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

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DRAFT BASIC ASSESSMENT REPORT

FOR

PROPOSED DEVELOPMENT OF ERF 301, WHITES ROAD, HOEKWIL (WILDERNESS HEIGHTS), GEORGE MUNICIPALITY, WESTERN CAPE.

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:	MS JEANNE LISA HOLMES
PREPARED BY:	ECO ROUTE ENVIRONMENTAL CONSULTANCY
DEPARTMENT REF:	16/3/3/6/7/1/D2/19/0099/24
AUTHOR:	JOCLYN MARSHALL (EAPASA REG 2022/5006)
DATE:	28/02/2025

ECO-ROUTE ENVIRONMENTAL CONSULTANCY

REGISTRATION NO. 1998/031976/23

CONDITIONS OF USE OF THE REPORT

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3. Eco Route Environmental Consultancy accepts no responsibility for deviation or non-compliance of any specifications or guidelines provided in the report.
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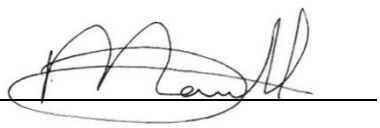
5. This document is prepared exclusively for **Ms Jeanne Lisa Holmes** and is subject to all confidentiality, copyright and trade secrets, rules, intellectual property law and practices of South Africa.

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 Draft BAR has been highlighted in red in the report.
- Inclusion of two Site Development Plans, Alternative Layout 2 and Alternative Layout 3.
- Updated Impact Assessment Table (Appendix J) to include all alternatives.

2. Environmental Management Programme (EMPr):

- All new information added to the EMPr has been highlighted in red in the report.
- Inclusion of all specialist mitigation measures.
- Inclusion of the Stormwater Management Plan.

3. Specialist Studies:

- The following specialist studies were updated:
  - Appendix G1 - Aquatic Compliance Statement
  - Appendix G2 - Botanical & Terrestrial Assessment
  - Appendix G3 - Fauna Assessment
  - Appendix G6 - Civil Engineering Services
  - Appendix G7 - Visual Impact Assessment Report

4. Additional Reports:

- Conservation Management Plan (Appendix L)
- Stormwater Management Plan (Appendix G6).

Western Cape Government

Department of Environmental Affairs and Development Planning

DRAFT 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

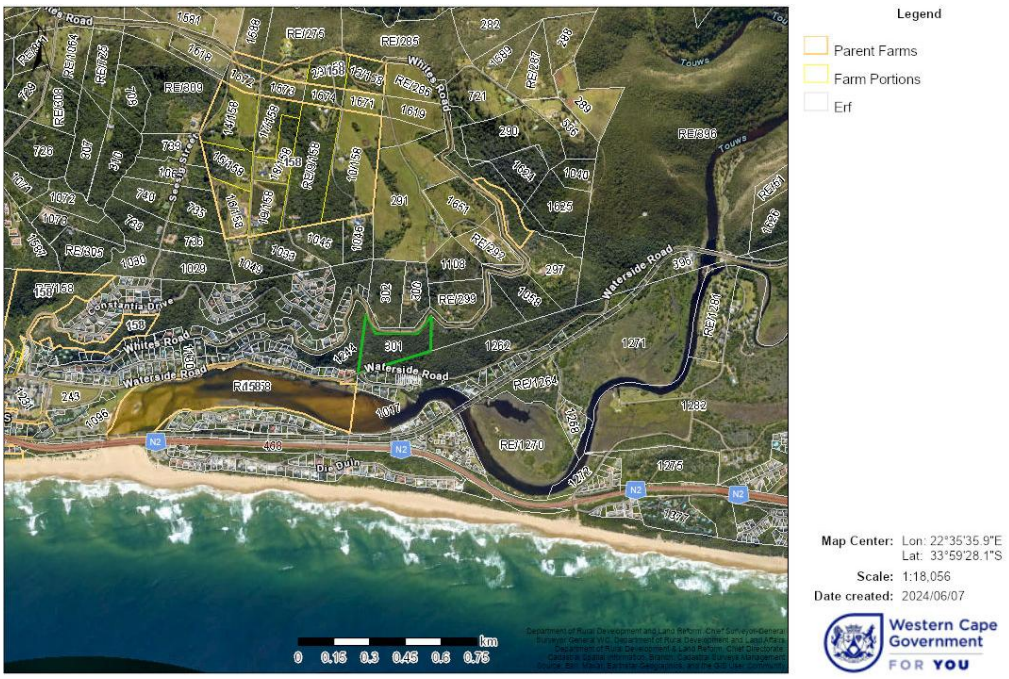
THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.

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

Erf 301 Hoekwil, located in Wilderness Heights near Wilderness, overlooks the Touw River and the Indian Ocean. The proposed development aims to construct a primary dwelling alongside guest accommodation units with a focus on environmental best practices.



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 B3:	**Building Plans and Sections**	✓
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**	X
	Appendix E5:	**Comment from the DAFF**	✓
	Appendix E6:	**Comment from WCG: Transport and Public Works**	✓
	Appendix E7:	**Comment from WCG: DoA**	X
	Appendix E8:	**Comment from WCG: DHS**	X

	Appendix E9:	**Comment from WCG: DoH**	X
	Appendix E10:	**Comment from DEA&DP: Pollution Management**	X
	Appendix E11:	**Comment from DEA&DP: Waste Management**	X
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	X
	Appendix E13:	**Comment from DEA&DP: Air Quality**	X
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	✓
	Appendix E15:	**Comment from the local authority**	X
	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**	X
	Appendix E22:	**Proof of public participation agreement for linear activities**	X
	Appendix E22:	**Comment from SCFPA**	✓
	Appendix E23:	**Comment from SANParks**	✓
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 G1 - Aquatic Compliance Statement Appendix G2 - Botanical & Terrestrial Assessment Appendix G3 - Fauna Assessment Appendix G4 - Agriculture Compliance Statement Appendix G5 - Land Use Planning Report Appendix G6 - Civil Engineering Services Appendix G7 - Visual Impact Assessment Report		✓

	Appendix G8 - Civil Aviation Compliance Statement Appendix G9 - Geotechnical Report	
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:	**Jeanne Lisa Holmes**	
Name of contact person for Applicant/Proponent (if other):	**Sean Holmes**	
Company/ Trading name/State Department/Organ of State:		
Company Registration Number:		
Postal address:	**473 10th Ave, Wilderness, Western Cape**	
		Postal code: **6560**
Telephone:	( )	Cell: **079 691 1321**
E-mail:	**sean.holmes77@icloud.com**	Fax: ( )
Company of EAP:	**Eco Route Environmental Consultancy**	
EAP name:	**Joclyn Marshall (registered EAP - 2022/5006) assisted by Justin Brittion (candidate EAP – 2023/6648)**	
Postal address:	**46 President Steyn, The Island, Sedgefield**	
	PO BOX 1252 Sedgefield	Postal code: **6573**
Telephone:	( )	Cell: **072 126 6393**
E-mail:	**joclyn@ecoroute.co.za / admin@ecoroute.co.za**	Fax: ( )
Qualifications:	**MSc Environmental Science**	
EAP registration no:	**2022/5006**	
Name of landowner:	**Jeanne Lisa Holmes**	
Name of contact person for landowner (if other):	**Sean Holmes**	
Postal address:	**473 10th Ave, Wilderness, Western Cape**	
		Postal code: **6560**
Telephone:	( )	Cell: **079 691 1321**
E-mail:	**sean.holmes77@icloud.com**	Fax: ( )
Name of Person in control of the land:	**Same as landowner**	
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:	**George Municipality**	
Contact person:	**Lauren Josias**	
Postal address:	**PO Box 19**	
	George	Postal code: **6530**
Telephone	**044 801 9451**	Cell:
E-mail:	**ljosias@george.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 site. The property is undeveloped and remains relatively undisturbed.					
3.	**For Linear activities or developments**				
3.1.	Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:				
3.2.	Development footprint of the proposed development for all alternatives.				m²
3.3.	Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.				
3.4.	Indicate how access to the proposed routes will be obtained for all alternatives.				
3.5.	SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives				
3.6.	**Starting point co-ordinates for all alternatives**				
	Latitude (S)	°	'	"	
	Longitude (E)	°	'	"	
	Middle point co-ordinates for all alternatives				
	Latitude (S)	°	'	"	
	Longitude (E)	°	'	"	
	End point co-ordinates for all alternatives				
	Latitude (S)	°	'	"	
	Longitude (E)	°	'	"	
Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.					
4.	**Other developments**				
4.1.	Property size(s) of all proposed site(s):				**39 222 m²**
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):				**0 m²**
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:				**1638 m²**
4.4.	Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).				

The proposal is for the development of a single residential dwelling with six (6) smaller accommodation units called "Eco-Pods". The 3-bedroom primary dwelling is positioned centrally on the property as close as possible to Whites Road to the north, with four (4) of the Eco-Pods to the west of it and another two (2) Eco-Pods directly south. The primary dwelling (including a store and garage) will have a footprint of 446 m² with the front half raised off the ground (on columns) to minimise the disturbance on vegetation and habitats, effectively reducing the permanent disturbance area to approximately 200 m². Each of the pods will have a footprint of approximately 38 m², with only a quarter of that area being levelled for construction as the rest of the pod areas will also be constructed on columns. This effectively reduces the permanent disturbance area to approximately 10m².

The single storey primary dwelling is proposed to have a mono-pitch roof to allow light in from the north and lower the total height of the structure. The proposed building plans (with the floor plan,

elevations & sections) for the primary dwelling shows how the structure is accommodated within an 8.5m parallel line with the slope of the property (Appendix B3).

The Eco-Pod's will be one-bedroom units between the vegetation of ±38m² each, which includes outdoor spaces. It is also proposed to be mono-pitch, single storey structures with a maximum height of ±7.48m, as determined by the topography. The units will not be identical in size, but the building materials and finishes will be the same.

Some features of the primary dwelling will include a circular pool with island in the middle, living roof gardens, a braai area with pergola, and patio. Pods will each comprise a single bedroom, along with supplementary living amenities such as an adjoining bathroom. They will be constructed on columns and stabilized on platforms according to the engineer's design specifications.

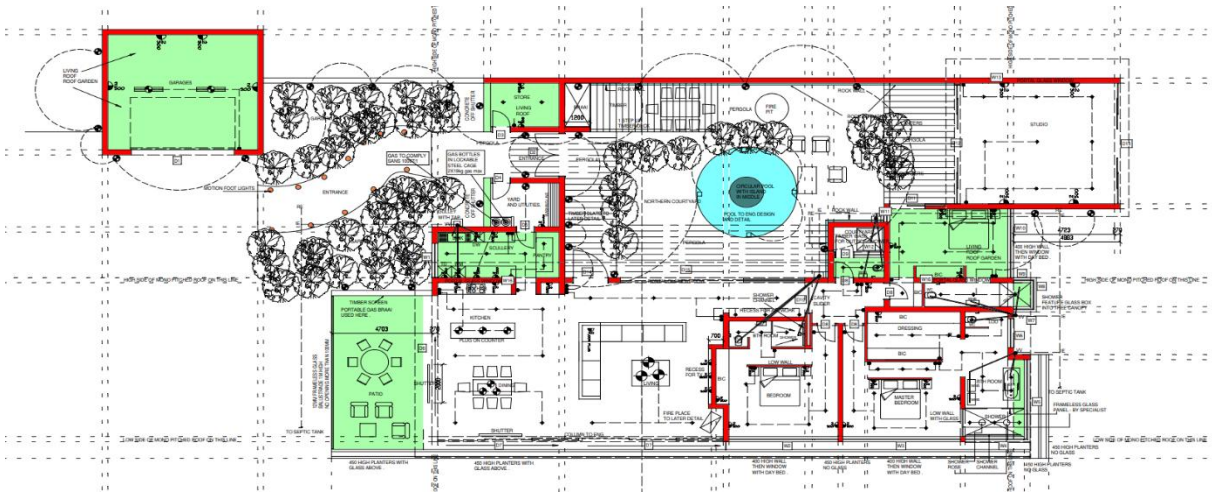


Figure 1: Roof Layout of main dwelling.

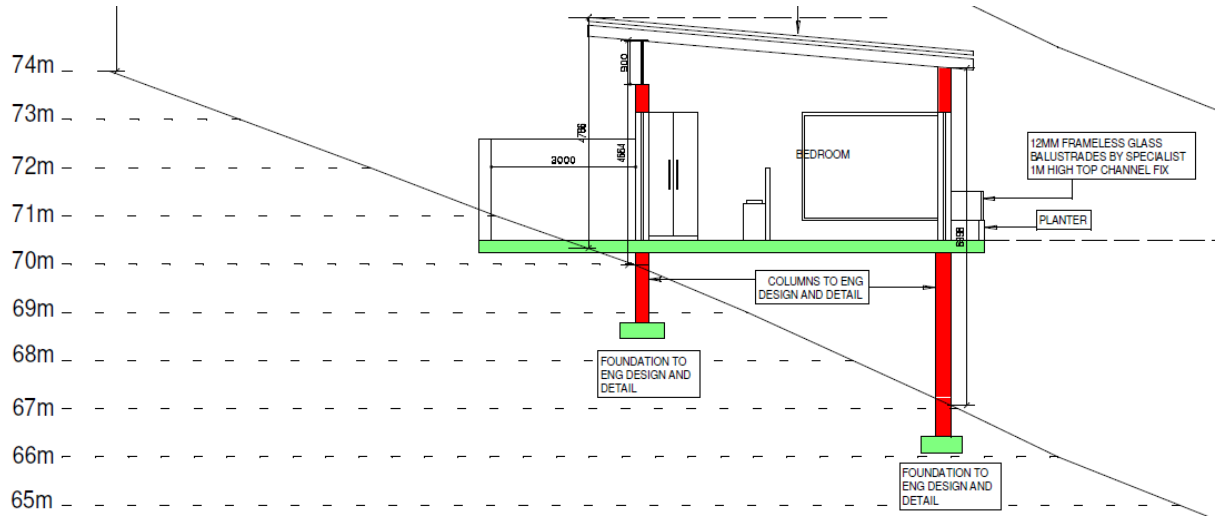


Figure 2: Elevation Plan of Pod.

The total development footprint is 1 601 m² with a total coverage of 4.07%, as shown in Table 1 below. The temporary disturbance area includes the installation of services and working areas during construction. These areas will be rehabilitated once construction is completed. The estimated permanent disturbance area is based on the main dwelling and Eco-Pod units extending onto column, effectively elevating a portion of the structures above the ground whereby vegetation will remain or be able to regrow (Table 2).

Given the lightweight materials (carried onto site) and use of stiles rather than foundations, it is realistic to determine that the working areas can be reduced where possible. It is the Applicants aim to minimise disturbance of vegetation surrounding the dwelling and Eco-Pods as far as possible by working in an environmentally sensitive manner. As depicted in the 3D images below, it is envisaged that the house and Eco-Pods will blend into the landscape and be screened by natural vegetation as far as possible.

A 2-meter working area will be necessary along the eastern and southern boundaries of the primary dwelling to accommodate the proposed development. This additional space is essential for certain construction techniques like scaffolding. Similarly, each accommodation unit will also be allocated the same working space around its perimeter.

Table 1: *Development disturbance areas and temporary disturbance for the proposed development.*

STRUCTURES	**AREA**
Erf size	39322 m^2
The estimated development footprint:	
Main dwelling (including garage and storage)	446 m^2
Six single Pods / Units	228 m^2 (38 m^2 each)
Access road and driveway platform	812 m^2
Guest Parking	90 m^2
Timber Walkways	65 m^2
Total development footprint	1 601 m^2
Total footprint of site as a percentage	4.07 %
The estimated temporary disturbance area:	
2 meter working space around primary dwelling	140 m^2
2 meter working space around accommodation units	390 m^2
Conservancy tank installation 5m x 2m	10 m^2
Septic Tank	10 m^2
Development Area Security Fence	225 m^2
Water and Sewer lines	97.5 m^2
Electrical lines	60 m^2
Total	932.5 m^2

Table 2: *The estimated permanent disturbance area.*

STRUCTURES	**AREA**
Main dwelling (including garage and storage)	±200m^2
Six single Pods / Units	±60 m^2 (10 m^2 each)
Access road and driveway platform	±812 m^2
Guest Parking	±90 m^2
Total disturbance footprint	1152 m^2
Total footprint of site as a percentage	2.92 %

Table 3: The calculated estimated volumes of affected areas. *These volumes are based on the current proposed plans and proposed entrance road*.

STRUCTURES	CUT	FILL
Main dwelling	±279m³	N/A
Garage	±105m³	N/A
Six single Pods / Units	±34m³	±34m³
Access road	±139m³	±138m³
Driveway platform	±33m³	±159m³
Security Fencing	± 36m³	N/A
TOTAL	**796m³**	**627m³**

Once construction commences, any portion of the property beyond the designated working area will be strictly NO-GO area. Clear demarcations will be established before any construction activities begin. The development plan is structured to preserve the majority of the property in its natural vegetative state, with the house footprint minimized to accommodate the Applicant's primary needs while minimizing environmental impact.

The development will prioritize the preservation of natural vegetation, aiming to minimize disruption to the existing environment. With the exception of the entrance walkway and the northern courtyard pool area, no formal gardens or lawn areas are planned. There is an existing walking trail that was found by the Applicant following the purchase of the property and leads down to Waterside Road. Due to the vegetation covering the property, this walking trail is not visible from public view. This existing trail will be utilised and maintained as a walking trail adding eco-tourism aspects to the development whereby guests can experience nature. The existing trail will be used as far as possible for access to the Eco-Pods. The primary dwelling and tourism pods will be linked with timber walkways. Timber walkways will reduce potential erosion due to foot traffic.

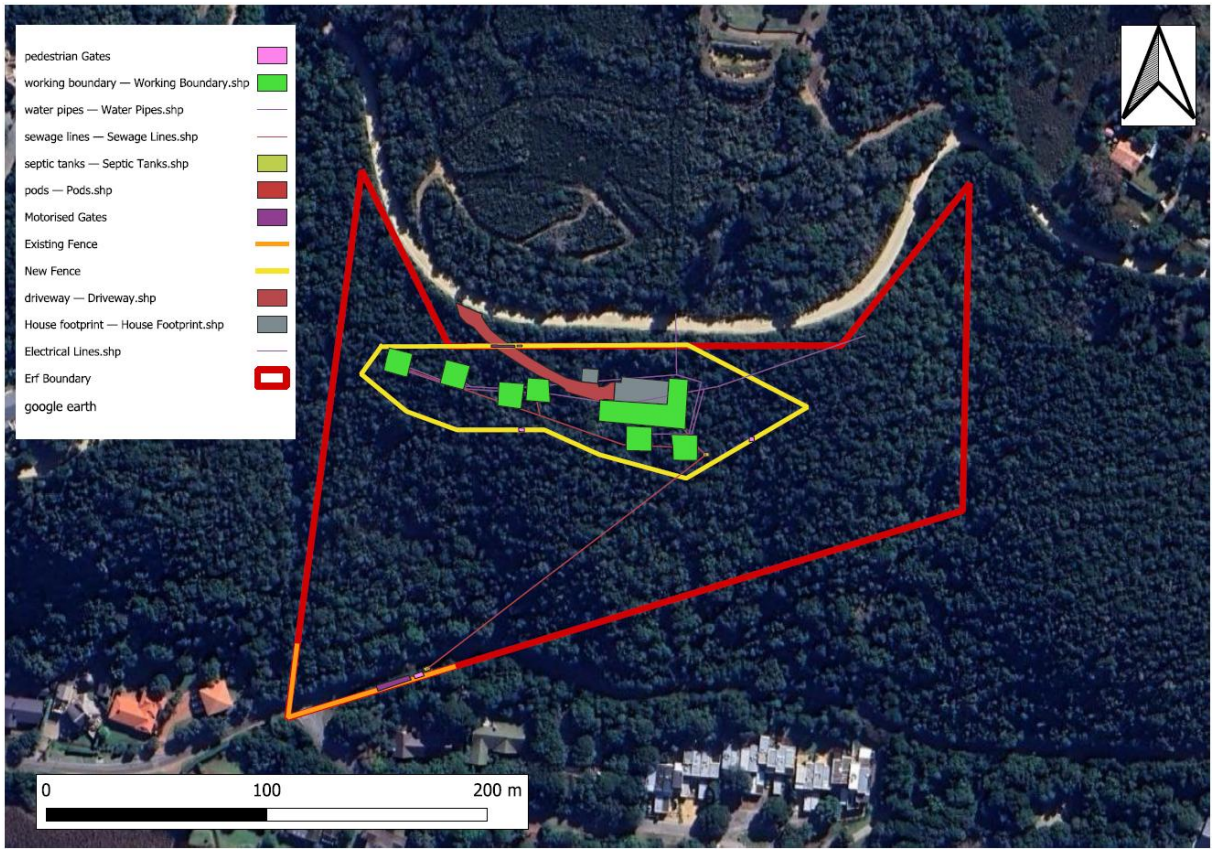


Figure 3: *Site Development Plan for Erf 301 Hoekwil in Wilderness.*

The proposed zoning, Open Space Zone III (nature conservation area) includes a consent use for tourist accommodation. It is proposed to include 6 such tourist accommodation opportunities in the developable section of the property. These units will not be accessible by car, only by foot as they will be linked with walkways between the vegetation. Parking is to be provided in the area for guest parking.

The Pod platforms are created by a 5% - 20% cut into the landscape and the remainder is raised on stilts, all within the height restriction as proposed. The stilts could resemble tree trunks from a distance, while only approximately a quarter of the height will be visible above the tree canopy[1].

Figure 4: *View of Erf 301 from the N2 south of the property.*

FENCELINE:

It is recommend in the Civil Engineering Sevices Report (S&Z Consulting (Pty) Ltd) that conventional timber pole and "farm style fence" type installation is used to create the minimum impact on the surrounding vegetation and soil profile. Were practically possible the fence line to be altered to conform with the natural site contour lines to minimise surface erosion as far as possible. Rocks to be placed along sections of the fence line to break any concentrated surface run-off.

It will be recommended to avoid disturbing vegetation during the installation of the security fence, utilizing "bossie kap" methods. Furthermore, it will be advised to navigate around existing vegetation, and that the installation should be coordinated in collaboration with an appointed Environmental Control Officer (ECO). The fence will be installed such that it will follow the contour of the site where possible and avoids running straight down the steep slope. The proposed fencing is farm style wire mesh with poles planted every 3-5m. Were practically possible the fence line to be altered to conform with the natural site contour lines to minimise surface erosion as far as possible. Rocks will be placed along sections of the fence line to break any concentrated surface run-off.

[1] Visual Impact assessment: Proposed Residential Development of a primary Residence and Four Guest Accomodation Units on Erf 301, Whites Road, Hoekwil, Wilderness, George Municipality, Western Cape. Andre Vercueil of Andre Vercueil Consulting Architects (22 October 2024).

***FENCE SPECIFICATIONS*

Corner Posts	:	2,7m x 100 - 119mm Tanalith Treated Tapered Wooden Posts
Intermediate & Stay Posts	:	2,7m x 80 - 99mm Tanalith Treated Tapered Wooden Posts
Mesh	:	1.8m X 50mm x 2,5mm Galvanised Diamond Mesh
Barb Wire	:	Kalahari 2 strand barb Wire
Straining Wire	:	3,15mm Galvanised Wire
Tie Wire	:	2,0mm Galvanised Wire
Gates	:	1 x 1m x 1,8m + 300mm overhang single leaf swing gate 1 x 4m x 1,8m + 300mm overhang double leaf swing gate Both manufactured from 38 x 2mm Round Tubing and covered with Galvanised Diamond Mesh and 3 x Strands barb wire

Figure 5: *Example of proposed fencing.*

SERVICES[2]:

Water - A 50mm diameter water connection exists on the northeast corner of the site. Based on feedback from GLS Consulting, it appears that the existing capacity is sufficient to meet the site's domestic needs. However, GLS recommends long-term upgrades to connect the surrounding municipal infrastructure to a more suitable reservoir. The water line will be surface laid in flexi-hose pipe as per engineer specification to minimise disturbance. Water will be supplemented with rainwater harvesting.

GLS has pointed out that the existing municipal infrastructure surrounding the site does not meet the nominal requirements for **fire water supply**. This issue will have to be taken up with council for future planning and upgrading of the existing municipal infrastructure.

As per municipal Civil Engineering Services letter (Appendix E16) bulk supply in the area is limited and the trend will continue. This is something the municipality needs to address high level, long term for all existing residences and future development. It cannot prejudice one property over another. As per Section 24(1) of the George Municipality Water and Sanitation Services By-law, developers are responsible for providing adequate water supply infrastructure where municipal services are not available. The owner/developer must ensure compliance with water conservation measures

[2] Civil Engineering Services Overview for the proposed development on Erf 301, Wilderness. Prepared by S&Z Consulting (Pty) Ltd, 08 FEBRUARY 2023 (REV 5).

and is encouraged to incorporate rainwater harvesting as part of the development. Any insufficient supply / capacity of water by the municipal grid will be mitigated through rainwater harvesting.

Sewer - The site currently lacks a formal sewer connection. An existing 160mm diameter municipal sewer line exist on the lower end of the property along its Southern boundary and Waterside Road. The existing sewer line at the bottom of the site along Waterside Road consists of a rising main. It is proposed to install a conservancy tank to service the site, while considering access to the tank. It is recommended that a gravity sewer line is constructed within the site boundaries to connect the main house and six Eco-Pods. This line will be linked to a main septic tank located as close as possible to the proposed development, a holding tank will be installed and connected to a collection tank positioned at the southern end of the property, near Waterside Road. The sewerage line will be surface laid in flexi-hose pipe as per engineer specification to minimise disturbance. This line will be installed with minimal disturbance to the surrounding vegetation and requires little maintenance.

As per municipal Civil Engineering Services letter (Appendix E16) there is currently no municipal sewer infrastructure directly servicing the property. In accordance with Section 6(1) of the George Municipality Water and Sanitation Services By-law, where no municipal sewer connection is available, the developer must implement an on-site sanitation system, such as a conservancy tank or septic system, subject to municipal approval.

Electrical - From the municipal supply point, power supply cabling will be run underground via a typical narrow trench - 300mm(W) x 700mm (D). There should be very little to no disturbance and any disturbance that does occur will be fully rehabilitated with indigenous growth.

The electrical and water supply for both the primary dwelling and Eco-Pods will be connected to the municipal system, which traverses the property. Council needs to provide electrical and water service points to the erf in the most efficient manner ensuring the least amount of disturbance (in other words, a location closest to the development footprint).

Stormwater Management - Stormwater run-off will be directed into soft landscaping and dispersed over large sections of the property and surrounding natural vegetation to prevent concentrated run-off and erosion. Concentrated run off from roofs will be diverted into rainwater harvesting tanks with an overflow connected to an artificially constructed swale to prevent erosion. Please see Appendix G6 for the Stormwater Management Plan.

<u>Recommended Stormwater Management:</u>

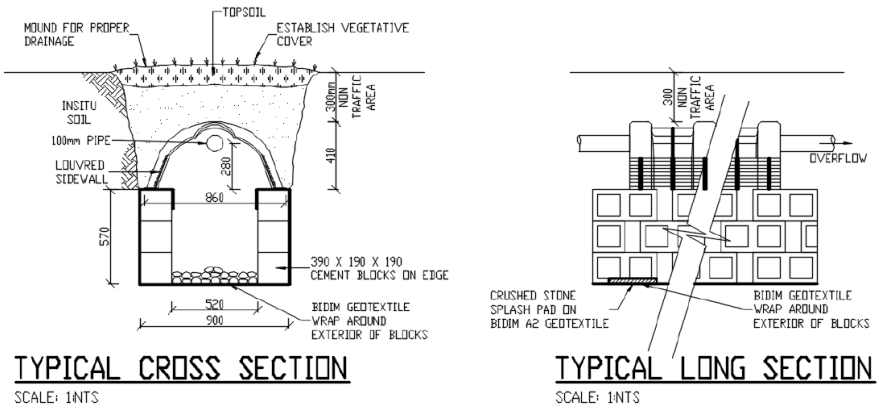
Stormwater run-off will be directed into soft landscaping and dispersed over large sections of the property and surrounding natural vegetation to prevent concentrated run off and erosion. Concentrated run off from roofs will be diverted into rainwater harvesting tanks with an overflow connected to an artificially constructed swale to prevent erosion.

- ❖ During Construction

The drive/walkways to be cut with a minimum 2.5% cross fall sloping towards the embankment to drain stormwater runoff away from the surrounding undisturbed soil profile. Runoff to be collected in a shaped dish channel running the length of the drive/walkway, disbursing in a temporary shaped retention pond on the lower end of the driveway. Rocks to be placed on the perimeter of the retention pond to break the force of concentrated flow during large down pours.

- ❖ After Construction

The dish channel to the side of the drive/walkway to be neatly shaped and filled with rocks and suitable vegetation to break high velocity flow rate. Runoff be channelled into a sub-surface soakaway as per the following detail.



ACCESS DRIVEWAY:

Main access to the development is proposed from the northern boundary of the property leading out of Whites Road. This access can be accommodated for by means of a new road/driveway section of approximately 75m long, cut into the Northern face of the property with a gradual slope from West to East, terminating on a level platform next to the proposed main dwelling and garage section. Internal walkways are proposed between the separate buildings / units leading out of the new driveway / road section.

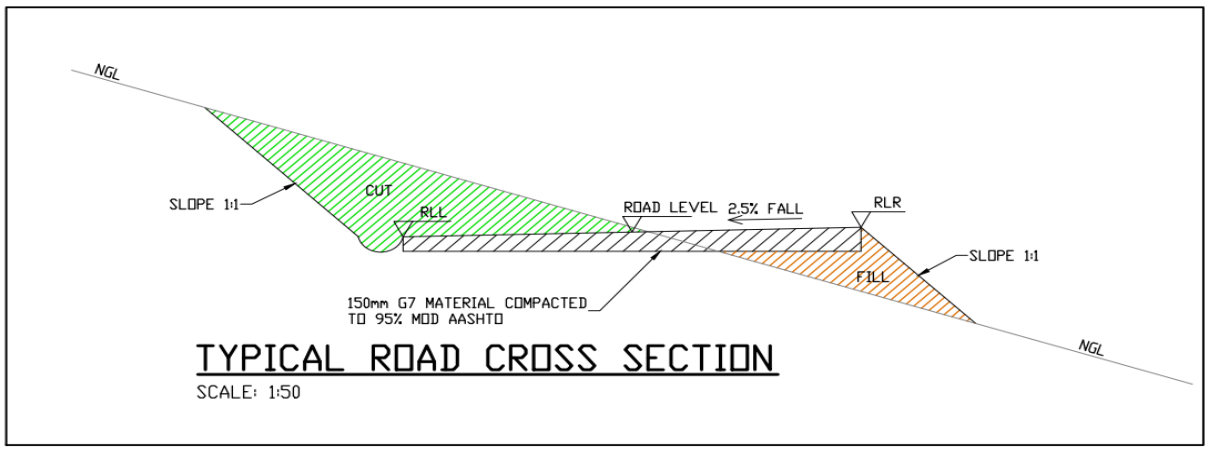


Figure 6: A typical road cross section.

Please see Appendix E6 for letter from Western Cape Department of Infrastructure (Roads Planning) regarding the access road. The road design will meet the required design standards SANS 104100.

It is recommended that allowance is made for importation of some gravel material to supplement material obtained from site for the driveway. Recommended paved driveway layerworks include 150mm subbase (compacted to 95%MDD) and concrete slabs or interlocking pavers.

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

Main access to the development is proposed from the northern boundary of the property leading out of Whites Road as shown in Figure 3.

4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	**C**	**0**	**2**	**7**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**0**

4.7.	Coordinates of the proposed site(s) for all alternatives:			
	Latitude (S)	**33°**	**59'**	**28.81"**
	Longitude (E)	**22°**	**33'**	**36.17"**

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.

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):**
ENVIRONMENTAL CONSERVATION ACT (ACT 73 OF 1989): OUTENIQUA SENSITVE COASTAL AREA EXTENSION REGULATIONS	YES	George Municipality	PERMIT	Will not be applicable if EA is granted.

NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998)	YES	DEA&DP	AUTHORIZATION	Pending
NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT 62 OF 2008)	YES	DEA&DP	AUTHORIZATION	Pending
NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT (ACT NO 10 OF 2004)	YES	DEA&DP	RELEVANT CONSIDERATION –	Removal of AIS
NATIONAL ENVIRONMENTAL MANAGEMENT: INTERGRATED COASTAL MANAGEMENT ACT (ACT NO 24 OF 2008)	YES	DEA&DP	COMMENT/ RELEVANT CONSIDERATION	None
NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT (ACT 59 OF 2008)	NO	DEA&DP	RELEVANT CONSIDERATION	None
NATIONAL VELD AND FOREST FIRE ACT (ACT 101 OF 1998)	YES	DFFE / SCFPA	RELEVANT CONSIDERATION	Member of the SCFPA
NATIONAL WATER ACT (ACT 36 OF 1998)	YES	Department of Water & Sanitation / BOCMA	COMMENT	Comment received
WATER SERVICES ACT (ACT 108 OF 1997)	NO	Department of Water & Sanitation	RELEVANT CONSIDERATION	None
SUBDIVISION OF AGRICULTURAL LAND ACT (ACT 70 OF 1970)	No	Department of Agriculture	RELEVANT CONSIDERATION	None
CONSERVATION OF AGRICULTURAL RESOURCES ACT (ACT 43 OF 1983)	YES	Department of Agriculture	COMMENT	Comment pending
NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)	YES	Heritage Western Cape	AUTHORIZATION / COMMENT	Final decision
NATIONAL HEALTH ACT (ACT 61 OF 2003)	YES	Department of Health and Wellness	COMMENT/ RELEVANT CONSIDERATION	None
SPATIAL PLANNING & LAND USE MANAGEMENT ACT, 2013 (SPLUMA)	YES	George Municipality	AUTHORIZATION Rezoning / Consent Use Application / Building Plan Application	Application in process
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 NATURE CONSERVATION LAWS AMENDMENT ACT (ACT 3 OF 2000)	NO	CapeNature	COMMENT	Comment received
WESTERN CAPE NATURE CONSERVATION BOARD ACT (ACT 15 OF 1998)	NO	CapeNature	COMMENT	Comment received

WESTERN CAPE LAND USE PLANNING ACT (ACT 3 OF 2014) (LUPA)	YES	George Municipality	AUTHORIZATION	Pending – Land Use Application
GEORGE MUNICIPALITY: LAND USE PLANNING BY-LAW, 2015	YES	George Municipality	AUTHORIZATION Removal of Conditions / Rezoning / Consent Use	Pending – Land Use Application
GEORGE INTEGRATED ZONING SCHEME BY-LAW, 2017 (GIZS)	YES	George Municipality	AUTHORIZATION Removal of Conditions / Rezoning / Consent Use	Pending – Land Use Application

4. Policies

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

POLICIES	ADMINISTERING AUTHORITY	APPLICABILITY
Western Cape Provincial Spatial Development Framework (PSDF)	DEA&DP	The PSDF sets out the provincial government's spatial vision, objectives, and policies for guiding development.
Western Cape Biodiversity Spatial Plan (WCBSP)	CapeNature	CBA objectives / appropriate land use
George Municipality Spatial Development Framework (GMSDF)(2023).	George Municipality	The proposed development is in line with the George Municipality SDF strategies and policies as discussed in the land use planning report (Appendix G5).
Wilderness – Lakes – Hoekwil Local Spatial Development Framework (WLH LSDF) (2015)	George Municipality	No conflict.
The Garden Route Environmental Management Framework	Garden Route District Municipality	No conflict.

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.

Guidelines	Explain how they have influenced the development proposal:
Western Cape Land Use Planning Guidelines: Rural Areas, 2019.	No conflict. See below.
Circular EADP 0028/2014: One Environmental Management System.	A WULA was determined to not be required. Synchronization in terms of this circular is not required.
Guideline on Need and Desirability (March 2013).	Need & Desirability were determined and discussed as per these regulations and will be included in Appendix K of the Draft Basic Assessment Report.
Guideline on generic terms of Reference for EAPs and Project Schedules (March 2013)	Project timeline and process was informed by these guidelines. Informs the EAP on important aspects within the process.
Guideline for determining the scope of specialist involvement in EIA processes (June 2005)	These guidelines were considered in the appointment of specialist.
Guideline for review of specialist input in the EIA process (June 2005)	Specialist involvement in the process was informed by these guidelines.
Guideline for involving visual and aesthetic specialists in the EIA process (June 2005)	Specialist involvement in the process must be informed by these guidelines.
Guideline for involving heritage specialists in the EIA process (June 2005)	NID submitted to HWC to determine the outcome of required specialist studies.
Guideline for involving social assessment specialists in the EIA process (February 2007)	Social aspects were determined and discussed as per these guidelines and will be included in Appendix K of the Draft Basic Assessment Report.
Guideline for Environmental Management Plans (June 2005).	An EMPr has been drafted and included with the Basic Assessment Report. The EMPr complies with Appendix 4 of Regulation 982 of the 2014 EIA Regulations and section 24N of the Act.

Guideline on Alternatives (March 2013).	These guidelines have been used in consideration of feasible and reasonable alternatives.
Guideline for Public Participation (2013)	The PPP will be undertaken in accordance with the guidelines and applicable regulations.

Western Cape Land Use Planning Guidelines: Rural Areas (2019)[3]:

Erf 301 Hoekwil is located in a more rural setting due to its location in Wilderness Heights abutting Wilderness and proximity to the Wilderness National Park and the Touw River. The property is also located outside of the urban edge. The Western Cape Land Use Planning Guidelines: Rural Areas (2019) therefore applies to the Erf 301 Hoekwil.

The objectives of the Rural Areas guideline are:

- Promote sustainable development in appropriate rural locations throughout the Western Cape, and ensure the inclusive growth of the rural economy.
- Safeguard priority biodiversity areas and the functionality of the Province's life supporting ecological infrastructure and ecosystem services (i.e. environmental goods and services).
- Maintain the integrity, authenticity and accessibility of the Western Cape's significant farming, ecological, coastal, cultural and scenic rural landscapes, and natural resources.
- Assist Western Cape municipalities to plan and manage their rural areas more effectively, and to inform the principles of their zoning schemes and spatial development frameworks in a pro-active manner.
- Provide clarity to all role players and partners (public and private) on the type of development that is appropriate beyond the current built-up areas, suitable locations where it could take place, and the desirable form and scale of such development.

The proposal for Erf 301 Hoekwil is not in conflict with the abovementioned objectives.

The Garden Route is described as an area of outstanding natural beauty, made up of wilderness and agricultural landscapes, estuaries, mountain backdrops and coastal settings, including the well-watered and verdant landscapes. The Southern Cape coastal belt has been identified as a significant leisure, lifestyle, holiday, and retirement economic centre – which stretches from Plettenberg Bay and Nature's Valley in the east, to Mossel Bay in the west, with the George/Mossel Bay settlement concentrations being a significant emerging regional economic node of the Province.

Regarding the spatial planning categories (SPC), Erf 301 Hoekwil is indicated as a critical biodiversity area (CBA) which is further described as Core 1. Core 1 can be protected areas or CBA's. The latter then describes the subject property. It is stated that CBA's should be maintained in a natural state or near-natural state with no further loss of natural habitat. The proposal for Erf 301 Hoekwil aims to provide accommodation for the property owner and tourists on a section of the property with a suitable slope while the property will also be protected with the appropriate zoning.

As only a small section of the subject property has a suitable topography for development, human impact is restricted. The Rural Areas guideline further states that overnight accommodation can be provided in a CBA-area with temporary structures preferred (e.g. wooden structures, tents, raised boardwalks, and/or tree canopy structures), with units carefully dispersed or clustered (depending on the landscape, habitat and existing infrastructure and access) to achieve least impact. The use of alternative porous materials and innovative eco-friendly design concepts are encouraged.

[3] Land Use Planning Report: Erf 301 Hoekwil, Wilderness Heights, George Municipality & Division. Marlize de Bruyn Planning (2023).

The development proposal for the subject property within the section to be zoned Open Space Zone III makes the execution of the foregoing paragraph possible.

As only 6 tourist accommodation units are proposed, the Rural Areas guideline regard it as a small resort where the floor area of a unit can be up to 120m². As indicated in this motivation report, the 6 tourist accommodation units is proposed to be ±38m² each.

We conclude that the development proposal for Erf 301 Hoekwil holds no conflict with the Western Cape Land Use Planning Guidelines: Rural Areas (2019).

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
An Environmental Screening Tool Report was generated, and a Site Sensitivity Verification Report complied (Appendix I). Specialist assessments were compiled in terms of the minimum report content requirements for Environmental Impacts with regards to specialist themes. The following protocols were applicable: • SITE SENSITIVITY VERIFICATION REQUIREMENTS WHERE A SPECIALIST ASSESSMENT IS REQUIRED BUT NO SPECIFIC ASSESSMENT PROTOCOL HAS BEEN PRESCRIBED • PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL BIODIVERSITY • PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON AQUATIC BIODIVERSITY • PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL PLANT SPECIES • PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL ANIMAL SPECIES

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.
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;	Driveway and parking for the main dwelling will require a new access road wider than 4 metres off road DR1621, also known as Whites Road.

	(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.	
12	The clearance of an area of 300 square metres or more of indigenous vegetation 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;	The proposed development has a development footprint of 1 601 m^2 including building structures (main house, garage, Pods) and landscaped areas (driveways, parking area, etc). The total disturbance area for the development including temporary disturbance for construction is 2533.5m^2. This amounts to the clearance of more than 300 square meters of indigenous vegetation within an endangered ecosystem. The Site is mapped as Garden Route Granite Fynbos (FFg 5) described as having a threat status of Critically Endangered.
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 proposal is for the development of a single residential dwelling with six (6) smaller accommodation units called "Pods". The 3-bedroom primary dwelling is positioned centrally on the property as close as possible to Whites Road to the north, with four of the Pods to the west of it and another two (Pod 4 & 5) directly south (figure 7). The proposed development will proceed in two phases with the first phase including the construction of the primary dwelling with four of the Pods. The second phase will include the finalisation of the last two Pods. SDP is attached as Appendix B1.

The primary dwelling (including a store and garage) will have a footprint of 446 m^2 with the front half raised off the ground (on columns) to minimise the disturbance on vegetation and habitats, effectively reducing the permanent disturbance area to approximately 200 m^2. Each of the pods will have a footprint of approximately 38 m^2, with only a quarter of that area being levelled for construction as the rest of the pod areas will also be constructed on columns. This effectively reduces the permanent disturbance area to 9.5 m^2.

The Eco-Pod units will be one-bedroom units between the vegetation of ±38m^2 each, which includes outdoor spaces. It is also proposed to be mono-pitch, single storey structures with a maximum height of ±7.48m, as determined by the topography. The units will not be identical in size, but the building materials and finishes will be the same.

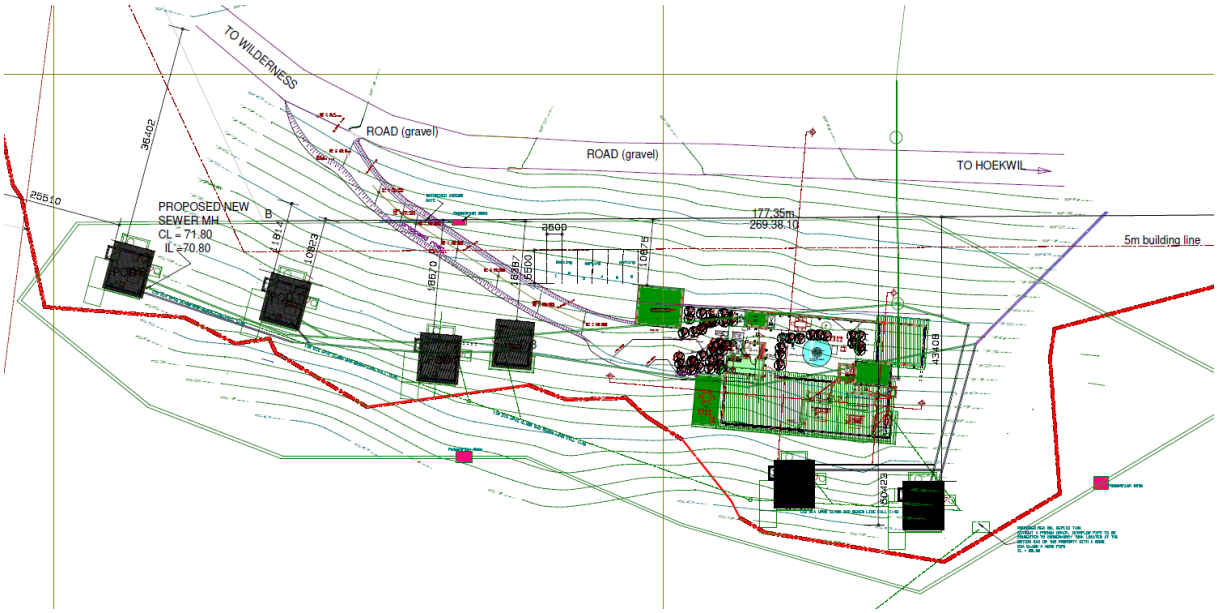


Figure 7: *SDP for preferred alternative.*

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.

It is necessary to rezone Erf 301 from Agriculture Zone II to Open Space Zone III. The primary land use right of this proposed zoning is nature conservation area with tourist accommodation as a consent use. The rezoning and land use application will be undertaken by Marlize de Bruyn Planning, and comprises the following[4]:

- Removal of Restrictive Conditions par. D(b) in terms of Section 15(2)(f) of the George Municipality: Land Use Planning By-Law, 2023;

[4] Land Use Planning Report: Erf 301 Hoekwil, Wilderness Heights, George Municipality & Division. Marlize de Bruyn Planning (2023).

- ❖ Rezoning in terms of Section 15(2)(a) of the George Municipality: Land Use Planning By-Law, 2023 from Agriculture Zone II (small holding) to Open Space Zone III (nature conservation area);
- ❖ Consent use in terms of Section 15(2)(o) of the George Municipality: Land Use Planning By-Law, 2023 for tourist accommodation;
- ❖ Permanent departure in terms of Section 15(2)(b) of the George Municipality: Land Use Planning By-Law, 2023 for the following:
    - o Primary dwelling: increase in wall plate height from 6.5m to ±7.069m (south elevation), ±7.841m (east elevation) & ±8.037m (west elevation);
    - o Tourist accommodation units: increase in wall plate height from 6.5m to ±6.336m, ±6.998m and ±7.480m respectively.

On the northern elevation (facing Whites Road) the maximum height is ±4.61m, on the western elevation ±8.037m, the east elevation ±7.841m and the south elevation ±7.069m. These elevation heights are the height measured from natural ground level (NGL) to the wall plate height. According to the zoning by-law height from NGL to wall plate should be 6.5m. Due to the topography of the property, this is not possible. If the highest point of the proposed monopitch roof was turned to face south and not north as in this instance, the wall plate height would have been complied with and the highest point of the mono pitch roof would in all probability complied with the maximum parameter of 8.5m. Facing the mono pitch roof to the south, would however cause the proposed dwelling to not follow the contours of the property and be higher than viewed from the south. The proposed design ensures that the primary dwelling is lower as viewed from the south.

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.

It is necessary to rezone the property from Agriculture Zone II to Open Space Zone III with consent use in terms of Section 15(2)(o) of the George Municipality: Land Use Planning By-law (2023) for tourist accommodation.

- ❖ The primary land use right of this proposed zoning is nature conservation area with the following objective:

The objective of this zone is to provide for the conservation of natural resources in areas that have not been proclaimed as nature areas (non-statutory conservation), in order to sustain flora and fauna and protect areas of undeveloped landscape including woodlands, ridges, wetlands and the coastline. A range of consent uses is provided to supplement and support the main objective of this zone.

- ❖ The land use description for nature conservation area is:

"nature conservation area" means the use and management of land with the objective of preserving the natural biophysical characteristics of that land, such as the fauna and flora and includes: (a) a dwelling house on a property zoned solely Open Space Zone III; but does not include tourist facilities, tourist accommodation or agriculture.

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

The sustainable use of provincial assets is one of the main aims of the PSDF. 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. The property is outside of the urban edge and has access to existing service networks.

4.2	The Integrated Development Plan of the local municipality.

The proposed development is in line with the George Municipality SDF strategies and policies as discussed in the land use planning report (Appendix G5). The Municipal SDF is the spatial manifestation of the IDP. Therefore, this development proposal supports the IDP.

4.3.	The Spatial Development Framework of the local municipality.

This section was taken from the Land Use Planning Report by Marlize de Bruyne Planning (2023) attached as Appendix G5.

GEORGE MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK (GMSDF) (2019):

Erf 301 Hoekwil is not addressed specifically in the GMSDF. It is located in Wilderness Heights, a small holding area of the greater Wilderness. The GMSDF refers to the Wilderness – Lakes – Hoekwil Local Spatial Development Framework (WLH LSDF) (2015) in which study area the subject property is located.

The Western Cape Land Use Planning Guidelines: Rural Areas (2019) was also assessed with no conflict identified as the small holding area will not expand. Nature conservation and tourist accommodation are associated land uses in the rural environment.

No conflict was found between the GMSDF and the proposed development of this property as described in the Land Use Planning Report (MDB Planning 2023), and is consistent with the GMSDF as required in terms of Section 19 of the Land Use Planning Act, 2014 (LUPA).

WILDERNESS – LAKES – HOEKWIL – LOCAL SPATIAL DEVELOPMENT FRAMEWORK (WLH LSDF) (2015):

Erf 301 Hoekwil is located in the small holding area of Wilderness Heights as indicated in the WLH LSDF. An area indicated as 'protected areas' together with the Wilderness National Park is located to the south and east of the subject property. By rezoning the property to Open Space Zone III (nature conservation area), it expands the protected area with the appropriate zoning. It should be noted that the abutting Remainder Erf 1262 Wilderness was recently rezoned to Open Space Zone III. This property links with the Wilderness National Park towards the east.

The WLH LSDF states that the landscape character and view sheds along tourism routes must be protected by appropriate guidelines and even regulations to ensure that this landscape and visual resource is protected for the generation to come. Paragraph 3 of this motivation report shows that the landscape character is not negatively affected by the development proposal for Erf 301 Hoekwil with focus on the proposed owner's dwelling and 6 tourist accommodation units.

The WLH LSDF lists the following as the various elements that contribute to the importance of the landscape character and view sheds along tourism routes:

a) Wilderness qualities and pristine eco-systems – the forests and lakes and the coastline on either side of the tourism routes;
b) Areas with formal protected status such as the Garden Route National Park;
c) Heritage sites or Scenic routes – the views from various routes through the area includes spectacular visual experiences particular the forested south facing slopes of the steep escarpment north of the lakes;
d) Outstanding rural and townscape qualities;
e) Wilderness" special character and sense of place;
f) Important tourism and recreation value;
g) The Touw River catchment area providing the primary water source for the area;
h) Important Vistas or scenic corridors – visually prominent ridgelines and slopes – in Wilderness this is a very important component of the landscape character.

Whites Road and also Waterside Road are tourism routes which will be supported by this development proposal Erf 301 Hoekwil. The proposed zoning will ultimately link with the Wilderness National Park (part of the Garden Route National Park) located close by. The limited number of tourist accommodation units will provide access to the Wilderness character and sense of place. Importantly, the ridgeline and slope of the subject property will not be negatively affected visual aspects.

The development proposal for Erf 301 Hoekwil does not negatively impact on the landscape character of the area and will also not have a detrimental impact on the natural environment in which it is located. Considering the foregoing paragraphs and the nature of the proposed development of Erf 301 Hoekwil, we found no conflict with the WLH LSDF.

4.4.	The Environmental Management Framework applicable to the area.

The EMF has been identified as the tool that can be used to alert developers and authorities to the key environmental attributes of an area that need to be considered in the planning and development process. The Garden Route Environmental Management Framework is applicable in this case.

The Garden Route Environmental Management Framework (EMF) aims to guide sustainable development by providing environmental guidelines for land use and planning in the Garden Route district. The EMF supports low-impact tourism that aligns with the natural surroundings. It may encourage eco-friendly design, resource-efficient systems, and low-impact outdoor recreational activities that contribute to local conservation.

The EMF identifies areas of high biodiversity that require protection, especially sensitive ecosystems, indigenous forests, wetlands, and coastal dune systems. The protection of the forest habitat on Erf 301 through Open Space III zoning is aligned to this requirement for sensitive areas.

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

All relevant comments following the Pre-application Public Participation have been taken into consideration. Please see Appendix F.

The vision of the Applicant is to create accommodation units that give a sense of remoteness for the prospective guests. The owner will live on the property and maintain the property with income generated from the holiday units. Rezoning to Open Space Zone III (nature conservation area) with consent use for tourist accommodation was therefore the best option to achieve this outcome.

Alternative B Layout for the site included the main dwelling with garage, studio, and the six Pods. The Applicant appointed Confluent Environmental to undertake a botanical and terrestrial site sensitivity verification assessment to determine the vegetation type and sensitivity on site. The assessment[5] found that one SCC was observed in the forest area of the site east of where the easternmost Pod is proposed. This pod fell within the 30 meter diameter buffer made for the sensitive species. The SCC observed is a sensitive species and will not be named for the purpose of protecting it. The easternmost Pod was moved below the main dwelling to avoid the identified sensitive species.

[5] Specialist Botanical and Terrestrial Site Sensitivity Verification for Erf 301, Whites Road of Hoekwil by Confluent Environmental dated June 2023.

The Alternative B Layout also shows the sewer line running through the "fynbos on rocky outcrop" habitat (very high sensitivity) which should be avoided. The sewer line was moved to avoid the "fynbos on rocky outcrop" habitat.

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

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.

Management of the property as an Open Space III zone will promote conservation outcomes. Sustainable rehabilitation and restoration of indigenous vegetation will be supported by tourism income. The proposed development can be seen as incorporating conservation management activities as a primary land use as approximately 90% of the property will remain undeveloped and zoned for conservation purposes. Biodiversity stewardship agreements is a possible option for the management of the Open Space III zone.

According to the specialist studies, biodiversity loss will be minimal and impacts on species, ecosystems and ecosystem services are low with mitigation measures in place. Conserving Species of Conservation Concern was taken into consideration for this development and aims to reduce disturbance to SCC habitats by using appropriate building design (columns) and methods.

Specific Land Use Guidelines for Critical Biodiversity Areas (Western Cape Biodiversity Spatial Plan Handbook 2017).	
Ideally, development should be avoided in these areas. If they cannot be avoided it must be shown that the mitigation hierarchy has been applied if there is a proposal within a CBA. If the impact cannot be avoided or reduced to a residual low significance, a biodiversity offset may be considered as a last resort. However, a biodiversity offset should not be offered upfront and will be considered on a case by case basis.	For any impact assessment, the mitigation hierarchy must be kept in mind. 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 mitigation hierarchy was applied. Mitigation measures if implemented are effective in minimising impacts. The avoidance mitigation was applied to the preferred layout. Avoidance and mitigation measures reduce impacts to a residual low significance.
A specialist study must form part of the Scoping and EIA process for all land use applications in these areas, using the services of an experienced and locally knowledgeable biodiversity expert who is registered with SACNASP.	The specialist studies undertaken to inform this process were done by SACNASP registered specialists in the relevant field of expertise.
Applications for land use of any kind should be referred to the Land Use and Conservation Planning team at CapeNature for comment.	CapeNature's comments will be requested.
Degraded areas included in the land parcel, but not the land use proposal, should be restored to natural ecosystem functioning where possible.	AIP will be controlled, and the Open Space III zone of the property managed as a conservation area in perpetuity.
Alien clearing should be given high priority.	AIP will be managed on the property as a priority in achieving conservation outcomes.

The small scale and low impact development with a focus on environmental best practices can be considered as consistent with the objectives and management guidelines of the Biodiversity Spatial Plan.

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

The development area is outside of the Coastal Management Line but is within the Coastal Protection Zone (figure 8).

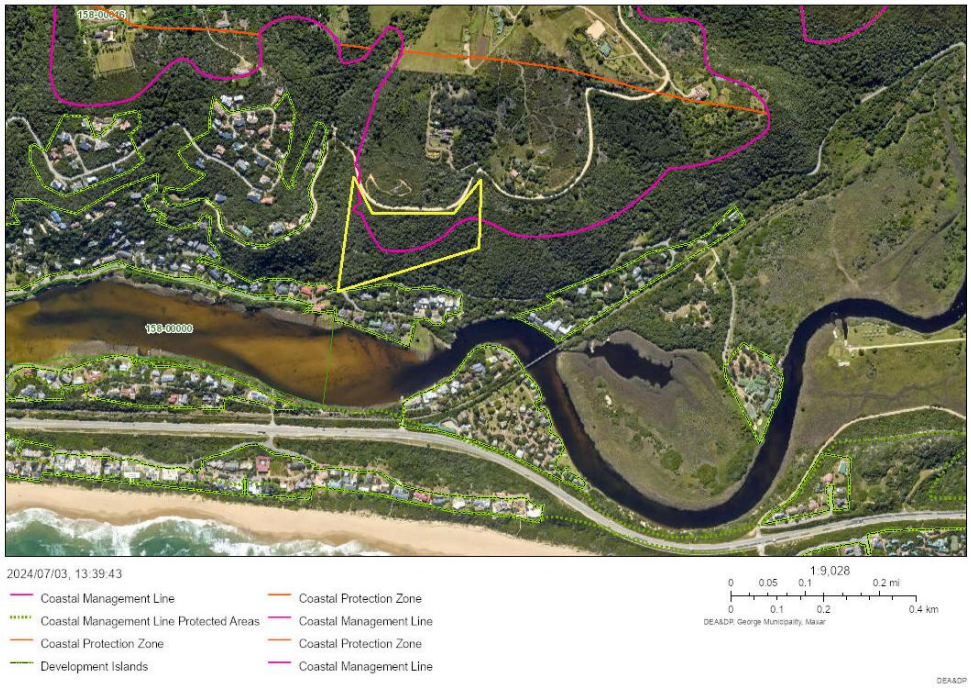


Figure 8: *Provincial Coastal Management Lines.*

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 report has not changed.	
9.	Explain how the proposed development will optimise vacant land available within an urban area.
The property is not with an urban area.	
10.	Explain how the proposed development will optimise the use of existing resources and infrastructure.

This section is taken from the Civil Engineering Services Overview Report, Appendix G6.

Water – A 50mm diameter **water connection** exists on the northeast corner of the site. Based on feedback from GLS Consulting, it appears that the existing capacity is sufficient to meet the site's domestic needs. However, GLS recommends long-term upgrades to connect the surrounding municipal infrastructure to a more suitable reservoir. The water line will be surface laid in flexi-hose pipe as per engineer specification to minimise disturbance. Water will be supplemented with rainwater harvesting.

GLS has pointed out that the existing municipal infrastructure surrounding the site does not meet the nominal requirements for **fire water supply**. This issue will have to be taken up with council for future planning and upgrading of the existing municipal infrastructure.

Sewer – The site currently lacks a formal sewer connection. An existing 160mm diameter municipal **sewer line** exist on the lower end of the property along its Southern boundary and Waterside Road. The existing sewer line at the bottom of the site along Waterside Road consists of a rising main. It is proposed to install a conservancy tank to service the site, while considering access to the tank. It is recommended that a gravity sewer line is constructed within the site boundaries to connect the main house and six Eco-Pods. This line will be linked to a main septic tank located as close as possible to the proposed development, a holding tank will be installed and connected to a collection tank positioned at the southern end of the property, near Waterside Road. The sewerage line will be surface laid in flexi-hose pipe as per engineer specification to minimise disturbance. This line will be installed with minimal disturbance to the surrounding vegetation and requires little maintenance.

Electrical – From the municipal supply point, **power supply** cabling will be run underground via a typical narrow trench - 300mm(W) x 700mm (D). There should be very little to no disturbance and any disturbance that does occur will be fully rehabilitated with indigenous growth.

The electrical and water supply for both the primary dwelling and Eco-Pods will be connected to the municipal system, which traverses the property. Council needs to provide electrical and water service points to the erf in the most efficient manner ensuring the least amount of disturbance (in other words, a location closest to the development footprint).

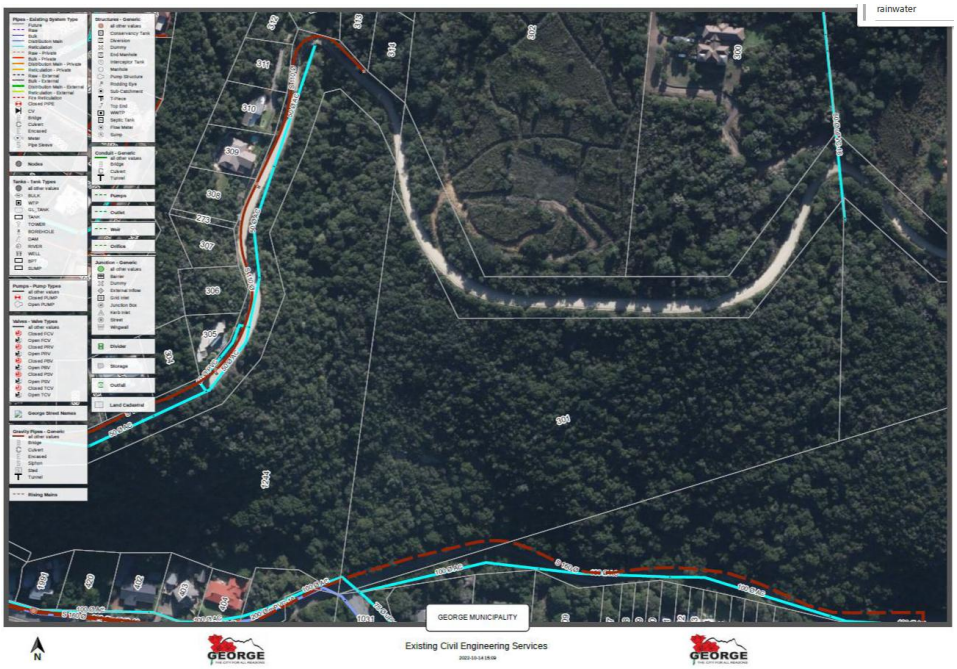


Figure 9: *Existing Municipal services. 50mm diameter water connection (blue) and 160mm diameter sewer line (red dashed).*

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).

As per municipal Civil Engineering Services letter (Appendix E16) bulk supply of water in the area is limited and the trend will continue. This is something the municipality needs to address high level, long term for all existing residences and future development. It cannot prejudice one property over another. As per Section 24(1) of the George Municipality Water and Sanitation Services By-law, developers are responsible for providing adequate water supply infrastructure where municipal services are not available. The owner/developer must ensure compliance with water conservation measures and is encouraged to incorporate rainwater harvesting as part of the development. Any insufficient supply / capacity of water by the municipal grid will be mitigated through rainwater harvesting.

As per municipal Civil Engineering Services letter (Appendix E16) there is currently no municipal sewer infrastructure directly servicing the property. In accordance with Section 6(1) of the George Municipality Water and Sanitation Services By-law, where no municipal sewer connection is available, the developer must implement an on-site sanitation system, such as a conservancy tank or septic system, subject to municipal approval.

Confirmation of services from the municipality is attached as Appendix E16 to the Draft BAR.

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.

It is the Applicants vision to provide a sustainable means of managing the property in the long-term by utilizing eco-tourism to support the conservation effort for the remaining 96% of the property. Utilising the zoning schemes specifically created to support such an initiative, by changing current Agricultural zoning to a Conservation Open Space zoning provides consent uses that supports a joint conservation effort. Long-term sustainable conservation effort is not realistically achievable without funding and/or a means of a revenue source to support the conservation effort.

A Conservation Management Plan has been compiled (Appendix L) for the management of the Open Space III area of Erf 301, with a long-term vision of incorporating neighbouring properties into an ecological corridor. The Conservation Management Plan aims to guide the sustainable conservation of important habitats and maintain ecological connectivity through the broader landscape.

It is estimated that the effective management of the Open Space area implemented as per the Conservation Management Plan (Appendix L) at the most basic level will cost approximately R300,000.00 per annum. Through the means of 'eco-tourism' the funding required to support this management program can be generated. A self-sustainable environmental program with scope to expand to further privately owned properties.

It must be noted that there is a minimum requirement in terms of the number of eco-tourism pods for viability. This is practically no different to any of the SANParks or CapeNature reserves (annual financial reports freely accessible online). The optimal number of eco-pods is 8 units. However, in this instance the request is for the inclusion of only 6 eco-pods which ensures a relative 'Break-Even' position creating the perfect balance between environmental conservation and eco-tourism.

Input costs will continue to escalate and without a revenue source the long-term protection of these unique properties is simply not practical or sustainable for private owners. The inclusion of only 4 eco-pod units will result in a combined operational loss of some R358,0000.00. Meaning the conservation effort is simply not viable. The motivation is not commercial gain, the motivation is long term sustainable conservation; legacy created through conservation.

Municipal service costs, property maintenance cost and various other input cost will only continue to escalate and without a revenue source the long-term environmental protection of these unique properties and landscapes is simply not practical or sustainable for private owners who are then often forced to sell to others who don't share the same environmental consciousness. The inclusion of only 4 accommodation units for example will result in a combined operational loss estimated at some R358,0000.00 per annum. The inclusion of 5 accommodation units results in an estimated loss of R195,000.00 per annum. Six accommodation units results in an estimated loss of R33,000.00 per annum, a relative break-even position. The conservation effort is simply not viable with fewer than 6 low impact accommodation units. The size of each accommodation unit is approximately only 38m^2 – it's a very small unit with a less than 10m^2 of disturbance footprint as they will be raised on columns/stilts.

CONSERVATION

Legacy Built Through Conservation

	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27
REVENUE SOURCE												
Eco Pod 1	R 19,530	R 18,900	R 10,540	R 8,925	R 8,925	R 10,540	R 15,750	R 19,530	R 23,625	R 32,938	R 24,413	R 22,838
Eco Pod 2	R 19,530	R 18,900	R 10,540	R 8,925	R 8,925	R 10,540	R 15,750	R 19,530	R 23,625	R 32,938	R 24,413	R 22,838
Eco Pod 3	R 19,530	R 18,900	R 10,540	R 8,925	R 8,925	R 10,540	R 15,750	R 19,530	R 23,625	R 32,938	R 24,413	R 22,838
Eco Pod 4	R 19,530	R 18,900	R 10,540	R 8,925	R 8,925	R 10,540	R 15,750	R 19,530	R 23,625	R 32,938	R 24,413	R 22,838
Eco Pod 5	R 19,530	R 18,900	R 10,540	R 8,925	R 8,925	R 10,540	R 15,750	R 19,530	R 23,625	R 32,938	R 24,413	R 22,838
Eco Pod 6	R 19,530	R 18,900	R 10,540	R 8,925	R 8,925	R 10,540	R 15,750	R 19,530	R 23,625	R 32,938	R 24,413	R 22,838
	R 117,180	**R 113,400**	**R 63,240**	**R 53,550**	**R 53,550**	**R 63,240**	**R 94,500**	**R 117,180**	**R 141,750**	**R 197,625**	**R 146,475**	**R 137,025**
TRADING INCOME	R 117,180	R 113,400	R 63,240	R 53,550	R 53,550	R 63,240	R 94,500	R 117,180	R 141,750	R 197,625	R 146,475	R 137,025
LESS EXPENSES	R 120,779	R 111,025	R 95,923	R 92,637	R 92,397	R 96,402	R 111,489	R 111,229	R 119,959	R 145,157	R 117,589	R 117,502
General Administration | Office	**R 11,456**	**R 11,244**	**R 10,012**	**R 9,667**	**R 9,730**	**R 10,013**	**R 11,151**	**R 11,337**	**R 12,009**	**R 13,278**	**R 12,187**	**R 11,801**
Marketing | Bookings | PR	**R 27,666**	**R 26,910**	**R 16,878**	**R 14,940**	**R 14,940**	**R 16,878**	**R 23,130**	**R 27,666**	**R 32,580**	**R 43,755**	**R 33,525**	**R 31,635**
Operating Expenses	**R 39,354**	**R 30,642**	**R 27,809**	**R 26,998**	**R 26,695**	**R 28,286**	**R 35,357**	**R 29,922**	**R 32,575**	**R 34,211**	**R 28,987**	**R 31,365**
CONSERVATION MANAGEMENT PLAN	**R 24,594**	**R 24,518**	**R 23,515**	**R 23,321**	**R 23,321**	**R 23,515**	**R 24,140**	**R 24,594**	**R 25,085**	**R 26,203**	**R 25,180**	**R 24,991**
Environemental Resource Consultant x 1	R 3,750	R 3,750	R 3,750	R 3,750	R 3,750	R 3,750	R 3,750	R 3,750	R 3,750	R 3,750	R 3,750	R 3,750
Cape Nature Conservation Donation Levy @ 2,5%	R 2,344	R 2,268	R 1,265	R 1,071	R 1,071	R 1,265	R 1,890	R 2,344	R 2,835	R 3,953	R 2,930	R 2,741
Bontanical Identification & Management	R 2,500	R 2,500	R 2,500	R 2,500	R 2,500	R 2,500	R 2,500	R 2,500	R 2,500	R 2,500	R 2,500	R 2,500
Trail Establishmenet, Preservation and Maintenance x 2 Staff	R 13,500	R 13,500	R 13,500	R 13,500	R 13,500	R 13,500	R 13,500	R 13,500	R 13,500	R 13,500	R 13,500	R 13,500
Animal Tracking, Observation & Protection	R 1,500	R 1,500	R 1,500	R 1,500	R 1,500	R 1,500	R 1,500	R 1,500	R 1,500	R 1,500	R 1,500	R 1,500
Alien Monitoring & Clearing	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500
Southern Cape Fire Protection Services	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500	R 500
Staff	**R 17,710**	**R 17,710**	**R 17,710**	**R 17,710**	**R 17,710**	**R 17,710**	**R 17,710**	**R 17,710**	**R 17,710**	**R 27,710**	**R 17,710**	**R 17,710**
NET PROFIT before interest, tax & depreciation	**-R 3,599**	**R 2,375**	**-R 32,683**	**-R 39,087**	**-R 38,847**	**-R 33,162**	**-R 16,989**	**R 5,951**	**R 21,791**	**R 52,468**	**R 28,886**	**R 19,523**	**-R 33,372**

Figure 10: *Draft Financial Model.*

Need refers to whether eco-tourism addresses a societal, environmental, or economic requirement.

- Societal Need
  - Eco-tourism contributes to job creation and local economic development, especially in rural areas.
  - It promotes environmental awareness and responsible tourism practices.
  - Supports cultural preservation by integrating local communities into tourism activities.

- Environmental Need
  - Encourages conservation by generating revenue for protected areas and biodiversity projects.
  - Reduces the negative impact of conventional tourism by promoting sustainable land use.
  - Helps mitigate climate change through low-carbon tourism initiatives.

- Economic Need
  - Provides an alternative revenue stream for communities dependent on natural resources.
  - Enhances South Africa's global competitiveness as a sustainable tourism destination.
  - Stimulates investment in eco-friendly infrastructure and services.

Desirability assesses whether eco-tourism aligns with long-term sustainability, spatial planning, and environmental policies.

- Spatial Planning and Sustainability
  - Encourages development in areas that align with conservation efforts, reducing urban sprawl.
  - Ensures that tourism activities are compatible with local environmental conditions.

- Environmental and Socio-Economic Considerations
  - Reduces environmental degradation through eco-friendly infrastructure and responsible waste management.

- Enhances the quality of life for local communities through social upliftment projects.
- Aligns with Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs) to ensure sustainable land use.

Eco-tourism meets the need criteria by providing economic, environmental, and social benefits while promoting conservation and responsible tourism. It is desirable as it aligns with national and regional planning policies, enhances biodiversity protection, and contributes to sustainable development.

This section is taken from the Land Use Planning Report, Appendix G5.

Need and desirability is the balancing of various factors. Need depends on the nature of a development proposal. E.g. the need for a new primary dwelling house differs from the need to do an industrial development. Erf 301 Hoekwil is located in the rural environment bordering onto an urban area and urban edge. The property is located in Wilderness Heights which is characterised by a mix of urban and rural characteristic within a sensitive natural environment. People, whether tourists, visitors or residents of the area, need to experience the beauty of the natural environment the greater Wilderness area offers.

Due to the natural characteristics of the property, its development potential is limited as described earlier in this report. The development proposal reacts to what the environment provides. With the appropriate zoning the vision for the area where Erf 301 Hoekwil is located as shown in the GMSDF and the WLH LSDF, will become a reality.

This development proposal for the subject property therefore will fulfil a need for residential accommodation of a family together with opportunities for tourists and visitors to the area. Limited employment opportunities will be created.

Desirability from a planning perspective is defined as the degree of acceptability of a proposed development on a property. The relevant factors include the physical characteristics of the property, existing planning in the area, character of the area, the locality and accessibility of the property as well as the provision of services. Another important consideration is the economic or financial impact which is only positive in this instance.

Physical characteristics of the property
The physical characteristics of the property informed this land use application as discussed in the foregoing paragraphs. As stated, the position of the primary dwelling and tourist accommodation units is the most suitable section of the property.

Existing planning in the area
As indicated earlier in this motivation report, this land use application is not in conflict with any relevant spatial plan applicable to the area where Erf 301 Hoekwil is located.

Character of the area
Erf 301 Hoekwil is located in an area characterised by natural vegetation and steep slopes, residential opportunities, guest accommodation with views to the south. The proposal supports and compliments what is found in the area as discussed in various paragraphs of this motivation report.

Provision of services
Municipal engineering services is to be provided in accordance with municipal requirements.
Economic impact

This development proposal cannot have a negative economic impact. It will generate and support economic activity. The Municipality can only benefit economically from this proposal.

Direct impact on surrounding properties
No neighbour will be overshadowed or overlooked due to the specific locations, topography and vegetation.

It is our view that the need and desirability of this development proposal for Erf 301 Hoekwil showed no negative impacts.

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.

The public participation process for the Project was undertaken with due reference to Section 39 of the EIA Regulations, 2014 (as amended). Specifically, this comprised the following activities:

- The Notice of Intent to Submit an EIA Application was submitted to the Department of Environmental Affairs and Development Planning (DEA&DP) on 12 April 2024.
- The Screening Tool Report and Site Sensitivity Verification Report was submitted with the NOI to DEA&DP, and comments received on 14 May 2024.
- The 30-day Pre-Application Public Participation Process commenced on 08 July 2024 and ended 07 August 2024.
- A notice was published in the local newspaper, the George Herald, and two site signs erected at the entrance of Erf 301.
- Stakeholders and Interested and Affected Parties were notified via email and Pre-Application BAR and Appendices made available via the Eco Route website.
- A Pre-Application Basic Assessment Report was submitted to DEA&DP on 08 July 2024 and comments received on 07 August 2024.
- A site visit with commenting authorities and I&AP's was held on 07 August 2024.
- The NEMA Application for Environmental Authorisation was submitted to DEA&DP and registered on 01 November 2024 and the Draft BAR submitted on 13 November 2024.
- The 30-day Draft BAR Public Participation Process commenced on 13 November 2024 and ended 13 December 2024.
- Following comments received from DEA&DP on 12 December, an extension of the prescribed 90-day timeframe in terms of sub-regulation 19(1)(b) of Government Notice No. R.982 of 4 December 2014, was requested. The final Basic Assessment Report for decision must be submitted within 140 days of receipt of the application by the Department (i.e., 140-days reckoned from 1 November 2024).
- A stakeholder and Interested and Affected Parties (I&AP) database was prepared for the project.

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

STATE DEPARTMENTS			
Name	**Contact Person**	**Contact Details**	**Email**
Department of Environmental Affairs and Development Planning (DEA&DP)	Danie Swanepoel	4th Floor, York Park Building, 93 York Street, George, 6529 044 814 2002 (T)	Danie.Swanepoel@westerncape.gov.za
Coastal Management Unit, DEA&DP	Ieptieshaam Bekko Mercia J Liddle Hilda Hayward Ryan Apolles	Private Bag x9086, Cape Town. 8000 021 483 3370 (T) 078 744 9205 (Cell) (Ieptieshaam Bekko)	Ieptieshaam.Bekko@westerncape.gov.za Mercia.Liddle@westerncape.gov,za Hilda.Hayward@westerncape.gov.za Ryan.Apolles@westerncape.gov.za
Department of Health	Nathan Jacobs	Private Bag x6592, George, 6530 044-803 2727 (T) 044-873 5929 (F)	Nathan.Jacobs@westerncape.gov.za
Heritage Western Cape	Noluvo Toto Stephanie Barnardt	Private Bag x9067, Cape Town, 8000 021-483 9729 (T) 021-483 9845 (F)	Noluvo.Toto@westerncape.gov.za Stephanie.barnardt@westerncape.gov.za
Provincial Roads Dept	Azni November	Private Bag x617, Oudtshoorn, 6620 044 272 6071 (T) 044 272 7243 (F)	Azni.November@westerncape.gov.za
Department of Water & Sanitation	John Roberts	Private Bag x16, Sanlamhof, 7532 021 941 6179 (T) 021 941 6082 (F)	RobertsJ@dwa.gov.za
Dept of Agriculture Land Use Management	Cor van der Walt Brandon Layman	Private Bag x1, Elsenburg, 7601 021 808 5093 (T)	corvdw@elsenburg.com Cor.VanderWalt@westerncape.gov.za Brandon.layman@westerncape.gov.za
Transport & Public Works / Department of Infrastructure	Vanessa Stoffels	24th Floor, 9 Lower Burg Street, Cape Town 021 483 4669 (T)	Vanessa.Stoffels@westerncape.gov.za
DFFE: Forestry Management	Melanie Koen Innocent Mapokgole	Private Bag x12, Knysna, 6570 044 302 6902 (T) 044 382 5461 (F)	MKoen@dffe.gov.za imapokgole@dffe.gov.za
ORGANS OF STATE			
Name	**Contact Person**	**Contact Details**	**Email**
Breede-Olifants Catchment Management Agency	Andiswa Sam R Mphahlele	PO Box 1205, George, 6530 023 346 8000 (T) 023 347 2012 (F)	asam@bgcma.co.za rmphahlele@bgcma.co.za
Cape Nature Land Use Advice	Colin Fordham Megan Simons	Private Bag x6546, George, 6530 044 802 5328 (T) 044 802 5313 (F)	msimons@capenature.co.za
Southern Cape Fire Protection Agency	Dirk Smit	Private Bag x12, Knysna, 6570 044 302 6912 (T) 086 616 1682 (F)	managerfpa@gmail.com

SANPARKS (Wilderness Parks Manager)	Sandra Taljaard		sandra.taljaard@sanparks.org
SANPARKS	Dr Vanessa Weyer	PO Box 3542, Knysna, 6570 044 302 5600 (T) 044 382 4539 (F) 074 707 8199	vweyer@ther2ainmodel.com
SANRAL	Nicole Abrahams Rene de Kock	Private Bag x19, Bellville, 7530 021 957 4602 (T)	AbrahamsN@nra.co.za Dekockr@nra.co.za
South African Civil Aviation Authority	Lizell Stroh	011 545 1232 (T)	Obstacles@atns.co.za / Strohl@caa.co.za
MUNICIPALITIES			
Name	**Contact Person**	**Contact Details**	**Email**
George Municipality Town Planning Section	Clinton Petersen	P.O. Box 19, George, 6530 044-8019477 (T) 08605299923 (F)	cpetersen@george.gov.za
George Municipality Environmental Department	Lauren Josias	71 York Street, George 6529 044-801 9156 (T)	ljosias@george.gov.za
Garden Route District Municipality	Mr. Lusanda Menze	P.O. Box 12, George, 6530 044-8031300 (T) 0865556303 (F)	info@gardenroute.gov.za
Garden Route District Municipality	Dr. Nina Viljoen	P.O. Box 12, George, 6530 044-8031300 (T) 0865556303 (F)	nina@gardenroute.gov.za
George Municipality – Ward 4 Councillor	Marlene Barnardt		mviljoen@george.gov.za
George Municipality – Municipal Manager	Dr Michele Gratz	044 801 9111	tlduplooy@george.gov.za

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

All relevant State Departments and Organs of State were consulted during the Pre-Application PPP.

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

Department of Environmental Affairs and Development Planning (DEA&DP)	Response received
Coastal Management Unit, DEA&DP	Response received
Department of Health	**No response**
Heritage Western Cape	Response received
Provincial Roads Dept	Response received
Department of Water & Sanitation	**No response**
Dept of Agriculture Land Use Management	**No response**
Transport & Public Works / Department of Infrastructure	Response received
DFFE: Forestry Management	Response received
Breede-Olifants Catchment Management Agency	Response received
Cape Nature Land Use Advice	Response received

Southern Cape Fire Protection Agency	Response received
SANPARKS	Response received
SANRAL	**No response**
South African Civil Aviation Authority	Response received

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

Please see Comments and Response Report, attached as 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.		
N/A			
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
N/A			
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.		
N/A			

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.		
Aquatic Compliance Statement Confluent Environmental Pty (Ltd) Mr. F de Ridder and Dr. J.M Dabrowski			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		

This section has been taken from the Aquatic Compliance Statement attached as Appendix G1.

The site falls within Primary Catchment K (Kromme) area and in quaternary catchment K30D. According to geospatial data sources, one non-perennial stream runs just outside of the property's western boundary and one non-perennial stream within the property boundary, adjacent to the eastern boundary. No other watercourses are mapped to occur within the property boundaries (Figure 11). No aquatic features have been included in the Western Cape Biodiversity Spatial Plan (WCBSP) covering the property.

The property falls within sub-quaternary catchment (SQC) 9173, which, according to the National Freshwater Ecosystem Priority Atlas (NFEPA, Nel et al., 2011), has been classified as a Freshwater Ecosystem Priority Area (FEPA). River FEPAs achieve biodiversity targets for river ecosystems and threatened/near-threatened fish species and were identified in rivers that are currently in a good condition (A or B ecological category). Their FEPA status indicated that they should remain in a good condition in order to contribute to national biodiversity goals and support sustainable use of water resources (Nel et al., 2011). The site also falls within the Outeniqua Strategic Water Source Area (SWSA) which is considered to be of national importance.

For river FEPAs, the whole SQC is identified as a FEPA, although the FEPA status applies to the actual river reach within such a sub-quaternary catchment. The shading of the whole sub-quaternary catchment indicates that the surrounding land and catchment area needs to be managed in a way that maintains the good ecological condition of the river reach, which in this case, is the Touws River. It is therefore important that development does not result in any deterioration of the river or its catchment area. Similarly, the Touws River estuary has been identified as an estuary FEPA, which is also indicative of the good ecological condition of the estuary. The larger drainage network and surrounding land use should therefore be managed to ensure the estuarine system remains in a good ecological condition.

The drainage lines within (near the eastern boundary of the Erf 301) and outside the property boundary (adjacent to the western boundary) are confirmed as non-perennial streams. Both streams have definite channels and banks with prominent riparian vegetation. The dominant vegetation at both streams was but not limited to; *Oliea capensis, Ehrharta erecta, Pterocelastrus tricuspidatus, Dietes grandiflora, Rumohra adiantiformis, Asplenium rutifolium, Streptocarpus rexii*. Small patches of wetland vegetation occurred along the banks, including *Zantedeschia aethiopica, Isolepis prolifera, Cyperus congestus,* and *Juncus effusus*, however, these patches do not indicate the presence of a functional wetland. Apart from the non-perennial streams, there are no hydro-geomorphological landscape features (depressions, confined valleys, channels etc.) indicating the presence of a watercourse (i.e. stream, river or wetland) within the development footprint (Figure 12).

In terms of legislation pertaining to the NWA, the development falls outside of the regulated area of the drainage line (i.e. outside of the riparian zone and 1:100 year floodline) and outside the regulated area of a wetland (Figure 13). Note that the Touws River Estuary is defined as an estuary and not as a wetland and is therefore not defined as a watercourse as per the definition according to the NWA (Act No. 36 of 1998).

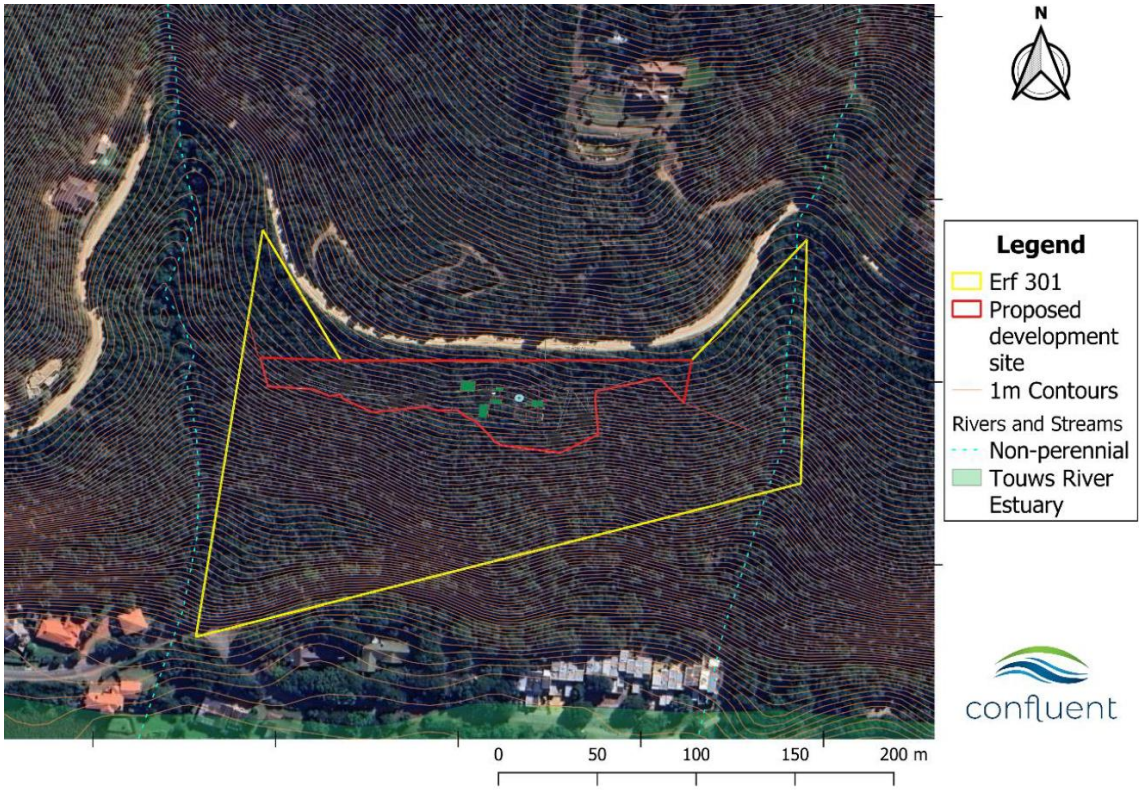


Figure 11: *Location of the property in relation to mapped watercourses.*

Figure 12: *Photographs of the property including view to the south (A), Western non-perennial streams (B) the eastern non-perennial streams (C) a patch of wetland vegetation Isolepis prolifera (D).*

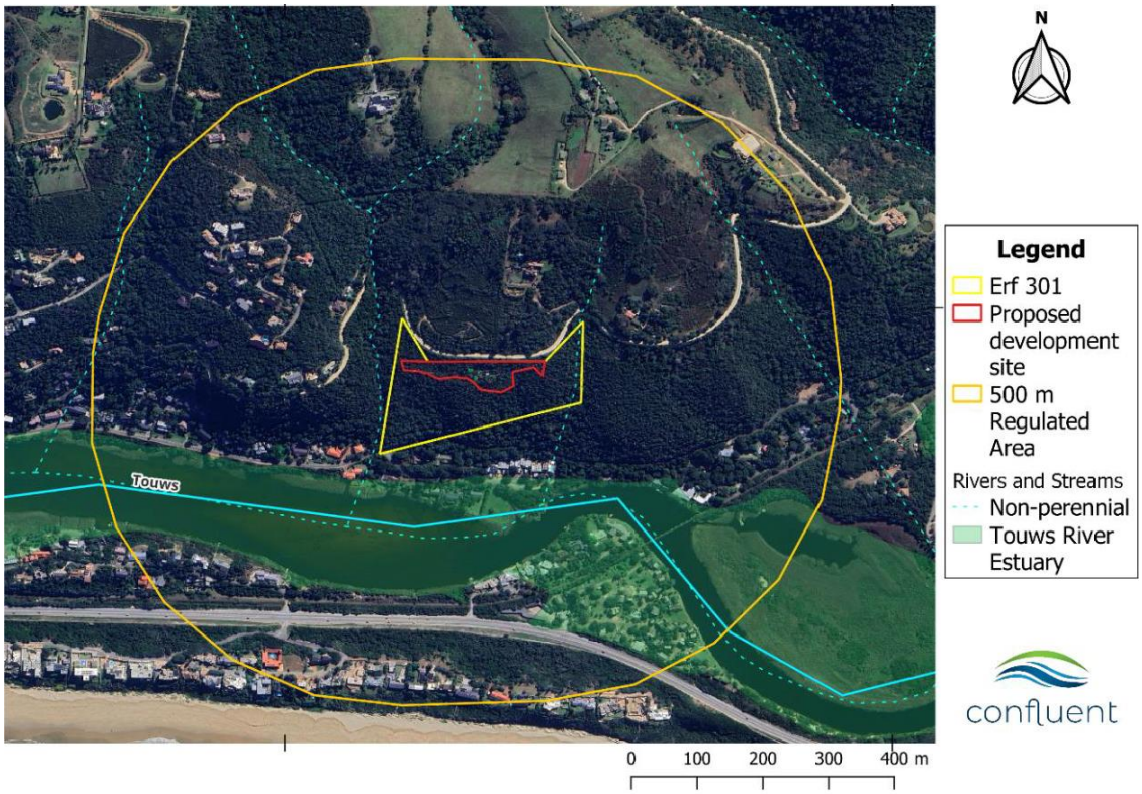


Figure 13: *Map indicating the 500 regulated area relative to the development site.*

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.

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 600m from the high-water mark of the sea, and at an average height above sea level of between 60 – 83 meters. 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;
Tourist accommodation units in a 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 (600m) and the height above sea-level (60-83m), 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 600m from the high-water mark of the sea, and at an average height above sea level of between 60 – 83 meters and 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 600m from the high-water mark of the sea, and at an average height above sea level of between 60 – 83 meters 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. Tourism and recreation are ways to achieve economic growth and adds to the sense of place of the greater George municipal area as the gateway to the Garden Route. The GMSDF states that tourism accommodation and uses in varying formats in the urban and rural environments is a generally accepted principle.

(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 600m 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.
N/A	
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.
Erf 301 is approximately 600m from the high-water mark of the sea, and at an average height above sea level of between 60 – 83 meters. 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.	

4. Biodiversity

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

Specialist Botanical and Terrestrial Biodiversity Impact Assessment Report for Erf 301, Whites Road, Hoekwil.
Confluent Environmental
May 2024

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.

This section was taken from the Botanical and Terrestrial Biodiversity Impact Assessment attached as Appendix G2.

The mapped vegetation for Erf 301 of Hoekwil is Garden Route Granite Fynbos and Goukamma Dune Thicket (in the south-west) according to the 2018 National Vegetation Map of South Africa (Figure 14A; (Dayaram et al., 2019; Mucina & Rutherford, 2006). The Vlok vegetation map for the site does indeed map the site as "Wilderness Fynbos-Forest" (Figure 14B). The Vlok vegetation map also indicates that hilltop areas and north-facing slopes to the north of Erf 301 are "Wilderness Grassy Fynbos".

Garden Route Granite Fynbos is found only in the Western Cape Province in three main sections. The largest section of the vegetation type is mapped from Groot Brak River to Woodfield. Like shale fynbos, it is associated with undulating hills on coastal forelands. Garden Route Granite Fynbos is typified by dense proteoid and/or ericoid shrubby grassy fynbos depending on the slope and aspect of the landscape. This vegetation type is listed as critically endangered as over 70% of its original extent has been transformed to agriculture or forestry land uses. Remaining patches of this vegetation type are confined mostly to highly fragmented pockets on steeper slopes. Furthermore, even though it is thought that this vegetation type was once dominated by proteoid fynbos, it seems to be easily converted to graminoid fynbos with more frequent fires and / or augmentation with pasture grasses (Mucina & Rutherford, 2006). Some of the typical plants that are associated with Garden Route Granite Fynbos as described in (Mucina & Rutherford, 2006) include (green species were seen on the site; blue species indicate species from the same Genus were recorded on the site):

Tall Shrubs: *Passerina corymbosa*, *Cliffortia serpyllifolia*, *Protea coronata, P. lanceolata, P. neriifolia*.
Low Shrubs: *Erica discolor var speciosa*, *E. peltata*, *Phylica confusa*, *Syncarpha paniculata, Agathosma ovata*, *Anthospermum prostratum, Aspalathus asparagoides, Cliffortia falcata*, *Cullumia bisulca, Erica canaliculata, E. diaphana, E. formosa, Eriocephalus africanus, Hermannia angularis, Leucadendron salignum, Lobelia tomentosa, Metalasia pungens*, *Mimetes cucullatus, Pelargonium fruticosum, Relhania calycina.*
Succulent Shrub: *Lampranthus sociorum*.
Semiparasitic Shrubs: *Osyris compressa, Thesium virgatum*.
Semiparasitic Epiphytic Shrub: *Viscum capense*.
Geophytic Herb: *Schizaea pectinata*.
Graminoids: *Tetraria cuspidata, Brachiaria serrata, Eragrostis capensis, Ficinia nigrescens, Heteropogon contortus, Pentaschistis eriostoma, Restio triticeus, Themeda triandra*.

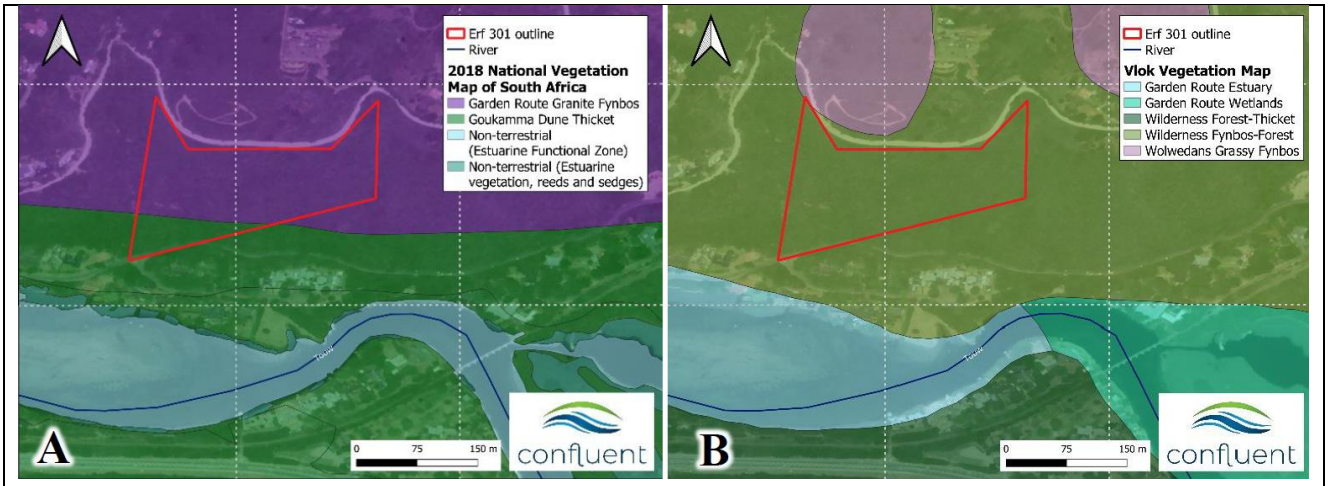


Figure 14: *The mapped vegetation types according to the 2018 National Vegetation Map of South Africa (Dayaram et al., 2019; Mucina & Rutherford, 2006). B) The Vlok vegetation map categories for Erf 301 and the surrounding area.*

The revised vegetation map, as made after the site assessment had been completed, is illustrated in Figure 15. The two drainage lines that flank the Erf are included in the forest habitat on the site (Figure 16). The south-facing slope means that the substrate on the site was rather moist, and the air rather cool. The northern section of the site is mapped as a thicket because canopy cover was not continuous, and pioneer thicket species were visible in open canopy sections (e.g., *Tarchonanthus littoralis*, the coastal camphor bush, and common thicket edge species like *Gymnosporia buxifolia*, *Myrsine africana*, *Grewia occidentalis*, and a lot of *Pterocelastrus tricuspidatus*) with senescent fynbos elements in between (Figure 17). It could be that fire suppression for over a century in this area has resulted in the thicket and forest observed on the site, but it is far more likely that the south facing slope and aspect of the site means that the habitat was never perfectly suited for fynbos vegetation. Furthermore, although two Erica species were recorded, no members of the Proteaceae, nor Restionaceae (typical fynbos plant families) were identified within the development footprint.

There is one section on the site that should be considered as Fynbos (Figure 15), even though it is also isolated in a forest/thicket matrix on the site. This section of fynbos stood out on the site, as it covered a relatively large area or contiguous area that seemed to coincide with a flatter rocky outcrop on the property (possibly granite, although confirmation is needed for this). Although this fynbos is not likely to burn, it may be that the substrate in this section of the site makes it impossible for forest species to successfully colonise and establish.

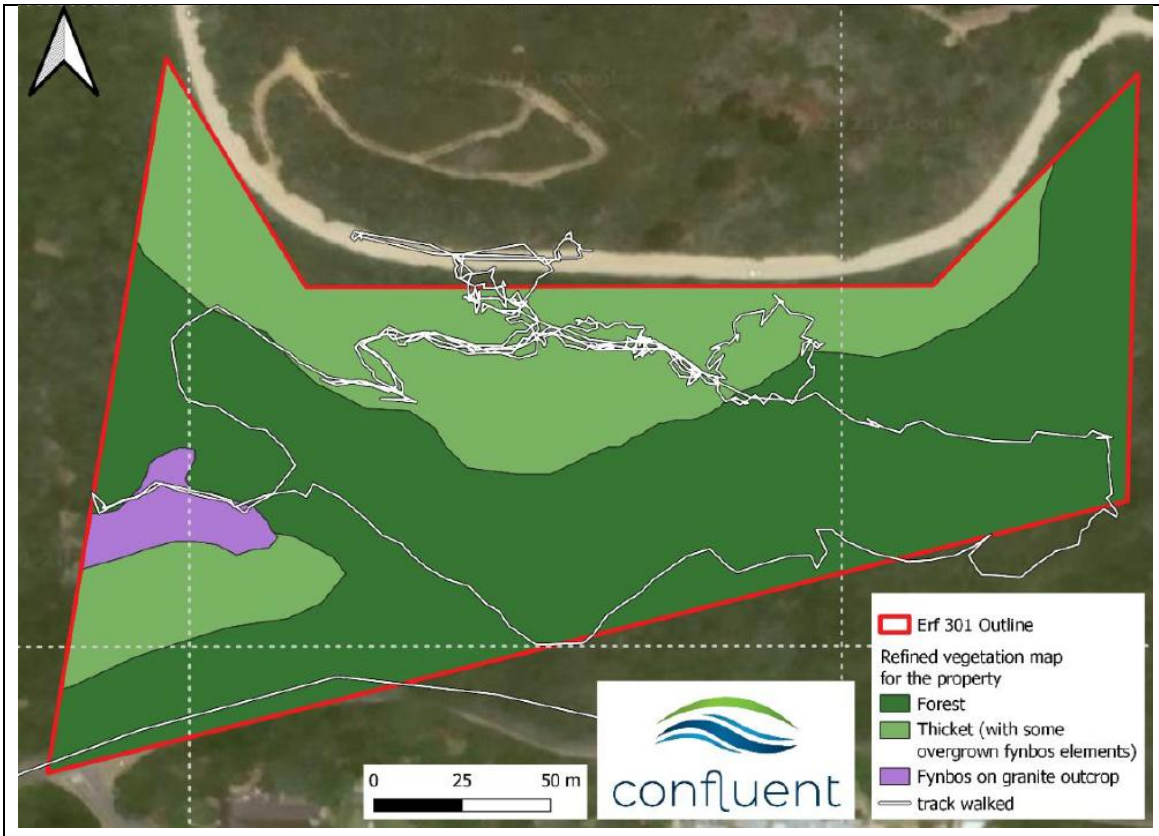


Figure 15: *A revised vegetation map for Erf 301 in Hoekwil.*

Figure 16: *The eastern drainage line of Erf 301. The direction faced is indicated on the images with a North arrow. Photos taken by the owner.*

Figure 17: *Photos showing A) the thicket/forest transition areas, and B) the open canopy pioneer thicket with fynbos elements in the northern section of the south facing slope of Erf 301.*

Plant Species of Conservation Concern and Invasive Species

The following findings refer only to the proposed development area. One SCC was observed on the site in the forest area of the site east of where the easternmost "pod" is proposed. However, the proposed pod falls outside of the 30m buffer made for the sensitive species. The SCC observed is a sensitive species and will not be named in this report. Nationally protected Cheesewood trees (*Pittosporum viridiflorum*) were also observed on the site within the Thicket vegetation that falls within the development footprint. A yellowwood tree was also observed on the property near the western drainage line in the forest, but since this is far outside of the proposed development area, this species is not a concern for the proposed development, unless seedlings are found in the development footprint for the site.

Only one black wattle (*Acacia mearnsii*) tree was seen on the site. This invasive species is an aggressive invader of watercourses and is listed as a category two invasive species on both National Environmental Management: Biodiversity Act 10 of 2004 (NEMBA) and Conservation of Agricultural Resources Act 43 of 1983 (CARA) invasive species regulations.

The position of the black wattle, SCC and protected trees that are of concern for the proposed development footprint are illustrated in Figure 18. The easternmost proposed pod is nearby a potentially sensitive species, and the preferred layout has shifted this pod to outside the 30m buffer that was made for this species. Three Least Concern (LC) orchid species were recorded on the site in the thicket and forest habitats during the site assessment. Although these are not sensitive because of their LC status, they are a great feature of the site, and are delightfully boastful when they are in flower.

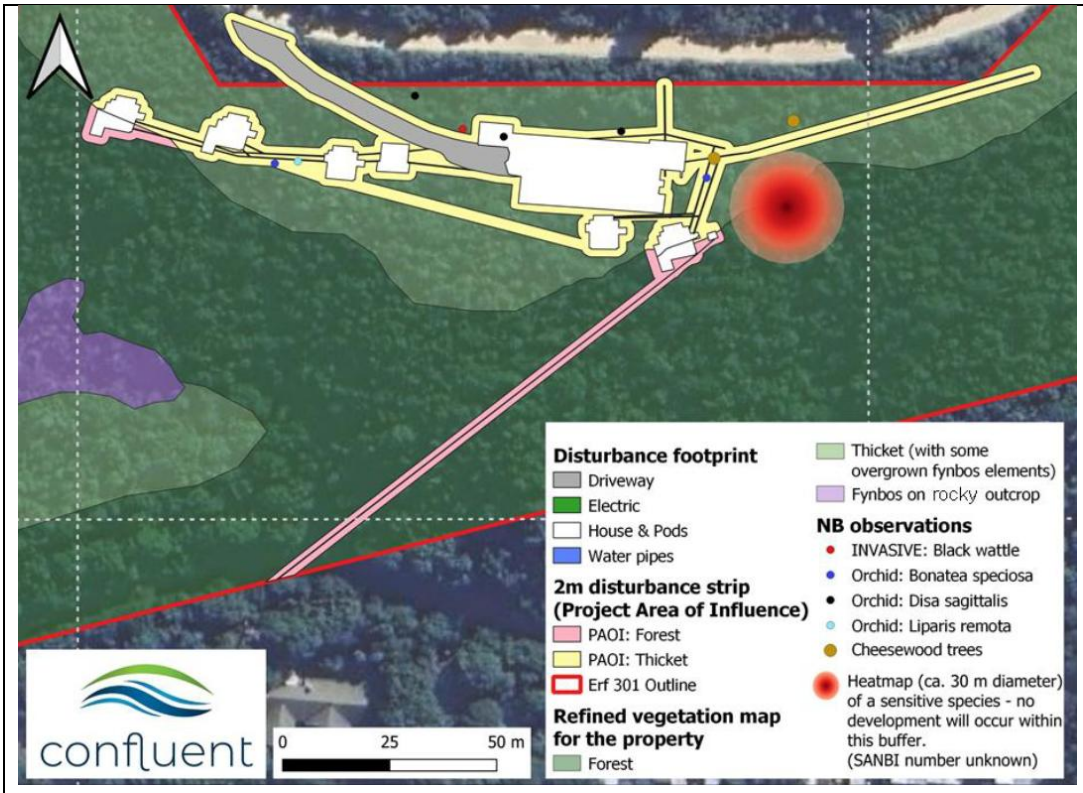


Figure 18: *The footprint of the proposed development and 2m disturbance buffer around the proposed features. The area covered by this disturbance strip is defined as the project area of influence, and includes areas of permanent and non-permanent anticipated disturbance on the site.*

The site ecological importance of Erf 301 is High across the entire property. Although the vegetation across Erf 301 is not entirely uniform, the SEI calculation revealed that the forest and ecotonal vegetation on the site have a similar ecological importance, which can also be translated as the relative sensitivity of the site from an ecological perspective. A High SEI essentially means that avoidance is necessary wherever possible, however where development is unavoidable minimisation mitigation should be applied. In this case, the best area for minimisation mitigation on the site is the ecotonal vegetation along the northern section of Erf 301.

The ecotonal vegetation has the lowest conservation value on the site due to the fact that this section of the site cannot be functionally maintained (the fire regime here will never be natural, as it is too small an area to form part of a manageable fire management plan). The vegetation here is already very overgrown, and the likelihood of SCC occurring in the ecotonal vegetation as it stands on Erf 301 is quite low. Even through ecotones are important for the ecology of the systems and are often unique areas, the ecotonal vegetation on Erf 301 is under an altered disturbance regime which has led to a compromise of its long-term ecological function.

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.

This section was taken from the Botanical and Terrestrial Biodiversity Impact Assessment attached as Appendix G1.

The Biodiversity Spatial Plan for the Western Cape (WC BSP) contains several conservation planning layers that are used to set priority areas for conserving biodiversity The majority of Erf 301 is mapped as a CBA 1 (i.e., natural Critical Biodiversity Area), with a small section in the south-west mapped as an ESA 2 (Ecological Support Area that is currently degraded) (figure 18) and the site is near the Touws Protected Area (Figure 19). The definition and objectives of the different WC BSP layers:

Critical Biodiversity Area 1:
Definition: Areas in a natural condition. 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.

Ecological Support Area 2:
Definition: Not essential for meeting biodiversity targets. Important in supporting functioning of PAs or CBAs. Often vital for ecosystem services.
Objective: Restore/minimise impact on ecological infrastructure functioning, especially soil and water-related services.

The majority of Erf 301 will be zoned as a conservation area, which is in accordance with the objectives of a CBA. The development is unlikely to affect the objectives on the CBA mapped on the site, given that the reasons for its assignment in this area is:

- The area is mapped as being part of the Bontebok extended distribution range.
- Coastal resource protection. The owner of Erf 301 is preserving the majority of the site for conservation purposes. The development will not undermine the objectives of coastal resource protection.
- Eastern fynbos renosterveld granite fynbos floodplain wetland. This does not apply to the proposed development on Erf 301.
- FEPA River corridor, water source protection – Touws, Watercourse protection – South-eastern Coastal Belt. Erf 301 is flanked on the east and western boundaries by non-perennial drainage lines. These are not going to be affected by the proposed development.
- Wilderness core estuary. This is not on Erf 301; the estuary is further south of the property and is already part of a Protected Area.
- Critically endangered Garden Route Granite Fynbos / Wolwedans Grassy Fynbos. The development on the south facing steep slope of Erf 301 will not affect these vegetation types, even though they are mapped on the site.

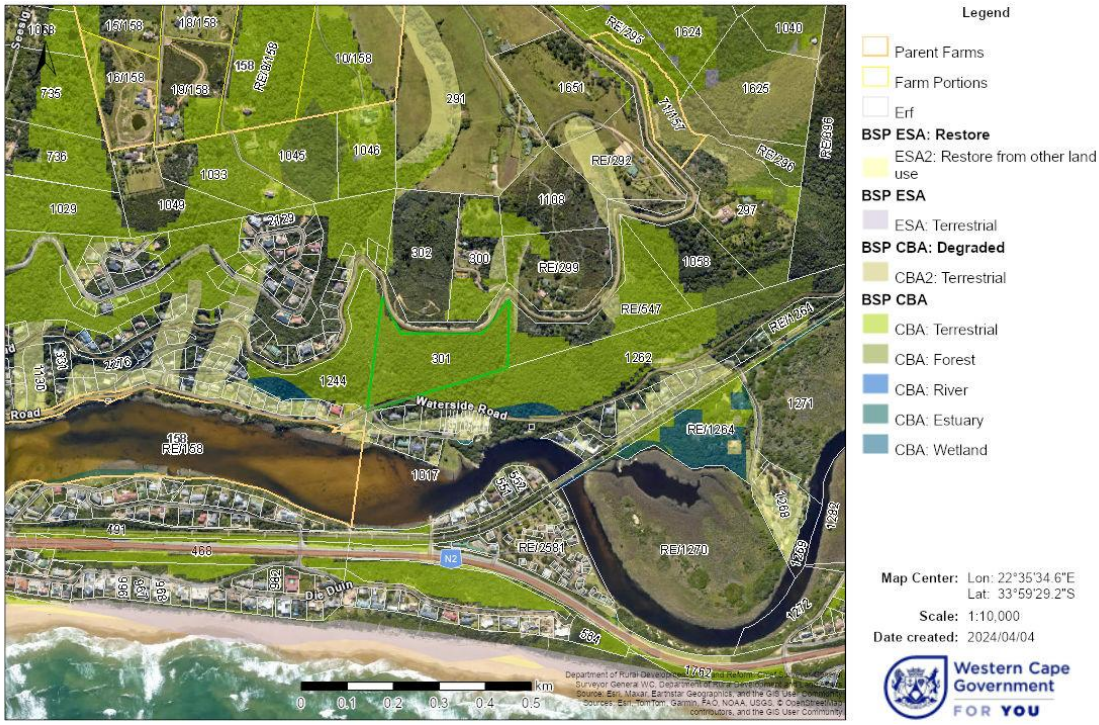


Figure 19: *The mapped Western Cape Biodiversity Spatial Plan (WC BSP).*

Figure 20: *Protected Areas.*

The owner also wants to declare the remaining section of Erf 301 as a conservation area (>90% of the erf), which is a very positive outcome for a development in the Wilderness and Hoekwil area.

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.

This section was taken from the Botanical and Terrestrial Biodiversity Impact Assessment attached as Appendix G1.

The sensitivity of the terrestrial biodiversity theme for the site is confirmed as:

- **Very High** for the "Forest" and "Fynbos on rocky outcrop" habitats on the site. The reasons for the assigned sensitivity are:

The forest on the site would form part of the National Forest Inventory for South Africa. Forests are protected in South Africa, and therefore the forest on the site is a viable CBA 1 area that will be protected by the owner. It has a high terrestrial biodiversity sensitivity. The fynbos on the rocky outcrop can be defined as an isolated section of Garden Route Granite Fynbos, and it therefore has a high sensitivity according to the terrestrial biodiversity protocol.

- **Low** for the "Thicket with some patches of overgrown fynbos" habitat on the site. The reasons for the assigned sensitivity are:

The thicket on the site is not part of a CR ecosystem, and it is not consistent with Garden Route Granite Fynbos for all the reasons mentioned in the Terrestrial Biodiversity report. The aspect of the thicket is on a south facing slope, and fire is unlikely to affect the vegetation here, making all the fynbos elements unviable for conservation efforts. Furthermore, the presence of fynbos nearby, on slope crests and north-facing slopes mean that fynbos seeds are present in the landscape. Fynbos will therefore start to colonise open canopy areas in thicket and forest but are unlikely to remain as thicket pioneer species start to outcompete them.

The site sensitivity in terms of the terrestrial plant species theme is confirmed as:

- **High** for the "Forest" and "Fynbos on rocky outcrop" habitat on the site. The reasons for the assigned sensitivity are:

A species of conservation concern (a sensitive species) was found in the forest, and there are several SCC that are likely to occur in the forest on Erf 301. A proper survey of this area on the site was not undertaken on the rocky outcrop, as it is outside of the proposed development on Erf 301. The presence, or absence of SCC are not confirmed for this area, but some SCC could conceivable occur here.

- **Low** for the and "Thicket with some patches of overgrown fynbos". The reasons for the assigned sensitivity are:

No threatened or near threatened plant species were recorded in this vegetation type on the site. Only one protected LC tree species (*Pittosporum viridiflorum*, i.e., cheesewoods) was observed in this area, which means that the owner of Erf 301 will need to obtain the relevant forestry license to manage or trim these trees. The overgrown sections of fynbos are unlikely to support SCC.

Erf 301 is mapped as Garden Route Granite Fynbos; however, the vegetation map of South Africa does not take ecotonal vegetation into account, making its classification harder to defend. The valleys and south facing slopes here contain forest vegetation, and then the plateaus and north facing slopes are fynbos. Between these vegetation types there is a relatively narrow transitional ecotone. The transitional vegetation on Erf 301 plays an important functional role between forest and fynbos. Erf 301 also didn't have a marked invasive presence. Only one large black wattle was found. Some black wattles were also seen outside of the development footprint in the valleys flanking the east and west, but it was not a big invasion and still very manageable.

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.

This section was taken from the Botanical and Terrestrial Biodiversity Impact Assessment attached as Appendix G1.

SAN Parks buffer areas are areas around National Parks that have been made to mitigate and reduce activities with negative ecological impacts taking place in close proximity to Parks, and to integrate National Parks into them into the landscape a little better. This concept has been widely recommended, including in the operational guidelines of UNESCO's World Heritage Convention 1. The purpose of these buffer zones are to:

- Protect the purpose and values of the national park, which is to be explicitly defined in the management plan submitted in terms of section 39(2) of the Act;
- Protect important areas of high value for biodiversity and/or to society where these extend beyond the boundary of the Protected Area;
- Assist adjacent and affected communities to secure appropriate and sustainable benefits from the national park and buffer zone area itself by promoting a conservation economy, ecotourism and its supporting infrastructure and services, and sustainability through properly planned harvesting.

The buffer that the proposed development site falls within is for Garden Route National Park (Figure 21). This is because the buffer is very wide, having been defined in a 10 km radius around the National Park. However, the Garden Route National Park is approximately 5 km away from the proposed development site, and the proposed development site is separated from the Garden Route National Park mainly by agricultural areas. Even though the screening tool identified the buffer area as the reason for the site sensitivity, the proposed development is highly unlikely to negatively affect the buffer area for the Garden Route National Park.

Figure 21: *The Garden Route National Park (dark green) has a 10 km buffer area (light green).*

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

This section was taken from the Animal Species Assessment attached as Appendix G3.

Evidence of the Golden Mole SCC was seen on site, with typical sub-surface tunnels observed at multiple locations throughout the meander on the property, indicating their presence and activity across the site (Figure 22). While not possible to determine the species based on the tunnels alone, the forest/thicket habitat is more indicative of Duthie's Golden Mole, with the site also predicted to be suitable habitat based on the DFFE Screening Tool. However, the precautionary principle is also applied to the presence of the Fynbos Golden Mole being present on site given that elements of fynbos habitat also occur on site.

The Animal Species Assessment by Confluent Environmental shows that evidence of the presence of the Golden Mole is primarily within the forest habitat and is not within the development area, as shown in figure 22 below.

Red list status	Species	Habitat	Breeding	Feeding
		MAMMALS		
Vulnerable B1ab(iii)+2ab(iii)	***Chlorotalpa duthieae*** **Duthie's Golden Mole**	Occur on alluvial sands and sandy loams in southern Cape Afrotemperate forests (Bronner, 2014). Preference for forest vegetation over fynbos. Narrow coastal band 275 km long between Wilderness and Port Elizabeth with fairly disjunct populations. Can occur in gardens and pastures adjoining forests. Mainly active at night.	Little is known but a female was recorded with a litter of two young in November (Bronner, 2014).	Shallow subsurface foraging tunnels radiate outwards from beneath the roots of trees. Forages at night in tunnels and through the leaf litter. Diet includes earthworms.

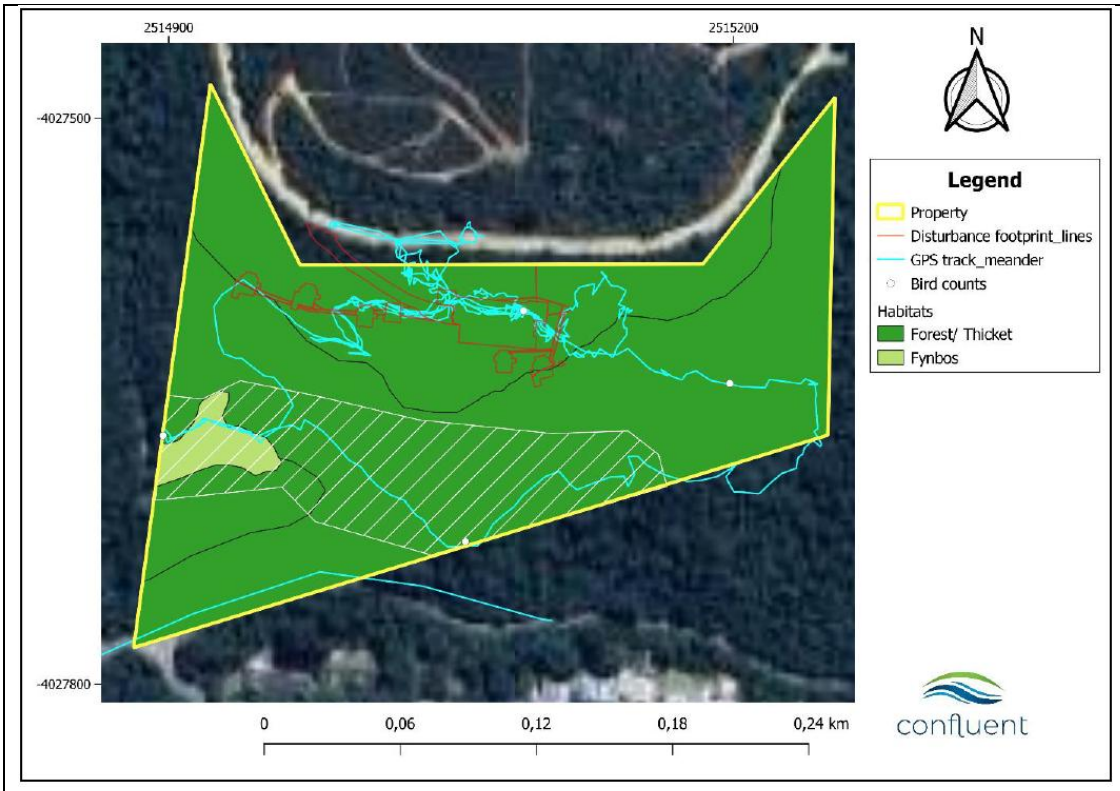


Figure 22: *Habitat types, GPS track and field work for Erf 301 Hoekwil following a site visit in April 2024. The white dashed area indicates where evidence of Golden Moles (Family Chrysochloridae) has been found.*

Tracks of a small antelope were also seen on site (Figure 23). While it is not possible to be entirely sure of the species of antelope based on spoor alone, given the small size (< 3cm), the suitable thicket habitat and the known nearby occurrence of Sensitive Species 8 in the surrounding landscape, the precautionary principle is applied the SCC deemed present on site.

A Bushbuck was seen crossing Whites Road into the property and tracks indicating the presence of this species were also seen on site. Camera trap images supplied by the owner of the property provide additional evidence of mammals in recent years

Figure 23: *(Left)* Sub-surface tunnelling typical of golden moles seen on Erf 301, (right) *Spoor of small antelope seen on Erf 301.*

Figure 24: *Camera trap images supplied by owner showing animals occurring on Erf 301, Hoekwil: Bushbuck (top images), domestic dog (middle left), Bushpig (middle right), Cape Genet (bottom images).*

No **Avifauna** SCC were encountered during the site visits. Four bird counts were conducted across the property, in addition to opportunistic sightings noted throughout the meander. A total of 8 bird species were identified during the site visit.

No **Terrestrial Invertebrate** SCC was found during the site inspection on the property. The non-perennial river in the east of the property had very little flow and limited water pools present despite substantial rains experienced a few days prior to the site visit – indicating the very temporary nature of this aquatic habitat and likely limiting its suitability to sustain any of the Odonata (dragonfly/damselfly) and mammal SCC on site. By contrast, the stream outside the western boundary of the property was flowing and more water pools were present. Two Odonata species were observed here but neither were an SCC. Invertebrates from a total of 6 Families were seen during the site visit.

No **Amphibian** SCC were found during the site visit, and no suitable endorheic habitat/waterbodies occurred on the property. Only one species was heard calling from the non-perennial river in the east of the property (Clicking Stream Frog).

The site sensitivity for the terrestrial animal theme of Erf 301, Hoekwil property is **VERY HIGH/HIGH** in accordance with the sensitivity highlighted by the DFFE Screening tool. The following reasons support this finding:

- The discovery of sub-terranean tunnels on the property, indicative of golden mole activity. Two golden mole SCC are potentially occurring on site, and while it is not possible to identify the species responsible for the tunnels, the thicket habitat is more indicative of *C. duthieae* (Vulnerable) which was also predicted by the DFFE Screening Tool. It is however also possible that *A. corriae* (Near Threatened) is present on site given the elements of fynbos vegetation and therefore the precautionary principle is applied with both species presumed present.
- The thicket habitat with high levels of connectivity to other similar habitats across the broader landscape is highly likely to support multiple SCC: Sensitive Species 8, *Campethera notata* (NT), *Buteo trizonatus* (Globally NT), *Panthera pardus* (VU).
- One non-perennial stream on the property and another in close proximity to the western boundary that have possibly suitable habitat for various SCC which are given a medium likelihood of occurrence: *Bradypterus sylvaticus* (VU), *Aonyx capensis* (NT), *Syncordulia venator* (NT), *Ecchlorolestes nylephtha* (NT).

While two non-perennial rivers are present on site, the development footprint falls outside the aquatic buffer areas (as determined by the Aquatic Compliance Statement) and therefore the development is expected to have no effect on the aquatic habitat on site. A few fauna SCC possibly occur and utilise this stream habitat, and following the aquatic compliance statement, the development is expected to have little to no impact on these fauna.

The forest/thicket vegetation is suitable habitat for most of the highlighted SCC on Erf 301. The development will impact these SCC most notably through habitat loss in the housing/road footprints. However, the SDP already makes use of columns to raise sections of the development, thereby reducing the permanent footprint on the property and minimizing habitat loss for many of the SCC (i.e. golden moles). Ultimately the area lost to this development equated to ±2% of the property size.

5. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.
The property is approximately 3.9 ha in extent and almost entirely comprising of a steep south-facing slope ranging from 10 - 90m above sea-level. A large section of the property is steeper than 1:4 which was considered in the layout of the site development plan. The development is proposed north of the steep 1:4 slopes (Figure 24) and makes use of the flatter areas. The primary dwelling and Pods will be constructed on columns. The house design will also take into consideration building challenges and will be constructed using lightweight construction materials.

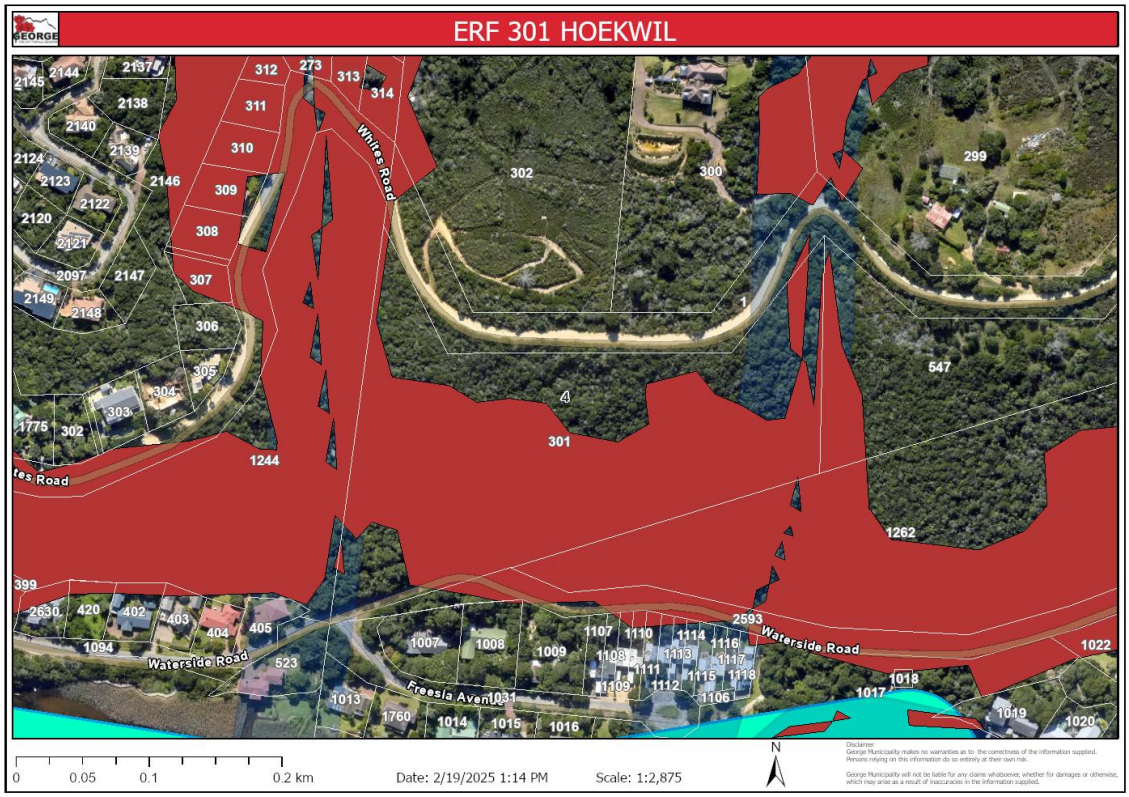


Figure 25: *Sections of the property with slopes steeper than 1:4 (red).*

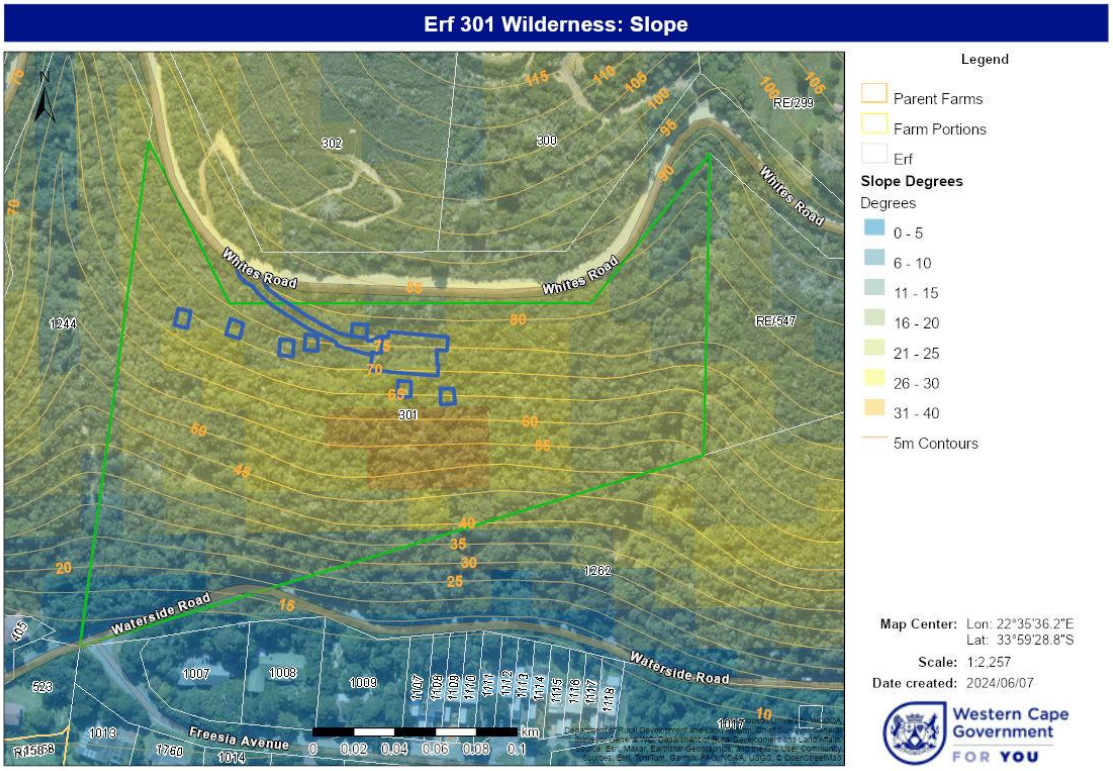


Figure 26: *Slope degree of Erf 301 Wilderness.*

The geology of the site is likely part of the Cape Granite Suite (Browning & Macey, 2015). These granites are from the late Precambrian. The Maalgaten Granite, considered the main part of the George Pluton (i.e., a body if intrusive igneous rock), is likely present at the site and stretches from Wilderness in the East to the Klein Brak River in the West (Browning & Macey, 2015). The rocky outcrop

on Erf 301 might be part of this Maalgaten Granite, but it could also be Modderkloof Granodionite. The soil on the site is described as sandy, with a high erodibility factor (0.62 on Cape Farm Mapper)[6].

According to the Agricultural Compliance Statement (Johann Lanz 2024) the site is described as coastal hilly terrain with soils described as predominantly deep, very light textured (sandy), light coloured, soils with hard carbonate occurring in places. Soils also have very low water and nutrient holding capacity. According to the geology described by DAFF 2002, the site is fixed dunes and dune rock[7]. Granite soil and dune sand are distinctly different in terms of their origin, composition, and characteristics. Granite soils result from the weathering of granite rock, while dune sands are wind-deposited, predominantly quartz sands found in dunes.

As per the Geotechnical Soil Report (Appendix G9) the geological map of the area indicated that the site was underlain by granite rock of the George Pluton. The profile excavated in test pits correlated with the local geology of the area. TP1 and TP2 consisted of silty sand of colluvial origin to an average depth of 1m below ground level, underlain by a thin residual clayey sand horizon, which quickly transitions into very soft granite rock. At TP3 and TP4 shallow, hard rock was encountered at a depth of 0.4m below ground level, overlain by similar colluvial silty sand.

The investigation data indicates that the underlying geology and geotechnical conditions are generally favourable and suitable for a "low-impact" type residential development, where the development footprint takes into account the natural slope and bulk excavations are minimised accordingly. The proposed main dwelling (refer TP1 & 2) is underlain by very soft rock at a depth of about 1.2m which is ideal for normally loaded strip/pad foundations and a minor to moderate amount of cut to fill (to be mitigated where possible). The proposed pod units (refer TP3 & 4) are underlain by very shallow rock (may vary slightly) which is ideal for low-impact light structures on shallow pads and columns with minimal cut to fill. The natural slope stability was deemed to be OK under such development if structures are properly founded and earthworks are properly managed.

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.		
N/A			
6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.		

According to the SAHRIS Paleo Sensitivity Map the palaeontological sensitivity of Erf 301 is insignificant/zero (Figure 26). There are no significant heritage resources known to be on the property, the proposed activity should have negligible to no cumulative impacts on the archaeological or heritage value of the area.

Final comments received from HWC on 04 June 2024 (Reference Number HWC24051708SB0424) stated the following:

> *You are hereby notified that, since there is no reason to believe that the proposed development on Erf 301, Hoekwil, Wilderness has impacted on heritage resources, no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required. HWC chance finds to be implements.*

[6] Specialist Botanical and Terrestrial Biodiversity Impact Assessment Report for Erf 301, Whites Road, Hoekwil by Confluent Environmental dated May 2024.

[7] Site Sensitivity Verificatio and Agricultural Compliance Statement for a Proposed Primary House and 6 Pods Development on Erf 301, East of Wilderness, Western Cape by Johann Lanz (SoilZA) dated 23 June 2024.

Figure 27: *SAHRIS Palaeontological Map. The red star indicates the location of Erf 301.*

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 by the development.

8. Socio/Economic Aspects

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

Erf 301 Hoekwil is located in Wilderness Heights, a small holding area of the greater Wilderness. The GMSDF refers to the Wilderness – Lakes – Hoekwil Local Spatial Development Framework (WLH LSDF) (2015) in which study area the subject property is located. The function of small holdings as a settlement type is described as low-density rural living, with an agricultural component with reference in the relevant LSDF. Wilderness Heights is one such small holding area.

The GMSDF also describes the area of the Wilderness-Lakes-Hoekwil LSDF as follows:
"*Wilderness, Touwsranten, and Hoekwil Wilderness is one of the most popular tourism and residential destinations along the Garden Route, based on its unique terrestrial, aquatic and marine assets, outstanding rural and townscape qualities, and recreational amenity value. Threats to the area include the subdivision of smallholdings, expansion of poorly located and serviced informal areas, and insensitive building development.*"

Erf 301 Hoekwil is located in the rural environment bordering onto an urban area and urban edge. The property is located in Wilderness Heights which is characterised by a mix of urban and rural characteristic within a sensitive natural environment. People, whether tourists, visitors or residents of the area, need to experience the beauty of the natural environment the greater Wilderness area offers.

Erf 301 Hoekwil is located in an area characterised by natural vegetation and steep slopes, residential opportunities, guest accommodation with views to the south. The proposal supports and compliments what is found in the area

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

Tourism and recreation are ways to achieve economic growth and adds to the sense of place of the greater George municipal area as the gateway to the Garden Route. The GMSDF states that tourism accommodation and uses in varying formats in the urban and rural environments is a generally accepted principle.

Desirability from a planning perspective is defined as the degree of acceptability of a proposed development on a property. The relevant factors include the physical characteristics of the property, existing planning in the area, character of the area, the locality and accessibility of the property as well as the provision of services. Another important consideration is the economic or financial impact which is only positive in this instance.

This development proposal cannot have a negative economic impact. It will generate and support economic activity. The Municipality can only benefit economically from this proposal.

It is the Applicants vision to provide a sustainable means of managing the property in the long-term by utilizing eco-tourism to support the conservation effort for the remaining 96% of the property. Utilising the zoning schemes specifically created to support such an initiative, by changing current Agricultural zoning to a Conservation Open Space zoning provides consent uses that supports a joint conservation effort. Long-term sustainable conservation effort is not realistically achievable without funding and/or a means of a revenue source to support the conservation effort.

A Conservation Management Plan has been compiled (Appendix L) for the management of the Open Space III area of Erf 301, with a long-term vision of incorporating neighbouring properties into an ecological corridor. The Conservation Management Plan aims to guide the sustainable conservation of important habitats and maintain ecological connectivity through the broader landscape.

It is estimated that the effective management of the Open Space area implemented as per the Conservation Management Plan (Appendix L) at the most basic level will cost approximately R300,000.00 per annum. Through the means of 'eco-tourism' the funding required to support this management program can be generated. A self-sustainable environmental program with scope to expand to further privately owned properties.

It must be noted that there is a minimum requirement in terms of the number of eco-tourism pods for viability. This is practically no different to any of the SANParks or CapeNature reserves (annual financial reports freely accessible online). The optimal number of eco-pods is 8 units. However, in this instance the request is for the inclusion of only 6 eco-pods which ensures a relative 'Break-Even' position creating the perfect balance between environmental conservation and eco-tourism.

Input costs will continue to escalate and without a revenue source the long-term protection of these unique properties is simply not practical or sustainable for private owners. The inclusion of only 4 eco-pod units will result in a combined operational loss of some R358,0000.00. Meaning the conservation effort is simply not viable.

Economic Impact of Eco-Tourism

Eco-tourism in South Africa is a growing industry that promotes responsible travel to natural areas, conserving the environment while benefiting local communities. It serves as a crucial economic driver by creating employment opportunities, supporting small businesses, and fostering skills development in rural areas where traditional job opportunities are limited. The sector generates revenue for

conservation efforts, infrastructure development, and cultural preservation, offering a sustainable alternative to industries like mining and intensive agriculture.

Erf 301 in the Wilderness area offering tourist accommodation and a nature trail contributes to the local economy by creating employment opportunities, supporting small businesses, and attracting visitors who spend on lodging, food, and activities. This form of eco-tourism promotes conservation by providing financial incentives to maintain natural habitats and protect biodiversity while fostering environmental awareness among tourists and locals alike. Additionally, it encourages skills development in hospitality, guiding, and sustainable land management, benefiting the surrounding community.

The following are some of the economic benefits of the proposed development:

Direct Economic Benefits:

- Employment opportunities (construction, hospitality, conservation).
- Increased business for local suppliers, service providers, and artisans.
- Boost to local tourism operators and hospitality businesses.

Indirect Economic Benefits:

- Increased demand for local goods and services.
- Higher property values and potential real estate growth.
- Additional revenue for municipal services and community infrastructure.

Sustainable, Long-Term Impact:

- Eco-tourism revenue supporting conservation efforts.
- Strengthening economic resilience through tourism diversification.
- Positioning Wilderness as a leading eco-tourism destination in the Western Cape.

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

This development proposal for the subject property will fulfil a need for residential accommodation of a family together with opportunities for tourists and visitors to the area. Limited employment opportunities will be created.

The visitors to this property will support economic opportunities created in the nodes and precincts, e.g. restaurants and recreational facilities in the Wilderness area. The proposal will have socio-economic benefits in maintaining the natural environment and creating employment opportunities for the local communities.

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 GMSDF states that Open Space Zone III is encouraged in CBA/ESA areas and where steep slopes are found. Erf 301 Hoekwil is also located close to the Wilderness Lakes Protected Area of the Garden Route National Park. A property also bordering onto Erf 301 Hoekwil was recently rezoned to Open Space Zone III. Properties surrounding the Garden Route National Park are slowly reflecting the character of the area and the importance of its location. Through appropriate management the natural environment of this property is being restored.

As Erf 301 Hoekwil is not located on a ridge, the development can be 'hidden' in the surrounding natural vegetation. Visual impact is mitigated due to its location, building style and exterior finishes that will blend in the area.

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 Erf 301 Hoekwil, located in Wilderness Heights in the George Municipal area.

Figure 28: *Location of preferred site, Erf 301 Hoekwil, Wilderness, Western Cape.*

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

The assessment is limited to the subject property. No other properties were considered or investigated.

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

The property, Erf 301, is owned by the Applicant. The Applicant has no alternative properties that can be considered. The site selection matrix was therefore not utilised.

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

The vision of the Applicant is to create accommodation units that give a sense of remoteness for the prospective guests. The owner will live on the property and maintain the property with income generated from the holiday units. Rezoning to Open Space Zone III (nature conservation area) with consent use for tourist accommodation was therefore the best option to achieve this outcome.

The property was surveyed by D Smalberger in which the most viable areas in terms of gradient and slope were determined to be the northern section. An SDP was developed which housed the residential dwelling and Eco-Pods on the northern section as shown in Alternative Layout 1.

Areas with gradients of greater than 1:4 were not surveyed as these are considered the 'No Go Areas'. Mr. Smalberger conducted multiple site visits and surveyed the areas he deemed most suitable for any form of development. The area surveyed was identified after firstly reviewing the George Municipality GIS screening tool (Figure 29) followed by an extensive site visit. The contour profile as surveyed is consistent with the George Municipality GIS screening tool contour profiling. In the expert opinion as the surveyor, the development is positioned in the most suitable location.

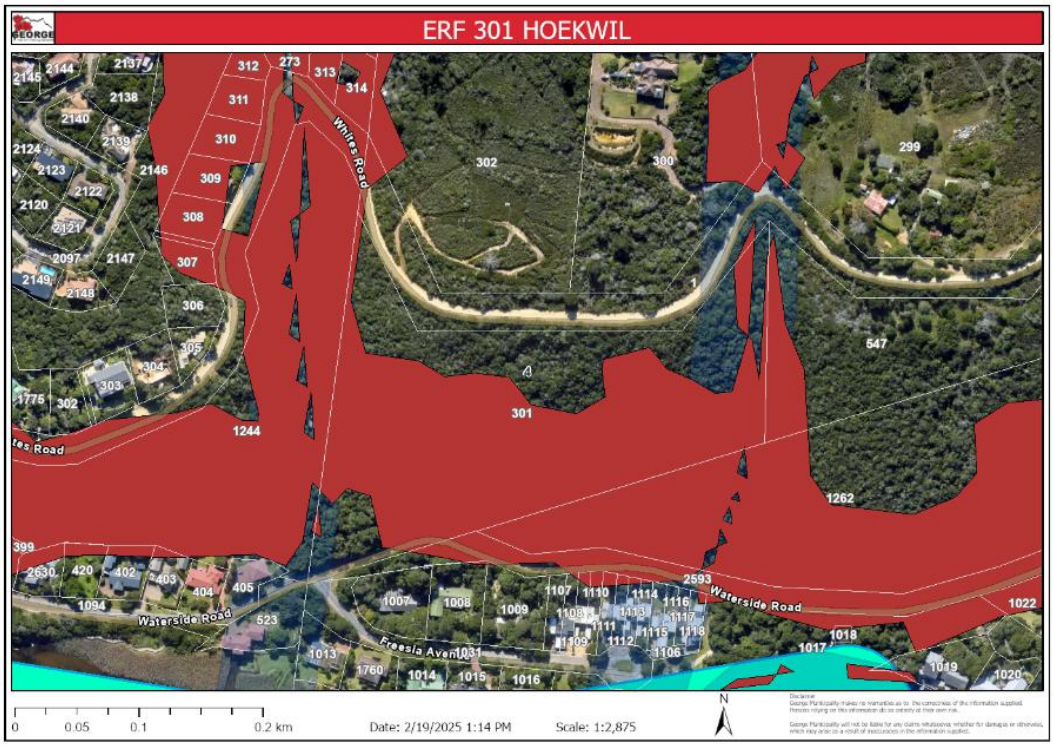


Figure 29: *George Municipality GIS Online Tool.*

Alternative Layout 1:

Alternative Layout 1 included the main dwelling with garage, studio, and the six Eco-Pods, as shown in figure 29. The Applicant appointed Confluent Environmental to undertake a botanical and terrestrial site sensitivity verification assessment to determine the vegetation type and sensitivity on site. The assessment[8] found that one SCC was observed in the forest area of the site east of where the easternmost Eco-Pod is proposed. This pod fell within the 30-meter diameter buffer made for the sensitive species. The SCC observed is a sensitive species and will not be named for the purpose of protecting it. The easternmost Eco-Pod was therefore moved outside of the buffer.

In terms of town planning aspects of the development, the accommodation units required guest parking to be provided. This requirement also needed to be met by including a small guest parking area of approximately 80 m^2. It should be noted that this would also be a requirement for Alternative Layout 1.

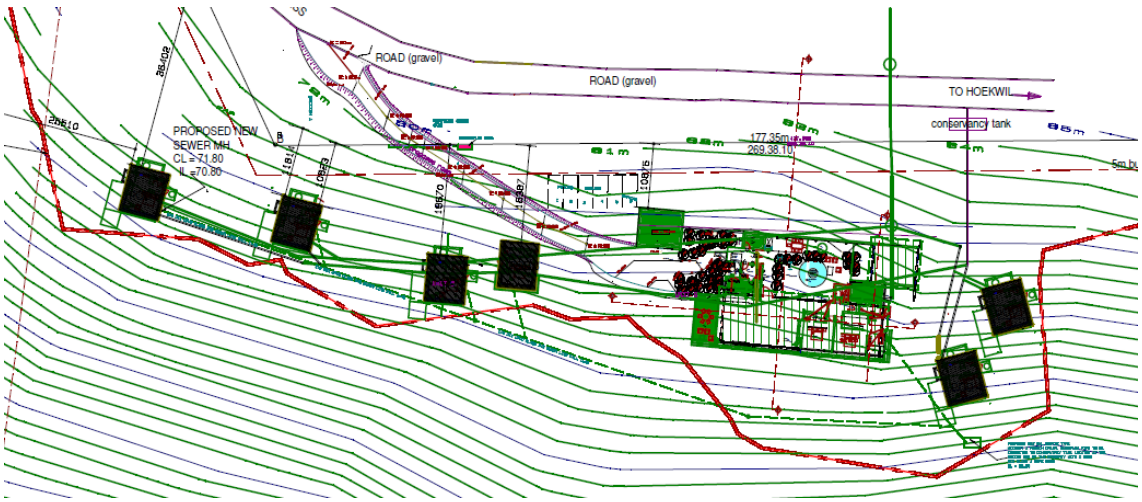


Figure 30: *Alternative Layout 1.*

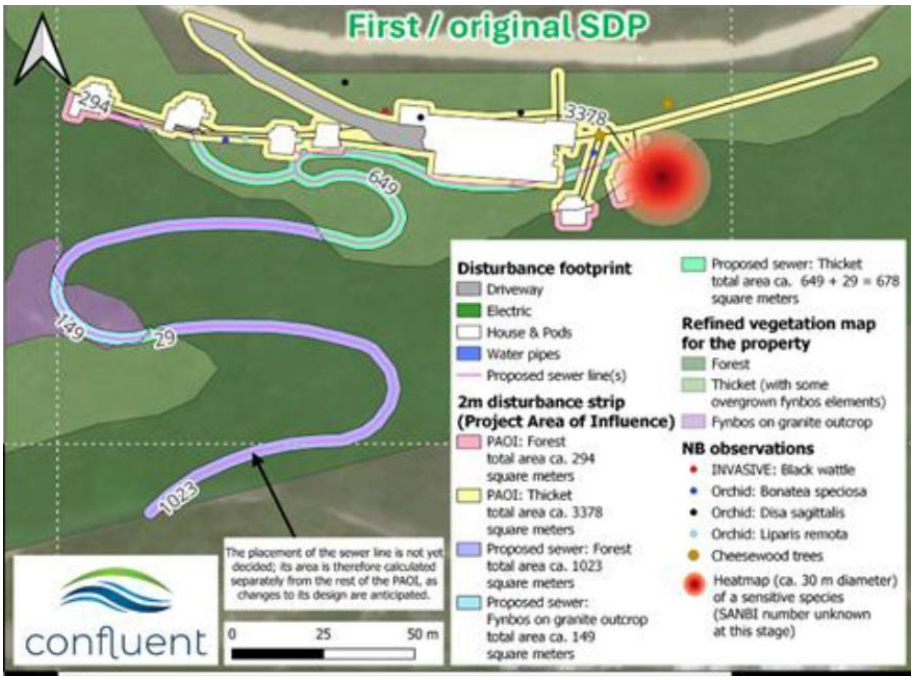


Figure 31: *Map indicating the position of a Sensitive Species with 30m buffer overlayed with Alternative Layout 1.*

Preferred Layout:

The preferred layout includes the main dwelling with garage, studio, and the six Eco-Pods, as shown in figure 32. The easternmost Eco-Pod was moved below the main dwelling to avoid the identified sensitive species. Additionally, a guest parking area of approximately 80 m^2 was included to meet planning requirement for the accommodation units.

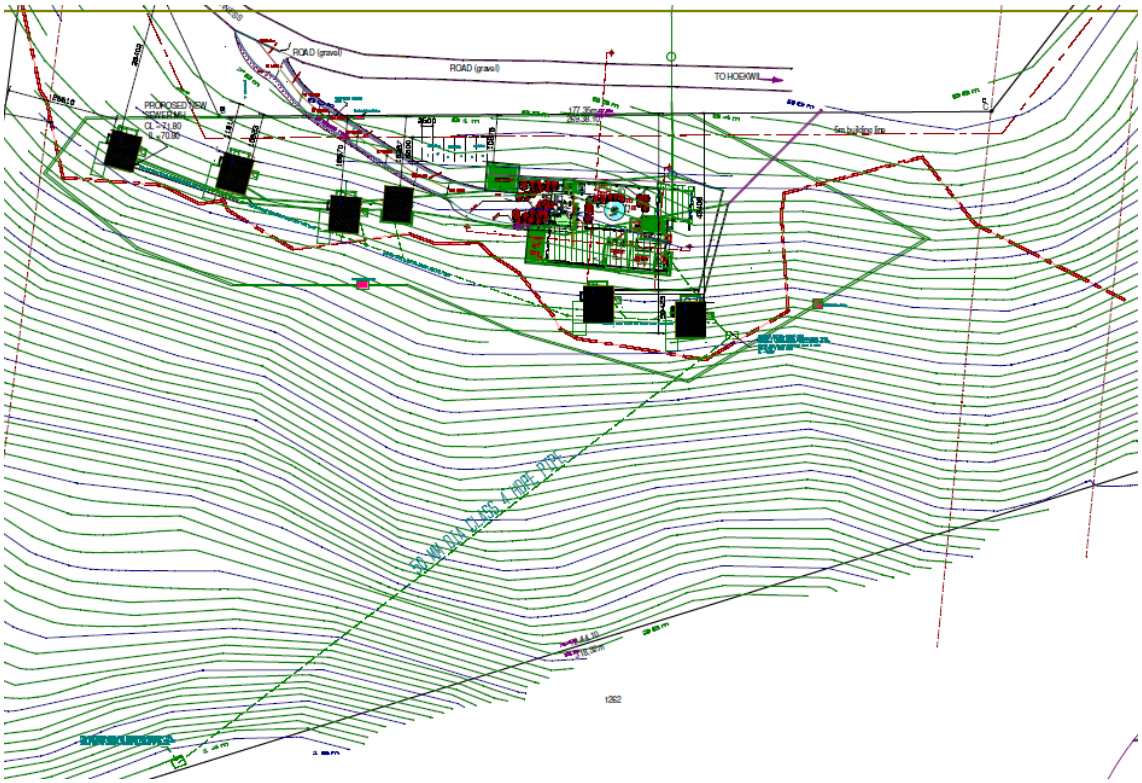


Figure 32: *Preferred Layout.*

[8] Specialist Botanical and Terrestrial Site Sensitivity Verification for Erf 301, Whites Road of Hoekwil by Confluent Environmental dated June 2023.

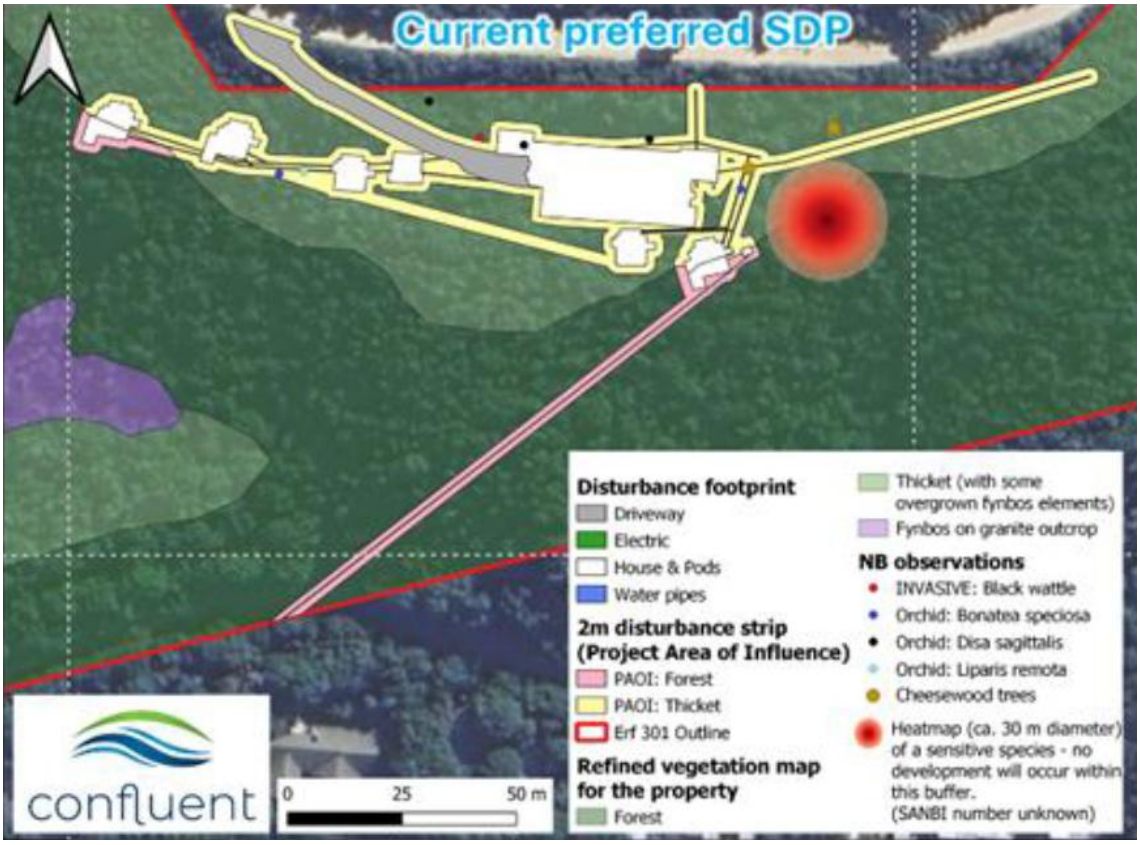


Figure 33: *Map indicating the position of a Sensitive Species with 30m buffer – Preferred Layout.*

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

In the consideration of alternative land, the principles of sustainable development should be practicable, feasible, reasonable, and viable. As the Applicant does not own any alternative properties in the area suitable for the proposed development, it is not feasible to consider another property as an alternative.

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

The assessment is limited to the subject property. No other properties were considered or investigated.

Subject property – Erf 301 Hoekwil in Wilderness, George Municipality, Western Cape.	
Positives	**Negatives**
- There are no aquatic features at risk on site. The site of the development is positioned to avoid drainage lines. - The proposed development has been located to be outside of the highly sensitive forest and fynbos outcrop habitats with only marginal encroachment into the forest. - Management of the property as an Open Space III zone will promote conservation outcomes. Sustainable management and protection of indigenous vegetation and habitats supported by tourism 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.	- Disturbance of vegetation within a CBA 1 area. - Loss of habitat and possible fragmentation in the thicket vegetation. - Disturbance of fauna due to tourist accommodation units close to the forest margin. The small size of the accommodation units should reduce this impact. - 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.

- Injection of income flow into the economy for the operational phase by creating job opportunities. - Only 4.07% coverage of the property will be disturbed, the remainder of the property will remain natural / undisturbed. - Development will reduce vagrants on property and fire risks.	

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

Provide a description of the preferred activity alternative.

Single residential dwelling and operation of six accommodation units. Management of the property as Open Space III zone.

Provide a description of any other activity alternatives investigated.

No activity alternatives have been investigated for this development.

Provide a motivation for the preferred activity alternative.

N/A

Provide a detailed motivation if no activity alternatives exist.

The activity as presented offers the best option from a socio-economic and environmental perspective, as well as best use of the land for achieving a positive conservation outcome through the management of land. Nature conservation and tourist accommodation are associated land uses in the rural environment.

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

There is only one activity proposed for the property that was investigated.

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.

Preferred Layout:

The proposal is for the development of a single residential dwelling with six (6) smaller accommodation units called "Eco-Pods". The 3-bedroom primary dwelling is positioned centrally on the property as close as possible to Whites Road to the north, with four of the Eco-Pods to the west of it and another two (Pod 4 & 5) directly south (figure 34). The access gravel road runs approximately 75m from the West down towards to East with an access gate made up of black Clear View fencing. The driveway terminates at the disturbance area footprint for the proposed development.

The primary dwelling (including a store and garage) will have a footprint of 446 m^2 with the front half raised off the ground (on columns) to minimise the disturbance on vegetation and habitats, effectively reducing the permanent disturbance area to approximately 200 m^2. Each of the pods will have a footprint of approximately 38 m^2, with only a quarter of that area being levelled for construction as the rest of the pod areas will also be constructed on columns. This effectively reduces the permanent disturbance area to 9.5 m^2.

The tourist accommodation units will be one-bedroom units between the vegetation of ±38m^2 each, which includes outdoor spaces. It is also proposed to be mono-pitch, single storey structures with a maximum height of ±7.48m, as determined by the topography. The units will not be identical in size, but the building materials and finishes will be the same. Internal timber walkways are proposed between the separate buildings / units leading out of the new driveway / road section.

The preferred alternative includes a 50mm HDPE sewer line to direct the septic tank overflow (no solid waste) into a lower collection/conservancy tank for municipal collection at the southern/lower end of the property. This option eliminates the need for an onsite pump, mitigating the risk of sewage overflow within the site boundaries due to pump failure. Furthermore, should it be required to empty the septic tank in the future for maintenance, a temporary mulching pump can simply be connected to the 50mm overflow pipe and drain the waste down to the conservancy tank at the bottom.

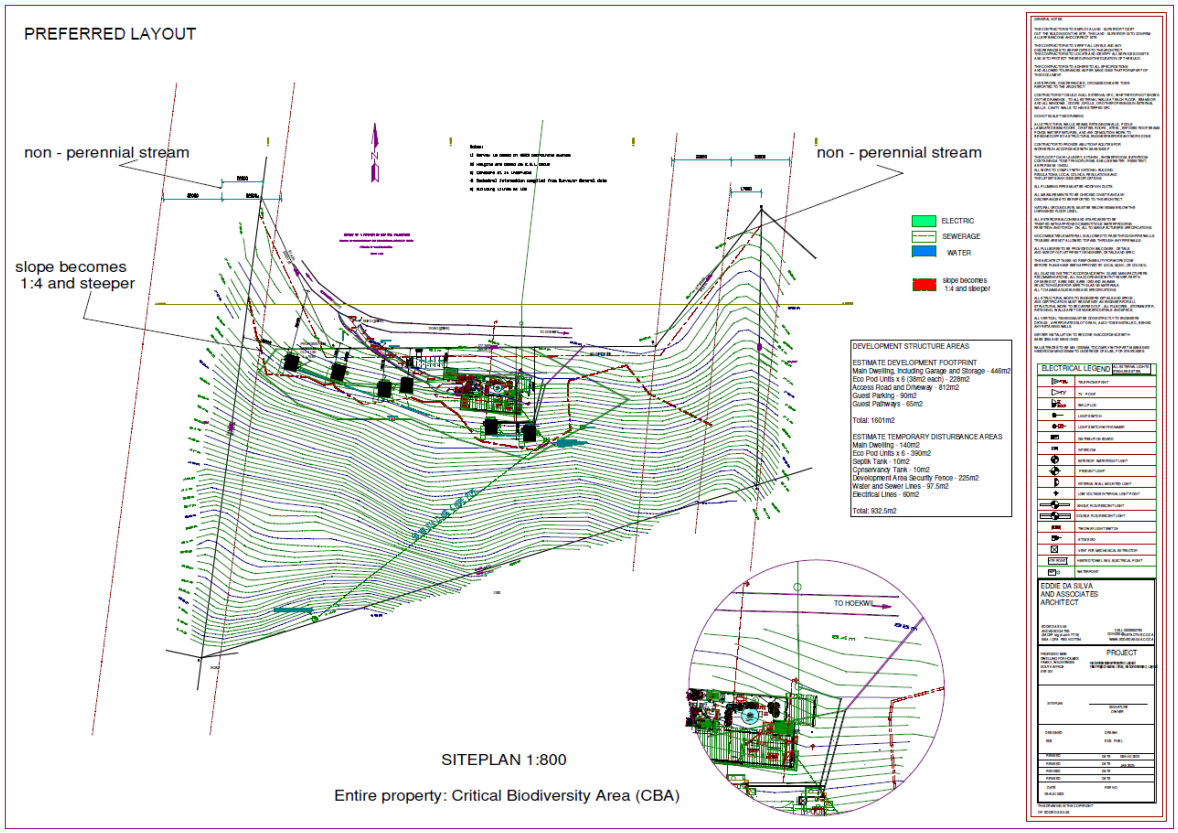


Figure 34: *SDP for preferred alternative.*

DEVELOPMENT STRUCTURE AREAS

ESTIMATE DEVELOPMENT FOOTPRINT
Main Dwelling, including Garage and Storage - 446m2
Eco Pod Units x 6 (38m2 each) - 228m2
Access Road and Driveway - 812m2
Guest Parking - 90m2
Guest Pathways - 65m2

Total: 1601m2

ESTIMATE TEMPORARY DISTURBANCE AREAS
Main Dwelling - 140m2
Eco Pod Units x 6 - 390m2
Septik Tank - 10m2
Conservancy Tank - 10m2
Development Area Security Fence - 225m2
Water and Sewer Lines - 97.5m2
Electrical Lines - 60m2

Total: 932.5m2

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

Alternative Layout 1:

The main dwelling and the six Eco-Pods are on the top Northern side of the site, with 4 of the Eco-Pods on the West, the main dwelling in the middle, and the remaining two Eco-Pods on the Eastern side of

the main dwelling. Access is from Whites Road on the Northern side of the site. The access gravel road runs approximately 75m from the West down towards to East with an access gate made up of black Clear View fencing. The driveway terminates at the disturbance area footprint for the proposed development.

The proposal is of similar footprint, coverage, and design to the preferred alternative, also consisting of a single residential dwelling with six (6) small Eco-Pods, access driveway, garage, parking, and associated services. The 3-bedroom primary dwelling remains in the same position, however the position of one of the Eco-Pods is such that it is positioned to the east of the main dwelling.

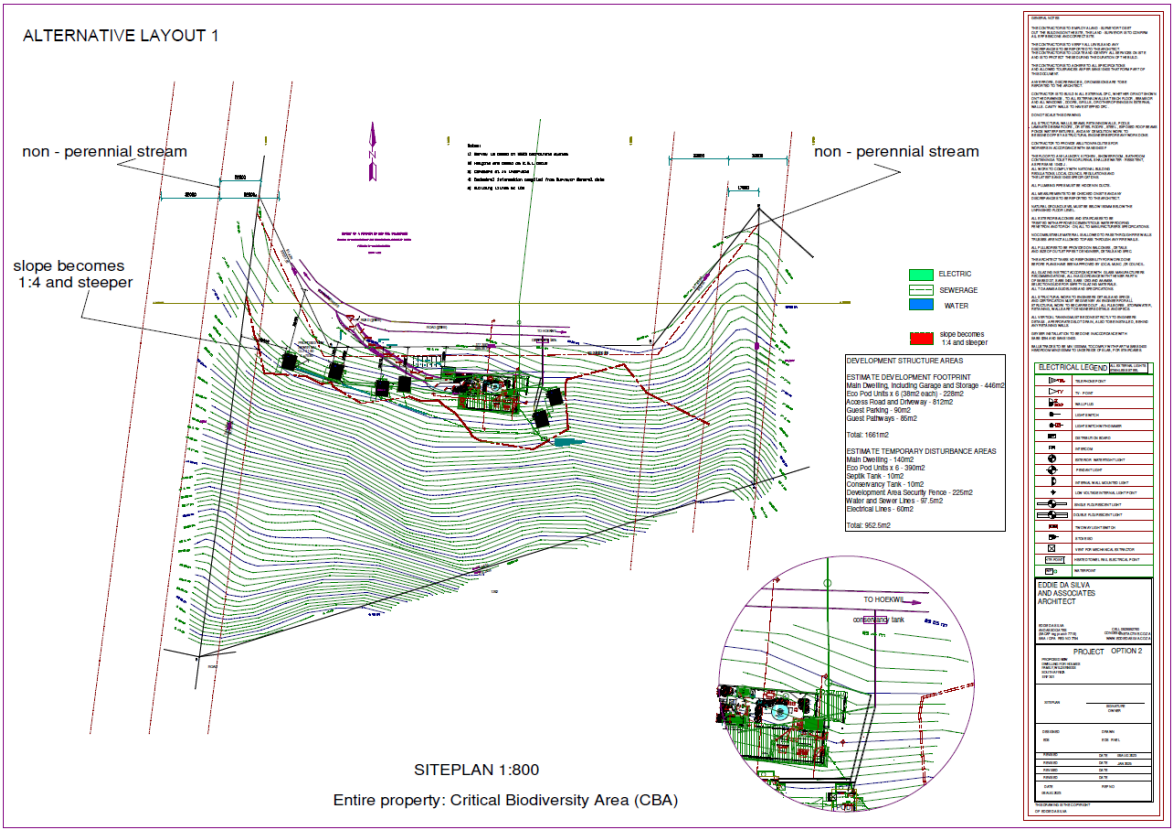


Figure 35: *SDP for Alternative Layout 1.*

DEVELOPMENT STRUCTURE AREAS

ESTIMATE DEVELOPMENT FOOTPRINT
Main Dwelling, including Garage and Storage - 446m2
Eco Pod Units x 6 (38m2 each) - 228m2
Access Road and Driveway - 812m2
Guest Parking - 90m2
Guest Pathways - 85m2

Total: 1661m2

ESTIMATE TEMPORARY DISTURBANCE AREAS
Main Dwelling - 140m2
Eco Pod Units x 6 - 390m2
Septik Tank - 10m2
Conservancy Tank - 10m2
Development Area Security Fence - 225m2
Water and Sewer Lines - 97.5m2
Electrical Lines - 60m2

Total: 952.5m2

Alternative Layout 2:

In response to the comments received from DEA&DP (12 December 2024) the main dwelling is in the bottom South-West corner of the site, with garage under the dwelling and access from Waterside Road on the Southern border of the site. The six Eco-Pods are on the Northern side of the site, with the first four Eco-Pods on the Western side and the 5th and 6th Eco-Pods in the middle of the site. All six Eco-Pods are in exactly the same position as shown in the Preferred Layout. Access for the Eco-Pods will be from Whites Road on the Northern side of the site, with a black Clear View access gate. The driveway is paved and approximately 75m long with a gradual slope from West to East, terminating at the disturbance area footprint for the proposed pods. The fence will not be visible from Whites Road.

In addition to the Whites Road entrance driveway and gate, there will be another entrance driveway and gate from Waterside Road, to service the Main Dwelling. This access will also have a Clear View gate. The driveway is paved and approximately 50m long with a fairly steep slope from the Eastern side to the Western Side, terminating at the disturbance area footprint. The access gate will have two short flanking fences. The proposed dwelling is cut into the slope, with stilts on the Northern side. The garaging is proposed under the dwelling, due to the very steep slope.

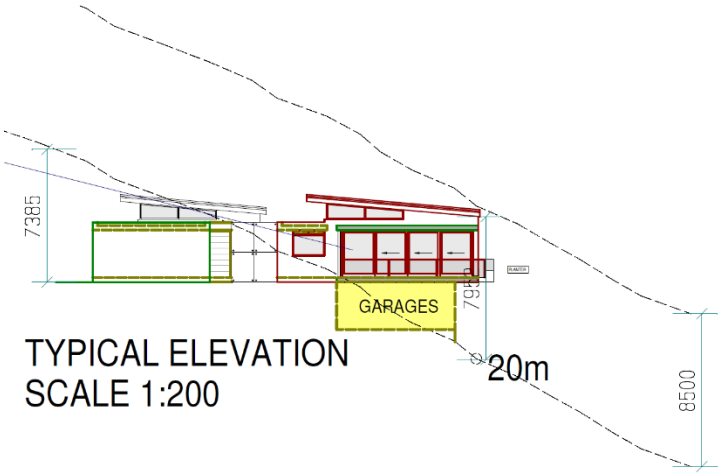


Figure 36: *Cross-section showing elevation and required cut for main dwelling located at the southwest corner of the property.*

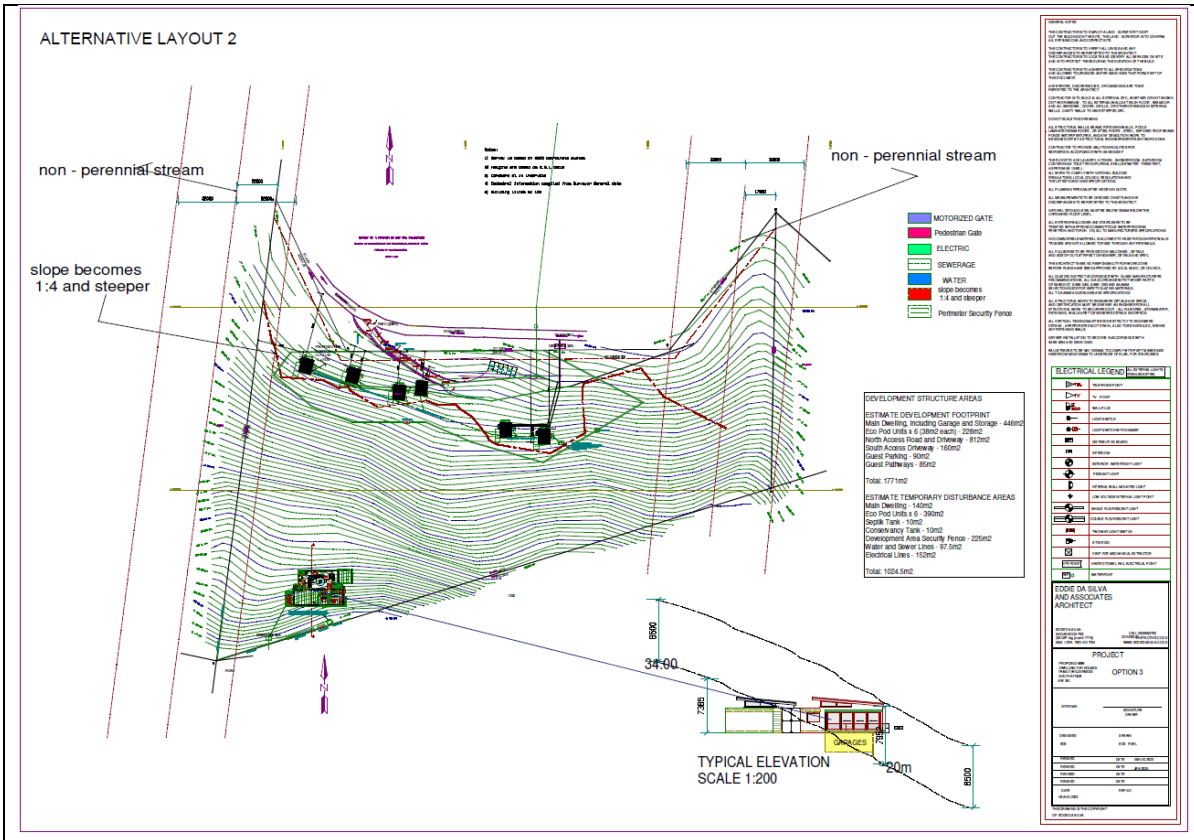


Figure 37: *Alternative Layout 2.*

DEVELOPMENT STRUCTURE AREAS

ESTIMATE DEVELOPMENT FOOTPRINT
Main Dwelling, including Garage and Storage - 446m2
Eco Pod Units x 6 (38m2 each) - 228m2
North Access Road and Driveway - 812m2
South Access Driveway - 160m2
Guest Parking - 90m2
Guest Pathways - 85m2

Total: 1771m2

ESTIMATE TEMPORARY DISTURBANCE AREAS
Main Dwelling - 140m2
Eco Pod Units x 6 - 390m2
Septik Tank - 10m2
Conservancy Tank - 10m2
Development Area Security Fence - 225m2
Water and Sewer Lines - 97.5m2
Electrical Lines - 152m2

Total: 1024.5m2

Vehicular access from Waterside Road will need to be authorised by the Provincial Roads Department. Sightlines along Waterside Road need to be considered, as well as alignment with the turnoff to Freesia Avenue opposite the property. There is a ±2.5-meter dropoff from the property onto Waterside Road making the position of the entrance problematic at certain locations (Figure 38). The access point is therefore positioned close to the western boundary of the property, however this falls within the buffer of the western non-perennial drainage line.

Figure 38: *Southern boundary of the property showing edge fall onto Waterside Ride*

This alternative requires extensive cut and excavation into the embankment in order to accommodate the single residential dwelling, garage and access driveway. The cut will be more than 8m high resulting in a significant amount of excavation. The 5-meter building line on the southern boundary, and Waterside Road reserve also limits the available area for placement of the dwelling. A significant amount of natural indigenous forest will also need to be cleared. Where the preferred layout has the single level residence tucked away into the natural vegetation and slope line, this alternative layout 2 has double tiered residence with full exposure to Waterside Road. A beautify stretch of indigenous forest will be replaced by a building - fully exposed sitting almost 12m above the road level.

Figure 39: *Sensitive features in the southwest corner of the property.*

As per the Visual Impact Assessment, the bottom side of the property (south) will have a very detrimental effect on the landscape in an area where there is an established mature forest with large trees and shrubs, which will be badly scarred by an access road and a cleared building platform. The site in this area is a lot steeper than the Northern side again with more cut into the hill and also on higher stilts on the Southern Side. This will also have a much more abrasive impact on the landscape. This Alternative Layout will be detrimental to the Landscape.

The driveway will have to cut in on the Northern side of the road, cutting through quite an embankment, with a fairly steep slope up towards to proposed disturbance platform for either the main dwelling or the farm shed. It is clear that creating a driveway in this position will leave a very destructive scar in the landscape with many indigenous trees and shrubs in the wake of its alignment towards the proposed disturbance platform. This proposed entrance driveway will leave an unsightly scar in the pristine indigenous forest for every passer-by to see along this scenic route.

The forest on the site would form part of the National Forest Inventory for South Africa. Forests are protected in South Africa, and therefore the forest on the site is a viable CBA 1 area should be protected by the owner. It has a high terrestrial biodiversity sensitivity. A species of conservation concern (a sensitive species) was found in the forest, and there are several SCC that are likely to occur in the forest on Erf 301. Alternative 2 (Dwelling in the South-West of the Property) has been assigned a residual impact rating of moderate, as per the Biodiversity and Botanical Assessment. Alternative 2 is at the highest risk of triggering a biodiversity offset requirement due to several factors identified in the report. The Western Cape Provincial Guideline on Biodiversity Offsets (2015) states that offsets may be considered to compensate for residual biodiversity impacts by securing priority habitats. Furthermore, there is a greater potential for significant and lasting ecological harm in the pristine forested area compared to the thicket-fynbos ecotone, where the current fynbos elements are depauperate, senescent, and does not represent functional granite fynbos. This makes locating the dwelling in the pristine forest in the south-western corner of the property contrary to the principles of the mitigation hierarchy and increases the likelihood of offset obligations.

Alternative Layout 3:

The main dwelling is in the top Northern side of the site, with a second dwelling (the size of two interleading accommodation Eco-Pods) on the Western side of the main dwelling. Access is from Whites Road on the Northern side of the site. The access paved driveway to the property will have a black Clear View access gate from Whites Road. The driveway on the Northern side is paved and approximately 75m long with a gradual slope from the West to the East, terminating at the disturbance area footprint for the proposed development. The fence will not be visible from Whites Road.

In addition to the Whites Road entrance driveway and gate, there will be another entrance driveway and gate from Waterside Road, to service the Farm Shed in the South-West corner of the site. The access road on the Southern side will also have a Clear View gate and a paved driveway of approximately 50m long with a fairly steep slope from the Eastern side to the Western Side, terminating at the disturbance area for the shed. The entire property will be fenced with a Clear View fence. The farm shed will have a height restriction of 6,5m above the natural ground level, with a construction to match the proposed construction for the main dwelling and the accommodation pods. The farm shed will be cut into the slope, with stilts on the Southern side, to compensate for the very steep slope.

This alternative would maintain the current zoning of Agriculture Zone II, and excersise the landowners primary rights in terms of the George Integrated Zoning Scheme By-law. A second dwelling is permitted under the following conditions:

- Floor Space: The total floor space of a second dwelling unit may not exceed 175 m², including all ancillary buildings.
- Architectural Style: The second dwelling must be constructed in a style similar to the main dwelling house, unless otherwise permitted by the Municipality.
- Height Restriction: If the second dwelling is a separate structure, it may not exceed a height of 6.5 meters to the top of the roof.

The shed is a single storey structure, with a maximum height from NGL 6.5m, and the style and exterior finishes similar to that of the primary dwelling house and second dwelling. The 20m building line is also applicable for this zoning.

The landowners can utilize their property for agricultural activities without requiring municipal consent. This includes cultivating crops, raising livestock, and other standard farming practices. It is therefore proposed that a permimeter fence be installed around the property given the utilization of the property as an smallholding with agricutural activities.

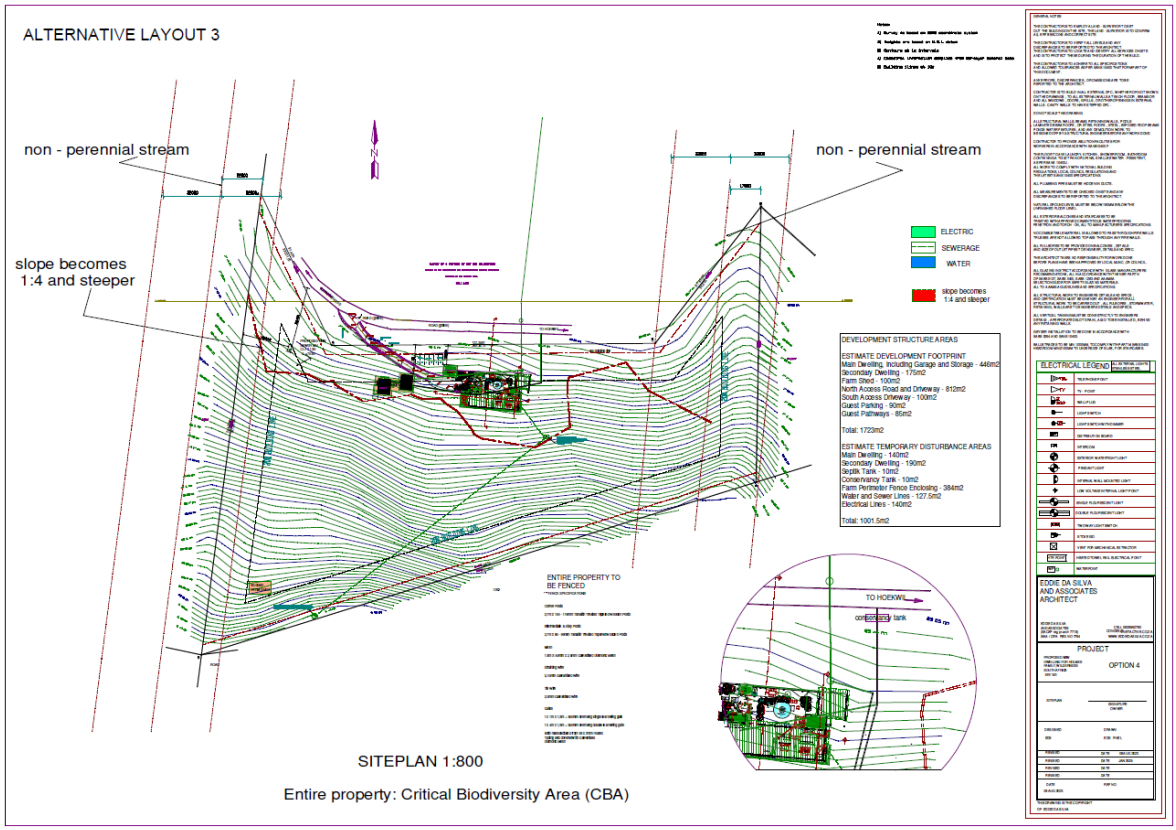


Figure 40: *Alternative Layout 3.*

DEVELOPMENT STRUCTURE AREAS

ESTIMATE DEVELOPMENT FOOTPRINT
Main Dwelling, including Garage and Storage - 446m2
Secondary Dwelling - 175m2
Farm Shed - 100m2
North Access Road and Driveway - 812m2
South Access Driveway - 100m2
Guest Parking - 90m2
Guest Pathways - 85m2

Total: 1723m2

ESTIMATE TEMPORARY DISTURBANCE AREAS
Main Dwelling - 140m2
Secondary Dwelling - 190m2
Septik Tank - 10m2
Conservancy Tank - 10m2
Farm Perimeter Fence Enclosing - 384m2
Water and Sewer Lines - 127.5m2
Electrical Lines - 140m2

Total: 1001.5m2

Alternative Layout 4: Guest House (not considered)

Consideration was given to the option of having one large guest house. The 6 tourist accommodation units can be compared with a guest house with 6 guest rooms (the maximum number of guest rooms in general possible for a guest house). Separating the 6 tourist accommodation units, prevents one big structure with 6 and more interleading rooms. The fragmented design suits the natural environment and the physical characteristics of the property[9], and allows units to be hidden in the vegetation thus reducing potential visual impacts.

Visual Impact of a 'Guest House', compared to smaller tourist accommodation pods[10]:
The question was raised at the meeting held with DEA&DP if a Guest House would not be a better option to replace the accommodation Eco-Pods. The following items are raised to compare the advantages and disadvantages:

- Guest houses are usually designed with guest bedrooms and bathrooms over-and-above the rooms dedicated to the owners. Usually under one roof, with shared communal facilities that could include some of the following: reception, guest bathroom, kitchen, dining room, lounge, TV room games room, sun room, gymnasium, laundry, sauna, swimming pool, communal braai/lapa area, etc.
- Guest houses are usually much larger in volume, bulk, area, & footprint.
- Due to Guest Houses being of a larger floor area, they are usually double storey, to accommodate all the required facilities.
- Large residential buildings usually do not compliment oneness with nature areas.
- Large residential buildings do not usually blend well into nature.
- Large residential buildings do not usually embrace sustainable building materials.
- Small tourist accommodation pods are of a very small volume, bulk, area and footprint that are sustainably built, are eco friendly and reduce the carbon footprint.
- Tourism pods usually consist of a small scale living space with an en-suite bathroom and a small outdoor living area.
- Tourism pods are easy to blend into nature due to their small scale, even if there are a number of these tourism pods.
- Tourism pods in a nature area provide access to the wilderness character and sense of place.
- Tourism and tiny eco pods are part of a world-wide movement of 'living in nature', where biophiles and nemophilists seek a deep connection with nature and the wild. These people are often associated with, and actively work to protect the environment, trees and environmentally friendly practices.

With the above in mind, it has been the owners desire to create an eco-friendly facility nestled into nature, right from the outset. Building a Guest House does not fit into this mindset, nor does it fit into a sensitive nature area. It goes without saying that in comparing these two alternatives, the tourism accommodation pods suit the owner's concept and the nature area much better (Vercueil 2025).

Furthermore, the owners wish to create a sense of remoteness and privacy for the prospective guests and one large guest house will not allow such privacy. This layout also does not consider the objectives of the development that aims to provide secluded and private tourism units that contribute to the experience of being within nature. The layout will also impact on the permanent residential dwelling and privacy thereof. It therefore has NOT been considered as a reasonable alternative and has not been further considered in the assessment.

[9] Land Use Planning Report: Erf 301 Hoekwil, Wilderness Heights, George Municipality & Division. Marlize de Bruyn Planning (2023).
[10] Visual Impact Assessment: PROPOSED RESIDENTIAL DEVELOPMENT OF A PRIMARY RESIDENCE AND FOUR GUEST ACCOMMODATION UNITS ON ERF 301, WHITES ROAD, HOEKWIL, WILDERNESS, GEORGE MUNICIPALITY, WESTERN CAPE. Andre Vercueil of Andre Vercueil Consulting Architects (17 February 2025).

No-Go Alternative:

The No-go option is the option of not undertaking the proposed project or alternatives. If the proposed security 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.
2. There will be no further impacts on landscape connectivity.
3. The landowner will not be able to undertake his right to develop his property.
4. The potential socio-economic benefits to the town and communities will be lost.
5. The potential for job creation and skills development will be lost.

Alien plant infestations should not be used as a reason to develop an area, but it undeniably reduces the quality of natural habitat for the ubiquitous wildlife that persists in it. With the continued spread and maturity of the alien trees, natural habitats will become even less likely to provide effective linkages for animal movement.

The potential conservation outcome through alien vegetation control and possible stewardship agreements of operating a small-scale tourism development will be lost. There will also be very little benefit for the landowner, the community, or the municipality if the land remained undeveloped.

Provide a motivation for the preferred design or layout alternative.

The development proposal is guided by the topography, vegetation on the property, sensitive features and no-go areas, as well as the owner's need to create accommodation that offers guests the feeling of remoteness in nature. The layout considers sensitive species and habitats, and limits encroachment into the forest.

The proposed Preferred Layout creates eco-friendly facilities nestled into nature, which is inline with the Applicants vision to create a sense of remoteness and privacy for the prospective guests. The motivation is to protect, manage and conserve 96% of the property purely for conservation purposes. The proposed development footprint makes provision for 6 'low impact' eco-tourism pods as a means to ensure sustainable funding to support the conservation effort.

The proposed Preferred Layout therefore provides the best fit into the landscape that is also considerate of environmental features and offers the best option from a socio-economic and environmental perspective.

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:	
Positives	**Negatives**
- The proposed development has been located outside of the highly sensitive forest and fynbos outcrop habitats with only marginal encroachment into the forest - The proposed development is located within the thicket area to avoid fragmentation in sensitive forest habitat. - With units spread out, the development can be more easily integrated into the natural landscape, maintaining scenic values and visual appeal. - Spaced units can offer guests a greater sense of privacy and a more immersive	- Disturbance of vegetation within a CBA 1 area. - Loss of habitat and possible fragmentation in the thicket vegetation. - Disturbance of fauna due to tourist accommodation units close to the forest. The small size of the accommodation units should reduce this impact. - Potential erosion in steep areas. Storm water management must be a priority. - Noise pollution during construction phase. - Solid waste impact.

natural experience, which may lead to increased awareness and appreciation of the environment. - Management of the property as an Open Space III zone will promote conservation outcomes. Sustainable rehabilitation and restoration of indigenous vegetation supported by tourism 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. - Only 4.16% coverage of the property will be disturbed, the remainder of the property will remain natural / undisturbed. - Development will reduce vagrants on property and fire risks.	- Increased resource usage such as water.
Alternative Layout 1:	
Positives	**Negatives**
- The proposed development has been located outside of the highly sensitive forest and fynbos outcrop habitats with only marginal encroachment into the forest - The proposed development is located within the thicket area to avoid fragmentation in sensitive forest habitat. - With units spread out, the development can be more easily integrated into the natural landscape, maintaining scenic values and visual appeal. - Spaced units can offer guests a greater sense of privacy and a more immersive natural experience, which may lead to increased awareness and appreciation of the environment. - Management of the property as an Open Space III zone will promote conservation outcomes. Sustainable rehabilitation and restoration of indigenous vegetation supported by tourism 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.	- Disturbance of vegetation within a CBA 1 area. - Loss of habitat and possible fragmentation in the thicket vegetation. - Encroachment into the buffer area of an identified sensitive species. - Disturbance of fauna due to tourist accommodation units close to the forest. The small size of the accommodation units should reduce this impact. - 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.

- Injection of income flow into the economy for the operational phase by creating job opportunities. - Only 4.16% coverage of the property will be disturbed, the remainder of the property will remain natural / undisturbed. Development will reduce vagrants on property and fire risks.	

Alternative Layout 2:	
Positives	**Negatives**
- Access can be gained from Waterside Road to the main dwelling. - With accommodation units spread out, the development can be more easily integrated into the natural landscape, maintaining scenic values and visual appeal. - Spaced units can offer guests a greater sense of privacy and a more immersive natural experience, which may lead to increased awareness and appreciation of the environment. - Management of the property as an Open Space III zone will promote conservation outcomes. Sustainable rehabilitation and restoration of indigenous vegetation supported by tourism 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. - Only 4.06% of the property will be disturbed, the remainder of the property will remain natural / undisturbed. - Development will reduce vagrants on property and fire risks.	- The proposed development has been located outside of the highly sensitive forest and close to the fynbos outcrop habitats. - Disturbance of vegetation within a CBA 1 area. - Loss of habitat and possible fragmentation in the thicket vegetation and forest habitat. - Disturbance of the "fynbos on rocky outcrop" habitat. - Encroachment into the buffer zone of the western non-perennial drainage line. - High risk of triggering a biodiversity offset requirement due to residual impact rating of moderate. - Loss of SCC and protected trees in the forest habitat. - Possible impacts on Golden Mole habitat. - Disturbance of fauna due to tourist accommodation units close to the forest. The small size of the accommodation units should reduce this impact. - 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. - Extensive cut and excavation into the embankment. - Detrimental effect on the landscape in an area where there is an established mature forest with large trees and shrubs, which will be badly scarred by an access road and a cleared building platform. - This proposed entrance driveway will leave an unsightly scar in the pristine indigenous forest for every passer-by to see along this scenic route.

Alternative Layout 3:	
Positives	**Negatives**
- The proposed residential dwelling and second dwelling has been located outside of the highly sensitive forest and fynbos outcrop habitats with only marginal encroachment into the forest. - No rezoning application required. - 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. - Only 4.16% coverage of the property will be disturbed, the remainder of the property will remain natural / undisturbed. - Development will reduce vagrants on property and fire risks.	- Disturbance of vegetation within a CBA 1 area. - Loss of habitat and possible fragmentation in the thicket vegetation. - Impact on wildlife movement with the installation of a perimeter fence. - Encroachment into the buffer area of an identified sensitive species. - 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. - Placement of the Farm Shed in the forest habitat resulting in disturbance of forest vegetation and SCC. - The proposed entrance driveway for the Farm Shed will leave an unsightly scar in the pristine indigenous forest for every passer-by to see along this scenic route. - Loss of a conservation outcomes.

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 development will make use of the available municipal services. This will be supplemented with rainwater harvesting and solar power.

SEWER DRAINAGE AND WAST MANAGMANT

The site currently lacks a formal sewer connection. An existing 160mm diameter municipal **sewer line** exist on the lower end of the property along its Southern boundary and Waterside Road. The existing sewer line at the bottom of the site along Waterside Road consists of a rising main. It is proposed to install a conservancy tank to service the site, while considering access to the tank. It is recommended that a gravity sewer line is constructed within the site boundaries to connect the main house and six Eco-Pods. This line will be linked to a main septic tank located as close as possible to the proposed development, a holding tank will be installed and connected to a collection tank positioned at the southern end of the property, near Waterside Road. The sewerage line will be surface laid in flexi-hose pipe as per engineer specification to minimise disturbance. This line will be installed with minimal disturbance to the surrounding vegetation and requires little maintenance.

ACCESS ROAD:

Main access to the development is proposed from the northern boundary of the property leading out of Whites Road. This access can be accommodated for by means of a new road/driveway section of approximately 75m long, cut into the Northern face of the property with a gradual slope from West to East, terminating on a level platform next to the proposed main dwelling and garage section. Internal

walkways are proposed between the separate buildings / units leading out of the new driveway / road section.

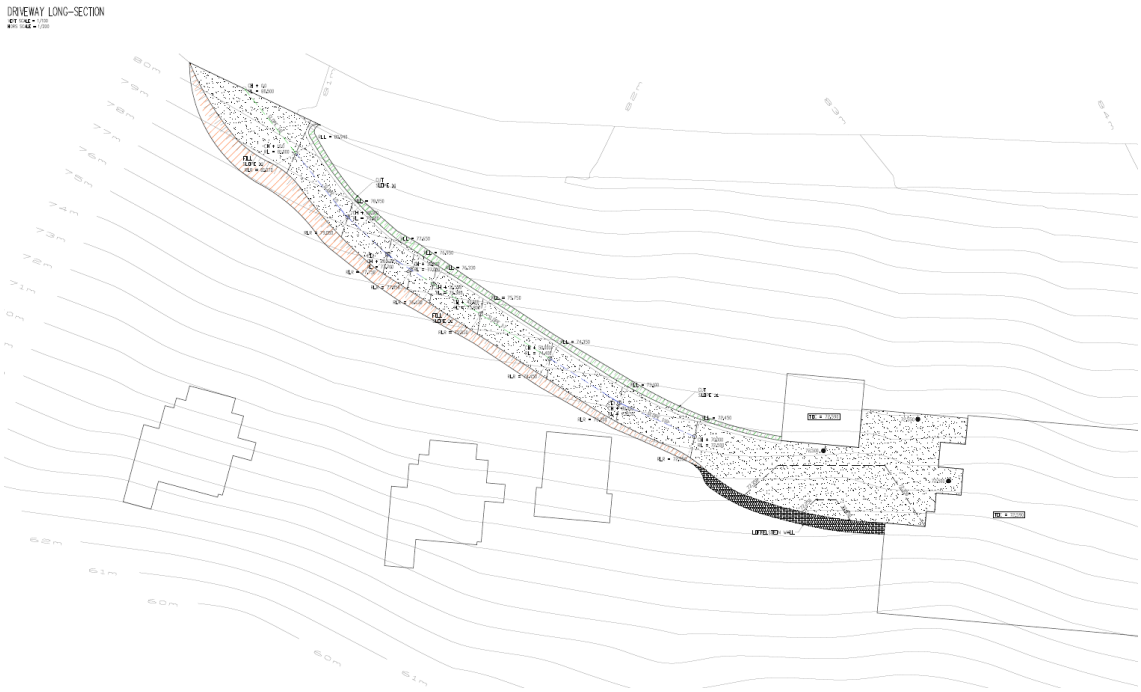


Figure 41: A typical road cross section.

The proposed driveway length of 75m will accommodate the following factors:

- ❖ A level platform section at the top to create a safe transition zone to and from Whites Road into the property.
- ❖ A sloped driveway towards the property with a maximum incline of 1:5 to align with the natural contours of the site.
- ❖ A 1:8 slope towards the proposed dwelling position.

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.

SEWER DRAINAGE AND WASTE MANAGMANT

The site currently lacks a formal sewer connection. The existing sewer line at the bottom of the site along Waterside Road consists of a rising main, rather than a gravity line as previously indicated[11]. Consequently, the Engineers (S&Z Consulting) propose installing a conservancy tank to service the site, while considering access to the tank.
We recommend the following:

[11] Civil Engineering Services Report: for the Proposed Development on Erf 301, Wilderness. S&Z Consulting (Pty) Ltd (17 November 2024).

1. Construct a gravity sewer line within the site boundaries to connect the main house and six eco pods. This line will be linked to a main septic tank located as close as possible to the proposed development, excluding the use of a formal French drain.
2. Replace the French drain/septic tank overflow with a holding tank connected to one of the following conservancy/collection tanks: a. Municipal collection tank next to Whites Road on the northern end of the property. b. Collection tank on the southern/lower end of the property.

After consulting with the local authority, it was determined that the conservancy tank at the bottom end of the property is the preferred option. The steep natural drop from Whites Road to the property boundary (upper/northern end) will make it impractical for suction pipes to empty the tank and will require a pump from the lower holding tank to the collection tank above (please see Appendix E16 email correspondence).

However, the proposed conservancy tank on the lower end of the site presents challenges due to the steep topography and the distance between the proposed dwelling position and the southern boundary. Therefore, it is proposed that a 50mm HDPE line to direct the septic tank overflow (no solid waste) into a lower collection/conservancy tank for municipal collection. This option eliminates the need for an onsite pump, mitigating the risk of sewage overflow within the site boundaries due to pump failure. Furthermore, should it be required to empty the septic tank in the future for maintenance, a temporary mulching pump can simply be connected to the 50mm overflow pipe and drain the waste down to the conservancy tank at the bottom.

The following two Technology Alternatives where therefore considered:

1. **Technology Alternatives 1 (preferred):** Collection tank on the southern/lower end of the property as per the preferred Layout.

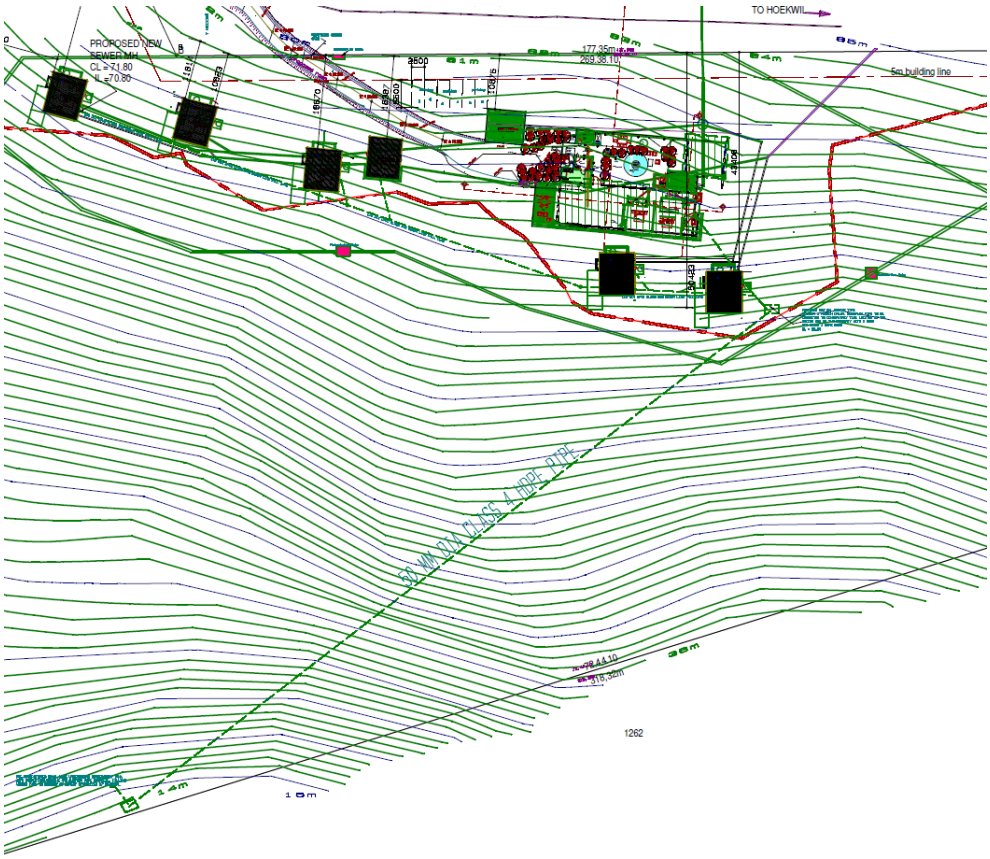
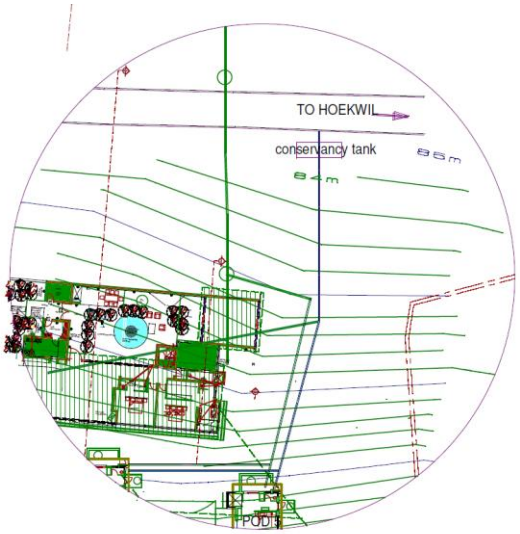


Figure 42: *Technology Alternative 1 (Preferred). Collection tank on the southern/lower end of the property as per the preferred Layout.*

2. **Technology Alternative 2:** Municipal collection tank next to Whites Road on the northern end of the property, as shown below.



This alternative proposes to construct a gravity sewer line within the site boundaries to connect the main house and six Eco Pods. This line will be linked to a main septic tank located as close as possible to the proposed development, with a holding tank connected to a conservancy/collection tanks next to Whites Road on the northern end of the property.

ACCESS ROAD:

A reduction in the length of the access road was considered following comments received from DEA&DP. In the geotechnical study (Outeniqua Geotechnical Services) it was recommended that where the access road/driveway is planned for the site consideration should be given to minimise its length and width and avoid a steep decline by following the natural contours as far as possible.

Shortening the driveway length will result in an unfavourable incline for two-wheel drive cars and a steep approach to the dwelling below (S&Z Consulting (Pty) Ltd). The Access Road entrance will orientate more perpendicular to Whites Road and the natural gradient of slope requiring additional retaining and will increase the risk of storm water damage / erosion. The preferred driveway length as per the Preferred Layout is therefore considerate of the steep decline and contours. A reduction in the length of the road is not practically achievable from an engineering perspective. This Alternative Technology was therefore considered as unreasonable and not considered further in this assessment.

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.

SEWER DRAINAGE AND WASTE MANAGMANT

The development will make use of a septic and conservancy tank system. The Preferred Layout with service layout was confirmed by the George Municipality to be most suited, for the following reasons:

1. Municipal ease of access. The use of Whites Road is problematic for the sewer trucks. The location of conservancy tank at bottom (south) of property is easily accessible and on their route on Waterside Road.
2. Utilisation of the natural slope and gravity means there is no need for sewer pumps between conservancy tanks (as would be the case on north boundary of property). The maintenance of sewer pumps is costly. The additional disturbance of building two tanks on the upper band of property and the risk of overflow due to faulty pumps is probable.
3. The steep natural drop from Whites Road to the property boundary (upper/northern end) will make it impractical for suction pipes to empty the tank and will require a pump from the lower holding tank to the collection tank above.
4. The property boundary line is set back approximately 15-20m from Whites Road which would mean the second septic tank would have to be built on Provincial Road land which could be problematic should the road ever be developed further. Alternative is a pipe feeding from second tank to the edge of Whites Road ±20-30m will result in all sorts of challenges and risks of contamination.

The proposed sewer line is surface laid, easily accessible for any form of maintenance and ensures minimal disturbance to the environment. It is ecologically more sustainable and requires no electrical/mechanical intervention, such as pumps etc.

ACCESS ROAD:

Shortening the driveway length will result in an unfavourable incline for two-wheel drive cars and a steep approach to the dwelling below. The access road (75m) as proposed in the Preferred Alternative is therefore the best option from an engineering perceptive.

The proposed driveway length of 75m will accommodate the following factors:

- A level platform section at the top to create a safe transition zone to and from Whites Road into the property.
- A sloped driveway towards the property with a maximum incline of 1:5 to align with the natural contours of the site.
- A 1:8 slope towards the proposed dwelling position.

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.

Technology Alternatives 1 (preferred) - Collection tank on the southern/lower end of the property:	
Positives	**Negatives**
- Easily accessible and on the municipal route on Waterside Road. - Utilisation of the natural slope and gravity means there is no need for sewer pumps between conservancy tanks (as would be the case on north boundary of property).	- Loss of ecotonal vegetation to install conservancy tanks and sewer lines. - Disturbance of forest habitat to install a 50mm HDPE line to direct the septic tank overflow (no solid waste) into a lower collection/conservancy tank for municipal collection.

- A properly sealed conservancy tank prevents sewage from leaking into groundwater. - The collected sewage can be transported to a wastewater treatment facility for safe processing by the municipality.	- Disturbance of topsoil and earthworks for installation of conservancy tank. - Potential erosion due to exposed soils. - Disturbance of forest habitat to install surface laid sewer pipe. - Maintenance work in the forest habitat and possible edge effects. - Contamination in pristine forest if there are leaks in the sewer lines. - Leakages from broken sewer lines or conservancy tanks can cause raw sewage to seep into the soil and groundwater. - Overflow or spillage during maintenance can contaminate nearby habitats and drainage lines. - Spillage of untreated sewage can harm local plant life by altering soil composition. - Human activity during maintenance work that may disturb wildlife and plant life.
Technology Alternative 2 - Municipal collection tank next to Whites Road on the northern end of the property:	
Positives	**Negatives**
- Proximity to Whites Road means less sewer pipe that needs to be installed, and less vegetation disturbed. - Sewer system is limited to the ecotonal vegetation and development footprint. - A properly sealed conservancy tank prevents sewage from leaking into groundwater.	- Loss of ecotonal vegetation to install conservancy tanks and sewer lines. - Disturbance of topsoil and earthworks for installation of conservancy tank. - Potential erosion due to exposed soils. - Municipal ease of access. The use of Whites Road is problematic for the sewer trucks. - Use of sewer pump which can be problematic with breakdowns and contamination. - The additional disturbance of building two tanks on the upper band of property and the risk of overflow due to faulty pumps is probable - The maintenance of sewer pumps is costly. - The steep natural drop from Whites Road to the property boundary (upper/northern end) will make it impractical for suction pipes to empty the tank and will require a pump from the lower holding tank to the collection tank above. - The second septic tank would have to be built on Provincial Road land which could be problematic should the road ever be developed further. - Leakages from broken sewer lines or conservancy tanks can cause raw sewage to seep into the soil and groundwater. - Pump failures can cause contamination to the surrounding environment. - Overflow or spillage during maintenance can contaminate nearby habitats and drainage lines. - Spillage of untreated sewage can harm local plant life by altering soil composition.

		- Poor maintenance can lead to pump breakdowns, resulting in sewage overflows and emergency repairs. - Human activity during maintenance work that may disturb wildlife and plant life.

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

Provide a description of the preferred operational alternative.

Operational Alternative 1 (Preferred):
It is proposed that the property operate as one permanent residential dwelling with 6 tourist accommodation units, as per the Preferred Layout, with the remaining area designated for conservation. The property will be rezoned to Open Space Zone III (Nature Conservation Area).

Provide a description of any other operational alternatives investigated.

Alternative Layout 3 would maintain the current zoning of Agriculture Zone II, and excercise the landowners' primary rights in terms of the George Integrated Zoning Scheme By-law. The property would therefore operate as a smallholding with agricultural activities.

Operational Alternative 1 (Preferred): The property will operate as one permanent residential dwelling with 6 tourist accommodation units. This will require rezoning to Open Space III (Nature Conservation Area) whereby the remaining undeveloped area (approximately 96% of the property) will be for conservation purposes.

Operational Alternative 2: The property would maintain the current zoning of Agriculture Zone II, as per Alternative Layout 3, and excercise the landowners' primary rights in terms of the George Integrated Zoning Scheme By-law. The property would therefore operate as a smallholding with agricultural activities.

Provide a motivation for the preferred operational alternative.

The property will be rezoned to Open Space Zone III (Nature Conservation Area) to achieve a conservation outcome supported by eco-tourism (six Eco-Pod's), creating a sustainable operation for the benefit of long-term conservation on Erf 301, and extending across the broader landscape. Open Space Zone III (Nature Conservation Area) provides a formal framework to protect the CBA, and the inclusion of a Conservation Management Plan as a condition of this rezoning could ensure enforceability.

The motivation is to protect, manage and conserve 96% of the property purely for conservation purposes. The proposed development footprint makes provision for 6 'low impact' eco-tourism pods as a means to ensure sustainable funding to support the conservation effort.

The activity as presented offers the best option from a socio-economic and environmental perspective, as well as best use of the land for achieving a positive conservation outcome and limiting encroachment into undisturbed areas.

Provide a detailed motivation if no alternatives exist.

N/A

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

Operational Alternative 1 (Preferred): Open Space III	
Positives	**Negatives**
- Management of the property as an Open Space III zone will promote conservation outcomes, in accordance with a Conservation Management Plan. - Sustainable rehabilitation and restoration	- Increased foot traffic, waste, and noise pollution can disturb wildlife and natural habitats. - Pressure on water and electricity, especially during peak season.

of indigenous vegetation supported by tourism income. - Eco-tourism generates funding for conservation, and habitat restoration. - The project was designed to minimize impact on receiving environment during operational phase. - Encourages the use of renewable energy, water-saving technologies, and eco-friendly building materials. - Tourists learn about conservation efforts, leading to increased global environmental consciousness. - Development will reduce vagrants on the property and fire risk. - Alien Clearing as per NEMBA. - Increased revenue in the Garden Route area/ tourism. - Skills development. - Job creation. - Supports small businesses and the local economy.	- Accommodation units produce additional waste, especially during peak season. - Loss of ecotonal vegetation / thicket for Eco-Pods.
Operational Alternative 2: Agriculture Zone II	
Positives	**Negatives**
- Rezoning application will not be required. - Development will reduce vagrants on the property and fire risk. - Alien Clearing as per NEMBA. - Smallholdings can provide food for personal use and generate income through local markets, agritourism, or organic product sales. - Small farms create employment opportunities for local farm workers, seasonal labourers, or family members.	- Loss of conservation outcome as landowner will manage property as an agricultural smallholding. - Wildlife movement will be restricted with the installation of a perimeter fence. - Impacts of agricultural activities on surrounding habitats. - Poor land management can lead to erosion and loss of soil fertility. - Clearing land for farming may reduce biodiversity and disrupt ecosystems.

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.

While the No-Go Alternative will in all probability result in less degradation of the receiving terrestrial ecosystem on site, it will not result in any positive socio-economic impacts associated with construction and operational phase.

Undeveloped land will be little benefit for the landowner, the community, or the municipality. The property may pose a fire and security risk to the surrounding areas if left vacant and not maintained.

Notwithstanding the negative impacts which could be avoided by the selection of the No-Go Alternative, this is not the preferred alternative.

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.

The following Criteria was used in formulating the Preferred Alternative (Alternative B): NEMA Act 107 of 1998 as amended Chapter 1 Section 2 Principals -

(4) (a) Sustainable development requires the consideration of all relevant factors including the following:

(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

Alternative B makes use of the thicket habitat that is described as having a low sensitivity according to the Terrestrial and Botanical Assessment.

The thicket on the site is not part of a CR ecosystem, and it is not consistent with Garden Route Granite Fynbos. The aspect of the thicket is on a south facing slope, and fire is unlikely to affect the vegetation here, making all the fynbos elements unviable for conservation efforts. Furthermore, the presence of fynbos nearby, on slope crests and north-facing slopes mean that fynbos seeds are present in the landscape. Fynbos will therefore start to colonise open canopy areas in thicket and forest but are unlikely to remain as thicket pioneer species start to outcompete them. No threatened or near threatened plant species were recorded in this vegetation type on the site. Only one protected LC tree species (*Pittosporum viridiflorum*, I.e., cheesewoods) was observed in this area, which means that the owner of Erf 301 will need to obtain the relevant forestry license to manage or trim these trees. The overgrown sections of fynbos are unlikely to support SCC[12].

(ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

The fact that ±95% of the site will remain in its natural state minimizes impacts on the receiving environment. Lifting all structures off the ground minimizes fragmentation for wildlife and thicket vegetation.

(iii) that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;

As Erf 301 Hoekwil is not located on a ridge, the development can be 'hidden' in the surrounding natural vegetation. Visual impact is mitigated due to its location, building style and exterior finishes that will blend in the area.

The well positioned and designed development infrastructure allows for it to blend in very well with its surroundings and create minimal contrast in the landscape. With the effective implementation of mitigation measures, the visual impact of the proposed development will be further reduced.

According to the SAHRIS Paleo Sensitivity Map the palaeontological sensitivity of Erf 301 is insignificant/zero (Figure 25). There are no significant heritage resources known to be on the property, the proposed activity should have negligible to no cumulative impacts on the archaeological or heritage value of the area.

(iv) that waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner;

During construction and operational phase, the waste hierarchy will be followed, please refer to the EMPr.

[12] Specialist Botanical and Terrestrial Biodiversity Impact Assessment Report for Erf 301, Whites Road, Hoekwil by Confluent Environmental dated May 2024.

(v) that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;

Municipal water supply will be supplemented by rainwater harvesting.

The development will connect to Eskom. There are various technological aspects which may be implemented as a matter of course in order to assist with overall energy saving:

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

(vi) that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;

Approximately 95% of the property will not be disturbed therefore the integrity of the environment will also not be jeopardized. Placing the footprints in the thicket habitat (low sensitivity and outside or on the margin of the forest habitat also reduces the risk.

The use of renewable resources is as follow:

- Solar energy
- Energy efficient lights
- Rainwater tanks

(vii) that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and

The negative impacts assessed and mitigation measures to be implemented were derived from specialist reports.

(viii) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

The negative impacts assessed and mitigation measures to be implemented was derived from specialist reports. Public participation process are undertaken to ensure peoples environmental rights have been taken into consideration.

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

The **Preferred Layout** utilises the thicket vegetation that is described as having a low sensitivity and unlikely to contain SCC. The layout significantly reduces the impacts on the sensitive features on the site. This Layout makes the best use topography and limited space and reduces encroachment into the forest area and fynbos outcrop.

Technology Alternatives 1 (preferred) has the collection tank on the southern/lower end of the property as per the preferred Layout. The location of the collection tank is accessible and on the municipal route on Waterside Road. Utilisation of the natural slope and gravity means there is no need for sewer pumps between conservancy tanks (as would be the case on north boundary of property).

Operational Alternative 1 (Preferred) proposes that the property operate as one permanent residential dwelling with 6 tourist accommodation units, as per the Preferred Layout, with the remaining area designated for conservation. The property will be rezoned to Open Space Zone III (Nature Conservation

Area). The activity makes provision for 6 'low impact' eco-tourism pods as a means to ensure sustainable funding to support the conservation effort.

The activity as presented offers the best option from a socio-economic and environmental perspective, as well as best use of the land for achieving a positive conservation outcome and limiting encroachment into undisturbed areas.

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).

A "no-go" area as identified by the Freshwater Specialist in the Aquatic Compliance Statement by Confluent Environmental is as follows -

Buffer determination followed a conservative approach and did not consider the implementation of mitigation measures. The buffer is therefore appropriate for a worst-case development scenario, given the catchment and buffer characteristics which are summarised as follows:

- It was assumed that some form of erosion and sediment control will be implemented on site during the construction phase.
- Mean Annual Precipitation Class: 801 – 1000 mm.
- Rainfall Intensity: Zone 4.
- The inherent runoff potential of soil in the catchment area is low (A/B soils).
- Average slope of the rivers catchment is >11 %.
- Inherent erosion potential of the catchment soils is moderate (K factor 0.5 – 0.7).
- The slope of the buffer area is moderately steep (40.1 - 75%).
- Interception characteristics of the vegetation is considered to be Good.

Based on these inputs the buffer for drainage line is set to 18 m. Any development that occurs within the buffer would be considered to be of a Very High sensitivity, while areas outside of the buffer are considered to be of a Low sensitivity. The development footprint (all structures and hard landscaping) falls entirely within the **Low** sensitivity area.

The "no-go" areas as per the Botanical Specialist in the Botanical and Terrestrial Biodiversity Impact Assessment Report by Confluent Environmental can be described as the "**Fynbos on rocky outcrop**" habitat. The Forest habitat can also be seen as a "no-go" area, however there will be minor encroachments into the forest habitat to allow for services and construction of two of the Pods. These two areas are assessed as follows -

- Very High sensitivity of terrestrial biodiversity for the "**Forest**" and "**Fynbos on rocky outcrop**" habitats on the site. The reasons for the assigned sensitivity are:

  The forest on the site would form part of the National Forest Inventory for South Africa. Forests are protected in South Africa, and therefore the forest on the site is a viable CBA 1 area that will be protected by the owner. It has a high terrestrial biodiversity sensitivity. The fynbos on the rocky outcrop can be defined as an isolated section of Garden Route Granite Fynbos, and it therefore has a high sensitivity according to the terrestrial biodiversity protocol.

- High site sensitivity in terms of the terrestrial plant species theme for the "**Forest**" and "**Fynbos on rocky outcrop**" habitat on the site. The reasons for the assigned sensitivity are:

A species of conservation concern (a sensitive species) was found in the forest, and there are several SCC that are likely to occur in the forest on Erf 301. A proper survey of this area on the site was not undertaken on the rocky outcrop, as it is outside of the proposed development on Erf 301. The

presence, or absence of SCC are not confirmed for this area, but some SCC could conceivable occur here.

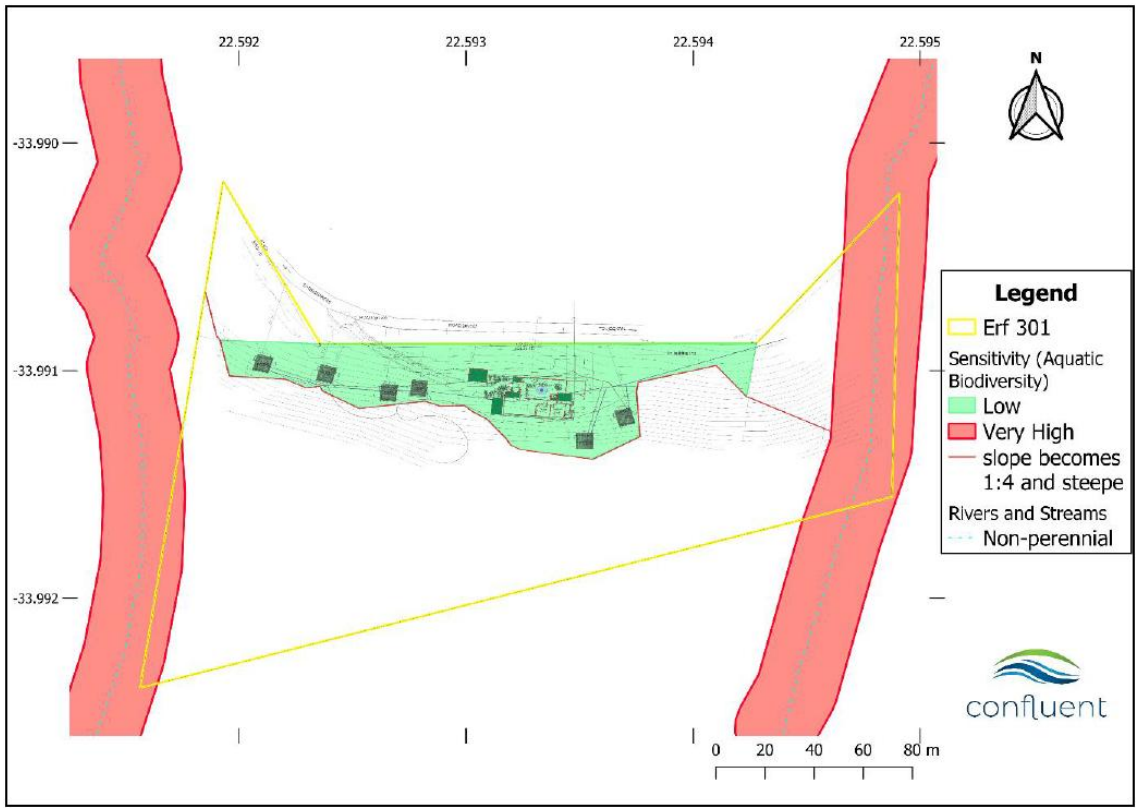


Figure 43: *Map indicating the georeferenced development footprint in relation to aquatic biodiversity sensitivity.*

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**
	Very high negative (-)	The impact will have highly significant effects and are unlikely to be able to be mitigated adequately
	High negative (-)	The impact will have significant effects and will require significant mitigation measures to achieve an accepted level of impact
	Medium negative (-)	The impact will have moderate negative effects and will require moderate mitigation
	Low negative (-)	The impact will have minimal effects and would require little mitigation
	Negligible	The impact will have negligible effects and would require little or no mitigation
	Low positive (+)	The impact will have minor positive effects
	Medium positive (+)	The impact will have moderate positive effects
	High positive (+)	The impact will have significant positive effects
	Very 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 Impact assessment attached as Appendix J.

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.

Aquatic Compliance Statement by Confluent Environmental:

While the development is located within a FEPA and SWSA, the implementation of the proposed management recommendations, together with the implementation (and maintenance) of the recommended buffer will prevent impacts to aquatic biodiversity and the ability of the land to continue to produce high quantities of good quality water. Given that the entire footprint is located outside of the watercourse and its associated buffer, the sensitivity of aquatic biodiversity on the property can be regarded as **Low.**

Impact management measures identified –

- A key impact related to residential developments is the generation of large volumes of **stormwater** associated with an increased area of impermeable surfaces (i.e. roads, roofs and other infrastructure). Stormwater is typically conveyed into watercourses, where high volumes (and associated high energy) cause degradation of watercourses, mainly due to the erosion of the bed and banks. In this respect given the steep slopes within the property, even though the drainage line is located outside of the development footprint, it is potentially vulnerable to stormwater impacts.

- The stormwater related to the development during the construction and operational phase will be managed on site and will not be discharged into any of the non-perennial streams (**Very High** sensitivity areas). Furthermore, mitigation measures (including swales, retention ponds and rainwater harvesting tanks) will be implemented in order to reduce the erosion of soil and high velocity flows as mentioned in the stormwater management plan. Considering the implementation of the stormwater management plan, it is highly unlikely that the stormwater associated with the development will have any impact on the non-perennial streams (**Very High** sensitivity areas) and is considered to have a **very low** impact.

- Given the location of the property in a FEPA and SWSA, it is therefore important that stormwater generated on site should be managed according to **Sustainable Drainage System** (SuDS) principles. This requires that as much stormwater as possible should be attenuated within the development footprint. For example, the City of Cape Town guideline is that developments must provide for 24-hour extended detention of the 1-year return interval 24-hour storm event.

- The steep slopes of the property will be vulnerable to **erosion** during clearance of the site and the construction phase. It is therefore important that appropriate erosion control measures are implemented

- During the construction phase, stormwater management will focus on controlling runoff, and preventing erosion:

  - Driveway and Walkways:
    - A minimum 2.5% cross fall will be maintained to direct runoff away from undisturbed soil.
    - Runoff will be collected in a shaped dish channel along the driveway, discharging into a temporary retention pond at the lower end of the driveway.
    - Rocks will be placed around the retention pond to dissipate the energy of concentrated flow during heavy rainfall.

- Once construction is completed, stormwater will be managed in a manner that integrates with the surrounding environment while ensuring effective drainage:

  - Driveway and Walkways:
    - The dish channel along the driveway will be neatly shaped, and filled with rocks and vegetation to reduce flow velocity.
    - Runoff will be directed into a sub-surface soak-away to prevent surface erosion.

  - Stormwater Dispersal:
    - As per the recommended design, stormwater will be directed into natural vegetation to avoid concentrated discharge and ensure slow infiltration.

  - Erosion and Runoff Control:

- Where possible, stormwater will be directed into soft landscaping and dispersed over large sections of the property to prevent erosion.
- Concentrated runoff from structures will be diverted into rainwater harvesting tanks, with overflow discharged into an artificially constructed swale to prevent erosion.

Botanical and Terrestrial Biodiversity Impact Assessment by Confluent Environmental:

Erf 301 is mapped as Garden Route Granite Fynbos; however, the vegetation map of South Africa does not take ecotonal vegetation into account, making its classification harder to defend. The valleys and south facing slopes here contain forest vegetation, and then the plateaus and north facing slopes are fynbos. Between these vegetation types there is a relatively narrow transitional ecotone. The transitional vegetation on Erf 301 plays an important functional role between forest and fynbos. Erf 301 also didn't have a marked invasive presence. Only one large black wattle was found. Some black wattles were also seen outside of the development footprint in the valleys flanking the east and west, but it was not a big invasion and still very manageable. Should the mitigation measures proposed be followed, the preferred current layout is acceptable. The owner also wants to declare the remaining section of Erf 301 as a conservation area (>90% of the erf), which is a very positive outcome for a development in the Wilderness and Hoekwil area.

The current impacts on the site are minimal, and most of the vegetation and habitat on the property is in a relatively natural state. A summary of some of the current negative impacts on the site are:

- There is an existing path that meanders through the forest on Erf 301, however the impact of maintaining and using this path is very low on the site, and no noticeable edge effects were observed adjacent to the path.
- The clearings made on the site along the northern section of the property in the ecotone area may increase the susceptibility of this area to become more invaded, as there are established invaded landscapes nearby, such as the property directly north of Erf 301.
- Whites Road has effectively removed the connectivity between the ecotone along the north of Erf 301and the rest of the fynbos to the north. This isolated ecotone cannot be functionally managed as fynbos, as fire management is not possible. While fynbos sections can be cut periodically, the diversity of the isolated ecotone patch will remain compromised and at risk of invasion.

Impact management measures identified –

- The proposed development will result in the **permanent loss of thicket ecotonal veget**ation, and small patches of forest south of Whites Road. The impact on the loss of vegetation and habitat is most severe and noticeable during the construction phase of the project due to the fact that structures placed on the site are permanent features. The proposed development of a primary dwelling with six pods amounts to approximately 4% of the total area of Erf 301 if the current preferred SDP is followed.

- The site assessment revealed Erf 301 is home to **SCC and protected trees** (namely milkwood and cheesewood trees). The local loss of threatened and protected plant species can have potentially far-reaching impacts on the environment.

- In addition to the large and obvious construction impacts, the **management of materials and staff** on the site is also an important impact on the site. If managed properly, many accidents and unanticipated negative losses to the expense of the environment, as well as staff can be avoided.

- The conclusion of any project is an essential, but often overlooked aspect of projects. This relates primarily to the **cleaning up of the site** once construction has concluded. All of the mitigation measures proposed are only meaningful if construction is properly concluded.

- The proposed dwelling developments will be in close proximity to **Red Listed and protected plant species** that are vulnerable to habitat loss and fragmentation. The primary dwelling and pods will alter the disturbance regime in the northern section of Erf 301. If the management of Erf 301 is done in an ecologically friendly way in the long-term, impacts of management in the area can prevent and reduce cumulative negative impacts. Without the appropriate consideration for the environment, management activities will impact the flora and habitat they grow in negatively.

- Most landowners plant gardens with plants that are not native and indigenous to the area where they live. Pseudo-natural gardening also results in the creation of Frankenflora. This means that genetic pollution could result in cryptic hybridisation and eventual species loss. By allowing the **planting of gardens** in sensitive natural habitat (even with species advertised as being locally sourced), a loss of SCC will take place from increased edge effects habitat that is already somewhat fragmented. Some gardening / landscaping (a form of soft landscaping) may be required within the development footprint, and here "hard landscaping" must be avoided where possible.

Animal Species Assessment by Confluent Environmental:

Erf 301 has largely been undisturbed by anthropogenic activity and despite urban development in the surrounding areas it remains connected to other natural areas in the landscape. The property has suitable habitat for a range of fauna SCC and has been scored a High SEI rating.

While two non-perennial rivers are present on site, the development footprint falls outside the aquatic buffer areas (as determined by the Aquatic Compliance Statement) and therefore the development is expected to have no effect on the aquatic habitat on site. A few fauna SCC possibly occur and utilise this stream habitat, and following the aquatic compliance statement, the development is expected to have little to no impact on these fauna.

The forest/thicket vegetation is suitable habitat for most of the highlighted SCC on Erf 301. The development will impact these SCC most notably through habitat loss in the housing/road footprints. However, the SDP already makes use of stilts/pylons to raise sections of the development, thereby reducing the permanent footprint on the property and minimizing habitat loss for many of the SCC (i.e. golden moles). Ultimately the area lost to this development equated to 2% of the property size.

Provided the mitigation measures are adhered to, the development of a residential dwelling and pods adheres to the guidelines for the high SEI rating of the property and is unlikely to affect fauna of the area significantly. It is the specialist's opinion that this development (as specified in the SDP) is a suitable land use for Erf 301 given the low levels of habitat loss, the low impact expected from a residential dwelling of this nature and the resilience of many SCC to adapt and remain on site given this development type.

Many impacts to fauna can be mitigated through minimizing impacts to the natural environment within which they occur. As such, many mitigation measures address this aspect of 'habitat protection'.

Impact management measures identified –

Some considerations within the layout and design phase of a project can reduce the impact of the development on fauna and their habitat within the property. Some suggestions include:
Keep artificial lighting along roads and around infrastructure to a minimum and consider lighting colour, brightness and design options with minimal impact on biodiversity.
Access roads and parking spaces for non-heavy machinery could make use of open pavers that are planted with non-invasive grasses.

Considerations should be given to limited fencing around the property and allowing for animal movement across the property as well as within the greater landscape. No fencing is always preferable, but this may not always be possible from a security perspective. Consideration should at least be given to limiting fencing in areas where security is not a concern.

The proposed development of a residential dwelling, pods and associated access roads will result in the **permanent loss of habitat space** on the property. The primary development footprint where permanent infrastructure is placed and permanent loss of habitat occurs, translates to approximately 2% of the property size. Efforts to reduce this impact have already been made by means of using stilts/pylons to raise sections of the development off the ground, thereby increasing habitat availability for many SCC.

The management of **materials and staff** on the site is also an important impact of development. If managed properly, many accidents and unanticipated negative impacts on fauna and the surrounding environment can be avoided.

Fauna may occur on site and be killed or seriously harmed during construction related activities. Cryptic and ground-dwelling species, like the golden mole SCC, are difficult to detect and are limited in their mobility rendering them vulnerable to **earthmoving and construction activities**. Construction should happen in phases, such that construction related activities are confined to one area at a time on the property and can be monitored for faunal impacts appropriately.

The development on the site could alter the natural area on the property through changes in vegetation clearing associated with the maintenance and operation of housing and road infrastructure or possibly the introduction of alien plants. For the most part **habitat alterations** will be restricted to the immediate surroundings of the roads (i.e. road verge clearing) and houses (i.e. clearing/trimming vegetation around houses) but any impacts associated with alien plant invasions can have landscape level impacts.

The development on the site will alter the **disturbance regime** of the largely natural area on the property through changes in noise and artificial lighting levels. For the most part, these disturbances will be restricted to the immediate surroundings of the roads (i.e. traffic noise) and houses (i.e. people talking/shouting, music). However, this can have a significant impact on biodiversity and alter the way fauna use the landscape (i.e. the creation of a landscape of fear resulting in animals avoiding certain habitats/areas around human disturbances; insects attracted to lights decreases their survival, negatively impacts on the ecosystem services they provide and has negative knock-on consequences for their associate predators). Light pollution must be reduced and avoided wherever possible during the operational phase of the project. Noise should be minimised on the site and loud sirens/alarms should not be permitted unless there is an emergency. If security is a concern, then a silent alarm system should be implemented i.e. motion detection cameras.

Some wild animals are attracted to human developments, usually due to the presence of a resource that has become available within the footprint of the development (i.e. food attracting baboons, leftover scraps attracting wild animals if disposed in the surrounding environment). If any animal becomes habituated or lose their fear of humans, they risk becoming pests and problem animals (sometimes even posing a risk to humans) and often require control, in severe cases resulting in their harm or death. Keeping pets on the premises can also increase the potential for **human-wildlife conflict** as pets can fight or kill animals (i.e. cats are known to be devastating for indigenous wildlife, especially birds, small mammals and reptiles), or be attractive to some animals as prey (i.e. leopard are known to take domestic cats and dogs occasionally). Pets also run the risk of being harmed by wildlife (i.e. snake bites) which can lead to owners wanting to control or harm the natural fauna of the area. Good waste management must be implemented. Residents on the property should be limited in their ability to keep pets (i.e. how many pets and what types of pets).

Agricultural Compliance Statement by Johann Lanz:

The overall conclusion of this assessment is that the proposed development is acceptable because it leads to no loss of future agricultural production potential.

This assessment confirms the low to medium agricultural sensitivity of the site based on its land capability and agricultural land use. However, the agricultural sensitivity and its verification is largely irrelevant in this case because the site's capability to practically deliver an agricultural product is not determined primarily by its climate, terrain, and soil capabilities.

Although there are climate, terrain, and soil constraints on the site's agricultural production potential, its potential to practically deliver agricultural produce is primary constrained by other factors. These factors include the small size of the property, its location surrounded largely by residential, non-agricultural land uses, and the lack of any existing cropping infrastructure or inputs. For these reasons, the site is highly unlikely to ever be viably utilised for agricultural production and its potential is therefore assessed here as very low.

An agricultural impact is a change to the future agricultural production potential of land. This is primarily caused by the exclusion of agriculture from the footprint of the development. In this case, the site is considered to be below the threshold for needing to be conserved as agricultural production land because of the limitations that make it unsuitable as viable cropland. The development of this land for non-agricultural purposes will cause zero loss of future agricultural production potential in terms of national food security. The overall negative agricultural impact of the development (loss of future agricultural production potential) is assessed here as being of very low significance and as acceptable.

From an agricultural impact point of view, it is recommended that the proposed development be approved. The conclusion of this assessment on the acceptability of the proposed development and the recommendation for its approval is not subject to any conditions.

Visual Impact Assessment by Andre Vercueil:

Concept – Main dwelling.

- The proposed driveway follows the contours from the North-West to the South-East of the building platform. The driveway will only be visible from the elevated viewpoints on the North-Western side of the site.
- The design is very low-key, with articulated edges and a dispersed layout, nestled into the landscape. The Northern side of the building platform is cut into the site by approximately 4m, while the Southern side's floor level is raised by approximately 4m above the natural ground

level and supported on reinforced concrete columns which could resemble tree stumps in the forest.
- ❖ The roofs have a very shallow 6 degree slope towards the South, making the visual impact from the South as low as possible.
- ❖ The colour scheme has been chosen to blend in with the natural landscape. (Please see Fig-03 on Page 9 for the Colour Scheme and Material List).

Concept – Tourism Pods.
- ❖ The access to the tourism pods are via timber walkways from the parking area at the main dwelling.
- ❖ The design as also low-key with platforms nestled into the landscape, approximately 3m above the natural ground level on the Southern Side.
- ❖ The roofs also slope at a 6 degree angle towards the South, making the visual impact as low as possible.
- ❖ The colour scheme matches the main house (Please see Fig-03 on Page 9 for the Colour Scheme and Material List).

The VIA confirms that there will be very low visual impact as a result of this proposed development and that no heritage resources will be negatively affected by the proposed development.

Geotechnical Soil Test Report by Outeniqua Geotechnical Services:

The investigation data indicates that the underlying geology and geotechnical conditions are generally favourable and suitable for a "low-impact" type residential development, where the development footprint takes into account the natural slope and bulk excavations are minimised accordingly. The proposed main dwelling (refer TP1 & 2) is underlain by very soft rock at a depth of about 1.2m which is ideal for normally loaded strip/pad foundations and a minor to moderate amount of cut to fill (to be mitigated where possible). The proposed pod units (refer TP3 & 4) are underlain by very shallow rock (may vary slightly) which is ideal for low-impact light structures on shallow pads and columns with minimal cut to fill. The natural slope stability was deemed to be OK under such development if structures are properly founded and earthworks are properly managed.

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

All mitigation measures identified by the specialists have been included in the EMPr, attached as Appendix H.

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 – all recommended mitigation measures will be implemented.

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

Tourism and recreation are ways to achieve economic growth and adds to the sense of place of the greater George municipal area as the gateway to the Garden Route. The GMSDF states that tourism accommodation and uses in varying formats in the urban and rural environments is a generally accepted principle. The visitors to this property will support economic opportunities created in the nodes and precincts, e.g. restaurants and recreational facilities in the Wilderness area.

The proposal will have socio-economic benefits in maintaining the natural environment and creating employment opportunities for the local communities.

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.

Erf 301 is approximately 600m from the high-water mark of the sea, and at an average height above sea level of between 60 – 83 meters. 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. The development also falls outside of the coastal erosion risk lines (20-, 50-, and 100-year erosion) as determined by the Western cape Government (DEA&DP Coastal Management App).

In terms of legislation pertaining to the National Water Act, the development falls outside of the regulated area of the drainage line (i.e. outside of the riparian zone and 1:100 year floodline) and outside the regulated area of a wetland (Aquatic Compliance Statement).

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

There are no conflicts between specialist recommendations.

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 Environmental Management Programme (EMPr) (Appendix H).

Aquatic Compliance Statement by Confluent Environmental:

While the development is located within a FEPA and SWSA, the implementation of the proposed management recommendations, together with the implementation (and maintenance) of the recommended buffer will prevent impacts to aquatic biodiversity and the ability of the land to continue to produce high quantities of good quality water. Given that the entire footprint is located outside of the watercourse and its associated buffer, the sensitivity of aquatic biodiversity on the property can be regarded as Low.

Botanical and Terrestrial Biodiversity Impact Assessment by Confluent Environmental:

Erf 301 is mapped as Garden Route Granite Fynbos; however, the vegetation map of South Africa does not take ecotonal vegetation into account, making its classification harder to defend. The valleys and south facing slopes here contain forest vegetation, and then the plateaus and north facing slopes are fynbos. Between these vegetation types there is a relatively narrow transitional ecotone. The transitional vegetation on Erf 301 plays an important functional role between forest and fynbos. Erf 301 also didn't have a marked invasive presence. Only one large black wattle was found. Some black wattles were also seen outside of the development footprint in the valleys flanking the east and west, but it was not a big invasion and still very manageable. Should the mitigation measures proposed in this report be followed, the preferred current layout is acceptable. The owner also wants to declare the remaining section of Erf 301 as a conservation area (>90% of the erf), which is a very positive outcome for a development in the Wilderness and Hoekwil area.

The current design of the dwellings proposed on Erf 301 has already considered the botanical sensitivities of the site following the initial site sensitivity verification report which was completed in 2023. The initial SDP has already been updated following consultation and engagement during 2023, and the design of the project at present is a result of that engagement. The current layout will incorporate and be considerate of native tree species where they occur within the development footprint and respects existing vegetation and species of conservation concern (SCC) that have been observed. No SCC will be affected in the current layout of the site. There are therefore no current recommendations in this impact assessment regarding the layout and design of the project from a botanical and terrestrial biodiversity perspective as the existing plans already reflect a comprehensive and well-considered approach to the site's botanical resources. Given the landowner and botanical specialists' satisfaction with the existing plans, further updates are unnecessary for the themes presented in this report as they would result in redundant efforts and unnecessary costs without adding significant value to the project.

Animal Species Assessment by Confluent Environmental:

Erf 301 has largely been undisturbed by anthropogenic activity and despite urban development in the surrounding areas it remains connected to other natural areas in the landscape. The property has suitable habitat for a range of fauna SCC and has been scored a High SEI rating.

While two non-perennial rivers are present on site, the development footprint falls outside the aquatic buffer areas (as determined by the Aquatic Compliance Statement) and therefore the development is expected to have no effect on the aquatic habitat on site. A few fauna SCC possibly occur and utilise this stream habitat, and following the aquatic compliance statement, the development is expected to have little to no impact on these fauna.

The forest/thicket vegetation is suitable habitat for most of the highlighted SCC on Erf 301. The development will impact these SCC most notably through habitat loss in the housing/road footprints. However, the SDP already makes use of stilts/pylons to raise sections of the development, thereby reducing the permanent footprint on the property and minimizing habitat loss for many of the SCC (i.e. golden moles). Ultimately the area lost to this development equated to 2% of the property size.

Provided the mitigation measures are adhered to, the development of a residential dwelling and pods adheres to the guidelines for the high SEI rating of the property and is unlikely to affect fauna of the area significantly. It is the specialist's opinion that this development (as specified in the SDP) is a suitable land use for Erf 301 given the low levels of habitat loss, the low impact expected from a residential dwelling of this nature and the resilience of many SCC to adapt and remain on site given this development type.

Visual Impact Assessment by Andre Vercueil:

- There are no heritage resources in the area that may be impacted upon by the proposed development.
- Both the visual impact and the visual intrusion on the cultural landscape are very low.
- The visual impact of the proposed development from the scenic routes, viewpoints and vantage points is very low with only vistas of the top quarter of the development visible above the tree canopy.
- The visual absorption of the site on the proposed development is high, taking the mitigating factors into consideration.
- The visual influence of the site is completely screened from Waterside Road, as well as from the Eastern side of Whites Road.
- The proposed development does not influence the skyline, but it blends into the landscape.

The following Mitigation measures are recommended:

- That the Architectural Design includes the natural colour schemes and materials captured in the bulk of this report. This Architectural Design has currently proposed heights, disturbance areas & maximum footprint which are to be maintained, and clear-view fencing is used with an irregular alignment around the disturbance area for the Preferred Layout, Layout-01 & Layout-02 only. The Clear View fencing for Layout-03 will have to be discretely aligned to minimize visual impact.
- The clearing, trimming and rehabilitation of cleared trees and indigenous areas before and after the construction phase, must be done according to the procedures laid down by the Department of Forestry, Fisheries and the Environment.
- That the necessary measures be implemented during the construction phase to protect the natural vegetation, to control erosion, noise, dust and visual intrusion.

- That external lighting restrictions and guidelines (a dark sky policy) be implemented. This implies that:
    - The external lighting must be limited to down-lighters, strategically positioned on the buildings and at walkways mounted against buildings and/or on bollards not higher than 1m above natural ground level or from finished floor levels, facing North.
    - No flood lights & illuminated signage.
    - The wattage of external down-lighters must each be limited to 7 Watts LED's.
    - That all internal lights be limited to recessed ceiling lights and/or wall lights on walls facing North.
    - That no chandeliers be installed.
    - That hanging lights be limited to shielded/screened lights facing downwards.
- That only indigenous trees, plants and shrubs be introduced in the rehabilitation of the building after construction.
- That a storm water management plan be implemented according to the project engineer's recommendations, to mitigate the possibility of storm water across the site.
- That the project engineers design the entrance driveway with appropriate alignment cut & fill, as well as storm water management measures.
- That the recommendations of Heritage Western Cape regarding the Notice of Intent to develop be complied with.

Geotechnical Soil Test Report by Outeniqua Geotechnical Services:

Recommendations:
Earthworks: Selective and minimal bush clearing, and removal/disturbance of organic topsoil is recommended to preserve the natural state of the site during construction. In a similar vein, the construction of the proposed access road onto the site should be carefully planned and managed to minimise earthworks and retaining walls by following the contours as far as possible. Excavations may be hampered by shallow bedrock in areas and thus should be mitigated as far as possible to reduce costs. Gravelly soil and fractured/broken rock material (max size 100mm) obtained from excavations may be used as bulk fill material if the required level of compaction can be achieved. Organic matter should be removed from potential fill material. Load-bearing fill material on roads, platforms and under surface beds should be compacted at optimum moisture content to min 95%MDD (<20mm/blow of DCP). Compaction should be properly tested.

Foundations: In order to minimise the impact of development on the site, it is recommended that structures are designed as light-weight structures with suspended floors, supported on posts and pads. Pad foundations should be supported on very dense residual soil or preferably bedrock at an estimated average depth of 0.9m below NGL with an allowable safe bearing pressure of 150kPa. Depth of excavations may vary to ensure all foundations are well founded to avoid any stability issues. Masonry/concrete structures with surface beds and strip footings will typically involve more earthworks and retaining walls. All excavations and foundations should be checked by the engineer.

Access road/driveway: The steep site gradient and shallow bedrock may hamper road building, however, where the access road/driveway is planned for the site, consideration should be given to minimise its length and width, and avoid a steep decline by following the natural contours as far as possible. The insitu organic-rich topsoil was considered poor quality roadbed material with a tendency to rut, particularly in wet conditions and should be entirely removed along any planned access roads and replaced with suitable gravel fill material (e.g. from cut or imported). It is recommended that allowance is made for importation of some gravel material to supplement material obtained from site. Recommended paved driveway layerworks include 150mm subbase (compacted to 95%MDD) and concrete slabs or interlocking pavers.

Drainage: The permeability of the soil is generally low due to stiff/dense fine grained soils and shallow bedrock. The fine grained sandy topsoil was also considered prone to erosion, especially on denuded slopes. An effective stormwater management system was highly recommended to ensure that water does not collect next to structures where it can seep into foundations or discharge in an uncontrolled manner onto the slopes below. The use of low-impact type structures, with minimal bulk excavations and post-and-pad type foundations, will help to mitigate erosion. Rain water harvesting from roofs is recommended to minimise run-off from site.

The investigation indicated that the site was suitable for residential development but there were some geotechnical constraints which require some consideration in the engineering design and during construction.

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

For any impact assessment, the mitigation hierarchy must be kept in mind (Ekstrom et al., 2015). 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:
    - 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;
    - 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:
    - result in the loss of irreplaceable biodiversity, an inability to meet biodiversity targets or increase the risk of extinction for any species; and/or
    - result in the loss of ecological infrastructure without substitute, causing an irreversible loss in ecosystem services.

The National Biodiversity Offset Guideline (2023)[13]:

The National Biodiversity Offset Guideline (2023) and the Western Cape Provincial Guideline on Biodiversity Offsets (2015) establish that biodiversity offsets may be required when residual impacts on biodiversity are assessed as moderate or higher, following the application of the mitigation hierarchy. Offsets are considered a last-resort way to address potential significant biodiversity loss in sensitive areas. Offsetting may only be applied if the first steps of the mitigation hierarchy cannot be applied, namely avoidance, minimization, or rehabilitation.

Based on the assessment of the four development alternatives presented in this report, Alternative Layout 1 (Original Layout Plan) and Alternative Layout 2 (Dwelling in the South-West of the Property) have been assigned a residual impact rating of moderate. Alternative 2 is at the highest risk of triggering a biodiversity offset requirement due to several factors identified in this report. The Western Cape Provincial Guideline on Biodiversity Offsets (2015) states that offsets may be considered to compensate for residual biodiversity impacts by securing priority habitats. Furthermore, there is a greater potential for significant and lasting ecological harm in the pristine forested area compared to the thicket-fynbos ecotone, where the current fynbos elements are depauperate, senescent, and does not represent functional granite fynbos. This makes locating the dwelling in the pristine forest in the south-western corner of the property contrary to the principles of the mitigation hierarchy and increases the likelihood of offset obligations.

The Terrestrial & Botanical Assessment does not determine whether an offset will be required but recognizes that any development option with a residual impact rating of moderate or higher carries an inherent risk of offset requirements. To avoid the potential for biodiversity offset discussions, it is recommended that only the Preferred Layout (Low residual impact) or Alternative 3 (Preferred layout excluding six pods) be pursued, as both options minimize residual impacts and are unlikely to trigger the need for offset discussions.

SECTION J: GENERAL

1. Environmental Impact Statement

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

- Erf 301 has largely been undisturbed by anthropogenic activity and despite urban development in the surrounding areas it remains connected to other natural areas in the landscape.
- The mapped vegetation for Erf 301 of Hoekwil is Garden Route Granite Fynbos and Goukamma Dune Thicket (in the south-west) according to the 2018 National Vegetation Map of South Africa.
- The valleys and south facing slopes on Erf 301 contain forest vegetation, and then the plateaus and north facing slopes are fynbos.
- The thicket and forest vegetation on the site may be natural, or a consequence of long-term fire suppression. This means that the vegetation of the site is either natural or has naturally transitioned to the vegetation present there today.
- The slope is south-facing, which would present more favourable conditions for forest species compared to fynbos species. These, and other factors mean that fynbos observed on the site

[13] Fouché, B. & Dabrowski, J. (03 June 2024 and updated 31 January 2025). Impact Assessment for Erf 301, Whites Road, Hoekwil. Specialist Plant Species and Terrestrial Biodiversity Report. *Confluent Environmental Pty (Ltd)*.

today is isolated in a forest-thicket matrix and is not worthy of conservation as it will become old and senescent with no potential for controlled burns.

- The current impacts on the site are minimal, and most of the vegetation and habitat on the property is in a relatively natural state.
- The majority of Erf 301 is mapped as a CBA 1 (i.e., natural Critical Biodiversity Area), with a small section in the south-west mapped as an ESA 2.
- The buffer that the site falls within is for Garden Route National Park, however the proposed development is highly unlikely to negatively affect the buffer area for the Garden Route National Park.
- One plant SCC was observed on the site in the forest area of the site east of where the easternmost "pod" is proposed. However, the proposed pod falls outside of the 30m buffer made for the sensitive species.
- Nationally protected Cheesewood trees (*Pittosporum viridiflorum*) were also observed on the site within the Thicket vegetation that falls within the development footprint. This means that the owner of the site will need to obtain the relevant forestry licence to disturb, cut, or remove these trees.
- Evidence of the Golden Mole SCC was seen on site, with typical sub-surface tunnels observed at multiple locations throughout the meander on the property, indicating their presence activity on the site. Evidence of the Golden Mole was limited to the forest habitat.
- The forest/thicket vegetation is suitable habitat for most of the highlighted faunal SCC on Erf 301.
- The entire property of Erf 301 has a High SEI rating for fauna due to the importance of the thicket/forest habitat.
- The sensitivity of the terrestrial biodiversity theme for the site is confirmed as **Very High** for the "Forest" and "Fynbos on rocky outcrop", and **Low** for the "Thicket with some patches of overgrown fynbos" habitats on the site.
- The site sensitivity in terms of the terrestrial plant species theme is confirmed as **High** for the "Forest" and "Fynbos on rocky outcrop", and **Low** for the "Thicket with some patches of overgrown fynbos" habitat on the site.
- The site ecological importance of Erf 301 is High across the entire property.
- The site falls within Primary Catchment K (Kromme) area, in quaternary catchment K30D, and within sub-quaternary catchment (SQC) 9173.
- The site does fall within the Outeniqua Strategic Water Source Area (SWSA) which is considered to be of national importance.
- One non-perennial stream runs just outside of the property's western boundary and one non-perennial stream within the property boundary, adjacent to the eastern boundary. No other watercourses are mapped to occur within the property boundaries
- In terms of legislation pertaining to the NWA, the development falls outside of the regulated area of the drainage line (i.e. outside of the riparian zone and 1:100 year floodline) and outside the regulated area of a wetland.
- The buffer for drainage line is set to 18 m. The development footprint (all structures and hard landscaping) falls entirely outside of the buffer within the **Low** sensitivity area.
- The stormwater related to the development during the construction and operational phase will be managed on site and will not be discharged into any of the non-perennial streams (**Very High** sensitivity areas). Furthermore, mitigation measures (including swales, retention ponds and rainwater harvesting tanks) will be implemented in order to reduce the erosion of soil and high velocity flows as mentioned in the stormwater management plan.
- Considering the implementation of the stormwater management plan, it is highly unlikely that the stormwater associated with the development will have any impact on the non-perennial streams (**Very High** sensitivity areas) and is considered to have a **very low** impact.

- ❖ The proposed development will have no impacts on agricultural resources, and will lead to no loss of future agricultural production potential.
- ❖ From investigations of the existing infrastructure surrounding the site, it is evident that municipal and internal services can be provided for the proposed development in a feasible and sustainable manner.
- ❖ The VIA confirms that there will be very low visual impact as a result of this proposed development and that no heritage resources will be negatively affected by the proposed development.
- ❖ Geotechnical soil investigation indicated that the site was suitable for residential development but there were some geotechnical constraints which require some consideration in the engineering design and during construction.

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 4: *Positive and Negative Aspects of the Project.*

Specific Aspect of Proposal	**Positive**	**Negative**
Planning Policy, Documentation and Urban Edge.	The proposal aims to provide accommodation for the property owner and tourists on a section of the property which is not indicated as a specific spatial planning category. The Western Cape Land Use Planning Guidelines: Rural Areas (2019) states that overnight accommodation can be provided in a CBA-area with temporary structures preferred (e.g., wooden structures, tents, raised boardwalks, and/or tree canopy structures), with units carefully dispersed to achieve least impact. The use of alternative porous materials and innovative eco-friendly design concepts are encouraged.	None.
Rezoning	The rezoning of the property to Open Space Zone III (nature conservation area) will contribute to the conservation of the property and support the abutting Wilderness Lakes Protected Area.	The function of small holdings as a settlement type is described as low-density rural living, with an agricultural component with reference in the relevant LSDF. Wilderness Heights is one such small holding area. Loss of agricultural component of a small holding is not considered to be significant.
Bulk Services	There already is a water connection	All wastewater, water supply and

supply	point that the proposed development will connect to and there should be no pressure / demand on the current system. Access to the property is currently available through the existing roads network.	stormwater will need to be managed but this is achievable with all the correct mechanisms and mitigation in place.
Conservation Status / value	The proposed development is limited to the Thicket vegetation that is considered to have low sensitivity. Very high/high sensitive habitats will be avoided, and rehabilitated where encroachment does occur.	Slight encroachment into the forest habitat (high sensitivity) for services and construction of two of the Pods.
Vegetation and Habitats	The SDP already makes use of columns to raise sections of the development, thereby reducing the permanent footprint on the property and minimizing habitat loss for many of the SCC (i.e. golden moles). Ultimately the area lost to this development equated to 2% of the property size.	The forest/thicket vegetation is suitable habitat for most of the highlighted SCC on Erf 301. The development will impact these SCC most notably through habitat loss in the housing/road footprints. Loss of vegetation and potential habitats can be managed and mitigated to limit the disturbance of vegetation.
Fauna / ecological corridors	The property has suitable habitat for a range of fauna SCC and has been scored a High SEI rating. The area lost to this development equated to only ±4% of the property size. The owner also wants to declare the remaining section of Erf 301 as a conservation area (>90% of the erf), which is a very positive outcome for a development in the Wilderness and Hoekwil area. The development does not pose a significant impact to ecological connectivity due to its limited developable area.	Cryptic and ground-dwelling species, like the golden mole SCC, are difficult to detect and are limited in their mobility rendering them vulnerable to earthmoving and construction activities. Potential fragmentation of areas of indigenous vegetation.
Erosion	Rehabilitation of disturbed areas with indigenous vegetation.	The steep slopes of the property will be vulnerable to erosion during clearance of the site and the construction phase. Appropriate erosion control measures will be implemented.
Noise and Visibility	The scale and location of the development should not result in these forms of pollution.	Potential visual and noise impacts to adjacent residents during construction phase.
Alien Vegetation	Systematically remove invasive alien	Loss of natural vegetation and

	vegetation (also in the operational phase).	increased fire risk if not removed. Restoration of indigenous vegetation where there is heavy AIP infestation.
Fire risk	Removal of alien vegetation to reduce fuel load.	Fire risk may be high if alien vegetation is not removed.
Stormwater	Stormwater generated on site will be managed according to Sustainable Drainage System (SuDS) principles – swales, detention ponds, permeable paving, and artificial wetlands.	Although the drainage line is located outside of the development footprint, it is potentially vulnerable to stormwater impacts given the steep slopes within the property.
Site Access	Access to the property is currently available through the existing roads network.	Potential increased vehicle movement.

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.

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.

This section will be completed following the Draft Public Participation Process. The following conditions must be considered:

- Implementation and maintenance of the recommended 18m buffer from the non-perennial drainage lines. All development and associated activities must remain outside of this buffer zone.
- The Forest" and "Fynbos on rocky outcrop" habitats on the site must not be affected by the proposed development and must be indicated as a no-go area.
- Implement the Stormwater Management Plan, monitor the site for potential erosion and implement appropriate erosion control measures where necessary.
- Ensure that mitigation measures recommended by the specialist and adhered to / implemented.
- 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 proposed construction of the main dwelling and six Eco-Pods. It is the EAP's opinion that the Preferred Alternative can be considered for Environmental Authorisation for the following reasons:

- The rezoning of the property to Open Space Zone III (nature conservation area) will contribute to the conservation of the property and support the abutting Wilderness Lakes Protected Area. The owner is willing to discuss the possibility of a stewardship agreement with CapeNature or SANParks to conserve and manage the remaining natural habitat on the property.
- The nature conservation area will be managed in terms of the Conservation Management Plan.
- The proposed development (as per the Land Use planning Report, Appendix G5) is consistent with all relevant considerations as prescribed by the planning legislation. It does not create conflict with the overall spatial objectives for the area.

- The Preferred Layout will incorporate and be considerate of native tree species where they occur within the development footprint and respects existing vegetation and plant species of conservation concern (SCC) that have been observed. No plant SCC will be affected in the current layout of the site.
- None of the specialists have found any aspects of concern related to the development of the Preferred Layout:
  - **Terrestrial Biodiversity & Botanical Report -** Should the mitigation measures proposed in this report be followed, the preferred current layout is acceptable. The owner also wants to declare the remaining section of Erf 301 as a conservation area (>90% of the erf), which is a very positive outcome for a development in the Wilderness and Hoekwil area.
  - **Animal Species Assessment -** Provided the specialist recommended mitigation measures are adhered to, the development of a residential dwelling and pods adheres to the guidelines for the high SEI rating of the property and is unlikely to affect fauna of the area significantly. It is the specialist's opinion that this development (as specified in the preferred layout) is a suitable land use for Erf 301 given the low levels of habitat loss, the low impact expected from a residential dwelling of this nature and the resilience of many SCC to adapt and remain on site given this development type.
  - **Aquatic Compliance Statement -** While the development is located within a FEPA and SWSA, the implementation of the proposed management recommendations, together with the implementation (and maintenance) of the recommended buffer will prevent impacts to aquatic biodiversity and the ability of the land to continue to produce high quantities of good quality water. Given that the entire footprint is located outside of the watercourse and its associated buffer, the sensitivity of aquatic biodiversity on the property can be regarded as Low.
  - **Visual Impact Assessment -** The preferred Layout would have Little to No Visual Impact on the existing Landscape, with the most sensitive and sustainable response to the environment. Views and visitor experience will not negatively be affected by the proposal, as there are no direct views from the adjacent park. The architecture blends in with the natural landscape and the lighting is of a low lightdesign to prevent light pollution.

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

The following assumption were made in the Specialist Studies:

Aquatic Compliance Statement:

- The assessment of the site visit represents a brief temporal snapshot of conditions on the site. Changes in season or short-term changes in climatic conditions may possibly result in the formation of aquatic habitats (e.g. temporary or seasonal wetlands) under significantly wetter conditions. Despite this limitation the sensitivity of aquatic biodiversity on the site was determined with a very high level of confidence.

Terrestrial Biodiversity & Botanical Assessment:

This assessment is subject to a few assumptions, uncertainties, and limitations, as listed below:

- Only one survey took place during early winter on 05 June 2023. Seasonal and time constraints always play a role in limiting the findings of a terrestrial specialist report.
- Some rare and threatened plant species are difficult to locate and easily overlooked in the field (e.g., geophytes, small succulents, small shrubs, and cryptic spp.). The species list for the area is limited to the findings of the one field assessment, as well as past records on iNaturalist and the Plants of Southern Africa (POSA) database for the proposed development site and its surrounding areas. It is very likely that the species list and SCC reported are not exhaustive (Perret et al., 2023).

- Some species may not have been visible at the time of the site assessment (e.g., some geophytes, annuals, and parasitic plants).
- Many plant species flower seasonally and are therefore difficult to identify outside of their flowering season. Environmental factors such as the prevailing fire regime and level of alien invasion influence the successional stage of the vegetation present at the site, and therefore the species visible at the time of assessment (Cowling et al., 2010; Privett et al., 2001).
- The dense thicket and forest on the Erf portion made it hard to gain access to some sections of the site. It is possible that the impenetrable nature of the vegetation caused an SCC/ several SCC to be missed on the site.

Animal Species Assessment:

- While the public platforms mentioned in Section 3.4 are excellent sources of additional information for animal species occurring within an area, these results require some expert interpretation to determine which of the SCC are relevant to include in the faunal assessment of the project area. For example, the coarse spatial scale of reporting within the Virtual Museum platforms (Quarter Degree Square level (27km x 27km) or SABAP2 pentad level (9km x 7 km)) can result in species records from habitats quite different to those present on site. Additionally, these platforms include sightings of vagrant or transient animals upon which an assessment cannot reasonably be based. Expert interpretation is therefore applied to the full list of SCC identified by the various public platforms (see Appendix 1) and some species are then excluded from further assessment due to the project area clearly lacking suitable habitat or the species clearly representing a vagrant or transient animal outside its normal range. The SCC assessed in this report therefore represents those which may reasonably occur on site. However, there is always the possibility that some SCC (although highly unlikely to occur on site) are overlooked in this process.
- One field visit took place to the site for the faunal assessment. This only represents a "snap-shot" in time and it is possible that SCC occurring on site were not observed during this visit. These results should therefore be interpreted with this in mind and not be treated as an exhaustive list of species occurring on site.
- The site visit took place during daylight hours so the likelihood of encountering nocturnal species was limited.
- The owner of the property has on occasion deployed camera traps in recent years and supplied the Fauna Specialist with photos of various animals from the site. This information is included in the report, and while useful, the results are treated as supplementary and with caution given that it was not collected first-hand by the Fauna Specialist. Information supplied by the property owner is indicated specifically in the report and distinguished from any specialist observations.
- The site visit coincided with autumn for the site. This may be of consequence for detecting some species showing seasonal variation in breeding and activity patterns. For the frog SCC this time falls outside its breeding season and decreases the likelihood of detection. Golden moles are generally most active in warmer and wetter conditions, but given the temperate climate and year-round rainfall in the project area, their likelihood of detection is not anticipated to be greatly affected by the generally cooler seasonal temperatures of autumn. Nevertheless, the precautionary principle is applied where appropriate.
- Evidence of animals in the form of tracks, scats and signs always brings with it a level of uncertainty, but best efforts were made in this regard and uncertainties are highlighted in the report.

Visual Impact Assessment:

- We will assume for the purpose of this report that the information supplied to us is correct.

- ❖ The visual study acknowledges the fact that not all places on the site, viewpoints and vantage points have been accessible to us at the time of the field study.
- ❖ The visual study will rely on information that can be extracted from appropriate topo-cadastral and other mapping, for the purpose of the interpretation of the 'Visual Catchment' and 'Visual Zone of Influence'.
- ❖ The visual impact on the landscape on the preferred and alternative layouts will be considered and reported on in this study.
- ❖ The purpose of this study is to add to the other specialist reports for this proposed development in order to inform the Local and Provincial Authorities as well as any other interested and affected parties regarding the level of Visual Impact that this proposed development may have on the landscape.

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.

The Environmental Authorisation (EA) is requested to remain in effect for a minimum of 10 years, but ideally 15 years, to account for the extensive approval processes, financial planning, and conservation commitments associated with the project.

The full development will be undertaken in one phase, rather than the previously proposed two-phase approach. However, due to financial constraints and administrative delays, construction is unlikely to commence within the next 3 to 5 years. The total timeframe for securing approvals and completing the project, including contingencies, is estimated at 6 to 10 years.

Once construction begins, the active development timeline will span 24 months, including:

- Site Establishment & Groundworks: 6 months
- Construction: 18 months
- Post-Construction Monitoring: 6 months

The post-construction monitoring will be completed within the prescribed EA validity period and will conclude within six months after the construction phase is finished.

Given the nature of the project, emphasizing conservation and long-term stewardship, the extended EA validity period is crucial to ensuring the successful execution and sustainability of the development.

It is therefore requested that the EA validity period is **15 years**.

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.
A 50mm diameter water connection exists on the northeast corner of the site. This connection will be more than adequate to service the proposed development. The water line will be surface laid in flexi-hose pipe as per engineer specification to minimise disturbance. Municipal water supply will be supplemented by rainwater harvesting.

4. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.
Waste diversion will be introduced though recycling compostable organic kitchen waste and by separating out recyclable materials. The weekly refuse removal service that is already available for the area will be used.

5. Energy Efficiency

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

From the municipal supply point, power supply cabling will be run underground via a typical narrow trench - 300mm(W) x 700mm (D). There should be very little to no disturbance and any disturbance that does occur will be fully rehabilitated with indigenous growth.

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

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

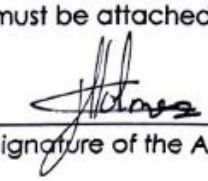
SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

I, JEANNETTE LISA HOLMES, ID number 6107170062067, 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.



11-11-2024,

Signature of the Applicant: Date:

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;

11 November 2024

Signature of the EAP: Date:

Eco Route Environmental Consultancy

Name of company (if applicable):