Alien vegetation clearing as per NEMBA. - The development will provide jobs to the unskilled and semi-skilled market in terms of construction jobs. - injection of income flow into the economy for the construction phase. - Injection of income flow into the economy for the operational phase by creating job opportunities. - Development will reduce vagrants on property and fire risks. - The density has been reduced from 73 to 60 to accommodate concerns raised by the local community.	- Noise pollution during construction phase. - Solid waste impact. - Increased resource usage such as water.
Layout Alternative 1 – 73 group housing stands	
Positives	**Negatives**
- There are no aquatic features at risk on site. - The area identified for the development footprint is not within a CBA and the vegetation on site has been transformed over the years resulting in a low to medium conservation value within the proposed development footprint. - A 10m wide corridor at the foot of the forest / slope will allow for limited animal movement. - The proposed development site is on the flat lowlands area and within combination of pasture / lawns and secondary scrub vegetation - The forest areas on site fall within a CBA1. These forested areas are completely	- Loss of natural vegetation. The vegetation type (Garden Route Shale Fynbos) is listed as Endangered. - Potential impact on a small number (3 to 4) of established *Sideroxylon inerme* trees within the development footprint. - Loss of habitat and possible fragmentation in the secondary vegetation. - Potential erosion in steep areas. Storm water management must be a priority. - Higher density of units per hectare. - There were several objections from the local residents that express their concern about the density of the development. - Noise pollution during construction phase. - Solid waste impact.

excluded from the proposed development and are not directly affected. - The proposed development will be restricted to the lowland areas that were previously cultivated. - The lowland part of the site is not considered to be good habitat for any of the animal species flagged for the site. - Management of the remaining property area as an Open Space III zone will promote conservation outcomes. Sustainable rehabilitation and restoration of indigenous vegetation supported by sustainable income. - Alien vegetation clearing as per NEMBA. - The development will provide jobs to the unskilled and semi-skilled market in terms of construction jobs. - injection of income flow into the economy for the construction phase. - Injection of income flow into the economy for the operational phase by creating job opportunities. - Development will reduce vagrants on property and fire risks.	- Increased resource usage such as water.
Layout Alternative 2 – 19 group housing stands	
Positives	**Negatives**
- There are no aquatic features at risk on site. - The area identified for the development footprint is not within a CBA and the vegetation on site has been transformed over the years resulting in a low to medium conservation value within the proposed development footprint. - Small development footprint compared to Alternative 1 and Preferred layout. - The proposed development site is on the flat lowlands area and within combination of pasture / lawns and secondary scrub vegetation - The forest areas on site fall within a CBA1. These forested areas are completely excluded from the proposed development and are not directly affected. - The lowland part of the site is not considered to be good habitat for any of the animal species flagged for the site. - Management of the remaining property area as an Open Space III zone will promote conservation outcomes. Sustainable rehabilitation and restoration of indigenous	- Loss of natural vegetation. The vegetation type (Garden Route Shale Fynbos) is listed as Endangered. - Potential impact on a small number (3 to 4) of established *Sideroxylon inerme* trees within the development footprint. - Potential erosion in steep areas. Storm water management must be a priority. - Noise pollution during construction phase. - Solid waste impact. - Increased resource usage such as water. - In order to comply with the urban edge position being above the 4,5m contour line no animal corridor could be considered. - Insufficient use of the available flat lowlands area within combination of pasture / lawns and secondary scrub vegetation - This option is not financially viable for the landowner and will not reach the affordability levels for the intended target market. - This layout is not considered to be a feasible alternative.

vegetation supported by sustainable income. - Alien vegetation clearing as per NEMBA. - The development will provide jobs to the unskilled and semi-skilled market in terms of construction jobs. - Injection of income flow into the economy for the construction phase. - Injection of income flow into the economy for the operational phase by creating job opportunities. - Development will reduce vagrants on property and fire risks.	

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:

The houses will be equipped with solar systems which require maximum exposure to the sun. In the Southern Hemisphere, houses should be orientated to face north. The layout design has as far as possible orientated erven, especially the smaller ones, in such a way that houses can be places with their longer frontages to the north.

House designs will be elaborated on in the Architectural Design Guidelines. Energy efficient guidelines will include elements such as having appropriate areas of glazing, correct orientation, suitable levels of shading, insulation and thermal mass. The use of local building materials and renewable energy applications such as solar water heaters, rainwater harvesting etc. will be encouraged.

Preferred Technology: The Bio Sewage Plant

Until such time as the necessary upgrades have occurred to the Bitou bulk sewerage system, the sewerage will be treated using an on-site sewerage package plant. The plant type to be used will be a Bio Sewage Systems 30 kilolitre per day plant or similar approved.

The Bio Sewage Systems plant is a containerized bio reactor plant which delivers treated sewerage to the DWAS special limits water quality standard. Bio Sewage Plants are environmentally friendly, chemical free, robust and have been proven to be reliable and simple and easy to maintain. Sludge is recycled within the plant system and there is therefore no requirement for cleaning and sludge removal. This is confirmed by Bio Sewage Systems plants which have been operational for in excess of 15 years with no sludge removal requirements.

The raw sewage will discharge to an anaerobic underground tank from where it will be pumped to the containerised plant. The plant will operate on an "equals in equals out" basis, however, the preceding anaerobic tank will be designed with sufficient capacity to cater for offline situations and will include for emergency storage of 48 hours. That is 60 kilolitres.

The anaerobic tank will be the only underground component of the Plant. The tank will be constructed of reinforced concrete including Penetron Admixture. The durability will therefore be in excess of 50 years, but effectively infinite.

A subsurface drainage system will be installed beneath the anaerobic tank, including a pump sump from which any leakage can be returned to the tank. The drainage system will have an impermeable lining beneath it designed such that no leakage will infiltrate the ground below.

The internal system will drain to the Bio Sewage System Plant positioned centrally on the southern boundary of the site.

Provide a description of any other technology alternatives investigated.

There are various technological aspects which must be implemented as a matter of course in order to assist with overall energy saving:

- Solar geysers and geyser thermal insulation.
- Use of gas.
- Energy efficient light bulbs.
- Natural ventilation in the buildings / structures.
- Roof water tanks.
- Solar panels.

Provide a motivation for the preferred technology alternative.

The use of energy saving, and eco-friendly technology will not only alleviate the pressure on the national electricity grid, which is under severe strain, but will also make use of natural, renewable energy.

Preferred Technology: The Bio Sewage Plant

The Development falls within the drainage area of the Keurboomstrand main pump station. Effluent from this pumpstation is routed to the Municipal Ganse Valley wastewater treatment plant through the Matjiesfontein and Aventura pump stations and their respective rising mains.

The GLS Capacity Analysis report confirms that the pump stations have sufficient capacity to accommodate the Development. However certain rising main upgrades are required, and the wastewater treatment plant is currently at full capacity.

The Bitou Municipality have confirmed that Masterplanning is in place for the necessary upgrades to the bulk sewerage system. However the implementation of upgrades is entirely dependent on the availability of finance, and no time frame can be guaranteed for such implementation.

Until such time as the necessary upgrades have occurred to the Bitou bulk sewerage system, the sewerage will be treated using an on-site sewerage package plant. The plant type to be used will be a Bio Sewage Systems 30 kilolitre per day plant or similar approved.

Technology Alternative: Connect directly to the municipal sewerage system

Technology Alternative for sewage management is connecting directly to the municipal system. There is not sufficient capacity in the existing Bitou Bulk Sewage system until upgrades are complete, to accommodate the proposed housing development. A temporary wastewater treatment plant is therefore preferred, and will be installed to treat the development's wastewater until upgrades to the bulk sewer system of Bitou Municipality has been made, to allow for sufficient capacity to accommodate the development.

Provide a detailed motivation if no alternatives exist.

N/A

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

Positive impacts include energy and water saving, and reduced impacts on the environment.

Positives	Negatives
Preferred Technology: Bio Sewage Systems	

- Sewage is dealt with on site, reducing pressure on Bitou Municipality services. - Recycles Black and Grey water. Allows greatly reduced consumption of municipal water. - Environmentally friendly. No sewerage contamination of the environment, underground water or open water sources. - No chemicals used at all in the process. - Very small footprint. - Very cost effective, the R/litre rate is a fraction of a commercial system. - Very quick to install with minimal civil works. - Simple and 100% natural process. - Very light on electrical consumption. - Can be run off solar power. - Fully designed and manufactured in South Africa. - Human dignity. - Better Sanitation for WASH program, especially in areas that have no water borne sewage systems. - Job creation through micro-contractors. - Can be used in both rural and densely populated urban areas. - Low maintenance. - No sludge handling required. - Unskilled monitoring of plant. - No chemicals or additives. - Replacement of any failed pumps simple and economical. - Low fresh water consumption. - Processed water can be re-used for toilet flushing. - Processed water can be used for irrigation or gardens, lawns and crops. - One litre of sewage produces one litre of processed water.	- Potential contamination due to malfunctioning of unit if maintenance is not efficient. - High initial cost. - While bio sewage systems are often low-maintenance, they still require regular monitoring to ensure the biological processes are working properly and efficiently.
Alternative technology: Connection to municipal system only	
- Municipal systems are typically well-maintained and managed, providing consistent, reliable sewage disposal. - Since the development doesn't require its own sewage treatment infrastructure, there is no need to allocate land for treatment plants, septic systems, or other on-site systems.	- Municipal sewer system needs to be upgraded to accommodate future developments. - Additional pressure on the municipal system.

1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred operational alternative.	
No operational alternatives were considered.	
Provide a description of any other operational alternatives investigated.	

N/A	
Provide a motivation for the preferred operational alternative.	
N/A	
Provide a detailed motivation if no alternatives exist.	
Operational alternatives are not considered applicable to the general purpose of this development as it will be for residential use.	
List the positive and negative impacts that the operational alternatives will have on the environment.	
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.	
It makes no socio-economic sense to leave the property as it is, if the area does not lend itself to urban development as per Bitou SDF, in this case residential and resort. If the land remains undeveloped there will be very little benefit for the landowner, the community, or the municipality.	
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.
None.	
1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.

Preferred Layout - 60 group housing stands

The preferred property is that of Portion 91 (a portion of portion 14) of the farm Matjes Fontein 304 in the Bitou Municipality and Administrative District of Knysna, Western Cape Province.

The development concept includes 60 group housing stands with average erf sizes of ±500m². The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.

The proposed open space system is made up of 9 642m² within the development footprint and 83 512m² of the remaining area. The open space areas within the development will be zoned as Open Space II and correspond to the position of indigenous vegetation, forest, and milkwood trees. The communal open space II area will incorporate landscaped gardens and stormwater infiltration ponds systems. Should it be required, excess effluent will be discharged to the stormwater infiltration ponds system. This will be environmentally acceptable, the effluent being to DWS Special Limits quality. These areas will be part of the landscaping plan of the development and will provide an opportunity for recreational areas such as walking trails, lookout points etc. A play park and picnic area are planned under the Milkwood trees and the small dam can be equipped with a bird hide or benches where the resident can enjoy the greenery.

The remaining undeveloped 83 512m² will be zoned as Open Space III and will be managed as a conservation area in accordance with a Conservation Management Plan (Appendix L). The conservation area also incorporates an ecological corridor for wildlife movement and the historical fountain. The ecological corridor will run between the west and east boundary of the property along the foot of the slope and creates a buffer zone of 20 meters between the development and the forest area. In addition to the wildlife benefitting from this 20 m corridor, the slope base is also then protected in terms of groundwater recharge

The proposal includes rezoning the property to a "Subdivisional Area". The consolidated stand will then be subdivided into:

- 60 individual General Residential I (Group Housing) erven with average erf size of ±500m².
- 1 Transport Zone III erf (Private Road).

- 2 Transport II erven (Public Road to accommodate the existing divisional road that traverses the southern boundary of the property and the old National Road that traverses the northern section of the property).
- 2 Open Space III erf (conservation area which will include the sensitive forest area and buffer zones).
- 4 Open Space II erven (communal open space that will include private streets and services and landscaped gardens).

The developer wants to provide a high-quality yet affordable housing product. To make this project financially viable and responsive to the target market, the cost of land, services and build cost need to be limited and in order to do so, a certain economy of scale needs to be attained. The most relevant design aspect to achieve this is through development density. The planned nett residential density is approximately 10 units per ha, which is still regarded as low density. Medium-density housing, defined in terms of dwelling units per hectare (du/ha), is approximately 40–100 du/ha (gross), and would be more cost-effective. However, being situated at the outer edge of town, and not in the centre, too high density will also not be appropriate as it may impact on the character of the area.

The proposed density is high enough to be financially viable, yet low enough to fit into the surrounding area.

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 steep-sided southern slopes in the northern half of the site contain indigenous forest that has a high sensitivity and may not be developed, this is a 'No-Go' area. A 10-meter buffer has been established around the forest margin as shown in Figure 29. Between the forest and the pastures is an irregularly shaped band of vegetation that contains a mixture of shrubs and weeds that indicates that it is in various stages of post-disturbance development. Historical aerial photographs show that this entire area was once cultivated but has gone through various iterations of being cleared and then recovering somewhat. This area has a medium sensitivity and section of it surrounding the forest forms part of the 20-meter buffer zone. It is recommended that steps should be taken to rehabilitate the buffer zone areas and encourage the growth of forest species. Ongoing alien clearing will also be a requirement. The proposed layout makes provision for a 20m buffer along the forest margin and also incorporated portions of the secondary vegetation area to form part of the open space system within the development, which will link up with the forest area. The pond and associated spring in the study area are identified as a watercourse as defined in the National Water Act. As the floodline is not relevant in this situation, and riparian vegetation was indistinguishable from the surrounding vegetation, a buffer of 10 m for this feature is recommended. Development should be planned to exclude this buffer area during the construction and operational phase.

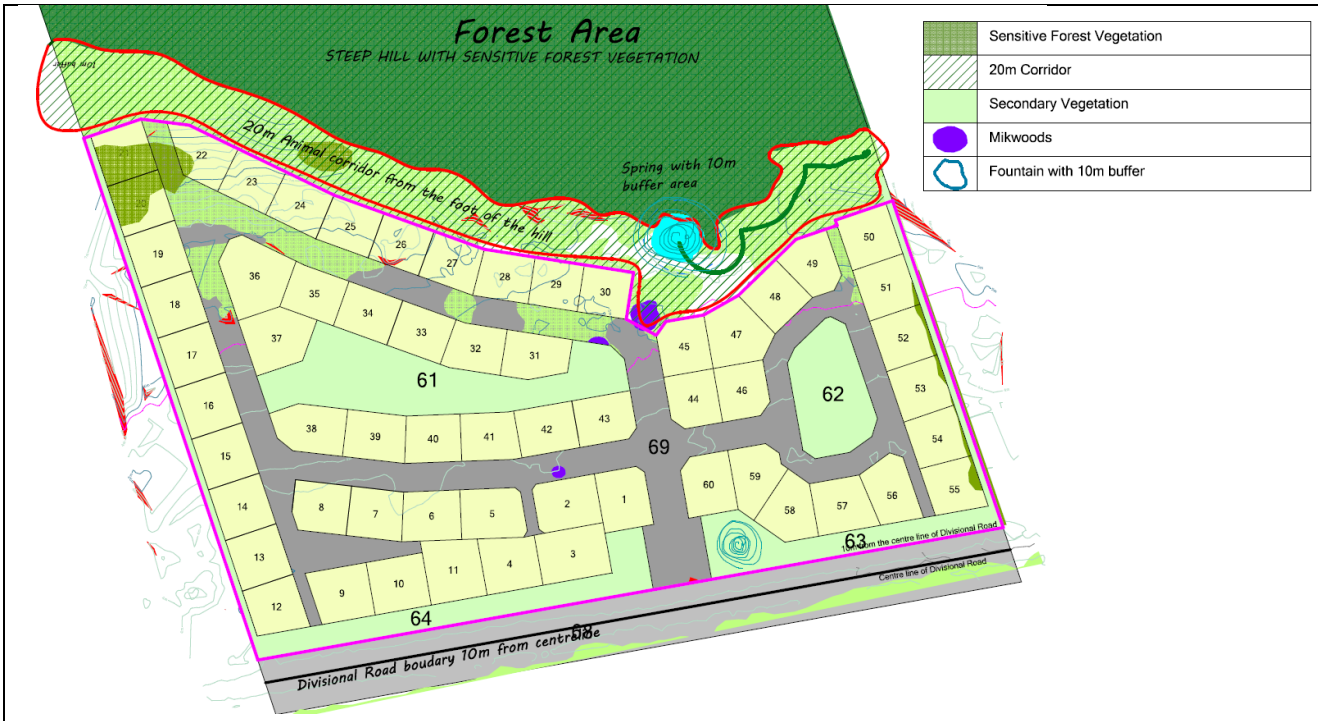


Figure 29: Sensitive features and 'No-Go' areas.

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.

Each potential environmental impact and risk identified was assessed according to specific criteria. These included the nature, extent, duration, consequence, probability and frequency of identified impacts, including the degree to which these impacts can be reversed, may cause irreplaceable loss of resources, and can be avoided, managed or mitigated. The criteria are based on the EIA Regulations, published by the Department of Forestry, Fisheries and the Environment (April 1998) in terms of the Environmental Conservation Act No. 73 of 1989. These criteria include:

Nature of the impact

This is an estimation 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.

Mitigation Measures

Ways in which an impact can be avoided, minimised, or managed to reduce its environmental significance.

Extent of the impact - the scale of the impact

Rating	Definition of Rating
Very Limited	Extending only as far as the development site area
Limited	Limited to the site and its immediate surroundings
Local	Extending across the site and to nearby settlements
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic.
National	National scale or across international borders

Duration of the impact - the lifespan or length of time the impact will last	
Rating	**Definition of Rating**
Brief	Impact will not last longer than 1 year
Short term	Impact will last between 1 and 2 years
Medium Term	Impact will last between 2 and 15 years
Long Term	Impact will last more than 15 years
Permanent	Impact may be permanent, or in excess of 20 years
Very High	Natural and/ or social functions and/ or processes are severely altered

Intensity - the severity of the impact	
Rating	**Definition of Rating**
Negligible	Natural and/ or social functions and/ or processes are negligibly altered
Low	Natural and/or social functions and/or processes are slightly altered
Medium	Natural and/or social functions and/or processes are notably altered
High	Natural and/ or social functions and/ or processes are significantly altered
Very High	Natural and/ or social functions and/ or processes are severely altered

Probability of occurrence - the probability of the impact occurring	
Rating	**Definition of Rating**
Improbable	Conceivable, but only in extreme circumstances, and/or might occur for this project although this has rarely been known to result elsewhere
Possible	Has occurred here or elsewhere and could therefore occur
Probable	It is most likely that the impact will occur
Definite	There are sound scientific reasons to expect that the impact will occur

Reversibility - the ability of the impacted environment to return to its pre-impacted state	
Rating	**Definition of Rating**
Completely reversible	the impact can be reversed with the implementation of minor mitigation measures.
Partly reversible	the impact is reversible but more intense mitigation measures are required
Barely reversible	the impact is unlikely to be reversed even with intense mitigation measures
Irreversible	the impact is irreversible, and no mitigation measures exist

Irreplaceable loss of resources - the degree to which resources will be irreplaceably lost	
Rating	**Definition of Rating**
Negligible	No loss of resources
Low	Marginal loss, the resource is not damaged irreparably or is not scarce
Medium	the resource is damaged irreparably but is represented elsewhere
High	Irreparable damage and is not represented elsewhere

Confidence - the level of confidence in the assessment rating	
Low	Judgement is based on intuition
Medium	Determination is based on common sense and general knowledge
High	Substantive supportive data exists to verify the assessment

Significance - Significance of impacts are determined through a synthesis of the assessment criteria	
Rating	**Definition of Rating**
Major negative (-)	The impact will have highly significant effects and are unlikely to be able to be mitigated adequately
Moderate negative (-)	The impact will have medium significant effects and will require moderate mitigation measures to achieve an accepted level of impact
Minor negative (-)	The impact will have low significant effects and will require minor mitigation
Negligible negative (-)	The impact will have very low significant effects and would require little mitigation
Neutral	The impact will have insignificant effects and would require no mitigation
Negligible positive (+)	The impact will have negligible positive effects
Minor positive (+)	The impact will have minor positive effects
Moderate positive (+)	The impact will have moderate positive effects
Major High positive (+)	The impact will have highly significant positive effects.

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.

See Appendix J – Impact Assessment Table.

Below is a comparative table of the three alternatives assessed.

CONSTRUCTION PHASE						
IMPACT	**PREFERRED ALTERNATIVE**		**ALTERNATIVE 1**		**ALTERNATIVE 2**	
	Before Mitigation	**After Mitigation**	**Before Mitigation**	**After Mitigation**	**Before Mitigation**	**After Mitigation**
Loss of habitat within CBAs	Minor - negative	Minor - negative	Minor - negative	Minor - negative	Minor - negative	Minor - negative
Loss of sensitive vegetation	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative
Loss of secondary vegetation	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Negligible - negative	Negligible - negative
Loss of protected tree species	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative
Loss of habitat for threatened species	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Negligible - negative	Negligible - negative
Earthworks and sedimentation	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative
Waste pollution	Negligible - negative	Negligible - negative	Negligible - negative	Negligible - negative	Negligible - negative	Negligible - negative
Construction vehicle pollution	Negligible - negative	Negligible - negative	Negligible - negative	Negligible - negative	Negligible - negative	Negligible - negative
Topsoil disturbance	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative
Groundwater pollution	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative
Noise pollution	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative
Visual impact	Moderate - negative	Minor - negative	Moderate - negative	Minor - negative	Moderate - negative	Minor - negative
Employment	Negligible - negative	Negligible - positive	Negligible - negative	Negligible - positive	Negligible - negative	Negligible - positive

OPERATIONAL PHASE						
IMPACT	PREFERRED ALTERNATIVE		ALTERNATIVE 1		ALTERNATIVE 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
Visual / Sense of place	Moderate - negative	Minor - negative	Moderate - negative	Minor - negative	Moderate - negative	Minor - negative
Stormwater management	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Negligible - negative	Negligible - negative
Stormwater runoff	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Negligible - negative	Negligible - negative
Groundwater contamination	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative
Groundwater recharge and flooding	Negligible - negative	Negligible - negative	Negligible - negative	Negligible - negative	Negligible - negative	Negligible - negative
Impacts on ecological drivers	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative
Impacts on ecological corridors	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative
Alien vegetation eradication	Moderate - negative	Moderate - positive	Moderate - negative	Moderate - positive	Moderate - negative	Moderate - positive
Formal gardens	Negligible - negative	Minor - positive	Negligible - negative	Minor - positive	Negligible - negative	Minor - positive
Package plant maintenance	Moderate - negative	Negligible - negative	Moderate - negative	Negligible - negative	Moderate - negative	Negligible - negative
DECOMMISSIONING PHASE						
IMPACT	PREFERRED ALTERNATIVE		ALTERNATIVE 1		ALTERNATIVE 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
Package plant decommissioning	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative	Minor - negative	Negligible - negative

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.

Agricultural compliance Statement for Portion 91 of Farm 304, Matjes Fontein, Plettenberg Bay by Dr Darren Bouwer of Digital Soils Africa, dated May 2023.

Due to the small footprint and low impact on existing agricultural activities, it is the specialist's opinion that the development continues. The development will not have a significant impact on agricultural in the area and poses no threat to food security. In terms of agricultural sensitivity, the development should thus be allowed to proceed.

Aquatic Impact Assessment: Portion 91 of Farm 304, Matjesfontein, Plettenberg Bay by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated March 2024.

Based on the results of the desktop review and the site survey, the sensitivity of aquatic biodiversity on Portion 91/304 can be regarded as LOW. The main factors influencing the statement include the following:

- The mapped aquatic features at the site are associated with estuarine habitat which is mapped according to the contours (5 m.a.m.s.l.) and not the actual habitat present. Ground-truthing of the site by the aquatic specialist confirmed no estuarine habitat present in remnant vegetation at the site, and no hydromorphic indicators in the soil that would indicate wetland conditions;
- While a natural spring and pond are present on the site, they are very small in extent and can be adequately protected from the development by implementing the 10m buffer during the

construction and operational phases as indicated in this report. The presence of this feature is not sufficient to increase the sensitivity of the site to Very High, and it has been excluded from the development area in both SDP options. No stormwater should be put into this pond as the water is of high quality.

- According to the Keurbooms-Bitou Estuarine Management Plan the property and proposed development area are located above the 100-year floodline and outside of any ecologically sensitive areas associated with the estuary or Tshokwane wetlands.
- Following feedback received from DEA&DP querying the level of groundwater at the site, a geotechnical study was compiled. Groundwater was only present in 2 of the test pits at an average depth of 2 m. For wetland or estuarine conditions to form, the soil profile must be periodically saturated in the plant root zone (upper 50 cm). This would need to happen for at least several months of the year to influence vegetation composition. As the groundwater level was substantially deeper than this, and no wetland / estuarine vegetation was observed at the soil surface, it is concluded that no estuarine or wetland habitat could form at the site.

Plant Species, Animal Species and Terrestrial Biodiversity Assessment Report by David Hoare Consulting (Pty) Ltd, dated 16 March 2023.

Desktop information, field data collection and mapping from aerial imagery provides the following verifications of patterns for various themes:

- The site consists of a combination of pasture / lawns (on the flat lowlands), secondary scrub vegetation, forest woodland (on the steep south-facing slopes), patches of alien trees, and some scattered milkwood trees within the pasture area. The forests are in a natural state whereas other habitats are secondary.

- The proposed development will be restricted to the lowland areas that were previously cultivated. The forest areas are therefore outside the proposed development footprint.

- The forest exists in the areas designated as Critical Biodiversity Area 1. The site occurs within Garden Route Shale Fynbos, which is listed as Endangered. The forest habitat on site is not typical of the listed ecosystem within which it occurs but it is nevertheless a listed ecosystem.

- Following the procedures within the Species Environmental Assessment Guidelines, the forests on site have been assessed as having Very High sensitivity / Ecological Importance, secondary vegetation as having Medium sensitivity / Ecological Importance, and remaining areas Low or Very Low sensitivity.

- On the basis of the presence of natural habitat within a CBA1 area and within a listed ecosystem, it is verified that the site occurs partially within an area of VERY HIGH sensitivity with respect to the Terrestrial Biodiversity Theme. These areas are not affected by the proposed development.

- No plant species of concern were found on the lowland part of the site and, based on the available habitat (except for the forest, which will not be affected by the proposed development), it is considered unlikely that any of those plant species flagged for the site would occur there. However, it is likely that an Endangered tree species occurs within the forest, and possible that a Rare tree occurs within the forest. It is therefore verified that the site has MEDIUM sensitivity with respect to the Plant Species Theme, but only within areas not affected by the proposed development.

- The lowland part of the site is not considered to be good habitat for any of the animal species flagged for the site. However, the forest is likely habitat for three animal species, the Knysna Warbler (Vulnerable), a small antelope (Vulnerable), and the Tunnelling Dung Beetle (Endangered). It is therefore verified that the Animal Species Theme has MEDIUM sensitivity for the site, but only within areas not affected by the proposed development.

- An impact assessment determined that the impact of the proposed development (both options) has Very Low significance on vegetation, protected trees, and animal species of concern. However, Alternative 2 is preferred on the basis that it incorporates more open space, which is better for ecosystem processes and connectivity, although not significantly so.

- The proposed development project (73 units) affects a small area mapped in the Keurbooms and Environs Local Area Spatial Plan (KELASP) as "***Map Unit 8: Fynbos invaded with aliens***", which is a restricted zone according to this LASP. The on-site vegetation was found to be secondary with alien plants, but this is legally natural vegetation within an Endangered ecosystem (according to the legal definition of natural vegetation in NEMA). This small patch of habitat is not considered to have biodeiversity significance, but constitutes the only restriction, according to the information considered here. On this basis, the Alternative 2 proposal is preferred.

- The proposed development is entirely within areas mapped as secondary or pasture that has low biodiversity value and sensitivity. The development is therefore supported on condition that forest habitats on the property are fully protected. Either option is acceptable, although Alternative 2 is marginally preferred.

Heritage Statement in support of Heritage Western Cape Notification of Intent to Develop (HWC NID – Section 38) by Dr. Peter Nilssen, dated 11 April 2023.

According to the findings by Dr. Nilssen, there is no reason to believe that significant heritage resources will be impacted by the proposed development on 91/304, it is recommended that no further heritage-related specialist studies (as listed in the NID) are required and that a Heritage Impact Assessment is not warranted for the project.

Nevertheless it is recommended that Heritage Western Cape consider and/or require that the following be included in the Environmental Authorisation / Environmental Management Program, if the project is approved:

- Even though 91/304 is of LOW palaeontological sensitivity, in case of a chance fossil discovery Mr Pether recommends that the Fossil Finds Procedure (FFP) is included in the Environmental Management Plan (EMP) for the Construction Phase of the development, basically "If fossil bones are uncovered during excavations, stop work and report to Heritage Western Cape (HWC)" – however, given the absence of palaeontological and archaeological remains in the geotechnical test pit excavations, this requirement is in question and may not be applicable (unfortunately Mr Pether was not available to comment at the time of this observation and writing),
- Due to the disturbed nature of this part of 91/304, as well as the findings of the geotechnical excavations, archaeological monitoring is NOT recommended, but,
- If any human remains or significant archaeological materials are exposed during mining activities, then the find should be protected from further disturbance and work in the immediate area should be halted and Heritage Western Cape must be notified immediately. These heritage resources are protected by Section 36(3)(a) and Section 35(4) of the NHRA (Act 25 of 1999) respectively and may not be damaged or disturbed in any way without a permit from the heritage authorities. Any work in mitigation, if deemed appropriate, should be

commissioned and completed before construction continues in the affected area and will be at the expense of the developer.

Visual impact assessment for the proposed development of portion 91 of farm Matjes Fontein 304, Plettenberg Bay by Paul Buchholz, dated 3 November 2023.

- The development would be visible from various surrounding areas, including local roads and residential zones. However, the extent of visibility is limited due to distance, terrain, and vegetation that act as natural barriers. The development's visual influence is localized, primarily impacting areas less than 5 kilometers away.
- High sensitivity receptors include nearby residential developments and scenic routes. The potential visual impact is most pronounced in areas used for recreation or with scenic value.
- The site features flat areas near the coast, as well as ridgelines that can obstruct or limit views. The area contains critical biodiversity zones and invasive alien species, influencing both the ecological and visual impacts.
- A 10-meter-wide vegetation buffer along the scenic Keurboom Road is proposed to obscure the development, reducing both the visual and noise impacts from the road.
- The development will prioritize low-profile structures (approximately 8 meters high) that blend with the environment. Houses are to be built with sustainable materials and oriented for maximum solar efficiency without disrupting the visual harmony of the surroundings.
- The proposed layout includes green spaces with indigenous vegetation, aimed at maintaining the natural aesthetic of the area. Walking trails and recreational areas will be planned to avoid disturbing sensitive habitats.
- Efforts will be made to integrate the development into the existing landscape by minimizing contrasts in form, line, color, and texture.

Traffic Impact Assessment for a proposed residential development of Portion 91 of Farm Matjes Fontein No. 304, Keurboomstrand by Engineering Advice and Services (Pty) Ltd, dated December 2023.

- Under escalated (2025) background normal traffic conditions no problems are experienced at the affected junctions in terms of capacity;
- Based on 2019 daily traffic surveys at the N2 Goose Valley counting station volumes on 29 November equate to 56% of the average daily volumes during December. As such the surveyed peak hour volumes have been escalated by 1.25 to provide an indication of the impact of the development during peak season traffic conditions;
- The proposed development generates a total of 62 peak hour vehicle trips during the weekday AM and PM peak hours with a maximum of 43 entering during a peak hour;
- Access to the development can safely be accommodated from Keurboom Road (MR00394) provided the access is configured as indicated on Figure 14 of the TIA (opposite Milkwood Glen entrance);
- Access control gates to the development should be configured with a minimum of one entry lane set back a minimum of 6.5m from the road edge;
- When considering the traffic generated by the proposed development added to escalated background traffic, the affected junctions and access points all operate at acceptable Levels of Service in terms of capacity for the 2025 development horizon for normal season traffic conditions;
- When considering the traffic generated by the proposed development added to escalated background traffic, the affected junctions and access points all operate at acceptable Levels of Service in terms of capacity for the 2030 development horizon for normal season traffic conditions;

- When considering the traffic generated by the proposed development added to escalated peak season background traffic, the affected junctions and access points all operate at acceptable Levels of Service in terms of capacity for the 2030 development horizon;
- Public transport stops should be marked downstream of the proposed access driveway on both sides of Keurboom Road.

Geotechnical Report for proposed new residential development of Portion 91 of Farm Matjes Fontein No. 304, Keurboomstrand, Plettenberg Bay by Outeniqua Geotechnical Services, dated 8 March 2023.

- The fine sandy soil conditions generally had moderate permeability and drainage characteristics, but surface water was expected to accumulate temporarily after heavy rainfall events.
- Groundwater was identified in test pits on the southern (lower) side of the site at an average depth of 2m. Seepage and run-off from the slopes to the north were therefore expected to have an influence on the engineering design. Groundwater was also expected to affect deep excavations (>1.5m below NGL) in some areas.
- Consideration should be paid to stormwater drainage due to the low gradient on the site and the likelihood of stormwater accumulating on surface after heavy downpours.
- Stormwater from roofs can generally be handled in gutters, downpipes and open channels or underground pipes, with suitable discharge locations on the southern side of the site.
- A well designed road layout can assist in management of stormwater run-off from site, with minor flood events being accommodated within the road prism with raised barrier kerbs and/or side channels.
- Allowances should be made for stormwater handling from slopes above the site (including continual seepage at/near spring area).

Groundwater Impact Assessment for the Proposed New Residential Development on Portion 91 of Farm 304 Matjesfontein, Keurboomstrand, Western Cape by DHS Groundwater Consulting Services dated 12 February 2025.

- The site is underlain by a low-yielding, intergranular aquifer consisting of shallow, unconsolidated formations, making it highly vulnerable to contamination.
- Groundwater was encountered at shallow depths (1.95m and 2.3m below ground level) in geotechnical test pits, confirming the need for careful contamination management.
- A hydrocensus identified three boreholes, a spring, and a groundwater spike within a 3 km radius, with groundwater users present at MG01 and MF01.
- Groundwater quality is moderate, with electrical conductivity (EC) values ranging from 150 to 370 mS/m; however, samples from MG01 and MF01 exceed drinking water standards due to elevated chloride (Cl), sodium (Na), manganese (Mn), iron (Fe), and turbidity levels.
- Based on national-scale DRASTIC data, the aquifer vulnerability is classified as "moderate," but localized conditions (high permeability and proximity to contamination sources) increase the rating to "high."
- The Aquifer System Management Index and Groundwater Quality Management Index confirm a high-risk classification for the site.

With the recommended mitigation strategies, monitoring framework, and proactive management measures in place, the potential negative impacts on groundwater quality, recharge, and flooding can be reduced to negligible levels. This will ensure the protection of groundwater resources, safeguard water users, and uphold environmental sustainability throughout the construction and operational phases of the development.

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

Aquatic Impact Assessment: Portion 91 of Farm 304, Matjesfontein, Plettenberg Bay by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated March 2024.

Construction Phase (Site Preparation):

- Pre-construction erect temporary fencing along the entire green corridor and open space to protect the pond as well as the corridor from impact during construction.
- Add signage to the fence indicating the area as No-Go.
- Site inductions for all staff must ensure contractors and works area aware they may not enter the pond and spring area.

Operational Phase:

- No stormwater runoff from the development or treated wastewater should be put into this pond as the water is of high quality.
- No stormwater infrastructure to be directed towards the pond.
- Routine maintenance inspections to clear windblown / discarded litter from the pond and spring.
- Stormwater should be diverted to detention ponds on the site which are indicated on various SDP layouts and are consistent with the SUDS approach to stormwater management.
- The purpose of the pond and spring is to provide a sustained water source for wildlife in the green corridor.
- Landscaping and gardening staff must not undertake any clearing of vegetation inside of the 10m buffer.
- A bird hide in the buffer to spot wildlife would be acceptable, but no additional recreational activities. The point is to create a quiet habitat with suitable vegetation cover for continued use by animals, birds etc.
- Indigenous plants found in adjacent thickets may be planted around the pond. Only indigenous plants found in the immediate surrounding area may be planted.
- A list of recommended wetland plants for that can be used to improve vegetation cover of muddy areas and marginal areas of the pond is provided in this report.
- Do not place any fish into the pond as only alien invasive fish to the area would survive and could be transferred to other waterbodies on the feet of animals or birds.
- The only plants that should be removed from the area are listed alien invasive species.
- perimeter fence is recommended along the northern section of the property to preserve the wildlife corridor and natural area beyond. The fenceline should not extend into the 20m corridor and should aim to separate the development area from the conservation / wildlife area.
- Clear vu type fencing would have the important benefit of excluding pets (cats and dogs) from the wildlife corridor area where they could deter or kill wildlife large and small.
- Fencing should not extend into the corridor on the neighbouring boundaries as the aim is to have an inter-connected corridor that extends across properties, should development occur in adjacent areas.

Plant Species, Animal Species and Terrestrial Biodiversity Assessment Report by David Hoare Consulting (Pty) Ltd, dated 16 March 2023.

- Forest habitats on the upland, steeply-sloping part of the site, have high biodiversity and conservation value, and are designated as sensitive. These areas must not be affected by the proposed development. A buffer zone should be retained along the base of the slope to protect the forest margin. For example, steps should be taken to rehabilitate these areas and encourage growth of species, such as *Pterocelastrus tricuspidatus* and *Sideroxylon inerme*, that are mesic and fire-resistant. An open space management system should be developed to formalize such steps for forest protection.

- Rehabilitation of disturbed areas, as well as previously invaded areas, should promote establishment of site-appropriate indigenous species.

- An ongoing alien invasive management programme should take place on site. This will protect riparian habitats downslope from degradation and could potentially be the biggest contribution to maintaining and protecting biodiversity on site and in surrounding areas.

- The bulb species, *Brunsvigia orientalis*, was found on site within the proposed development footprint. Although not threatened, it is recommended that all individuals are rescued prior to commencement of development. Locations of individuals must be determined by a qualified botanist during the flowering period in late summer (around March) and plants rescued at an appropriate time thereafter. Plant rescue and relocation must follow the requirements of the Bitou Municipality.

Heritage Statement in support of Heritage Western Cape Notification of Intent to Develop (HWC NID – Section 38) by Dr. Peter Nilssen, dated 11 April 2023.

- If any human remains or significant archaeological materials are exposed during mining activities, then the find should be protected from further disturbance and work in the immediate area should be halted and Heritage Western Cape must be notified immediately. These heritage resources are protected by Section 36(3)(a) and Section 35(4) of the NHRA (Act 25 of 1999) respectively and may not be damaged or disturbed in any way without a permit from the heritage authorities.
- Any work in mitigation, if deemed appropriate, should be commissioned and completed before construction continues in the affected area and will be at the expense of the developer.

Visual impact assessment for the proposed development of portion 91 of farm Matjes Fontein 304, Plettenberg Bay by Paul Buchholz, dated 3 November 2024.

- **Reducing unnecessary disturbance**

As a general rule, reducing the amount of land disturbed during the construction of a project reduces the extent of visual impact. Measures relevant to the project include:

- Retain as much of the existing vegetation as possible and where practical screen construction activities from key viewing locations. This is also referred to as vegetation manipulation.
- Establish limits of disturbance that reflect the minimum area required for construction.
- Existing vegetation should be retained where possible through the use of retaining walls.

- **Colour selection**

The selection of the best colour for the planned project will have the greatest impact on the visual success or failure of the project. Strong contrasts in colour create easily recognizable visual conflicts in the landscape. Measures relevant to the project include:

- The selection of colours that blend with or are in harmony with the surrounding landscape will drastically reduce the visual impact of the project
- Galvanized steel on structures should be darkened to prevent glare. Low-lustre paints should be used wherever possible to reduce glare.

- **Reduce contrasts from earthworks**

The scars left by excessive cut and fill activities during construction often leave long-lasting negative visual impacts. Once the dark surface soil layer is disturbed, exposing the much lighter colour of the subsurface soil, a strong contrast is created that may take many years to recover.

There are several ways to reduce the contrasts created by earthwork construction. Proper location and alignment are the most important factors. Fitting the proposed project infrastructure to the existing landforms in a manner that minimizes the size of cuts and fills will greatly reduce visual impacts from

earthwork. Other earthwork design techniques, such as balancing cut and fill or constructing with all fill or all cut should be considered, where appropriate, as methods to reduce strong visual impacts. Measures relevant to the project include:

- The scars left by excessive cut and fill activities during construction often leave long-lasting negative visual impacts. Where possible fitting the proposed project infrastructure to the existing landforms in a manner that minimizes the size of cuts and fills will greatly reduce visual impacts from earthwork.
- The dumping of excess rock and earth on downhill slopes should be limited.

- **Glint and Glare**

Solar glint and glare i.e. reflected sunlight from shiny surfaces such as windows can affect safety and residential amenity in surrounding areas. Glint is a momentary flash of light. and may be produced as a direct reflection of the sun on a window. Glint effects are not restricted to just windows and can occur from any reflective surface including building facades.

Glare is a continuous source of excessive brightness. It could be experienced by a stationary observer located in the path of reflected sunlight from the face of a window. Glare can also be an issue for buildings with reflective/ glassy facades.

Glint and glare can cause a distraction or lead to an after-image being experienced by an observer. This can present a nuisance and, under some circumstances, a safety hazard. Solar glint and glare impact significance is categorised differently for varying observer types. For dwelling receptors, significance is predominantly defined by duration and separation distance. For road users, it is mostly down to the location of the glare relative to an observer's field of view.

Low emissivity windows (Low-E) are designed to reflect much more solar energy than standard glass panes. They block as much as 99% of the sun's ultraviolet rays, preventing interiors from fading and reducing the health risks posed by ultraviolet light. Low-E windows also block a large percentage of the sun's infrared light, which is chiefly responsible for solar heat gain inside a property; it is primarily for this reason that these windows are known as energy efficient. Most low-E windows are also quite well-insulated thanks to a double pane design, which further enhances their energy efficiency.

But all that UV and IR light reflected off Low-E windows has to go somewhere, and quite often it does so in the form of light beams (glare) intense enough to melt some materials or to pose a hazard to nearby humans and animals.

Anti-glare window film can be applied to windows prone to glare. They reduce the reflection without reducing the amount of light that reaches the room and without obstructing the view either. The roof of a building can also be extended to provide more shade and thereby reducing glare from windows.

- **Limiting the footprints and heights of structures**

Visual impact can be reduced by limiting the footprint of the buildings and hardscaping as well as the heights of buildings. Limiting the footprint of infrastructure will help to provide more greening areas in between buildings which will assist with screening and visual absorption of structures

- **Development and architectural guidelines**

Development and building guidelines need to address procedural, planning and aesthetic considerations required for the successful design and development of the property and the architectural ethos of the development. The purpose of design guidelines is to protect and safeguard the environment and scenic resources and guide the appropriate architectural character to protect the investment value of the development. The guidelines should not be restrictive conditions but should promote an overall design sensitivity whilst allowing flexibility for individual expression.

- **Landscaping**

A Landscape Plan must be drawn up by a professionally registered Landscape Architect. The objective of the Landscape Plan must be:

- To identify and retain indigenous trees and shrubs that will visually screen the development.
- To provide a planting plan of indigenous trees and shrubs for streets and open spaces that will allow for the medium – long-term visual screening of the development and enhance the living environment of the owners and residents.
- To draw up a management plan for phasing in indigenous trees and phasing out exotic trees such that the proposed development will always be screened from sensitive receptors, by trees. The plan should include the planting of fast-growing, pioneer-type trees, trees with a medium growth rate and those that have a slower growth rate. This management plan should be for a minimum of 20 years and should be monitored and revised every 5 years.
- To provide Landscape Guidelines for homeowners. Planting of lawn alone exacerbates the visibility of the units. The mix of lawn, shrubs and trees should be carefully designed with the importance of trees and large shrubs emphasized, to provide further greening of the built environment.
- To draw up a Landscape Operational Maintenance Plan for the Homeowners Association or owner to manage the shared open spaces beyond individual erf boundaries.
- To provide guidelines on visually permeable boundary treatments, using fencing for the most part and walls at entrances only. No precast concrete walls.

- **Lightning design**

Effective light management needs to be incorporated into the design of the lighting to ensure that the visual influence is limited to the power station, without jeopardising operational safety and security.

Several measures can be implemented to reduce light pollution and those relevant to the project are as follows:

- Where possible construction activities should be conducted behind noise/light barriers that could include vegetation screens.
- Low flux lamps and the direction of fixed lights toward the ground should be implemented where practical. Choose "full-cut off shielded" fixtures that keep light from going uselessly up or sideways. Full cut-off light fixtures produce minimum glare. They increase safety because you see illuminated people, cars, and terrain, not dazzling bulbs. If you can see the bright bulb from a distance, it's a bad light. With a good light, you see lit ground instead of the dazzling bulb. "Glare" is light that beams directly from a bulb into your eye.
- The design of night lighting should be kept to a minimum level required for operations and safety
- The utilisation of specific frequency LED lighting with a green hue on perimeter security fencing.
- Where feasible, put lights on timers to turn them off each night after they are no longer needed

- **Restoration and reclamation**

Strategies for restoration and reclamation are very similar to the design strategies for earthwork, as well as the design fundamentals of repeating form, line, colour, and texture and reducing unnecessary disturbance. The objectives of restoration and reclamation include reducing long-term visual impacts by decreasing the amount of disturbed area and blending the disturbed area into the natural environment while still providing for project operations.

Though restoration and reclamation are separate parts of project design, they should not be forgotten or ignored. It is always a good idea to require a restoration/reclamation plan as part of the original design package. All areas of disturbance that are not needed for operation and maintenance should be restored as closely as possible to previous conditions. Measures relevant to the project include:

- The objective of restoration and reclamation efforts is to reduce the long-term visual impacts by decreasing the amount of disturbed area and blending the disturbed area into the natural environment while still providing for project operations.
- Topsoil should be stripped, saved, and replaced on earth surfaces disturbed by construction activities.
- Planting holes should be established on cut/fill slopes to retain water and seeds.
- Indigenous plant species should be selected to rehabilitate disturbed areas.
- Where possible rehabilitation efforts should emulate surrounding landscape patterns in terms of colour, texture and vegetation continuums.
- Replacing soil, brush, rocks and forest debris over disturbed earth surfaces when appropriate, thus allowing for natural regeneration rather than introducing an unnatural-looking grass cover.
- Revegetation of disturbed areas should occur as soon as practicable possible after the completion of various construction activities.

- **Monitoring program**

The potential visual impacts and proposed mitigation thereof must be undertaken by a professionally registered landscape architect that must be part of the design team (including engineers and architects). The brief of the landscape architect (LA) must include:

- The LA must consult with both engineers and architects to ensure that sensitive earthwork and building design development occurs, which will allow for reducing the construction and operation phase visual impacts.
- The LA must work with the project surveyor, arborist and planners in establishing which trees are to remain on site for visual screening and taking this information into the design development of the civil and building works.
- The LA must prepare a landscape plan, design development thereof and monitoring implementation and thereafter maintenance. The plan must include the tree survey and what trees are, what indigenous vegetation is, to be retained, what is to be removed, the planting of indigenous trees, new trees and shrub planting along roadways and in open spaces in the built areas and a guideline document for private gardens within the development.

Geotechnical Report for proposed new residential development of Portion 91 of Farm Matjes Fontein No. 304, Keurboomstrand, Plettenberg Bay by Outeniqua Geotechnical Services, dated 8 March 2023.

The following recommendations are based on limited information gained from the site investigation and although the confidence in the information is high, significant variation is likely to occur between information points. All geotechnical information should be verified during construction and any significant variations should be brought to the attention of the geotechnical engineer for comment or further recommendations. It is recommended that the structural & civil engineers discuss their designs with the geotechnical engineer to ensure that the designs are compatible with the expected geotechnical conditions.

- **Earthworks and structural foundations**

Earthworks should be designed and constructed in accordance with SABS 1200D and/or any site-specific specifications provided by the civil engineer. Foundations should be designed and constructed in accordance with SANS 10400-H or as specified by the structural engineer.

To clear and prepare site for earthworks and construction, it was recommended that at least 150mm of topsoil and vegetation cover be removed from the footprint area. Large roots be grubbed and platform levels established by cutting and/or filling with insitu soil obtained from site. Bulk fill should be compacted to minimum 93%MDD. Low retaining walls may be required in some areas, depending on site levels. The insitu sandy soils were generally suitable for use as general fill on platforms, in roadbeds and as trench backfill. Any organic matter or unsuitable soil should be removed from potential fill

material. Unsuitable ground conditions exposed during earthworks should be referred to the engineer for further investigation and consideration on appropriate action.

The recommended foundation system for the proposed single/double storey residential structures included the following:

- RC strips/bases – clear and level site to PL, excavate trenches to PL-1m, wet and compact base of trench with 6 passes of mechanical rammer, such that DCP penetrates at less than 30mm/blow to a depth of 1m below the base of the excavation, backfill the trench to PL-0.7m (recommended final founding level) in layers with compacted sand ex-insitu to 100%MDD or <20mm/blow of DCP. Limit bearing pressures to max 150kPa. Alternatively, excavate trenches to PL-0.7m, compact base of trench such that DCP penetrates at less than 30mm/blow and limit bearing pressures to 100kPa.
- Raft foundations on a compacted insitu platform – excavate ~0.6m of insitu soils below entire platform area, compact base of excavation with roller, replace compacted soil in layers back up to platform level such that DCP penetrates at <30mm/blow, construct light raft foundation with max bearing pressures of 75kPa.

Additional measures can be considered for heavier structures.

Regular supervision by the structural engineer was highly recommended to ensure suitable founding conditions.

- **Site drainage**

The design and construction of storm water drainage should be carried out in accordance with SABS 1200LE, COLTO, The Red Book or other applicable standards, as determined by the civil engineer.

Consideration should be paid to stormwater drainage due to the low gradient on the site and the likelihood of stormwater accumulating on surface after heavy downpours. Stormwater from roofs can generally be handled in gutters, downpipes and open channels or underground pipes, with suitable discharge locations on the southern side of the site. A well designed road layout can assist in management of stormwater run-off from site, with minor flood events being accommodated within the road prism with raised barrier kerbs and/or side channels.

Allowances should be made for stormwater handling from slopes above the site (including continual seepage at/near spring area).

- **Roads**

It is recommended that road layerworks, including G4-G6 subbase and G1-G4 base layers (for asphalt-sealed roads) be imported from local commercial quarries. The insitu sandy soil can be used for roadbed and SSG layerworks in lightly trafficked internal estate roads.

Groundwater Impact Assessment for the Proposed New Residential Development on Portion 91 of Farm 304 Matjesfontein, Keurboomstrand, Western Cape by DHS Groundwater Consulting Services dated 12 February 2025.

The following recommendations are made to ensure the protection of groundwater resources to mitigate the potential risks of contamination, recharge and flooding during both the construction and operational phases of the development:

- **Mitigation Measures:** Implement and strictly adhere to prescribed mitigation measures to minimize environmental impact and ensure compliance with relevant regulations.

- **Monitoring Network Installation:** It is strongly recommended that the monitoring network be installed prior to the commencement of the proposed development. This will ensure that data is available to monitor groundwater quality and levels from the outset and allow for early detection of any potential issues during the construction phase. This network will also be essential for monitoring during the operational phase to ensure continuous assessment of groundwater quality and levels and to detect any contamination, recharge and flooding risks promptly.
- **Piezometer Installation:** At least four monitoring piezometers should be installed to effectively detect any potential contaminants and enable monitoring of groundwater quality and levels over time.
- **Regular Monitoring:** To track changes in groundwater quality, water levels and chemical parameters should be recorded monthly from each of the installed piezometers. Additionally, effluent quality should also be regularly tested to assess the potential impact of the wastewater treatment plant (WWTP).
    - **Laboratory Testing:** All groundwater and effluent samples should be sent to an accredited SANAS laboratory for analysis. Sample collection, handling, and transport should strictly adhere to laboratory standards to ensure the accuracy and integrity of the results.
- **Rapid Response Plan:** A rapid response plan should be developed in the event that any contamination is detected during the monitoring process. This plan should include clear procedures for identifying the source of contamination, containing the issue, and mitigating any potential environmental impacts. It should also outline specific actions to address contamination quickly and effectively, reducing the risk of groundwater or environmental degradation.

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

None.

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

The Keurboom village is a seasonal holiday town with a homogeneous single residential holiday character. The property is about 1.8 km west of the town along a stretch of road that contains several gated residential developments. The Zoning Plan indicate that the study area mainly consists of Single residential and Group housing zoned residential estate of varying densities. The proposal is compatible with the existing land uses.

The Keurboom Road is a scenic route and as such, the visual quality along the way is a relevant consideration. There is a 10m wide open space system proposed along this road. This strip of land will be densely vegetated to obscure the development. This vegetation buffer will allow for a visual barrier between the development and the Road, which will reduce the visual impact of the development, and reduce noise levels emanating from the Road.

The development density and design will be such that impact on surrounding communities will be minimal.

The addition of 60 new residential units will significantly increase the demand on the local municipal water supply. This demand places strain on the already limited resources, potentially leading to shortages or requiring the municipality to implement further restrictions. The development will aim to be as self-sufficient as possible. The GLS Capacity Analysis Report confirms that the existing reticulation system and reservoir has sufficient capacity to service the development. There is however insufficient capacity in the bulk water mains serving the reservoir, to maintain the required reservoir storage during peak seasonal periods. The Bitou Municipality have confirmed that Master planning is in place for the necessary upgrades to the bulk supply system. However the implementation of upgrades is entirely dependent on the availability of finance, and no time frame can be guaranteed for such

implementation. The Developer's intent is to lower demand by optimising the use of rainwater harvesting for domestic use and the use of treated greywater for irrigation purposes, within economic feasibility. Detailed solutions will be addressed in the detailed design stage and will be to Bitou Engineering Department approval.

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.

Although the site has not been subject to any past flooding, low-lying areas below 3m have been avoided and form part of the open system to accommodate possible future flooding scenarios. This will enhance the resilience of the development to climate change in the future. A detailed stormwater plan is attached as Appendix G3.

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

None.

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

Mitigation measures recommended by the specialists have been included in the EMPr (Appendix H).

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

The layout and design of the site development plan took into account the topography of the property, the sensitive forest area, surrounding vegetation and aquatic features found thereon.

The density has also been reduced from 73 to 60 to accommodate concerns raised by the local community during the Pre-Application Public Participation Process. Property sizes has increase from average of 375m² to 450m², to be more in line with surrounding property sizes. Further specialist assessment has also revealed that an animal corridor of at least 20m along the foot of the hill would be more suitable than the previously proposed 10m buffer from the forest vegetation.

THE NATIONAL BIODIVERSITY OFFSET GUIDELINE, published under the NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) on 23 June 2023, provides guidelines for when offsets are required.

According to this Guideline, "*a biodiversity offset is required when a proposed listed or specified activity, or activities, is/are likely to have residual negative impacts on biodiversity of medium or high significance. These negative impacts could affect biodiversity patterns (e.g. threatened ecosystems, species or special habitats), ecological processes (e.g. migration patterns, climate change corridors enabling shifts in species distributions over time, or wetland function), ecosystem services (e.g. provision of clean water) or a combination of all three*".

For any impact assessment, the mitigation hierarchy must be considered. If mitigation measures are likely to be ineffective at minimising large impacts, then avoidance mitigation must be implemented. If an impact cannot be prevented, then minimisation mitigation is preferred. The desired outcome of the mitigation hierarchy aims to ensure that (Brownlie et al., 2023):

1. There is no loss of irreplaceable biodiversity or irreplaceable ecological infrastructure and associated ecosystem services.
2. Negative impacts and risks of high significance to the environment, and on ecological infrastructure which provides important ecosystem services for people, are avoided.
3. Additional mitigation is applied to residual negative impacts of greater than 'low' significance, to reduce impact significance to 'low' or preferably 'very low'.
4. Ecosystems, the habitat for species of plants and animals, and ecological infrastructure, when unavoidably impacted by the proposed development, are rehabilitated/restored as soon as practicable, and concurrently with the proposed development where feasible.
5. Biodiversity offsets are provided in cases where every effort has been made to avoid and minimise negative impacts, and rehabilitate/restore damage, but residual negative impacts of

moderate/medium or high significance remain. Biodiversity offsets should ensure that biodiversity is not incrementally eroded beyond acceptable limits, the ecological deficit is not exacerbated, and that people are left no worse off than before the proposed development.

6. Compensation is provided to ensure that people adversely affected by the proposed development are not left worse off, particularly in cases where:
    a. there is a time lag between negative impacts and providing remediative mitigation (i.e. rehabilitation/restoration and biodiversity offsets), in the form of substitutes for affected ecosystem services on which there is high dependence by affected people;
    b. the outcomes of rehabilitation/restoration and biodiversity offsets are not designed to/will not benefit the affected parties.
7. The cumulative impact of the authorised development, and land and resource use changes, does not:
    a. result in the loss of irreplaceable biodiversity, an inability to meet biodiversity targets or increase the risk of extinction for any species; and/or
    b. result in the loss of ecological infrastructure without substitute, causing an irreversible loss in ecosystem services.

Following the specialist impact assessments, a Biodiversity Offset was determined to NOT be applicable to this project.

SECTION J: GENERAL

1. Environmental Impact Statement

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

- The site includes significant areas that are steeper than a gradient of 1:4. A comparison with the proposed development shows that these are excluded from the development footprint.

- No freshwater features such as drainage lines, rivers or wetlands are indicated to occur within the footprint of the property or within close proximity to the property. Based on the results of the Freshwater desktop review and the site survey, the sensitivity of aquatic biodiversity on Portion 91/304 can be regarded as **LOW**.

- The only mapped aquatic feature is the Estuarine Functional Zone (EFZ) which is identified as any area below 5 m.a.m.s.l. (metres above mean sea level). However, no estuarine species from any of the tidal habitats including saltmarsh or supra-tidal vegetation were identified at the site. Ground truthing by the specialist confirmed that no estuarine habits are present on site.

- The site is outside the 1:50 and 1:100-year floodlines indicated in KELASP, and is also outside of the Tshokwane Wetland system, as well as outside the 100 m high water mark setback.

- The property is located on the edge of the 1:100 year floodline, which is not mapped to extend beyond the boundary of the property. In reality, the frequency of 100-year flood events is increasing due to climate change, and when coincident with sea-level rise and high tide events, it is not impossible that minor flooding could affect the low-lying area of the property in future. This should be considered in the design and layout of the property, and stormwater management should not further exacerbate the flood risk. To this end, Sustainable Drainage Systems (SuDS) should be fully implemented.

- Soil augering at the site indicated deep, sandy, fairly well drained soil with no textural change at 50 cm which could promote the development of wetland habitat. This is consistent with the mapped soil type in the area which is described as soils with limited pedological development (young soils with minimal organic matter), and a low clay content (< 15%).

- The dam and associated spring are identified as a watercourse as defined in the National Water Act. The mapped spring and dam have been protected by a 10 m buffer as recommended, which constitutes the regulated area as per GN509 as this incorporates riparian vegetation in the immediate vicinity of the features. Provided no development takes place within this area, the development will not require any level of Water Use Authorisation in terms of the National Water Act.

- The entire site is within one regional vegetation type, namely Garden Route Shale Fynbos. The conservation status of Garden Route Shale Fynbos is Vulnerable.

- The 2023 WCBSP map for the property shows that the entire northern area of the site (±60%), except for the road, is within a Critical Biodiversity Area (CBA1). On the basis of the presence of natural habitat within a CBA1 area and within a listed ecosystem, it is verified that the site occurs partially within an area of **VERY HIGH** sensitivity with respect to the Terrestrial Biodiversity Theme. These areas are not affected by the proposed development.

- On the basis that it has been recorded from Plettenberg Bay and the site has suitable habitat, the Knysna Warbler (Vulnerable) has a moderate to high probability of occurring in forest

margin areas on site. The forests on site may constitute part of the general foraging range of Crowned Eagle (Near Threatened), but it is unlikely that they occur on site, or are dependent on it. The type locality of the Tunnelling Dung Beetle (Endangered) is forest habitats in the Keurboomstrand area. It therefore has to be assumed that there is a high probability of it occurring there. There is a moderate to high probability of the small antelope (Vulnerable) occurring in the forests on site. It is therefore verified that the Animal Species Theme has **MEDIUM** sensitivity for the site.

- There are two species that could occur within forest habitats on site. These are *Ocotea bullata* (Endangered) that has a high probability of occurring on site, and *Faurea macnaughtonii* (Rare) that has a moderate possibility of occurring there. There are therefore two threatened, near threatened or rare species that could occur in the study area. It is therefore verified that the Plant Species Theme has **MEDIUM** sensitivity for this site.

- No plant species of concern were found on site, but a small number of free-standing, relatively large milkwood trees (*Sideroxylon inerme*) were found on site that are protected under the National Forests Act. These will be retained within the proposed development.

- Following the procedures within the Species Environmental Assessment Guidelines, the forests on site have been assessed as having Very High sensitivity / Ecological Importance, secondary vegetation as having Medium sensitivity / Ecological Importance, and remaining areas Low or Very Low sensitivity.

- No-go mapping units from KELASP that occur on site are *Map Unit 4: Forest* and *Map Unit 8: Fynbos invaded with aliens*. A comparison with the proposed development shows that *Map Unit 4: Forest* is excluded from the development footprint, but that *Map Unit 8: Fynbos invaded with aliens* is partly included within the proposed development footprint.

- The palaeontological sensitivity of the development footprint is low and even though Mr Pether recommends the inclusion of the Fossil Finds Procedure in the EMPr for the development, geotechnical test pits to a depth of 2 to 3 m have revealed no palaeontological resources. Excavations for bulk services and foundations are not expected to exceed 1,5 m in depth. There is no reason to believe that significant heritage resources will be impacted by the proposed development.

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)

See 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.

Table 6: Positive and Negative Aspects of the Project.

Specific Aspect of Proposal	Positive	Negative
Planning Policy, Documentation and Urban Edge.	This particular property is in proximity to existing developments and is partially within the urban edge of expansion for the Bitou Municipal District. The proposal is compatible with various planning policies and documents. A portion of the property will remain as *Open Space* to be	The proximity to scenic area and the coastline may have visual impacts. These can be managed and mitigated.

	rehabilitated with indigenous shrub and trees which will 'soften' the visual impact.	
Bulk Services supply	There already is a connection point for the proposed development and there will be no pressure / demand on the current system. Access to the property is currently available through the existing road network.	All wastewater, water supply and storm water will need to be managed but this is achievable with all the correct mechanisms and mitigation in place.
Conservation Status / value	The area identified for the development footprint is not within a CBA and the vegetation on site has been transformed over the years resulting in a low to medium conservation value within the proposed development footprint.	Loss of potential habitat and species of conservation value.
Sufficient ecological corridors	The proposed open space system corresponds to the position of indigenous vegetation. These areas will be part of the landscaping plan of the development and will provide an opportunity for recreational areas such as walking trails, lookout points etc. These facilities will be formally laid out to avoid unnecessary informal path formation in the sensitive forest habitat. A play park and picnic area are planned under the Milkwood trees and the small dam can be equipped with a bird hide or benches where the resident can enjoy the greenery. A great neighbourhood has places for people to meet, talk and be neighbourly.	The proposal would not greatly compromise on landscape connectivity given that the forest area will remain undisturbed. However fencing and encroachment into the forest margin may impact certain species such as the Knysna Warbler, Crowned Eagle, and small antelope.
Aquatic features	There are no wetlands or watercourses that will be affected by the development. A 10-m buffer around the spring and pond is proposed.	There are no aquatic features at risk on site.
Erosion	Rehabilitation of disturbed areas with indigenous vegetation.	Erosion due to removal of organic rich topsoil and disturbance of vegetation.
Noise and Visibility	The Development will have Architectural Guidelines in terms of aesthetics and 'sense of place' that will be adhered to.	Visual and noise Impacts to adjacent residents during construction phase.
Alien Vegetation	Systematically remove invasive alien vegetation (also in the operational phase).	Loss of natural vegetation and increased fire risk if not removed.
Fire risk	Removal of alien vegetation to reduce fuel load.	Fire risk may be high if alien vegetation is not removed.

Storm water	Implementation of stormwater management plan and the use of SUDs and retention ponds.	Pollution into sub-surface water and accelerated erosion.
Site Access	Access will be restricted.	Potential increased vehicle movement will require suitable guidelines and recommendations to be adhered to as stipulated, with regards to access.

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

See Appendix J – Impact Assessment Table

The following Impact management measures have been included in the EMPr:

- The applicant is responsible, with the input of a qualified environmental consultant/practitioner, to implement an acceptable construction and operational phase EMPr which addresses such aspects as the storage of any construction materials/implements, vehicle movement, environmental control, and mitigation of potential impacts.
- Appoint an Environmental Control Officer (ECO) to ensure that contractors comply with the recommendations in the approved EMP and the environmental authorisation.
- Where alien vegetation has been removed, the rehabilitation/re-planting with suitable indigenous vegetation must take place.
- The design must take cognisance of the potential negative visual impacts—building design, colour, and any height restrictions must be considered.
- Any recommendations made by specialists in a particular field of expertise must be adhered to so that a concerted effort is made to protect and mitigate environmental impacts.
- Stormwater must be well-managed to ensure that no unnecessary pollution or erosion occurs on and off the site and that the integrity of the environs is maintained.
- Rehabilitation of any existing disturbance areas/erosion potential on-site using appropriate methods.
- Rehabilitation and re-vegetation with suitable endemic indigenous species; acceptable landscaping methods to enhance the area and ensure compatibility with the environs.
- Permission must be obtained from the Western Cape Department of Forestry to remove any protected trees that may occur on the property.

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.

The following conditions must be considered:

- Implementation and maintenance of the recommended 10m buffer from the pond and spring. All development and associated activities must remain outside of this buffer zone.
- Implementation and maintenance of the recommended 20m animal corridor along the foot of the slope and forest area. All development and associated activities must remain outside of this buffer zone.
- All individuals of *Brunsvigia orientalis* are to be rescued prior to commencement of development. Locations of individuals must be determined by a qualified botanist during the flowering period in late summer (around March) and plants rescued at an appropriate time thereafter.
- A suitably qualified Environmental Control Officer (ECO) be appointed for the duration of construction.

- Compliance with the Environmental Management Programme (EMPr).

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.

Based on the information provided and specialist findings it is the opinion of the EAP that no fatal flaws have been identified regarding the residential development and associated infrastructure. It is the EAP's opinion that the Preferred Alternative can be considered for Environmental Authorisation for the following reasons:

- Rezoning of the sensitive forest area and buffer zones to Open Space III allows for conservation and management of the remaining natural habitat on the property. Inclusion of a 20m buffer for animal movement supports conservation of the remaining natural forest area on the site.
- The impact assessment by Dr. Hoare (2023) determined that the impact of the proposed development has Very Low significance on vegetation, protected trees, and animal species of concern.
- The proposed development is entirely within areas mapped as secondary or pasture that has medium to low biodiversity value and sensitivity. The lowland part of the site is not considered to be good habitat for any of the animal species flagged for the site. The development is therefore supported by the Terrestrial Biodiversity specialist, Dr. Hoare, on condition that forest habitats on the property are fully protected.
- An impact assessment determined that the impact of the proposed development has Low significance on CBAs, Very Low significance on vegetation, and Low significance on protected trees and animal species of concern.
- The proposed development will have minimal to no impact on surface water resources or watercourses as defined in the NEMA and NWA (Dabrowskie 2024). A 10m buffer around the pond has been incorporated into the layout.
- Historical development rights allowed for the development of ±50 units on the property but these rights were not implemented and have lapsed. Both the Bitou Spatial Development Framework and the Keurbooms Environ Local Area Structure Plan earmarked a portion of the property for development.
- The proposal extends beyond the identified urban edge, but the identified development area is based on the specialist study that confirmed the identified footprint does not contain any estuarine habitats or other sensitive features and is below the demarcated estuarine floodplain.
- The site is physically suitable for development and can be services through either an upgraded municipal infrastructure or through private onsite solutions.
- The development will be managed by a Homeowners Association that will own all the Open Space properties, communal building, and private infrastructure. The HOA will be responsible for the maintenance of the communal open space and services, including the sewer package plant.
- A Visual Impact Assessment was conducted by Paul Buchholz (Visual Impact Assessment Specialist) and concluded that the well-positioned and designed development allows for it to blend in very well with its surroundings and create minimal contrast in the landscape. The development will also be subject to an Architectural Design Guideline that will be informed by the recommendations contained in the Visual Impact Assessment.
- The development is 2,8km from 100m high water mark of the estuary, and outside of the 1:100 year backwater floodline. The floodplain of the estuary downstream from the Development is extensively barriered by building structures and dense vegetation
- The Development stormwater management plan mitigates the impact of flood conditions for the Development and ensures that the Development will not negatively impact on surrounding properties under flooding conditions.

- With the recommended mitigation strategies, monitoring framework, and proactive management measures in place, the potential negative impacts on groundwater quality, recharge, and flooding can be reduced to negligible levels. This will ensure the protection of groundwater resources, safeguard water users, and uphold environmental sustainability throughout the construction and operational phases of the development.

Recommended conditions to be considered:

- Implementation and maintenance of the recommended 10m buffer from the pond and spring. All development and associated activities must remain outside of this buffer zone.
- Implementation and maintenance of the recommended 20m animal corridor along the foot of the slope and forest area. All development and associated activities must remain outside of this buffer zone.
- The bulb species, *Brunsvigia orientalis*, was found on site within the proposed development footprint. Although not threatened, it is recommended that all individuals are rescued prior to commencement of development. Locations of individuals must be determined by a qualified botanist during the flowering period in late summer (around March) and plants rescued at an appropriate time thereafter. Plant rescue and relocation must follow the requirements of the Bitou Municipality.
- The EMPr provides detail of mitigation measures concerning the development and must be strictly adhered to.
- An ECO must be appointed to monitor the site in compliance with the Environmental Authoristation and approved EMPr.
- NFA Licenses must be obtained prior to removal/trimming/cutting of any protected trees on the property.
- The developer must acknowledge and obey the expiry date of the EA.

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

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

- It is assumed that the information on which this report is based (specialist studies and project information, as well as existing information) is correct, factual and truthful.
- The proposed development is in line with the statutory planning vision for the area (namely the local Spatial Development Plan), and thus it is assumed that issues such as the cumulative impact of development in terms of character of the area and its resources, have been considered during the strategic planning for the area.
- It is assumed that all the relevant mitigation and management measures and agreements specified in this report will be implemented in order to ensure minimal negative impacts and maximum environmental benefits.
- It is assumed that Stakeholders and Interested and Affected Parties notified of the availability of draft reports during the PPP will submit comments within the designated 30-days review and comment period, for consideration in the environmental assessment process.

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.

1. The EA is required for a period of ten (10) years.
2. The activity will be concluded in accordance with Sales Agreement whereby all stands have been developed.
3. Post construction monitoring will be finalised one (1) year from completion of the Project

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.
Rainwater harvesting tanks and natural vegetation in open spaces and pavement areas / discouraging of planted areas that require more frequent watering.

4. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.
General waste generated through the construction and operational phase of the project is the responsibility of the contractor / landowner. Refuse such as container bags, gravel, rubble, cans, plastic, wire, etc. generated during the execution of any works must be separated out and stored in appropriately designated areas, removed on a regular basis for disposal at a permitted waste disposal site. All recyclable waste must be separated out with separate containers for paper products, glass, plastic, etc.

5. Energy Efficiency

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

Solar geysers and geyser thermal insulation
Solar panels
Use of gas
Energy efficient light bulbs
Low bollard-type lighting
Natural ventilation in certain buildings
Roof water tanks

The houses will be equipped with solar systems which require maximum exposure to the sun. In the Southern Hemisphere, houses should be orientated to face north. The layout design has as far as possible orientated erven, especially the smaller ones, in such a way that houses can be places with their longer frontages to the north.

House designs will be elaborated on in the Architectural Design Guidelines. Energy efficient guidelines will include elements such as having appropriate areas of glazing, correct orientation, suitable levels of shading, insulation and thermal mass. The use of local building materials and renewable energy applications such as solar water heaters, rainwater harvesting etc. will be encouraged.

SECTION K: DECLARATIONS

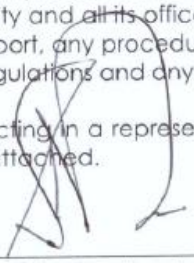
DECLARATION OF THE APPLICANT

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

I **Stephanus Abraham Roux** , ID number **5603085109086** 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.



20 March 2025

Signature of the Applicant: Date:

Familie Roux Eiendomme PTY

Name of company (if applicable):

DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I **Joclyn Marshall** , EAP Registration number **2022/5006** as the appointed EAP hereby declare/affirm the correctness of the:

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

24 April 2025

Signature of the EAP: Date:

Eco Route Environmental Consultancy

Name of company (if applicable):