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DRAFT BASIC ASSESSMENT REPORT

FOR

The Proposed Development of a Primary Dwelling and Access Road on Portion 79 of Farm 205, Ruygte Valley, Sedgefield, 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:	DANIEL SENSTER AND PARTNERS INC.
PREPARED BY:	ECO ROUTE ENVIRONMENTAL CONSULTANCY
DEPARTMENT REF:	TBC
AUTHOR:	BIANCA GILFILLAN (EAPASA REG 2023/7929)
DATE:	NOVEMBER 2025

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DFFE REF: TBC

"On 08 December 2014, the Minister of Environmental Affairs promulgated regulations in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), viz, the NEMA Environmental Impact Assessment (EIA) Regulations 2014, (GN R982, R983, R984 and R985 of 04 December 2014) as amended. The NEMA EIA Regulations, 2014 and listing notices were subsequently amended on 07 April 2017 (refer to GN R324, R325, R327 of 07 April 2017) and are being referred to as NEMA EIA Regulations, 2014, as amended. The same referencing would apply to the listing notice containing the listed activities that would require Environmental Authorisation.

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Introduction

The property, located east of Cola Beach within the Groenvlei rural area of Sedgefield, Western Cape, measures approximately 5.1576 hectares and shares its southern boundary with coastal public property. It adjoins Portion 78 of Farm Ruygte Valley No. 205, a private nature reserve zoned Agriculture Zone I, and lies adjacent to the Lake Pleasant Private Nature Reserve.

According to the Western Cape Biodiversity Spatial Plan (2025), the northern portion of the site is classified as Critical Biodiversity Area 1 (CBA 1), while the southern portion falls within a degraded CBA 2, mainly due to invasion by *Acacia cyclops*.

The site is situated within the Knysna Municipal Area and is primarily accessed via Groenvlei Beach Road, a gravel route leading toward the beach at the western edge of Goukamma Nature Reserve. A Public Servitude Road (Bushy Way, SG Diagram 6532/61) runs along the northern boundary and connects to the N2 via the Groenvlei Divisional Road (DR 1594); this route is currently overgrown and will require limited clearing along existing disturbed paths to enable vehicle access with minimal vegetation loss.

Forming part of a smallholding area subdivided in 1961 from Portion 70 (originally Portion 38 of Lake Pleasant Estate), the property remains undeveloped and is zoned Agriculture Zone I in terms of the Knysna Zoning Scheme By-Law (1992), which permits one dwelling as a primary right. Title-deed conditions imposed by Lake Pleasant Estate (Pty) Ltd require owner consent for additional dwellings and building-plan approval, which will be sought from Knysna Municipality by Q3 2025.

The site supports Goukamma Strandveld (Vulnerable; SANBI VegMap 2025) and patches of Western Cape Milkwood Forest in the CBA 1 area, while the southern degraded CBA 2 section is dominated by alien thicket. Steep sandstone

sea cliffs (> 80 m) form a notable coastal feature along the southern boundary. Surrounding natural areas, including the proposed Goukamma Nature Reserve buffer expansion (SAPAD_OR_2025_Q1), enhance ecological connectivity and coastal corridor functioning.

The proposed development entails a main dwelling (± 200 m²), three small self-contained units (± 65 m² each) for private family use, staff housing (± 50 m²), an equipment shed (± 80 m²), and associated parking and access infrastructure.

A 3 m-wide gravel access road (± 200 m long) will lead to a parking area of ± 660 m². Pedestrian access to all units will be via timber boardwalks, reducing soil compaction. The total disturbed area is estimated at ± 1 175 m² (0.1175 ha)—less than 0.02 % of the property—ensuring that 99.98 % remains in its natural state.

Service infrastructure will be off-grid, including rainwater harvesting and storage, solar power, conservancy tanks for wastewater, and off-site waste disposal via municipal collection. The architectural design employs lightweight, eco-sensitive materials such as timber, steel, glass, and natural stone to integrate visually with the surrounding dune landscape.

Mitigation Commitments

- Register a conservation easement (± 4.25 ha) with the Western Cape Nature Conservation Board by Q4 2025.
- Apply for rezoning to Open Space III (Nature Conservation Area) by Q3 2025, formalising long-term stewardship and limited private residential rights.
- Implement an Alien Invasive Species Management Plan by Q3 2025, with annual monitoring by a registered ecologist.
- Obtain a National Forests Act permit for any disturbance to Western Cape Milkwood Forest.

The proposal aligns with the Knysna Spatial Development Framework (2020), which promotes low-impact rural living and private conservation initiatives beyond the urban edge.

By situating the development within the degraded CBA 2 zone, applying sensitive design principles, and committing to conservation management, the project achieves a balance between residential use and biodiversity protection within Knysna Municipality Ward 1.

Scope of assessment and contents of basic assessment reports

Appendix 1 of Regulation 982 of the 2014 EIA Regulations describes the contents required to complete a basic assessment report. The table below indicates how Appendix 1 requirements were incorporated into the basic assessment report:

Scope of assessment and content of basic assessment reports	Index
(1) A basic assessment report must contain the information that is necessary for the competent authority to consider and come to a decision on the application, and must include -	
(a) Details of – (i) The EAP who prepared the report; and (ii) The expertise of the EAP, including curriculum vitae.	**Section A** of the Report.

(b) The location of the activity, including – (i) The 21-digit surveyor General Code of each cadastral land parcel. (ii) Where available the physical address and farm name. (iii) Where the required information items (i) and (ii) is not available, the co-ordinates of the boundary of the property.	(i) **Section B** of the Report. (ii) **Section B** of the Report. (iii) **Section B** of the Report.
(c) a plan which locates the proposed activity or activities applied for as well as the associated structures and infrastructure at an appropriate scale, or, if it is (i) A linear Activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or (ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken.	**Section C** of this Report (i) N/A (ii) N/A
(d) a description of the scope of the proposed activity, including – (i) All listed and specified activities triggered and being applied for; and (ii) A description of the activities to be undertaken including associated structures and infrastructure	**Section D** of this Report (i) **Section D** of this Report (ii) **Section D** of this Report
(e) A description of the policy and legislative context within which the development is proposed, including – (a) An identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and have been considered in preparation of the report; and (b) How the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks and instruments.	**Section E** of this Report (i) **Section E** of this Report (ii) **Section E** of this Report
(f) A motivation for the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred location.	**Section F** of this report
(g) A motivation for the preferred site, activity and technology alternative	**Section G** of this report.
(h) A full description of the process followed to reach the proposed preferred alternative within the site including: (i) Details of all alternatives considered. (ii) Details of the public participation process undertaken in terms of regulation 41 of the regulations, including copies and supporting documents and inputs.	**Section G** of this report. **Section H** to be completed in Draft and Final BAR.

(iii) A Summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them.	**Section H (1)** to be completed in Draft and Final BAR.
(iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.	**Section H (2)** only the preferred alternative has been assessed, as further updated specialist studies will be required. This is just a consultation BAR however a proposed alternative is mentioned.
(v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts – (aa) can be reversed (bb) may cause irreplaceable loss of resources; and (cc) can be avoided, managed or mitigated.	**Section H (4)** Same as above.
(vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives.	**Section H (3)** of this report for the preferred alternative in the draft BAR and Final BAR this section will be completed fully.
(vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.	**Section H (5)** of this report for the preferred alternative in the draft BAR and Final BAR this section will be completed fully.
(viii) The possible mitigation measures that could be applied and level residual risk	**Section I** to be included in draft and Final BAR.
(ix) The outcome of the site selection matrix	**Section G** to be included in draft and Final BAR.
(x) If no alternatives, including alternative locations for the activity, were investigated, the motivation for not considering such; and	
(xi) A concluding statement indicating the preferred alternatives, including the preferred location of the activity.	**Section I** to be included in draft and Final BAR.

Section A

Details of the EAP that prepared the draft Basic Assessment Report

Consultation Basic Assessment Report has been compiled by:	Eco Route Environmental Consultancy
Environmental Assessment Practitioner:	Bianca Gilfillan
Highest Qualification:	BSc. Hons. Environmental Science, ND and BTECH: Environmental Management
Postal Address:	P.O. Box 1252 Sedgefield 6573

Office Tel:	044 343 2232
Cell:	079 189 5060
Fax:	086 402 9562
Email:	bianca@ecoroute.co.za

Expertise of the EAP, including a Curriculum Vitae

EXPERIENCE AND COMPETENCY– Environmental Impact Assessment

Name of Team member and role	Project	Notes
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Basic Assessment Applications for Municipalities in the Western Cape Region and ASLA Devco (Pty)Ltd, including Hessequa Municipality, Cape Agulhas Municipality, Matzikama Municipality, etc.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Low-cost housing development in Swellendam.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Various residential developments along the West Coast incl. Langebaan, Jacobsbaai, St Helena Bay, Dwarskersbos and Elands Bay.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Extension and development of Zweletemba Township (Worcester) abutting the Hex River, including river flood mitigation works.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Development of resorts, tourist facilities, golf courses and residential accommodation at Quaggaskloof, Worcester.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Applications for equestrian estates in the West Coast and Boland areas.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Upgrade of the Water Treatment Works in Vanryhnsdorp.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Optimisation of existing Radnor Compost Facility, Parow and establishment of a Materials Recovery Facility (MRF), a Refuse Transfer Station (RTS) and a Composting Facility - i.e. an Integrated Waste Management Facility (IWMF).	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Rezoning and construction of an incinerator at Swartklip Products, Khayelitsha.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Extension of the Khayelitsha Railway Line, Cape Town.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Development and upgrading of various service stations, convenience stores and car wash facilities for ENGEN Petroleum Ltd.	Environmental Authorisation was obtained.

Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Construction of a pipeline from the Potsdam Wastewater Treatment Works (WWTW) to a reservoir, Durbanville.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Relocation of a golf course and development of tourist facilities and residential accommodation at Clanwilliam Dam, Clanwilliam.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Development of chicken farms and upgrading of abattoirs, Cape Town.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Wind farm development in Hopefield and Beaufort West.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Rerouting and establishment of a new pipeline at the Lebanon mountain area.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Development of housing units at Royal Palms, Paarl.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner.	Development of a waste disposal site in Murraysburg, Beaufort West.	Environmental Authorisation was obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner – Environmental Control Officer	• Soil erosion as a result of wildfires in the Cape Peninsula Mountains. • Zweletemba Township extension, Worcester. • Mfuleni flood relief housing project. • Extension of Khayelitsha Railway Line, Cape Town. • Various projects in sensitive environments for Sentech, the City of Cape Town, Breede Valley Municipality, Shoprite Checkers Properties, etc. • Housing developments in Dwarskersbos, Velddrift and Laaiplek. • Housing development in Atlantis, Kanonkop. • Construction of substations in Cape Town for COCT. • Low-cost housing in Swellendam for the Municipality.	Approval obtained.
Name: Bianca Gilfillan Role: Environmental Assessment Practitioner- Audits	• Boskloof Farm Eurepgap compliance for the use of "virgin land" for export vineyards. • Food and human health safety at Protea Boerdery, Worcester for Eurepgap. • ISO 14000 Management systems. • Various Filling Service Stations	Approval obtained.

CURRICULUM VITAE (CV)

Position Title and No.	Senior Environmental Assessment Practitioner
Name of Expert:	Bianca Gilfillan
Date of Birth:	20/12/1981
Country of Citizenship/Residence	South Africa

Education:

Institution: University of Technology: CPUT

Year: 2002

Degree: National Diploma in Environmental Management

Institution: University of Technology: CPUT

Year: 2003

Degree: BTECH: Environmental Management

Institution: University of the Western Cape

Year: 2009

Degree: BSc. Hons in Environmental Science

Institution: Stellenbosch University

Year: present

Degree: MPhil.: Environmental Management

Employment record relevant to the assignment:

Period	Employing organization and your title/position. Contact info for references	Country	Summary of activities performed relevant to the Assignment
2003 -2021	Senior Environmental Assessment Practitioner Reference: Mr Dupré Lombaard	South Africa	Basic Assessment Reports, Scoping and EIA Reports, Environmental Control Officer, Environmental Management Programmes, Audits
2021-2024	Senior Environmental Assessment Practitioner	South Africa	Environmental Impact Assessments and Environmental Impact Reports pertaining to: • Residential Developments • Industrial Developments • Game Farm Management • Air quality license applications • Environmental Management Programmes • Environmental Control Officer • Filling stations • Agricultural Developments • Audits

			Environmental Management Programmes & Frameworks pertaining to: • Residential Developments • Industrial Developments • Water use license • Applications • Filling stations • Air quality license applications

Membership in Professional Associations:

International Association for Impact Assessment and EAPASA

Language Skills:

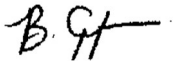
Languages	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent
Afrikaans	Excellent	Excellent	Excellent

Adequacy for the Assignment:

Detailed Tasks Assigned to Consultant's Team of Experts:	**Reference to Prior Work/Assignments that Best Illustrate the Capability to Handle the Assigned Tasks**
{List all deliverables/tasks as in TECH- 5 in which the Expert will be involved)	Ms Gilfillan has successfully completed a variety of Environmental Impact Assessment applications and Environmental Management Programme reports. Her expertise encompasses the assessment of diverse development projects, contributing significantly to well-informed planning and decision-making processes.

<u>Certification</u> :

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.

Bianca Gilfillan  10 November 2025

Name of Expert Signature Date

Section B

Location Information

Province:	Western Cape
District Municipality:	Garden Route Municipality
Local Municipality:	Knysna Municipality
Ward number(s):	Ward 1
Nearest town(s):	Knysna
Erf name(s) and number(s):	79/205

Property Information

Erf Number	Portion 79/205
Surveyor General 21-digit code:	C03900000000020500079
Zoning:	Agriculture Zone I
Urban Edge:	Outside
Applicant name:	Daniel Sevenster and Partners In
Registration number (if the applicant is a company):	2008/004690/21
Trading name (if any):	The Optical Center Sandton
Responsible person name:	Mr Daniel Sevenster
Responsible position, e.g. Director, CEO, etc.:	Director
Physical address of applicant:	Shop L14D lower level ENTRANCE 4 Sandton City Shopping Center 83 Rivonia Rd, Sandhurst, Sandton
Postal code:	2196
Telephone:	(011) 883 1312
Fax:	0832973398
E-mail:	Daniel.Sevenster@gmail.com
GPS point middle of property: **Portion 0** **Portion 79**	 - 34°0'54.38S 22°50'31.21E - 34°2'23.85S 22°49'28.57E

Property Description

Portion 79 of Farm Ruygte Valley No. 205, situated east of Cola Beach in the Groenvlei rural area of Sedgefield, Western Cape, measures approximately 5.1576 hectares. The property is bounded to the south by coastal public land, adjoining Portion 78—a private nature reserve zoned *Agriculture Zone I*—and the Lake Pleasant Private Nature Reserve to the east.

According to the Western Cape Biodiversity Spatial Plan (WCBSP, 2025), the northern section of the property is classified as a Critical Biodiversity Area 1 (CBA1), while the southern section is designated as a degraded Critical Biodiversity Area 2 (CBA2). The vegetation consists primarily of Goukamma Strandveld (Vulnerable, *SANBI VegMap 2025*), with Western Cape Milkwood Forest occupying the CBA1 portion. The degraded CBA2 area in the south is dominated by *Acacia cyclops*. The southern coastal boundary is defined by steep sandstone cliffs exceeding 80 metres, creating a visually prominent and sensitive geological feature.

The site forms part of a smallholding area subdivided in 1961 from Portion 70 (originally Portion 38, Lake Pleasant Estate). It remains undeveloped and is zoned Agriculture Zone I under the Knysna Zoning Scheme By-Law (1992), which permits a dwelling house as a primary right. The title deed includes restrictions imposed by Lake Pleasant Estate (Pty) Ltd, requiring written consent for additional dwellings and building plan approval.

Access is obtained via Groenvlei Beach Road, a gravel route leading to the western beach of the Goukamma Nature Reserve, and a Public Servitude Road (Bushy Way, SG Diagram 6532/61) that connects to the N2 via the Groenvlei Divisional Road (DR 1594). Bushy Way is currently overgrown and will require minimal clearing along existing disturbed paths to permit access while limiting vegetation loss.

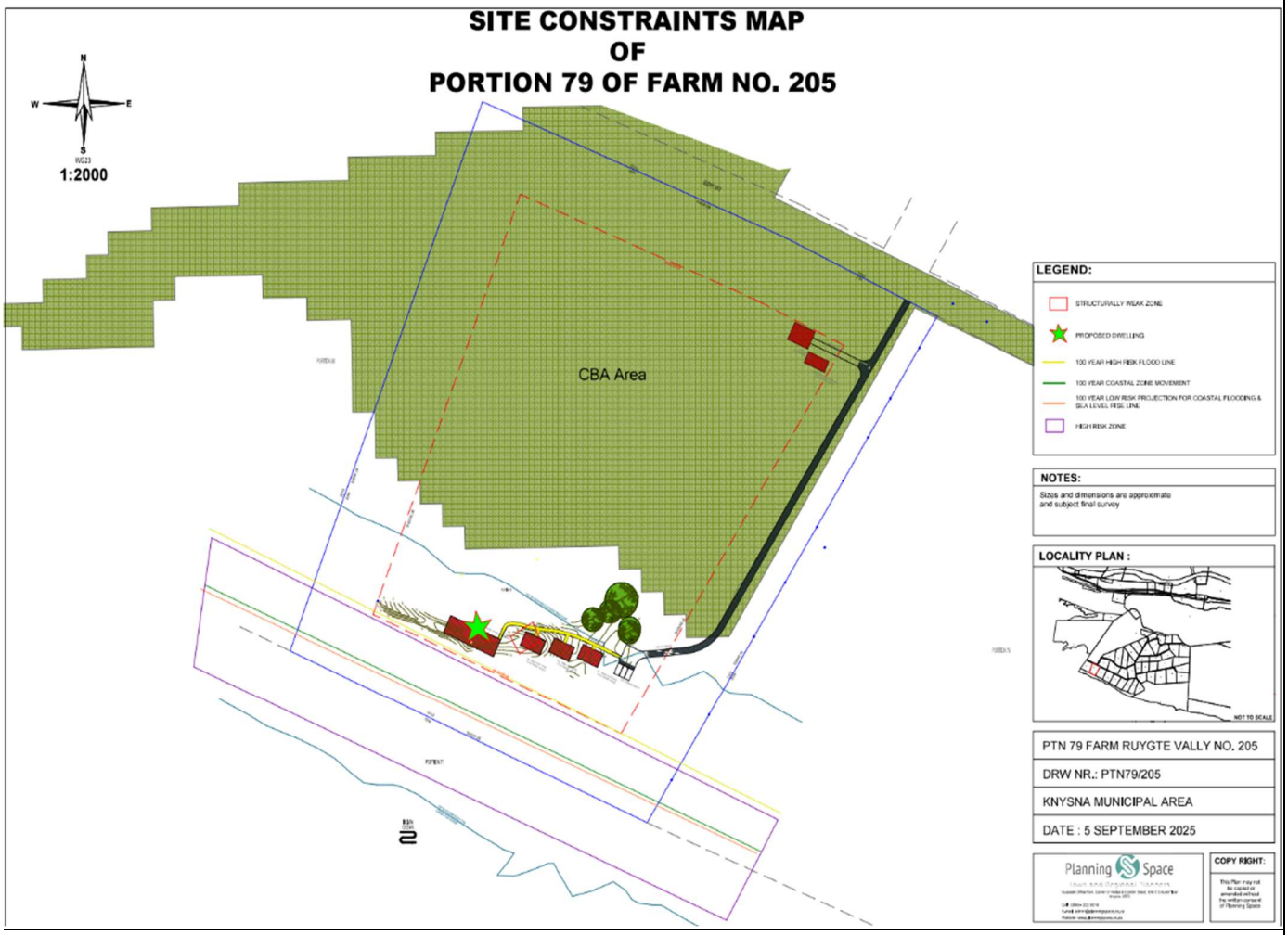


FIGURE 1: SITE CONSTRAINTS MAP SHOWING VEGETATION TYPES (CBA1, CBA2), SLOPE CONTOURS, ACCESS ROUTES, AND PROPOSED DEVELOPMENT AREA ON PORTION 79 OF FARM RUYGTE VALLEY NO. 205, SEDGEFIELD. SOURCE: APPENDIX B1 – SITE CONSTRAINTS MAP (2025).

Proposed Development

The landowners intend to reside permanently on the property and propose the construction of a main dwelling (±200 m²), together with three small self-contained units (±65 m² each) for private family use. These additional units are not for commercial or tourist accommodation. Ancillary structures will include staff housing (±50 m²) and an equipment shed (±80 m²) for land and conservation management.

Access will be provided via a 3 m-wide gravel road, approximately 200 m in length, along the eastern boundary, leading to a 660 m² parking area. Pedestrian access to the house and private units will be via elevated timber boardwalks to reduce soil compaction. The total development footprint is estimated at ±1 175 m² (0.1175 ha)—representing less than 0.02 % of the total property area—ensuring that 99.98 % of the site remains natural.

All infrastructure will be off-grid, incorporating rainwater harvesting tanks, conservancy tanks, solar power generation, and off-site waste disposal to the municipal collection point.

The architectural design adopts an environmentally sensitive approach using timber, steel, glass, and natural stone, blending with the natural landscape and reducing excavation requirements.
Although zoned Agricultural I, the site is unsuitable for commercial agriculture due to ecological sensitivity, steep slopes, and the presence of Critical Biodiversity Areas. The proposal supports private conservation use consistent with the Terrestrial Biodiversity Assessment (2025) and Town Planning Report (2025) recommendations.

Geotechnical and Physical Context

The site forms part of a coastal dune system underlain by fossilised sandstone formations dipping southwards at approximately 45°. According to the Preliminary Geotechnical Report (Rock Hounds, 2024) and Civil and Structural Engineering Confirmation (Marius van Coller, Pr. Eng, 2025), the subsurface comprises loose to medium-dense sandy loam and fine sand, with organic-rich top layers. These soils are highly permeable but structurally weak, requiring careful foundation and stormwater design to avoid erosion.

Key recommendations include:

- Use reinforced raft or piled foundations suitable for low-bearing soils (G7–G9).
- Avoid deep box cuts; follow natural contours to maintain slope stability.
- Manage stormwater dispersion naturally, applying Sustainable Urban Drainage System (SUDS) principles.
- Immediately rehabilitate disturbed dune areas using locally indigenous vegetation.

Vegetation within the upper 65 m contour comprises coastal forest and thicket, transitioning to shrubland toward the coast. Historical satellite imagery indicates long-term stability of the dune system, with consistent vegetation cover between 2005 and 2024.

Climatic modelling projects minor increases in seasonal rainfall (196 mm to 202 mm per annum) and a low risk of coastal flooding through 2050. The 100-year coastal hazard zone corresponds to the 40 m contour (property boundary), while the high-risk erosion projection extends only to the Lookout Point, ±50 m from the existing cliff line.

Section C - Locality Map

FIGURE 2: LOCALITY MAP

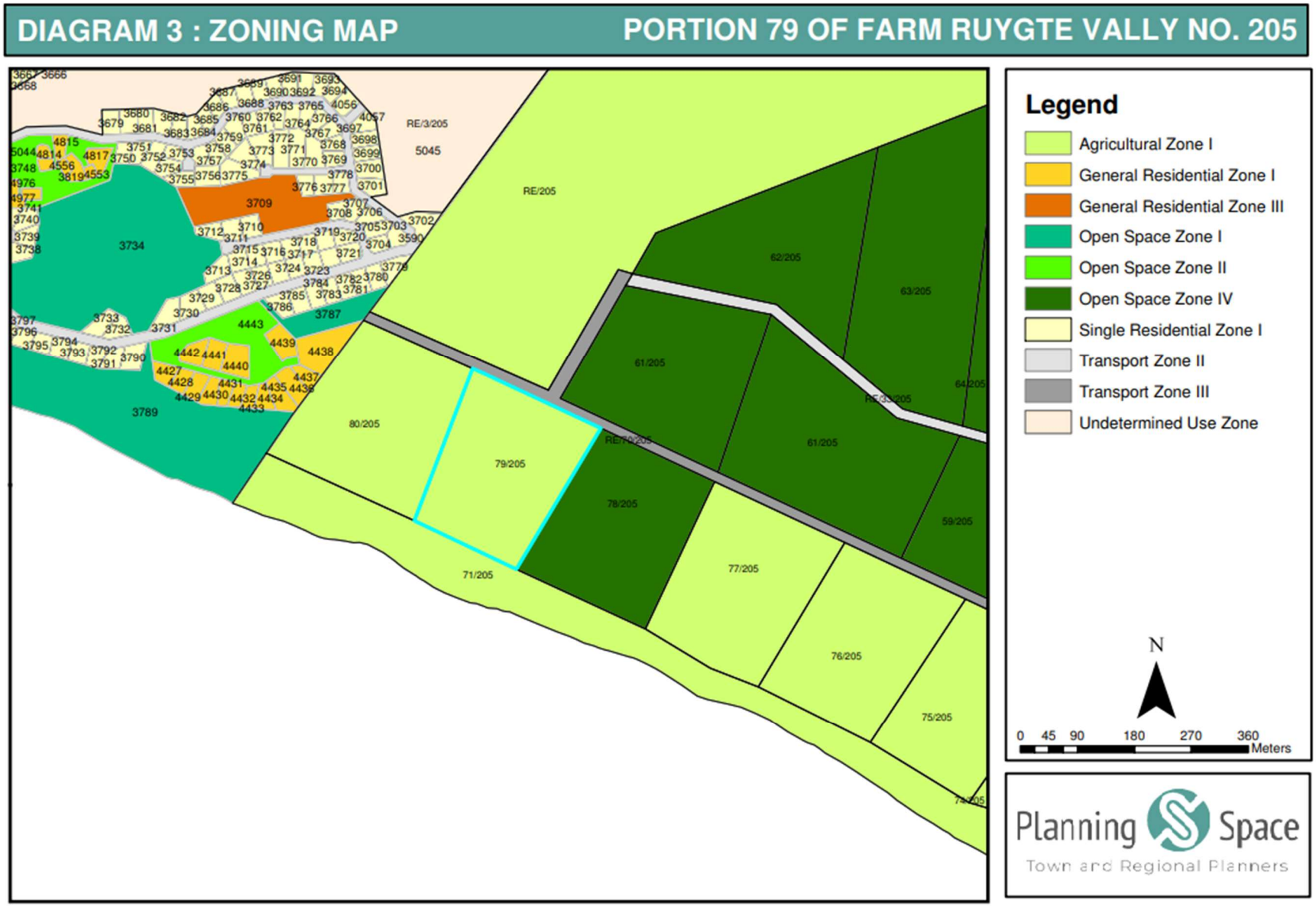


FIGURE 3: ZONING MAP, TOWN PLANNING REPORT, PLANNING SPACE, TOWN AND REGIONAL PLANNERS

LOCALITY MAP:

FIGURE 4: INDICATION THAT THE ENTIRE PROPOSED DEVELOPMENT WILL FALL WITHIN THE 100-METER HIGH-WATER MARK

The Western Cape Biodiversity Spatial Plan (WCBSP) designates the property as situated within a Critical Biodiversity Area (CBA:1 – to maintain and CBA:2 – to restore), including features related to terrestrial biodiversity and forest regions.

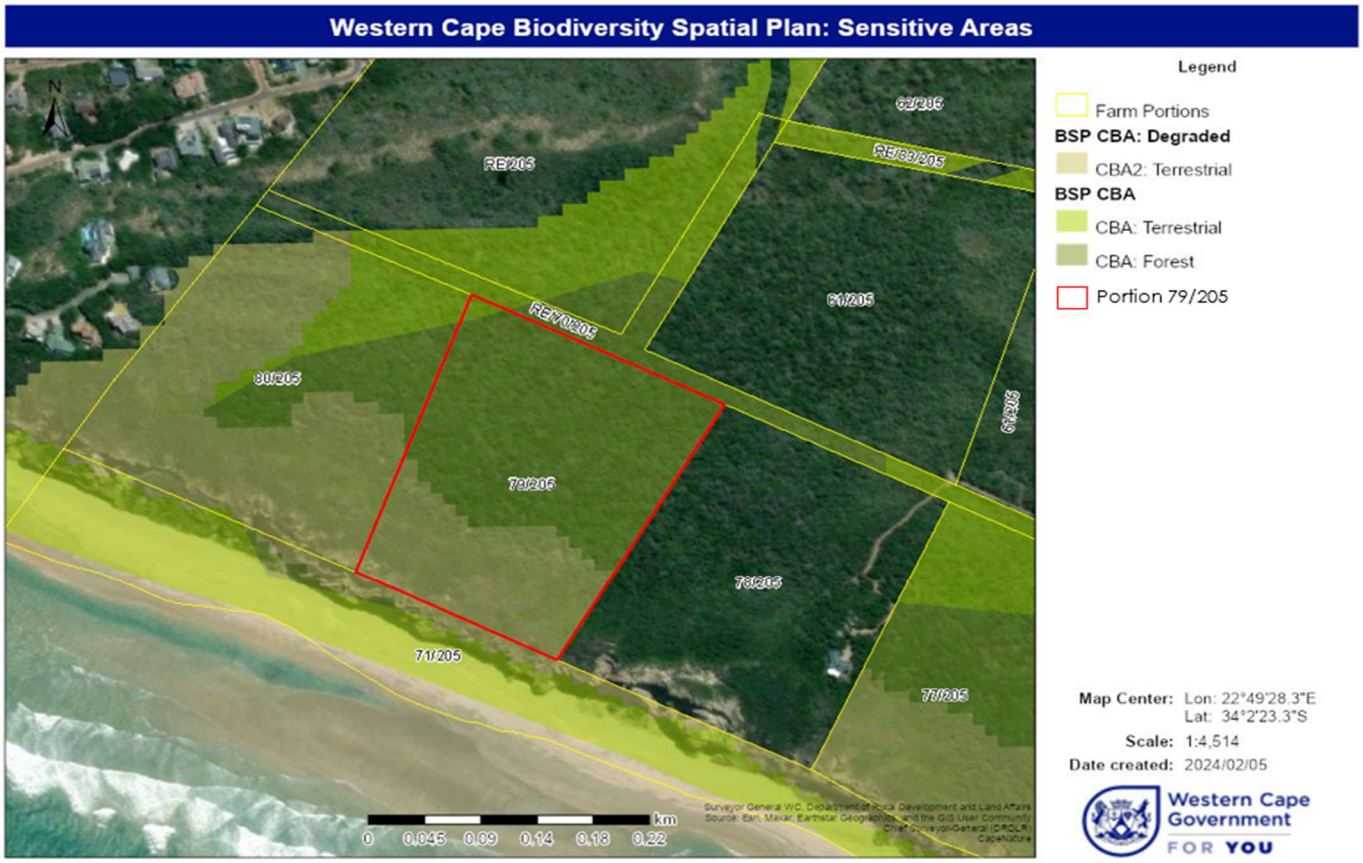


FIGURE 5: WESTERN CAPE BIODIVERSITY SPATIAL PLAN (2017) PROTECTED AREAS (CBA 1 AND CBA 2)

FIGURE 6: SANBI ORIGINAL ECOSYSTEM STATUS INDICATING GOUKAMMA DUNE THICKET

FIGURE 7: SANBI REMAINING ECOSYSTEM STATUS STILL INCLUDING GOUKAMMA DUNE THICKET

Critical Biodiversity Area 1:

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

Objective: Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.

Critical Biodiversity Area 2:

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

Objective: Maintain in a natural or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.

FIGURE 8: INDICATION THAT THE ENTIRE PROPOSED DEVELOPMENT WILL FALL WITHIN THE 100-METER HIGH-WATER MARK

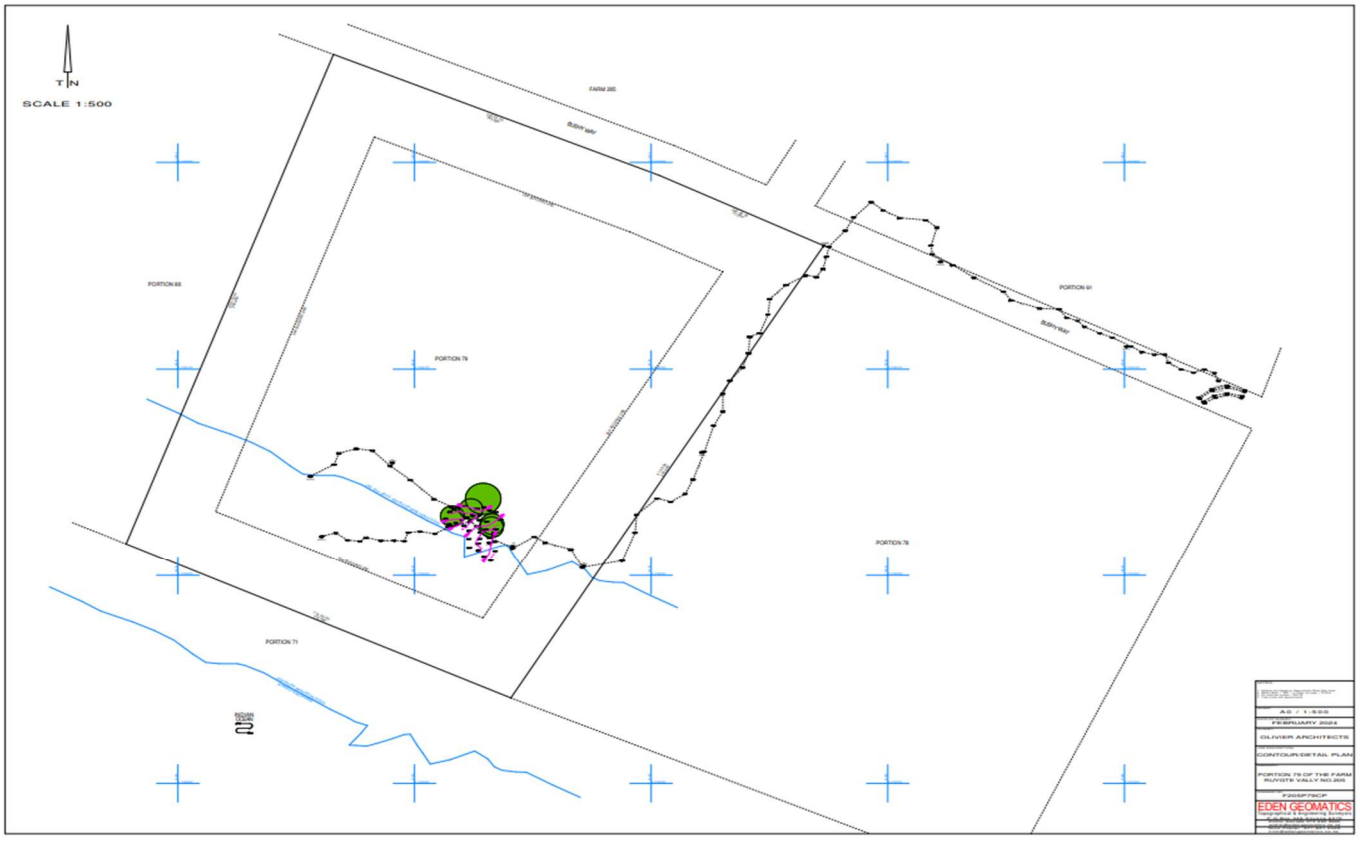


FIGURE 9: 100-METER HIGH-WATER MARK (AS INDICATED BY OLIVIER ARCHITECTS, FEBRUARY 2024)

The 100-year low-risk projection indicates that the coastal zone is expected to align with the 40-meter contour line, which represents the property boundary. In contrast, the high-risk projection suggests that the coastal zone may reach Lookout Point, situated 50 meters from the current coastal area.

Flooding projections for the year 2100 indicate that the 100-year coastal flood line may coincide with the coordinates of Lookout Point. Satellite imagery measurements from the period 2005 to 2024 suggest that the coastal zone could potentially advance inland by 30 meters over the next century, based on an observed rate of 6 meters of movement every 20 years. This projection aligns with the low-risk coastal flooding estimates, which correspond with the 40-meter contour line and reflect the current property boundary.

Section D

Description of the scope of the proposed activity

The Applicant proposes to develop a primary residence, three small private-use cottages, a parking area, and a garage/storeroom on Portion 79 of Farm Ruygte Valley No. 205. Access to the site will be established via a gravel road, less than 3 m wide, traversing existing disturbed areas within dense vegetation.

This property falls within Knysna Municipality Ward 1, located east of Sedgefield, and is currently zoned Agriculture Zone I, which permits a single dwelling as a primary land-use right.

The landowners intend to reside permanently on the property and therefore seek to construct a dwelling of approximately 200 m². Three additional 65 m² cottages are proposed for private family use only (not for tourism or rental purposes). Ancillary structures will include staff accommodation (± 50 m²) and an equipment shed (± 80 m²) for land-management purposes. Access will be provided via the gravel road leading to a parking area (± 660 m²), from which timber boardwalks will connect the dwellings and cottages to limit soil compaction.

The development concept is to create a low-impact private retreat in a natural setting. The architectural style will use lightweight, environmentally sensitive materials — including steel, timber, glass, and natural stone — to blend into the landscape and reduce excavation. The total building footprint is approximately 525 m², and the total development area (including road and parking) is ± 1 175 m², which represents less than 0.02 % of the property area, leaving 99.98 % of the site undisturbed.

According to the Preliminary Geotechnical and Geomatic Report (Rock Hounds, 2024) and Civil & Structural Engineering Confirmation (Marius van Coller Pr. Eng, 2025), the proposed development area (≈ 75 m a.s.l.) is above the 100-year high-risk coastal erosion line and falls within a geotechnically feasible zone provided slope-stabilisation and stormwater-management measures are applied.

The Western Cape Biodiversity Spatial Plan (2025) identifies the northern portion of the property as CBA 1 (Critical Biodiversity Area — Maintain), and the southern portion as CBA 2 (Critical Biodiversity Area — Restore). The proposed footprint lies entirely within the degraded CBA 2 area, thereby avoiding intact forest in the CBA 1 zone.

The Terrestrial Biodiversity Assessment (2025) confirms that the property supports a single mapped vegetation type, Goukamma Strandveld (Vulnerable, SANBI VegMap 2025). The coastal margin includes parabolic dunes with Knysna Sand Fynbos on inland ridges, and Mesic Dune Thicket transitioning into Milkwood Forest in protected zones. All proposed infrastructure is positioned outside the steep southern slopes and within previously disturbed areas of degraded vegetation.

Given the existing agricultural zoning, small footprint, and clear intent to rehabilitate and protect undeveloped portions of the site, the proposal represents a balanced and conservation-compatible use of the land. The project

is consistent with the Western Cape Biodiversity Spatial Plan, Knysna SDF (2020), and NEMA principles promoting sustainable rural development and private stewardship.

On condition that fire safety, stormwater management, and coastal forest protection measures are implemented, the proposed development can be supported from an environmental and planning perspective.

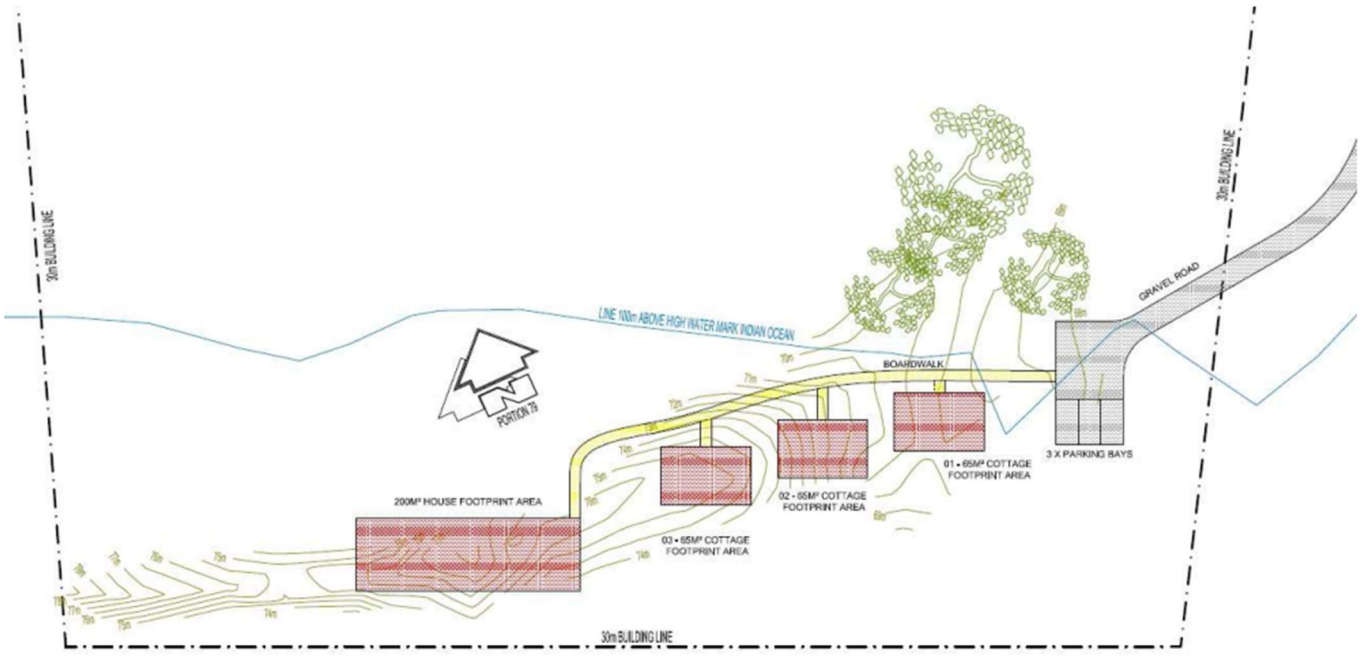


FIGURE 10: SITE PLAN AND CONCEPT DESIGN

Electricity

There is currently no electrical infrastructure present on the property or in the adjacent road reserve. It is advisable to consider the installation of a solar power facility in this location.

Solar plant

Type and system

The solar plant will be developed as an off-grid installation, utilising solar energy to supply the load during daylight hours while recharging the batteries at night. Furthermore, grid-tied photovoltaic inverters may be integrated into this micro-grid configuration through AC coupling, should the energy demand surpass the generation capacity.

Plant location

It is advisable to consider the installation of a roof-mounted solar power system on the roofs of both the main residence and the three small self-catering tourist accommodation units, should there be a requirement for increased energy generation capacity.

Plant capacity

The proposed system is designed with a capacity of 15 kWh, while the anticipated peak consumption is estimated to reach 30 kWh per day.

Energy Storage

A sealed Lithium Iron Phosphate battery system is proposed, which is expected to provide a lifespan exceeding 10 years at a depth of discharge of 70%. Additionally, this system offers an expedited charging time, enhancing its operational efficiency.

Area/Street lighting
The road lighting system will utilise low-intensity, low-level bollard luminaires. Each luminaire will be powered by an individual small solar cell and will activate solely upon detecting motion.

Description of the NEMA-listed activities associated with the project

Before any of the below-listed activities can commence, authorisation must be obtained from the Department of Environmental Affairs (DEA). The following activities, as per NEMA Regulations, have been identified below:

Listed activity as described in GN R.325, 324, 327	Description of project activity
GN R.327 activity 17: Development— (i) in the sea. (ii) in an estuary. (iii) within the littoral active zone. (iv) in front of a development setback; or (v) if no development setback exists, within a **distance of 100 metres inland** of **the high-water mark** of the sea or an estuary, whichever is the greater. in respect of— (a) fixed or floating jetties and slipways. (b) tidal pools. (c) embankments. (d) rock revetments or stabilising structures, including stabilising walls; or (e) **infrastructure or structures with a development footprint of 50 square metres or more** — but excluding— (aa) the development of infrastructure and structures within existing ports or harbours that will not increase the development footprint of the port or harbour. (bb) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies. (cc) the development of temporary infrastructure or structures where such structures will be removed within 6 weeks of the commencement of development and where coral or indigenous vegetation will not be cleared; or (dd) where such development occurs within an urban area.	The current indicated area for proposed development falls within the 100-meter high-water mark.
GN R.327 activity 19A: The infilling or depositing of any material of more than 5 cubic metres into, or the **dredging, excavation, removal or moving of** soil, sand, shells, shell grit, pebbles or rock of more than **5 cubic metres** from—	Excavation of the building, the primary property within 100-meter of the high-water mark, will require excavation of more than 5 cubic meters.

(i) the seashore; (ii) the littoral active zone, an estuary or a distance of **100 metres inland** of the **high-water mark** of the sea or an estuary, whichever distance is the greater: or (iii) the sea; — but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback. (b) is for maintenance purposes undertaken in accordance with a maintenance management plan. (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies. (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.	

FIGURE 11: AN INDICATION THAT THE ENTIRE PROPOSED DEVELOPMENT WILL FALL WITHIN THE 100-METER HIGH-WATER MARK

GN R.327 activity 27: The **clearance of an area of 1 hectares or more**, but less than 20 hectares, **of indigenous vegetation**, except where such clearance of indigenous vegetation is required for— the undertaking of a linear activity; or maintenance purposes undertaken in accordance with a maintenance management plan.	Construction of both the primary dwelling and an access road may require the removal of the indigenous Goukamma Dune Thicket of more than 1 Ha.
GN R.324 activity 4: The development of a road wider than 4 metres with a reserve less than 13,5 metres. **Western Cape:**	Portion 79 of Farm 205 is located outside the urban area; therefore, the development of an access road that exceeds this threshold will trigger this

i. Areas zoned for use as public open space or equivalent zoning. ii. **Areas outside urban areas**. (aa) Areas containing indigenous vegetation. (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii. Inside urban areas: Areas zoned for conservation use, or Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	listed activity and require environmental authorisation.

FIGURE 12: SANBI REMAINING ECOSYSTEM STATUS STILL INCLUDES GOUKAMMA DUNE THICKET

The principles articulated in Section 2 of the National Environmental Management Act of 1998 (Act 107 of 1998), as amended, stipulate that environmental management must prioritise the needs of individuals. It is essential that this approach addresses the physical, psychological, developmental, cultural, and social interests of people in a just and equitable manner.

The Applicant plans to develop a primary residence and three small private-use cottages, together with a vehicle parking area and garage/storeroom, on the property. Situated within Knysna Municipality Ward 1, east of Sedgefield, the land is currently zoned Agriculture Zone I, which allows for a dwelling house as a primary land-use right.

The owners intend to construct a modest dwelling of approximately 200 m², in accordance with existing zoning provisions. In addition, three small cottages, each measuring approximately 65 m², are proposed for exclusive use by the landowners and family members, not for tourism or commercial purposes.

Ancillary structures will include staff accommodation (± 50 m²) and a storage shed (± 80 m²) for the maintenance of the land and conservation management activities. A gravel access road, less than 3 m wide, is planned along the

eastern boundary, leading to a parking area from which timber boardwalks will provide access to the dwelling and cottages.

Development must be socially, environmentally and economically sustainable:

Social Sustainability

Social sustainability involves fostering community well-being, ensuring equitable access to resources, and minimising negative impacts on local lifestyles. The public will evaluate the development based on its effects on community cohesion, cultural heritage, and environmental quality.

Positive Impact: The development's eco-tourism focus, with three self-catering cottages, aligns with Sedgefield's identity as a seaside village along the Garden Route, attracting low-impact tourism (Town Planning Report, Appendix D5, Page 8). This can enhance local pride and provide opportunities for community engagement, such as guided nature walks or cultural tours linked to the Goukamma Strandveld ecosystem (Terrestrial Biodiversity Assessment, Appendix D4).

Public Concern: Residents, particularly those near Cola Beach (700 m west) or the neighbouring residence (250 m east), may worry about restricted access to Groenvlei Beach, a local favourite for fishing and recreation (Visual Compliance Statement, Appendix D1, Page 10). The Preliminary Geotechnical and Geomatic Report (Appendix D2, Page 38) notes the 100 m high-water mark (HWM) as a regulatory boundary, and any perceived privatisation of coastal access could spark opposition.

Mitigation: Ensure public access to Groenvlei Beach via the existing Public Servitude Road (Bushy Way) and Groenvlei Beach Road, as outlined in the Town Planning Report (Appendix D5, Page 10). Engage the community through public consultations by Q3 2025 to address access concerns and promote the project as a community asset, potentially offering local educational programs on coastal conservation.

The proposed development will generate valuable employment opportunities during the construction phase, providing jobs for local workers, supporting skilled trades, and stimulating economic growth in the community.

Environmentally

The proposed development aligns with environmental legislation and sustainability principles by incorporating responsible land-use planning within a Critical Biodiversity Area (CBA). This designation underscores the site's ecological significance, ensuring that conservation measures are integrated into the development process. The project is designed to minimise environmental impact by preserving indigenous vegetation, which serves as a habitat for diverse flora and fauna while maintaining the integrity of the coastal forest. This forest plays a vital role in stabilising the dunes, preventing erosion, and safeguarding the broader ecosystem.

Additionally, the development framework adheres to climate resilience strategies, as projections indicate a low risk of coastal flooding. The sandy loam and organic-rich soil present on-site further contribute to biodiversity conservation and carbon sequestration, enhancing long-term environmental sustainability. While climate variability may alter rainfall patterns, the site's ecological resilience ensures its continued stability. By incorporating environmentally sensitive design principles and adhering to relevant environmental legislation, the proposed development strikes a balance between sustainable use and ecological preservation, supporting long-term conservation objectives.

Positive Impact: The Visual Compliance Statement (Appendix D1, Page 11) confirms minimal visual impact due to the site's high Visual Absorption Capacity (VAC), with dense Fynbos vegetation and 70 m cliffs screening the development from Groenvlei Beach, the N2, and Cola Beach. The public values the unspoilt natural landscape, including vistas toward Gericke's Point and the Outeniqua Mountains (Visual Compliance Statement, Appendix D1, Page 6), which the project preserves.

Public Concern: Temporary construction impacts, such as dust, debris, and vegetation removal in the degraded CBA2 area, could disrupt the area's aesthetic appeal and ecological balance, particularly within the 100 m HWM (Visual Compliance Statement, Page 11; Preliminary Geotechnical and Geomatic Report, Appendix D2, Page 36). Residents may fear long-term erosion risks, given the 4-6 m dune retreat over 19 years (2005-2024) and projected 30 m inland movement by 2100 (Preliminary Geotechnical and Geomatic Report, Page 27).

Mitigation: Implement dust suppression, daylight-only construction, and a rehabilitation strategy to salvage and replant native vegetation, as recommended (Visual Compliance Statement, Appendix D1, Page 11). Use erosion control measures (e.g., dune stabilisation) at the PE location if chosen and prioritise BM or HW2 (on/north of the 100 m HWM) to reduce erosion risks (Preliminary Geotechnical and Geomatic Report, Appendix D2, Page 38). Communicate these measures through community forums to build trust.

Economically

The economic viability of the proposed development is strongly rooted in the property's pristine natural environment, which offers substantial opportunities for sustainable, eco-friendly growth. By leveraging the site's ecological assets, the project can foster low-impact tourism and conservation-based land use, aligning with global trends in responsible tourism and green investment. This approach not only ensures economic sustainability but also reinforces environmental preservation as a key driver of long-term value.

Strategically located near well-established ecotourism hubs such as the Goukamma Nature Reserve and the Sedgefield tourism corridor, the property is well-positioned to attract visitors seeking immersive nature experiences. This proximity enhances the potential for eco-tourism initiatives that contribute to the local economy while maintaining ecological integrity. Additionally, the site's conservation value presents opportunities for financial incentives, such as participation in carbon credit programs. These mechanisms provide an economic framework that balances financial returns with long-term environmental conservation, securing a future where economic growth and ecological sustainability coexist harmoniously.

Economic sustainability requires the development to generate long-term economic benefits, support local livelihoods, and remain financially viable without overburdening public resources. The public expects job creation, tourism revenue, and infrastructure improvements that enhance Sedgefield's economy.

<u>Job Creation and Local Economy:</u>

Positive Impact: The proposed development will yield local socio-economic benefits primarily through construction-related employment and the use of locally sourced materials and services. The construction of the 200 m² main dwelling, 80 m² shed, and associated access road and boardwalk will create short-term job opportunities for builders, artisans, and general labourers drawn from the Sedgefield and Knysna communities (Town Planning Report and Civil & Structural Engineering Confirmation Report, Appendix D5).

Local procurement of building materials, transport, and construction support services will stimulate small business activity in the region, particularly in the construction, logistics, and maintenance sectors. This aligns with the Knysna Integrated Development Plan (2017–2022), which promotes small-scale, environmentally responsible private investment to drive job creation and economic inclusion.

It is accepted that the current Geotechnical Report (Appendix D2) is explicitly preliminary in nature, and while it provides a valuable first-level assessment of slope stability, soil characteristics, and general site constraints, it does not offer a definitive basis for final design or construction authorisation—particularly within a sensitive coastal dune system that exhibits visible signs of instability and high conservation value. The subsequent Civil and Structural Engineering Confirmation Report (Appendix D5) reinforces this position, confirming that before any construction

proceeds, all foundation designs, slope stabilisation, and stormwater management systems must be certified by an ECSA-registered professional engineer.

In this context, the proposed development demonstrates a measured and responsible approach, balancing socio-economic benefits such as employment generation and local economic stimulation with sound engineering judgement and environmental stewardship. The project's modest scale, strict adherence to professional engineering oversight, and alignment with municipal policy objectives ensure that it contributes positively to the local economy while safeguarding the integrity of the coastal dune environment.

Public Concern: Jobs may be low-skill or seasonal, limiting long-term economic benefits. The public may question whether the small-scale project (three cottages) justifies infrastructure costs, such as extending the gravel road from Groenvlei Beach Road (Visual Compliance Statement, Appendix D1, Page 6).

Mitigation: Partner with local training programs to upskill workers for sustainable roles (e.g., eco-tourism guides). Ensure contracts prioritise local suppliers for materials and services. Conduct a cost-benefit analysis by Q3 2025 to confirm the project's economic viability, sharing results with the community to demonstrate value.

Infrastructure and Public Resources:

Positive Impact: The development's off-grid infrastructure (solar power, rainwater tanks, conservancy tanks) minimises strain on municipal services, aligning with sustainable resource use (Town Planning Report, Appendix D5, Page 11). Upgrading the Public Servitude Road (Bushy Way) could improve access to Groenvlei Beach for all residents (Town Planning Report, Appendix D5, Page 10).

Public Concern: Extending the gravel road and managing construction impacts (e.g., dust, debris) may temporarily disrupt residents on Groenvlei Beach Road (Visual Compliance Statement, Appendix D1, Page 11). The Preliminary Geotechnical and Geomatic Report (Appendix D2, Page 38) highlights the need for municipal approval, and residents may oppose funding infrastructure upgrades if the benefits are unclear.

Mitigation: Fund road upgrades privately to avoid burdening public resources, and implement construction management practices (e.g., dust suppression, debris removal) as recommended (Visual Compliance Statement, Appendix D1, Page 11). Ensure the road remains publicly accessible post-construction to benefit the community.

From a public point of view, the development of Portion 79 can be considered socially and environmentally sustainable if it continues to prioritise minimal disturbance, private-use occupation, and long-term ecological stewardship. The proposal no longer includes any tourism accommodation; instead, all dwellings will be used by the landowners and their immediate family members, thereby avoiding additional traffic, service demand, or visitor impacts on the forest and coastal corridor.

The low-density residential character, limited construction footprint (± 1 175 m^2), and off-grid design remain consistent with sustainable land-use objectives and the Knysna Municipal Spatial Development Framework (SDF, 2020). The project's design incorporates findings of the Preliminary Geotechnical and Geomatic Report (Rock Hounds, 2024) and Civil and Structural Engineering Confirmation (2025), which confirm that, with slope-sensitive construction and erosion control, the risk of instability and flooding is low.

Potential public and neighbour concerns regarding access, construction disturbance, and long-term dune stability will be addressed through a transparent Environmental Management Programme (EMPr), ongoing ECO oversight, and post-construction rehabilitation of all disturbed areas.

In this way, the development demonstrates compatibility with local conservation and planning frameworks and supports the area's broader landscape-level biodiversity objectives, without introducing new tourism or high-intensity land uses.

(i) 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.

Biodiversity, heritage, and scenic resources form an integral part of the Western Cape's rural conservation agenda, which promotes stewardship at both the landscape and property level. The Western Cape Government (WCG) approach to conservation aims to formally protect priority biodiversity areas, strengthen ecological linkages across rural landscapes, and embed a conservation ethic in all land-use and management activities.

According to the Western Cape Rural Land Use Planning and Management Guidelines (2019), the objectives for this category are to:

- Protect and conserve important terrestrial, aquatic, and marine habitats, as identified through systematic biodiversity planning and related conservation assessments.
- Facilitate the formal protection of Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) on both public and private land, through stewardship and conservation management mechanisms.
- Mitigate climate-change impacts by establishing ecological corridors that maintain habitat connectivity across the rural landscape.
- Safeguard the scenic qualities of the province's natural and cultural landscapes, ensuring that new development complements their visual and aesthetic integrity.
- Protect the Western Cape's rural sense of place, cultural landscapes, and heritage or archaeological resources, ensuring that future land uses respect these values.

For Portion 79 of Farm Ruygte Valley No. 205, these objectives are directly applicable: the site includes both CBA1 (Maintain) and CBA2 (Restore) areas and forms part of the scenic Goukamma coastal landscape. The proposal's conservation-oriented layout—preserving 99 % of the site in its natural condition and limiting development to a single low-impact residential node—supports these objectives and aligns with provincial rural conservation policy.

A Notice of Intent to Develop will be submitted to Heritage Western Cape (HWC) for review and comment as part of the Draft Basic Assessment Report process, to confirm that no further heritage assessment is required in terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999).

(ii) that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner.

The project will implement the waste hierarchy throughout both the construction and operational phases, consistent with the National Environmental Management: Waste Act (Act 59 of 2008). This approach aims to prevent, minimise, and responsibly manage waste generation while promoting reuse and recycling wherever feasible.

<u>Waste Avoidance:</u>

The small 1 175 m² development footprint and eco-sensitive building design (light steel framing, glass, and timber materials) significantly reduce material usage and site disturbance (Town Planning Report, Appendix D5, p.7).

<u>Minimisation and Reuse:</u>

Alien vegetation (primarily *Acacia cyclops*) cleared during site preparation will be mulched and reused for erosion

control and landscaping. Rainwater tanks and off-grid systems will minimise water and energy consumption (Terrestrial Biodiversity Assessment; Town Planning Report, Appendix D5, p.11).

Recycling and Disposal:

All construction debris will be sorted at source, with recyclable materials separated and sent to licensed recycling facilities. Non-recyclable materials will be disposed of at the Knysna Municipal Waste Disposal Site, a licensed facility (Visual Compliance Statement, Appendix D1, p.11). Hazardous waste, if any (e.g. contaminated soil or hydrocarbon residues), will be removed by an approved service provider and disposed of at a registered hazardous waste site.

The Environmental Management Programme (EMPr) will detail specific waste handling protocols, including separation, storage, and disposal procedures, as well as monitoring by the appointed Environmental Control Officer (ECO).

(iii) 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.

No exploitation of non-renewable natural resources will be permitted during either the construction or operational phase of the proposed development. Only sustainable, renewable, and locally available materials (such as certified timber and recycled aggregates) will be used where possible.

The design and operation phases will follow the principles of responsible resource use, ensuring energy efficiency, water conservation, and minimal material waste in line with NEMA's sustainability objectives.

(iv) 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.

No wastage will occur on-site during the construction phase. Rainwater tanks will be installed at each building to harvest and store rainwater for domestic and irrigation use, thereby reducing reliance on external water sources. The development will utilise solar energy for all electricity requirements, ensuring renewable, low-carbon power generation. The project is designed to be fully off-grid, with independent water, wastewater, and energy systems, thereby minimising strain on municipal infrastructure and promoting long-term sustainability.

(v) 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.

A methodical and risk-averse approach is being implemented to evaluate the receiving environment and the environmental rights of individuals. The proposed Site Development Plan (SDP) has been structured to integrate the environmental considerations associated with both the site and the surrounding area.

(vi) 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.

Negative environmental impacts and any potential violations of individuals' environmental rights will be systematically assessed as part of the environmental authorisation process. Following this assessment, appropriate mitigation and management measures will be developed and implemented to prevent, minimise, or rehabilitate adverse impacts while enhancing positive environmental outcomes.

The proposed low-impact residential development on Portion 79 of Farm Ruygte Valley No. 205, Sedgefield, has been designed to uphold the principles of the National Environmental Management Act (Act 107 of 1998). The project seeks

to avoid, minimise, and rehabilitate potential impacts on the natural environment through responsible planning, eco-sensitive design, and adherence to specialist recommendations.

The development integrates the findings of the Town Planning Report (Planning Space, 2025), Terrestrial Biodiversity Assessment (2025), Visual Compliance Statement (Outline Landscape Architects, 2025), Preliminary Geotechnical and Geomatic Report (Rock Hounds, 2024), and the Civil and Structural Engineering Confirmation (2025). Collectively, these studies confirm that the proposed dwelling and associated infrastructure can be accommodated on-site without compromising coastal stability, visual integrity, or ecological functioning.

Key mitigation measures include:

- Strict avoidance of natural forest and CBA1 areas, limiting development to degraded portions within CBA2.
- Maintaining a compact footprint (~1 175 m²) with lightweight, elevated construction methods to minimise soil disturbance.
- Implementing vegetation rehabilitation and long-term conservation management in collaboration with CapeNature.
- Applying erosion-control, stormwater-management, and slope-stabilisation measures, designed and verified by a professional engineer.
- Ensuring ongoing ECO (Environmental Control Officer) monitoring during construction and a post-construction rehabilitation phase.

Section E

Description of the policy and legislative context within which the development is proposed:

The applicant is required to comply with all the required legislation and policies for the proposed development on Portion 79 of Farm 205 Ruygte Valley Sedgefield. The following table indicates the legislation and guidelines of all spheres of government that are applicable to the application as contemplated in the EIA regulations.

LEGISLATION	**ADMINISTERING AUTHORITY**	**TYPE Permit/ license/ authorisation/comment / relevant consideration** (e.g. rezoning or consent use, building plan approval)	**APPLICABILITY TO THE PROPOSED DEVELOPMENT**
ENVIRONMENTAL CONSERVATION ACT (ACT 73 OF 1989)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities that have been identified as	~~PERMIT / LICENSE/ AUTHORIZATION / COMMENT/~~ **RELEVANT CONSIDERATION**	The Environment Conservation Act makes provision for the protection of areas which

	relevant Competent Authorities.		have particular environmental importance, which are sensitive, or which are under intense pressure from development. In many regions, our coastal zone needs protection for all these reasons.
NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998) AND THE 2014 EIA REGULATIONS AS AMENDED IN 2017	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities, that have been identified as relevant Competent Authorities.	~~PERMIT / LICENSE/~~ **AUTHORIZATION** / ~~COMMENT/ RELEVANT CONSIDERATION~~	In the process of a BAR application.
NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT (ACT NO 10 OF 2004)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities, that have been identified as relevant Competent Authorities.	~~PERMIT / LICENSE/ AUTHORIZATION~~ / **COMMENT/** ~~RELEVANT CONSIDERATION~~	Cape Nature to provide comments. A vegetation Sensitivity analysis specialist study was undertaken.
NATIONAL ENVIRONMENTAL MANAGEMENT: INTEGRATED COASTAL MANAGEMENT ACT (ACT NO 24 OF 2008)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities, that have been identified as relevant Competent Authorities.	~~PERMIT / LICENSE/ AUTHORIZATION / COMMENT~~/ **RELEVANT CONSIDERATION**	This Act is applicable to the proposed development as it is within the Coastal Zone.
NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS ACT (ACT 57 OF 2003)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities that	~~PERMIT / LICENSE/~~ **AUTHORIZATION / COMMENT/** ~~RELEVANT CONSIDERATION~~	The property does not fall within the protected area, nor does it

REGULATIONS FOR THE PROPER ADMINISTRATION OF THE KNYSNA PROTECTED ENVIRONMENT (R 1175 OF DEC 2009)	have been identified as relevant Competent Authorities.		border a protected area.
NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT (ACT 59 OF 2008)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities that have been identified as relevant Competent Authorities.	~~PERMIT / LICENSE/ AUTHORIZATION / COMMENT/~~ **RELEVANT CONSIDERATION**	The Waste Hierarchy will be adhered to during the construction and operational phases. The EMPr covers the waste disposal aspect in detail.
NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (ACT NO 39 OF 2004)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities, that have been identified as relevant Competent Authorities.	~~PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION~~	N/A
NATIONAL FORESTS ACT (ACT 84 OF 1998)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities, that have been identified as relevant Competent Authorities. *DAFF Jurisdiction*	~~PERMIT / LICENSE/ AUTHORIZATION /~~ **COMMENT/ RELEVANT CONSIDERATION**	Should a protected tree need to be cut/ destroyed, relevant authorisation will be obtained from the Department of DEFF
FORESTRY LAWS AMENDMENT ACT (ACT 35 OF 2005)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. *DAFF Jurisdiction*	~~PERMIT / LICENSE/ AUTHORIZATION / COMMENT/~~ **RELEVANT CONSIDERATION**	N/A

NATIONAL WATER ACT (ACT 36 OF 1998)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. *Dept of Water Affairs Jurisdiction*	~~PERMIT / LICENSE/ AUTHORIZATION~~ **/** COMMENT/ RELEVANT CONSIDERATION	Comment will be required from the DWS as part of the public participation process.
WATER SERVICES ACT (ACT 108 OF 1997)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities, that have been identified as relevant Competent Authorities. *Dept of Water Affairs Jurisdiction*	~~PERMIT / LICENSE/ AUTHORIZATION /~~ **COMMENT/ RELEVANT CONSIDERATION**	
SEA SHORE ACT (ACT 21 OF 1935)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities, that have been identified as relevant Competent Authorities.	~~PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION~~	N/A
WESTERN CAPE NATURE CONSERVATION LAWS AMENDMENT ACT (ACT 3 OF 2000)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. *CapeNature Jurisdiction*	~~PERMIT / LICENSE/ AUTHORIZATION /~~ **COMMENT/ RELEVANT CONSIDERATION**	Cape Nature to provide comment as part of the public participation process. A Terrestrial Biodiversity Specialist study was undertaken.
CONSERVATION OF AGRICULTURAL RESOURCES ACT (ACT 43 OF 1983)	Department of Environmental Affairs, Republic of South Africa.	~~PERMIT / LICENSE/ AUTHORIZATION /~~ **COMMENT/**	The Department of Agriculture to provide comment as

	All State and Provincial Departments, as well as Local Authorities, that have been identified as relevant Competent Authorities. *Dept. of Agriculture Jurisdiction*	**RELEVANT CONSIDERATION**	part of the public participation process. An agricultural Compliance Statement was prepared.
NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities, that have been identified as relevant Competent Authorities.	**PERMIT** ~~/ LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION~~	An application will be made in terms of section 38(8) of the NHRA.
NATIONAL HEALTH ACT (ACT 61 OF 2003)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. *Dept. of Health Jurisdiction*	~~PERMIT / LICENSE/ AUTHORIZATION / COMMENT/~~ **RELEVANT CONSIDERATION**	In terms of this Act, a Health and Safety Officer and protocol must be implemented during the construction phase, this is addressed in the EMPr. The Department of Health to provide comment.
THE SOUTH AFRICAN ROADS AGENCY LIMITED AND NATIONAL ROADS ACT (ACT 7 OF 1998)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. *SANRAL Jurisdiction*	~~PERMIT / LICENSE/ AUTHORIZATION /~~ **COMMENT**/ ~~RELEVANT CONSIDERATION~~	The Department to provide comment as part of the public participation process.
Outiniqua Sensitive Coastal Area Extension Report (OSCAER)	Department of Environmental Affairs, Republic of South Africa.	~~PERMIT / LICENSE/ AUTHORIZATION / COMMENT/~~	After Environmental Authorisation is obtained, it is

	All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.	~~RELEVANT CONSIDERATION~~	required to apply for an OSCAER permit.

POLICY/ GUIDELINES	ADMINISTERING AUTHORITY
EIA guideline and information document series. Guideline on transitional arrangements March 2013	Department of Environmental Affairs, Republic of South Africa. All Provincial Departments that have been identified as Competent Authorities.
EIA guideline and information document series. Guideline on Generic Terms of Reference for EAPS and Project Schedules	Department of Environmental Affairs, Republic of South Africa. The EAP needs to be independent and submit all required information as per the guidelines. This is addressed throughout the BAR
EIA guideline and information document series. Guideline on Public Participation	Department of Environmental Affairs, Republic of South Africa. The correct public participation needs to be adhered to and addressed in the BAR.
EIA guideline and information document series. Guideline on Alternatives	Department of Environmental Affairs, Republic of South Africa. Alternatives need to be reasonable and feasible. This has been addressed in the Alternative section of the BAR
EIA guideline and information document series. Guideline on Need and Desirability	Department of Environmental Affairs, Republic of South Africa. Need and desirability are addressed in the BAR

DEA&DP (2010) Guideline on Public Participation, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA&DP)	The correct public participation needs to be adhered to and addressed in the BAR

Section F

Need and Desirability for the proposed development

Need

The need for and desirability of the proposed development form a key consideration in terms of the National Environmental Management Act (NEMA) and the 2014 EIA Regulations (as amended). The proposal must be evaluated within the context of the applicable spatial planning tools, including the Knysna Municipal Spatial Development Framework (SDF, 2020), Integrated Development Plan (IDP), and the Garden Route Environmental Management Framework (EMF).

The purpose of the proposed development on Portion 79 of Farm Ruygte Valley No. 205 is the establishment of a private residential dwelling and associated infrastructure, designed in harmony with the site's ecological and visual sensitivities. The proposal no longer includes any tourism or commercial accommodation component.

The development addresses a legitimate need for low-impact residential use that is consistent with surrounding land uses and the spatial intent of the SDF, which encourages conservation-compatible rural development outside the urban edge. The design supports long-term environmental sustainability through off-grid systems (solar energy, rainwater harvesting, and on-site wastewater treatment) and the rehabilitation of disturbed areas with indigenous vegetation.

In terms of desirability, the proposal contributes to local environmental stewardship and aligns with municipal and provincial policy objectives that promote ecological conservation, responsible land use, and visual integration within the coastal landscape. The development footprint remains limited (≈ 1 175 m²), avoiding critical biodiversity areas and steep slopes while ensuring compliance with engineering and geotechnical recommendations.

Accordingly, the proposal meets the criteria of need and desirability under NEMA and the Department of Environmental Affairs' 2017 Guideline by integrating social, ecological, and governance considerations in a manner that ensures sustainable land use without reliance on economic tourism.

Desirability

Desirability relates to the suitability of the site, its compatibility with surrounding land uses, and its alignment with spatial and environmental planning frameworks.

The site is considered physically suitable for limited residential development, provided that all mitigation measures identified in the Geotechnical Report (Rock Hounds, 2024) and Civil & Structural Engineering Confirmation (2025) are implemented, including slope stabilisation, stormwater control, and erosion management. The proposed development footprint has been positioned to avoid steep slopes, natural forest, and all mapped Critical Biodiversity Areas (CBA1).

The proposal is compatible with surrounding land uses, which consist primarily of private conservation properties, low-density residential holdings, and natural forest areas. The single residential dwelling will not result in visual intrusion, as confirmed by the Visual Compliance Statement (Outline Landscape Architects, 2025), due to existing vegetation screening, topographic setback, and architectural design that blends with the landscape.

In planning terms, the proposal aligns with the Knysna SDF (2020) and Garden Route EMF, both of which encourage conservation-compatible, low-impact rural development outside the urban edge. The property lies east of the Sedgefield urban edge and within an area designated for environmental conservation and limited residential use.

The proposed rezoning to Open Space III (Nature Conservation), without any tourism component, will formalise the conservation intent for the majority of the property (±99% retained in its natural state), with only ±1 175 m² disturbed for the residential dwelling, access, and services.

The development, therefore, remains desirable in environmental, spatial, and social terms, as it:

- Maintains the ecological and scenic integrity of the coastal dune landscape;
- Avoids unnecessary visual and ecological disturbance;
- Supports private stewardship and long-term habitat management in partnership with CapeNature; and
- Introduces no additional service or traffic burden to Bushy Way or the surrounding area.

Conclusion

The development on Portion 79 is both needed and desirable within the context of sustainable rural development and conservation-based land use. The project no longer includes any eco-tourism component and consists solely of a single private dwelling for the landowner and family members, serviced entirely off-grid.

It meets the need for responsible land management and invasive-species control, as confirmed by the Terrestrial Biodiversity Assessment (2025) and Agricultural Compliance Statement (2025), both of which identify the land as unsuitable for commercial agriculture but valuable for ecological restoration.

The proposal aligns with the Knysna Spatial Development Framework (2020), which promotes conservation-compatible development outside the urban edge. The site is physically suitable for development, provided that geotechnical and visual mitigations—such as slope stabilisation, vegetation screening, and stormwater management—are implemented in line with the Preliminary Geotechnical and Geomatic Report (2024) and Visual Compliance Statement (2025).

With minimal visual intrusion, limited disturbance (<1 200 m²), and comprehensive rehabilitation commitments, the project protects the area's scenic and ecological integrity while enabling a sustainable homestead in harmony with the surrounding conservation landscape.

Identification of plans, guidelines, spatial tools, municipal development frameworks and instruments that are applicable to the proposed activity

The table below identifies all plans, guidelines, spatial tools and municipal development frameworks that are applicable to the proposed activity:

Is the activity permitted in terms of the property's existing land use rights?

Portion 79 of Farm Ruygte Valley No. 205, Sedgefield, is currently zoned "Agriculture Zone I" in terms of the Knysna Zoning Scheme Regulations (1992).

This zoning permits agricultural activities and one dwelling house as a primary land use right.

Given the property's environmental sensitivity and limited agricultural potential, as confirmed in the Terrestrial Biodiversity Specialist Assessment (2025) and the Agricultural Compliance Statement (2025), it is proposed that the property be rezoned to "Open Space III" (Nature Conservation Area).

This rezoning will formalise the land's long-term conservation intent, ensuring protection of the natural landscape and compliance with recommendations from the specialist studies. The proposed rezoning is consistent with the Knysna Spatial Development Framework (2020), which designates this coastal area for environmental conservation and limited, low-impact residential use outside the urban edge.

Development Parameters for Open Space III

According to the Knysna Zoning Scheme Regulations (1992), the following provisions apply to land zoned Open Space III (Nature Conservation Area):

(a) The Municipality may require an Environmental Management Plan (EMP) for approval.
(b) The Municipality must determine land-use restrictions and development parameters based on conservation objectives and the specific site context.
(c) One dwelling house may be permitted if the full extent of the land unit is zoned Open Space III or if no dwelling exists on another portion of the parent property.
(d) A consent use may be applied for to provide tourist facilities or accommodation, but no such use is proposed in this case.
(e) A Site Development Plan (SDP) must be submitted for approval, showing the location of all structures, services, and internal roads.

Current Application

The current application seeks to exercise the primary land use right under the existing Agricultural Zone I zoning, allowing the construction of a single private dwelling and associated infrastructure (access, services, and rehabilitation).

To formalise and strengthen environmental protection, the applicant proposes to rezone the entire property to Open Space III (Nature Conservation Area). The dwelling unit conforms to the definition of a *"dwelling house"* as per the Section 8 Zoning Scheme Regulations (1988). The proposal, therefore, combines the legitimate land-use right with a proactive conservation outcome, in line with municipal and provincial spatial planning objectives.

Will the activity be in line with the Provincial Spatial Development Framework (PSDF)

The Western Cape Provincial Spatial Development Framework (PSDF), approved by the Provincial Cabinet under Minister Anton Bredell, provides a coherent spatial framework for sustainable development across the province's urban and rural landscapes. It promotes the responsible management of natural assets, the containment of urban expansion, and the protection of biodiversity-rich and agricultural land.
The PSDF identifies George as the regional centre for the eastern province, with Knysna and Plettenberg Bay as smaller centres along the N2 Regional Connector Route. The Garden Route is recognised as a scenic conservation and tourism corridor, where low-impact and conservation-compatible development is preferred.

The framework's three spatial themes guide all land use and development decisions:

- Resources: Sustainable use and protection of biodiversity, land, and water resources.
- Space Economy: Strengthening local economies through spatially efficient, resource-conscious development.
- Settlement: Promoting compact, sustainable, and environmentally sensitive settlements.

The PSDF's overarching goal is to decouple economic growth from environmental degradation by promoting a transition to a green and resilient rural economy.

This proposal supports those objectives by:

- Maintaining over 99% of Portion 79 in a natural state;
- Locating a single dwelling outside steep slopes and sensitive vegetation;
- Preventing urban sprawl and ensuring development remains within a defined, conservation-compatible footprint.

This is the rationale for the PSDF embracing a transition to a Green Economy. The so-called 'decoupling' of economic growth strived for requires reductions/substitutions and/or replacements in the use of limited resources while avoiding negative environmental impacts. The table below contains a summary of the key transitions promoted in the PSDF:

PSDF THEME	FROM	TO
RESOURCES	Mainly curative interventions	More preventative interventions
	Resource consumptive living	Sustainable living technologies
	Reactive protection of natural, scenic and agricultural resources	Proactive management of resources as social, economic and environmental assets
SPACE-ECONOMY	Fragmented planning and management of economic infrastrucutre	Spatially aligned infrastructure planning, prioritisation and investment
	Limited economic opportunities	Variety of livelihood and income opportunities
	Unbalanced rural and urban space economies	Balanced urban and rural space economies built around green and information technologies
SETTLEMENT	Suburban approaches to settlement	Urban approaches to settlement
	Emphasis on 'greenfields' development and low density sprawl	Emphasis on 'brownfields' development
	Low density sprawl	Increased densities in appropriate locations aligned with resources and space-economy
	Segregated land use activities	Integration of complementary land uses
	Car dependent neighbourhoods and private mobility focus	Public transport orientation and walkable neighbourhoods
	Poor quality public spaces	High quality public spaces
	Fragmented, isolated and inefficient community facilities	Integrated, clustered and well located community facilities
	Focus on private property rights and developer led growth	Balancing private and public property rights and increased public direction on growth
	Exclusionary land markets and top-down delivery	Inclusionary land markets and partnerships with beneficiaries in delivery
	Limited tenure options and standardised housing types	Diverse tenure options and wider range of housing typologies
	Delivering finished houses through large contracts and public finance and with standard levels of service	Progressive housing improvements and incremental development through public, private and community finance with differentiated levels of service

FIGURE 13: KEY TRANSITIONS FOR THE PSDF

The recent shift in legislative and policy frameworks has clearly outlined the roles and responsibilities of provincial and municipal spatial planning and should be integrated towards the overall spatial structuring plan for the province to create and preserve the resources of the province more effectively through sustainable urban environments for future generations. This shift in spatial planning meant that provincial inputs are, in general, limited to provincial-scale planning.

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

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

However, it is important to note some of the key policies laid down by the PSDF have a bearing on the proposed development.

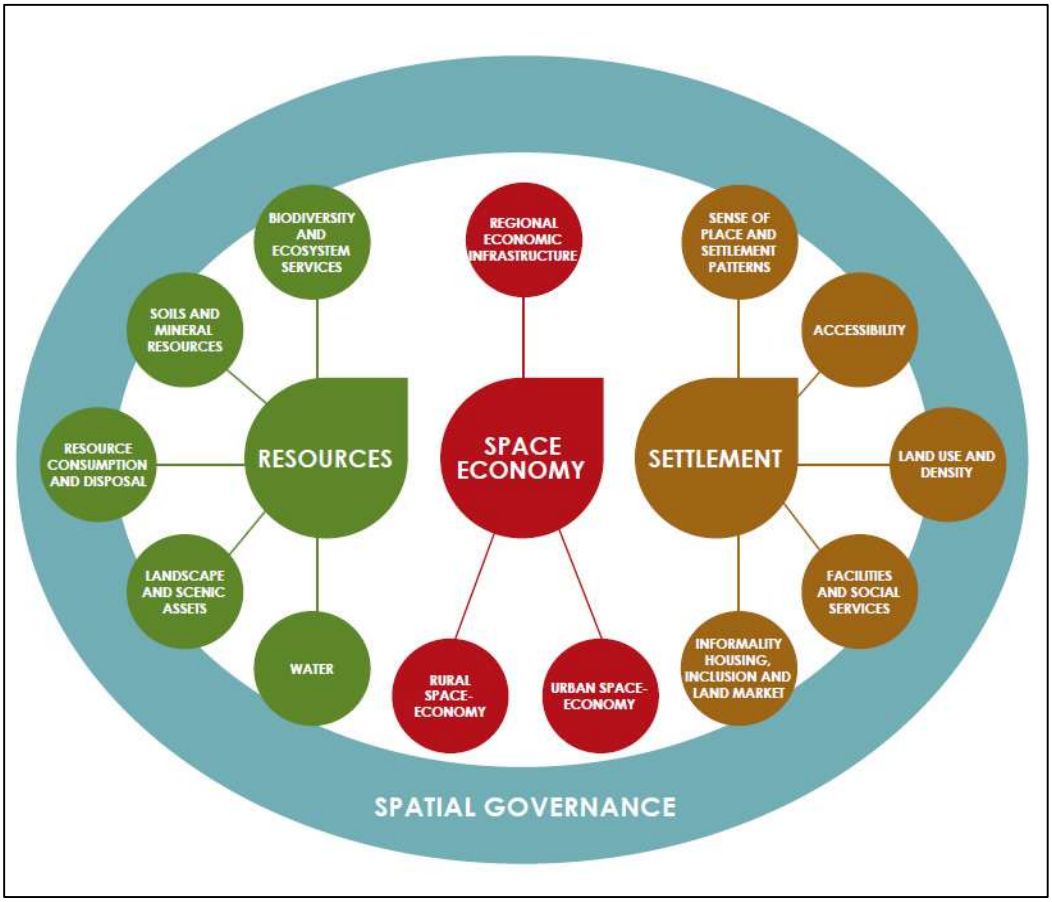


FIGURE 14: POLICIES APPLICABLE TO THE PROPOSED DEVELOPMENT

The property is situated outside of the Urban Edge

The subject property, Portion 79 of Farm Ruygte Valley No. 205, is situated outside the Sedgefield urban edge within the Groenvlei Rural Area.

Properties in this area generally measure around 5 hectares and are zoned either Agriculture Zone I or Open Space IV, as shown in the Town Planning Report (Diagram 3).

Most of these parcels remain undeveloped and in a natural state, with limited or no active agricultural use. A number of properties have been incorporated into the Lake Pleasant Private Nature Reserve. The property is currently zoned Agriculture Zone I in terms of the Knysna Zoning Scheme Regulations (1992). This zoning permits agricultural activities and one dwelling house as a primary land-use right.

Given the environmental sensitivity of the site and its limited agricultural potential, as confirmed in the Terrestrial Biodiversity Assessment (2025) and Agricultural Compliance Statement (2025), it is proposed that the entire property be rezoned to “Open Space III” (Nature Conservation Area).

This rezoning aligns with the conservation objectives of the specialist studies and ensures long-term protection of the site's natural and visual qualities.

Development Parameters for Open Space III

According to the Knysna Zoning Scheme Regulations (1992), the following parameters apply to land zoned Open Space III (Nature Conservation Area):

(a) The Municipality may require submission and approval of an Environmental Management Plan (EMP).
(b) The Municipality determines development parameters and land-use restrictions in line with conservation objectives and approved environmental management plans.
(c) One dwelling house is permitted where no dwelling exists on another portion of the land unit or if the entire land unit is zoned Open Space III.
(d) Tourist accommodation or facilities may only be allowed by consent use — no such use is proposed in this case.
(e) A Site Development Plan (SDP) must be submitted showing the position of all structures, internal access, and services.

Planning Motivation

The landowner will be exercising the primary land-use right applicable to Agriculture Zone I properties — the construction of a single private dwelling.

An Environmental Impact Assessment (EIA) is required because the site falls within a Critical Biodiversity Area (CBA), and the mapping must be verified and motivated through the EIA process.
Rezoning from Agriculture Zone I to Open Space III is consistent with the Western Cape Provincial Spatial Development Framework (2014) and the Knysna Spatial Development Framework (2020), both of which emphasise:

- protection of environmentally sensitive and scenic landscapes,
- discouragement of further fragmentation of rural land, and
- promotion of conservation-compatible rural development.

The proposed development will not detract from the rural spatial character of the area and supports the strategic objectives of the Western Cape SDF Policies R1 and R3, which promote sustainable land use and conservation stewardship.

Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).

The property is situated to the east of the Urban edge of Sedgefield and is earmarked for conservation purposes. The proposal to rezone this property from "Agriculture 1" to "Open Space III" (Nature Conservation) aligns with the spatial vision of the Knysna SDF 2020.

The Knysna Spatial Development Framework (SDF) of 2020 confirms the importance of tourism as a key driver for the town's economic growth and development. It advocates for the diversification of tourism offerings to include eco-tourism, cultural tourism, and adventure tourism, aiming to attract a broader range of visitors and reduce the town's reliance on seasonal tourism. The SDF also highlights the need for sustainable tourism practices that preserve Knysna's natural and cultural heritage. This includes promoting responsible tourism activities, enhancing public access to natural areas, and ensuring that tourism development aligns with environmental conservation efforts. The proposal to conserve 99.8 % of the land and to create a small but authentic tourism component aligns with this vision of the SDF.

Knysna Spatial Development Framework (2017-2022)

The IDP is the planning instrument that drives the process to address the socio-economic challenges as well as the service delivery and infrastructure backlogs experienced by communities in the municipality's area of jurisdiction.

Knysna Municipality approved the 4th generation IDP during June 2017. According to this IDP, the municipality's vision is to:

- Encourage all members of society to participate in and support the municipal governance structure and to create opportunities for dialogue.
- Conserving and managing natural resources.
- Planning for the growth and development of quality municipal services to support the community.
- Creating an enabling environment to foster the development of our people and enabling them to contribute.
- Supporting and encouraging the development of investment, business, tourism and emerging industries.

Strategic objectives:

The Knysna IDP identified seven Strategic objectives that are aligned with the national strategic focus areas as well as the Provincial Strategic Goals of the Western Cape Government. These objectives applicable to the proposed development are:

STRATEGIC OBJECTIVE	INTERVENTIONS
To ensure the provision of bulk infrastructure and basic service through the upgrading and replacement of ageing.	**Streets and stormwater:** ▪ To improve the conditions of all roads, streets and stormwater drainage in terms of the Pavement Management System (PMS). ▪ Forming partnerships with property owners to assist with the upgrading and maintenance of road infrastructure.
To promote a safe and healthy environment through the protection of our natural resources.	**Environmental Conservation:** ▪ Promote inclusive living spaces.

The subject property is situated within Ward 1 of the Knysna Municipality.

The Knysna SDF classifies this area as primarily rural and agricultural in nature; however, it is important to note that commercial agriculture may not be actively pursued in numerous cases. While very limited municipal infrastructural investment should occur, guidance is required for the management of land use within these settlements.

Land-use Management Guidelines for rural clustering include:

- Their agricultural character must be maintained.
- This applies to the aesthetics, the number of buildings, and the minimum erf sizes.
- A minimum subdivision size of 3ha or greater, depending on the ruling order property size in the node, would apply.
- The primary right would be a dwelling house, such as agricultural buildings as are necessarily required for bona fide agricultural activity on the property.
- Options for rural recreational and economic opportunities could be considered, as long as it is in keeping with the rural character
- No municipal infrastructural services are to be delivered in the short to medium term.

Planning Implications:

The IDP is a municipal planning tool to integrate municipal planning and allocate municipal funding to achieve strategic objectives that will contribute to the overall municipal vision. Temporary employment opportunities will be created during the construction phase. It can be concluded that the proposed development is consistent with the strategic objectives and the envisioned outcome for the Knysna Municipal area.

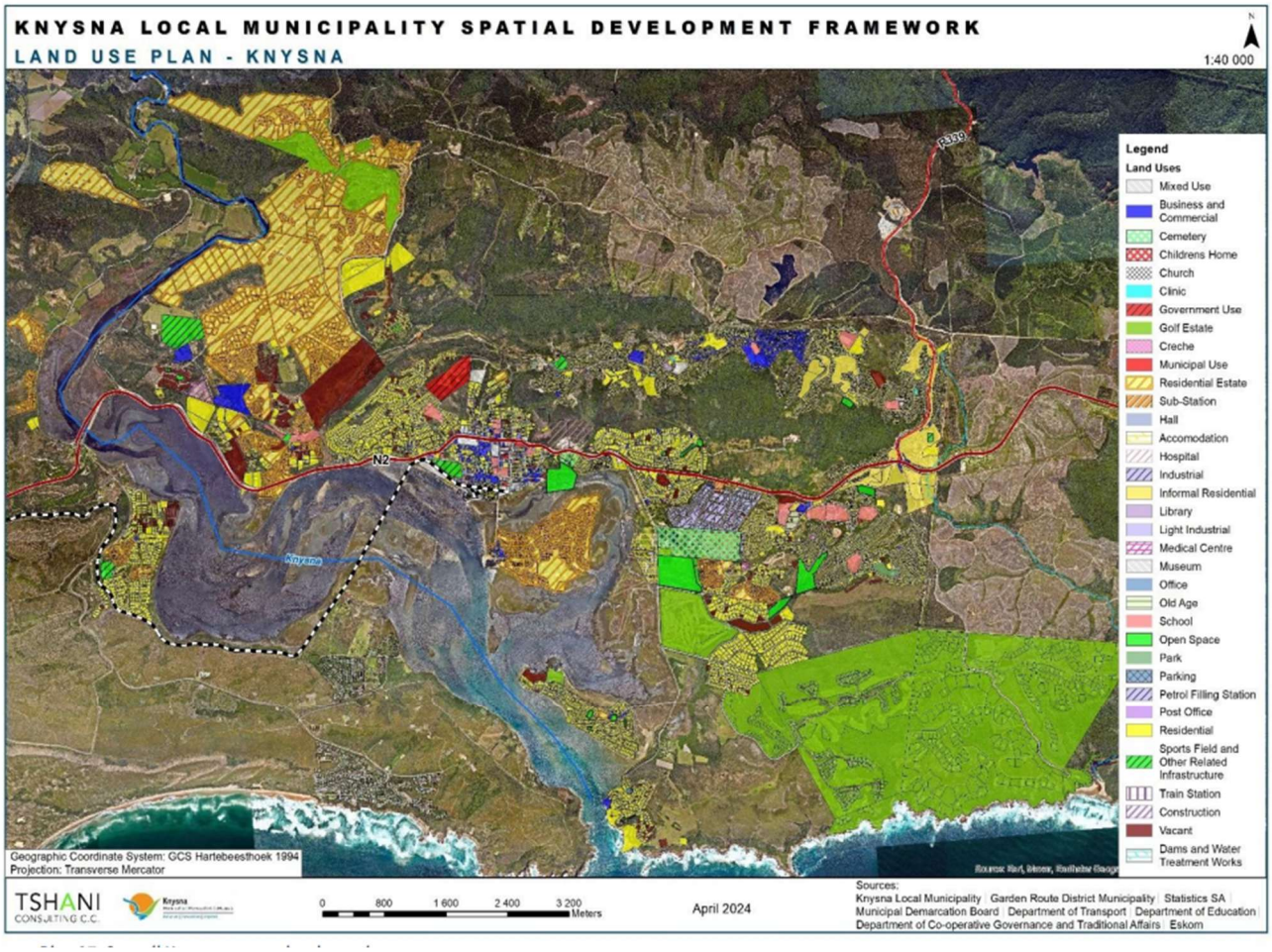


FIGURE 15: KNYSNA LOCAL MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK

Approved Structure Plan of the Municipality

There is no approved structure plan for this specific location.

An Environmental Management Framework (EMF) adopted by the Department (e.g. would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)

The Garden Route Environmental Management Framework (EMF) provides spatial and environmental guidance for development across the district. It identifies Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) as key spatial informants and provides policy direction for managing development outside the urban edge. According to the EMF (Page 23):

"Rural development, i.e. development outside the Urban Edge, shall not exceed densities of 1 dwelling unit per 10 hectares and may be considerably lower in landscapes with low visual carrying capacity."

The proposed development on Portion 79 of Farm Ruygte Valley No. 205 complies with this policy. The total site measures 5.1576 hectares, and only one dwelling is proposed, resulting in a density of 1 du/5.16 ha, which aligns with the intent of the EMF for low-intensity rural development.

Furthermore, the property's low visual carrying capacity, as confirmed by the Visual Compliance Statement (Outline Landscape Architects, 2025), has informed a sensitive site layout and architectural design that integrates with the landscape and avoids visual intrusion. The development footprint (≈1 175 m²) represents less than 0.02% of the total site, ensuring that the broader landscape character, scenic quality, and ecological connectivity are maintained.

The proposed rezoning to Open Space III (Nature Conservation Area) further supports the EMF's strategic goals by formalising long-term conservation management and preventing future subdivision or densification inconsistent with the rural conservation character of the area.

DRAFT WESTERN CAPE RURAL DEVELOPMENT GUIDELINES (2009)

The Rural Areas Guidelines for the Western Cape (DEA&DP, 2019) provide a strategic framework for achieving sustainable rural development by balancing conservation, agricultural viability, and rural livelihoods. The guidelines promote low-impact, biodiversity-sensitive land uses that are compatible with natural systems, particularly within degraded Critical Biodiversity Areas (CBA2).

The Guidelines encourage eco-tourism and nature-based accommodation in rural and conservation areas where such uses enhance access to natural and recreational resources without compromising ecological integrity. They specifically recommend non-consumptive land uses such as hiking, bird watching, and small-scale clustered accommodation, while prohibiting intensive or extractive activities such as mining and large-scale agriculture.

New rural developments are required to apply environmentally sensitive design principles that harmonise with the natural landscape and maintain scenic quality. In this regard, two Visual Impact Assessments (Outline Landscape Architects, 2025) confirmed that the proposed development will not detract from the visual integrity of the area. The architectural approach — using lightweight materials such as steel, timber, and glass — will blend seamlessly with the surrounding vegetation and topography.

The Guidelines also emphasise protection of coastal resources and adherence to coastal management zones. Although portions of the property are located within 100 m of the High-Water Mark (HWM), the Preliminary

Geotechnical and Geomatic Report (Rock Hounds, 2024) confirmed that the proposed building footprints are outside the 100-year coastal erosion risk lines as identified in the DEA&DP Coastal Management Map.

A Geotechnical and Geomatic investigation was undertaken to determine dune stability and coastal morphology over time. The study established a site-specific coastal setback line approximately 30 m inland from the property boundary, ensuring that all proposed structures remain landward of the erosion risk zone. This setback line serves as a technical mitigation measure to protect both the coastal environment and the planned investment.

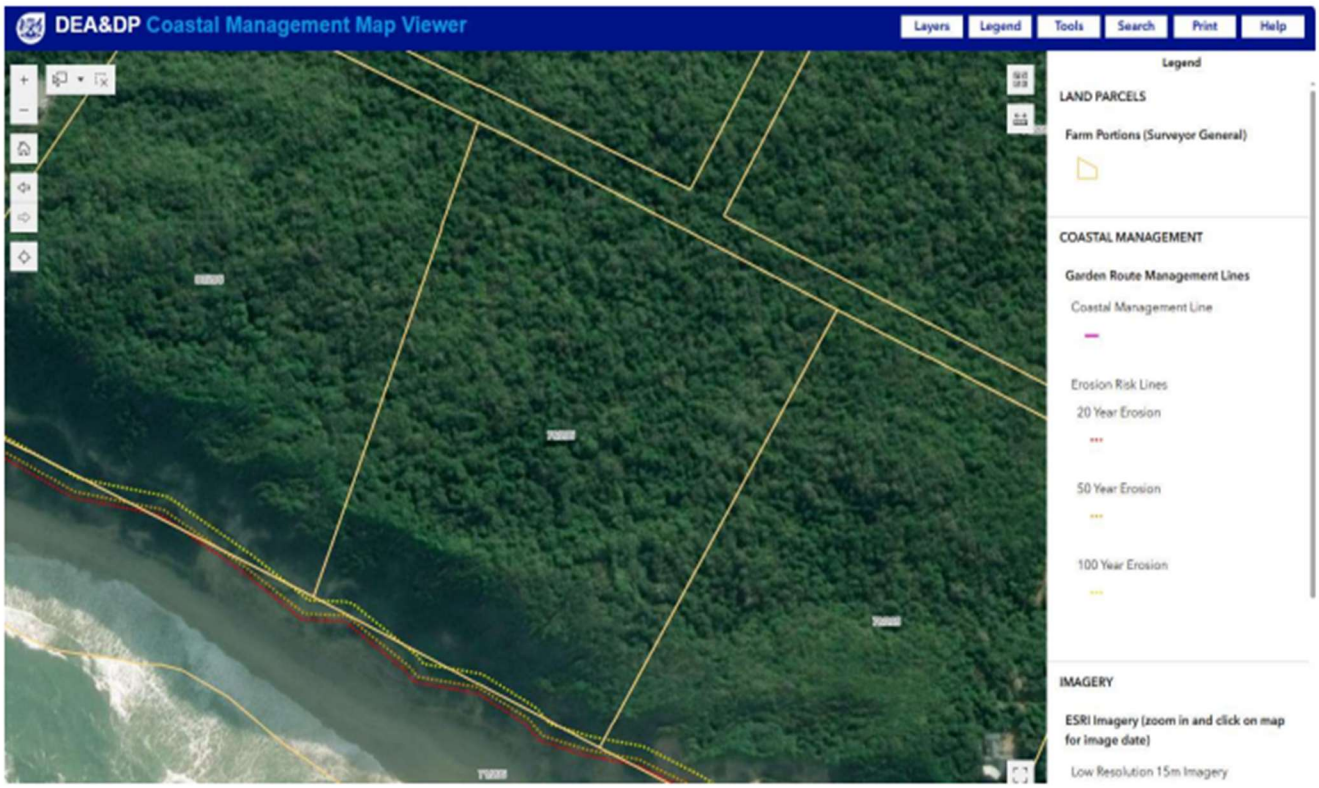


FIGURE 16: COASTAL MANAGEMENT LINES

Rural Areas Guidelines (Western Cape DEA&DP, 2019)

The above information was obtained from the Town Planning Report prepared by Planning Space Town and Regional Planners (March 2025).

The Western Cape Provincial Government has developed a set of Rural Areas Guidelines (2019) to provide clear direction on land use planning and management outside the urban edge, forming part of the implementation of the Provincial Spatial Development Framework (PSDF).

These Guidelines aim to promote sustainable development within appropriate rural contexts by safeguarding ecosystem services, maintaining rural character, and enabling equitable socio-economic growth.

<u>The objectives of introducing rural land use management guidelines are to:</u>

- Promote sustainable development in appropriate rural locations across the province, ensuring inclusive economic growth that benefits all communities.
- Safeguard the functionality of life-supporting ecosystems and natural resources.
- Maintain the integrity, authenticity, and accessibility of significant farming, ecological, cultural, and scenic rural landscapes.

- Provide clarity on what types of development are appropriate beyond the urban edge, including their suitable locations, forms, and scales.

The following principles underpin the Western Cape's approach to rural land use management:

- Decisions must reflect the principles of sustainability, including social inclusion, prudent resource use, and environmental protection.
- Good-quality, carefully sited development should be encouraged within existing settlements.
- Accessibility should be a key factor in all development decisions.
- New development in the open countryside must be strictly controlled with regard to scale, height, colour, and roof profile to ensure landscape harmony.
- Previously developed sites should be prioritised over greenfield development.
- All development should be inclusive, context-sensitive, and in scale with its location, preserving the rural landscape's character and local distinctiveness.

The Provincial approach to managing rural land uses is summarised as follows:

Land Use Type	Provincial Approach
Conservation	Formally protect priority conservation areas, establish ecological linkages across the rural landscape, and integrate a conservation ethic into all rural activities.
Holiday Accommodation	Encourage nature-based and rural tourism that complements local character and landscapes, diversifying the rural economy.
Rural Housing	Limit new housing beyond the urban edge to cases of farmworker tenure security or incentives linked to conservation consolidation.
Tourist Facilities	Facilitate appropriate tourism and recreation development that strengthens rural economies sustainably and equitably.

In line with these principles, the proposed development on Portion 79 of Farm Ruygte Valley No. 205 aligns with the conservation and limited rural housing objectives by maintaining 99% of the property in its natural state, rehabilitating degraded areas, and ensuring that all structures are low-impact, off-grid, and contextually integrated.

The development will therefore contribute positively to the Western Cape's rural conservation agenda, enhancing biodiversity value and reinforcing ecological linkages with the adjacent Lake Pleasant Private Nature Reserve and Goukamma Protected Area.

KNYSNA MUNICIPALITY STANDARD BY-LAW ON MUNICIPAL LAND USE PLANNING, 2016

Knysna Municipal Land Use Planning By-law (2016)

Knysna Municipality adopted its new Land Use Planning By-law on 12 February 2016, which governs all land-use applications in its jurisdiction. In terms of this by-law, applications are assessed against the following considerations:

- Desirability of the proposed utilisation of land.
- The impact of the proposed land development on municipal engineering services.
- The Integrated Development Plan (IDP) and the Municipal Spatial Development Framework (SDF).
- The Provincial Spatial Development Framework (PSDF).
- Policies, principles, and planning norms set by the national and provincial governments.

- Matters referred to in Section 42 of the Spatial Planning and Land Use Management Act (SPLUMA).
- Principles outlined in Chapter VI of the Land Use Planning Act (LUPA).

The information below was obtained from the Town Planning Report prepared by Planning Space Town and Regional Planners (March 2025).

Spatial Planning and Land Use Management Act (Act 16 of 2013) and Land Use Planning Act (Act 3 of 2014)

Section 7 of SPLUMA outlines the development principles that must guide all land-use and development decisions:

Spatial Justice

Spatial justice seeks to redress historic spatial inequalities by ensuring equitable access to land and resources. Although the property is privately owned, the proposed development maintains the open-space and conservation function of the area and does not introduce exclusive or intensive land uses. By formalising the land under Open Space III zoning, the proposal contributes to a more balanced rural landscape and prevents further fragmentation of the coastal conservation corridor.

Spatial Sustainability

The project advances spatial sustainability by transitioning from an agricultural zoning—identified as environmentally unsuitable for cultivation—to a Nature Conservation zoning that protects biodiversity and ecosystem services. The single-dwelling, off-grid design demonstrates sustainable land use through minimal disturbance, rehabilitation of degraded areas, and conservation of over 99 % of the site.

Spatial Efficiency

Spatial efficiency is achieved through compact development and prudent use of land and resources. The 1 175 m² footprint represents less than 0.02 % of the total property area. All essential services—water, energy, and sanitation—are provided on-site using renewable and self-sufficient systems, thereby avoiding any burden on municipal infrastructure.

Spatial Resilience

Resilience is ensured by locating the dwelling outside the coastal erosion risk zone and designing structures in accordance with the Preliminary Geotechnical and Geomatic Report (2024) and Civil & Structural Engineering Confirmation (2025). These studies confirm that the development is technically feasible and that appropriate engineering measures—such as erosion control and slope stabilisation—will protect both the natural environment and built structures from long-term climate and geomorphological risks.

Good Administration

The application process is consistent with the principles of transparency, integration, and intergovernmental coordination required by SPLUMA. The proposal has been informed by specialist studies, and stakeholder consultation will be undertaken in accordance with the EIA Regulations (2014, as amended) and municipal land-use procedures.

Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)

Need and Desirability

Guideline Context: According to the *Guideline on Need and Desirability* (DEADP, 2017),

Need refers to *timing*—whether it is the right moment to undertake the proposed activity. Desirability refers to *the question*—whether the proposed land use is appropriate for the specific location.

Both must be considered in the context of national, provincial, and local spatial planning tools such as the Knysna SDF (2020), Garden Route EMF, and Integrated Development Plan (IDP), together with the principles of NEMA and the Promotion of Administrative Justice Act (Act 3 of 2000).

Need

The need for and desirability of the proposed development form a central component of any environmental authorisation process. The proposed development on Portion 79 seeks approval for a single private dwelling and associated infrastructure within an Open Space III (Nature Conservation) context.

There is a legitimate *need* for the applicant to exercise their existing primary right to construct a dwelling on the property, while formalising its long-term conservation use. The project ensures responsible management of the land and rehabilitation of degraded areas (CBA2), consistent with sustainable rural living principles.

The land is environmentally unsuitable for commercial agriculture, as confirmed by the Agricultural Compliance Statement (2025) and the Terrestrial Biodiversity Assessment (2025). Rehabilitating and conserving the site under a Nature Conservation zoning supports the broader municipal goal of strengthening ecological corridors between Lake Pleasant Private Nature Reserve and Goukamma Protected Area.

From a timing perspective, the development responds to current policy directives for conservation-compatible land use outside the urban edge, as promoted by the Western Cape PSDF (2014), Rural Areas Guidelines (2019), and Garden Route EMF (2010).

Desirability

Desirability relates to the suitability of the site, its physical characteristics, compatibility with surrounding land uses, and alignment with spatial and environmental planning frameworks.

The site is physically suitable for limited residential development, as confirmed by the Preliminary Geotechnical and Geomatic Report (Rock Hounds, 2024) and Civil & Structural Engineering Confirmation (2025). These reports verify that the footprint avoids steep slopes, forested areas, and unstable soils, with appropriate measures for slope stabilisation, erosion control, and stormwater management.

The proposed dwelling is compatible with surrounding land uses, which include low-density rural holdings and private conservation estates. The Visual Compliance Statement (Outline Landscape Architects, 2025) confirms that the structure will have no significant visual intrusion, due to its small scale, screened siting, and architectural sensitivity to the natural landscape.

From a spatial-planning perspective, the proposal aligns with the Knysna SDF (2020), which designates the Groenvlei rural area east of Sedgefield for environmental conservation and low-impact rural living. Rezoning from Agriculture Zone I to Open Space III will formalise conservation intent, retaining approximately 99 % of the land in its natural state.

The proposal is therefore desirable as it—

- maintains the ecological and scenic integrity of the coastal dune landscape;

- avoids visual and ecological disturbance to the adjacent Critical Biodiversity Area 1;
- supports long-term private stewardship in partnership with CapeNature; and
- introduces no additional pressure on municipal services or local traffic.

Conclusion

The proposed development on Portion 79 is both needed and desirable within the framework of sustainable rural and conservation-based land use. It consists solely of a single private dwelling, serviced entirely off-grid through solar power, rainwater harvesting, and on-site wastewater treatment.

The proposal satisfies the Need and Desirability criteria by—

- providing for legitimate residential use in harmony with environmental constraints;
- formalising conservation management through rezoning to Open Space III;
- ensuring ecological rehabilitation of degraded areas; and
- conforming with the principles of NEMA, SPLUMA, and LUPA.

This development represents a low-impact, policy-aligned, and environmentally responsible form of rural settlement that protects the natural character of the Sedgefield coastal landscape while enabling sustainable residential occupation.

Guideline Context

Electricity
There is currently no electrical infrastructure present on the property or in the adjacent road reserve. It is advisable to consider the installation of a solar power facility in this location.

Solar plant
Type and system
The solar plant will be developed as an off-grid installation, utilizing solar energy to supply the load during daylight hours while recharging the batteries at night. Furthermore, grid-tied photovoltaic inverters may be integrated into this micro-grid configuration through AC coupling, should the energy demand surpass the generation capacity.

Plant location
It is advisable to consider the installation of a roof-mounted solar power system on the roofs of both the main residence and the three small self-catering accommodation units, should there be a requirement for increased energy generation capacity.

Plant capacity
The proposed system is designed with a capacity of 15 kWh, while the anticipated peak consumption is estimated to reach 30 kWh per day.

Energy Storage
A sealed Lithium Iron Phosphate battery system is proposed, which is expected to provide a lifespan exceeding 10 years at a depth of discharge of 70%. Additionally, this system offers an expedited charging time, enhancing its operational efficiency.

Area/Street lighting
The road lighting system will utilise low-intensity, low-level bollard luminaires. Each luminaire will be powered by an individual small solar cell and will activate solely upon detecting motion.

ENVIRONMENTAL IMPACT

The internal electrical distribution network will be meticulously designed to integrate harmoniously with the development as well as the surrounding natural environment. All structures, equipment, and switchgear will be constructed in a low-profile manner, adhering to the natural contours of the landscape. The selection of colours and shapes for these elements will be undertaken with careful consideration to ensure they blend seamlessly with the environment. To minimise any additional disturbance to vegetation, services will predominantly be located within road reserves. Additionally, the environmental management plan for the development will be integral to the specifications and requirements guiding the electrical construction activities.

Energy Efficiency and Renewable Energy

The consideration of cost-effective alternative energy sources, such as natural gas and LED lighting, will be undertaken, alongside the implementation of energy-efficient systems as stipulated by the National Building Regulations. The adoption of energy-efficient equipment will also serve to decrease energy demand and consumption, thereby allowing for the potential reduction in the size of the required solar energy system.

The above information was obtained from the BDE Consulting Engineers report dated May 2019.

Water Reticulation

The applicant proposes to supply water for the development by means of the following:

- The water demand will be addressed through the collection of rainwater.

Fire

This development is categorized as low-risk and falls within Group 2: residential areas (residential zone 1). These designated areas will be in accordance with the "Guidelines for Human Settlement Planning and Design."

Sewer Reticulation

At this time, municipal bulk sewer services are not available in this area. The implementation of conservancy tanks is a viable option for managing effluent in this locality.

Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?

The proposed development will operate entirely off-grid, utilising solar energy, rainwater harvesting, and on-site wastewater management. As such, it will not place any demand on municipal infrastructure or services. No connection to municipal water, sewer, or electrical networks is required, ensuring that the project remains self-sufficient and aligned with sustainable development principles.

The development operates off-grid and, as such, will not affect the infrastructure planning within the municipality.

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

This project is a privately initiated development for a single residential dwelling and associated infrastructure. It is not linked to any national government programme, infrastructure initiative, or strategic intervention under the National Development Plan (NDP), Strategic Infrastructure Projects (SIPs), or any Department of Human Settlements, Tourism, or Environmental Affairs initiative.

The development remains a site-specific, private land-use proposal that aligns with local and provincial spatial planning frameworks, including the Knysna SDF (2020), Western Cape PSDF (2014), and the Rural Areas Guidelines (2019).

Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)

Specific location factors favouring the proposed residential and conservation-based land use include:

- Private Ownership and Use:
  The proposed development is intended solely for private residential occupation by the landowners and their family members, with no external tourism or commercial activity. This ensures minimal disturbance and aligns with the existing low-density rural character of the Groenvlei area.

- Proximity to Existing Infrastructure and Access Routes:
  The site is located near established road infrastructure, including the N2 and Groenvlei Divisional Road (DR 1594), with legal access provided via the existing public servitude road (Bushy Way). Limited upgrades to this road will provide safe vehicle access without requiring new municipal infrastructure.

- Strategic Position within the Conservation Network:
  The property borders the Lake Pleasant Private Nature Reserve and lies adjacent to the Goukamma Protected Area buffer, strengthening ecological connectivity within the coastal landscape. The proposal supports the long-term conservation of indigenous vegetation through the planned rezoning to Open Space III and stewardship commitments with CapeNature.

- Environmental Suitability:
  The Preliminary Geotechnical and Geomatic Report (2024) confirms that the selected development footprint avoids unstable slopes and high-risk erosion areas. Infrastructure is positioned outside the 100-year coastal risk line, ensuring safety and resilience against coastal processes.

- Integration with Spatial Planning Frameworks:
  The site is situated outside the Sedgefield urban edge but within an area earmarked for conservation-compatible rural use in the Knysna SDF (2020) and Garden Route EMF. The proposed rezoning to Open Space III (Nature Conservation Area) formalises this land-use intent.

- Low Visual and Social Impact:
  According to the Visual Compliance Statement (2025), the site has a high Visual Absorption Capacity (VAC) due to dense vegetation and steep topography. The dwelling will be screened from Groenvlei Beach and neighbouring properties, maintaining the area's natural seclusion and visual quality.

- Off-Grid Sustainability:
  The development is entirely off-grid, relying on solar energy, rainwater harvesting, and on-site wastewater treatment, placing no burden on municipal infrastructure or public services.

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

Yes.
The proposed development represents the best practicable environmental option for Portion 79 of Farm Ruygte Valley No. 205, Sedgefield, as confirmed through various specialist studies assessing land capability, biodiversity sensitivity, and visual suitability.

The property currently makes no contribution to agricultural production, either for cultivation or grazing. Specialist assessments — including the Terrestrial Biodiversity Assessment (2025) and the Agricultural Compliance Statement (2025) — confirm that the land has low agricultural potential due to shallow sandy soils, steep slopes, and the presence of indigenous vegetation. Consequently, the proposed development will not result in the loss of productive agricultural land but will rather enable long-term ecological conservation.

Historically, surrounding properties were zoned for agriculture or conservation, but active agricultural use has significantly declined in the area. The dominant land uses now include private conservation holdings and rural residential dwellings. The proposed low-impact residential dwelling aligns with this prevailing rural and conservation-based character.

The landowners seek to exercise their primary land-use right under the Section 8 Zoning Scheme Regulations (1988) for Agriculture Zone I, which permits one dwelling house. To formalise the conservation intent, the applicant also proposes rezoning to Open Space III (Nature Conservation Area), which will secure the long-term protection of approximately 99.98% of the 5.1576 ha property.
The development footprint is limited to approximately 1 175 m² (0.02% of the property), comprising a 200 m² dwelling, an access road less than 3 m wide, and supporting infrastructure. The architectural design employs lightweight, environmentally sensitive materials such as steel, timber, glass, and natural stone, ensuring minimal disturbance to the surrounding environment.

The project, therefore:

- Avoids high-sensitivity CBA1 and forest areas.
- Contributes to the conservation of the site's natural veld and scenic landscape.
- Operates entirely off-grid, with solar energy, rainwater harvesting, and on-site wastewater management.
- Ensures no loss of agricultural potential and no additional infrastructure demand.

Accordingly, the development represents the most sustainable and environmentally responsible land-use option for the property, maintaining ecological integrity while allowing the landowners to exercise their legitimate land-use rights.

Will the benefits of the proposed land use/development outweigh the negative impacts of it?

Yes.
The benefits of the proposed low-impact residential development and long-term conservation management clearly outweigh any potential negative environmental impacts.

The construction of a single primary dwelling and associated infrastructure will have negligible environmental impact, as the footprint is limited to approximately 1 175 m² (less than 0.02 % of the total site). The remainder of the 5.1576 ha property (± 99.98 %) will be conserved and rehabilitated through the proposed rezoning to Open Space III (Nature Conservation Area). This represents a major net biodiversity gain, ensuring the long-term protection of indigenous vegetation and the continuation of ecological corridors linking the Lake Pleasant and Goukamma conservation areas.

Key benefits include:

- Conservation Security: The rezoning to Open Space III will legally secure the site under a conservation-compatible land-use category, preventing future intensive development or agricultural transformation.
- Environmental Stewardship: The landowners commit to ongoing alien vegetation control, indigenous revegetation, and soil-stabilisation measures in accordance with specialist recommendations (Terrestrial Biodiversity Assessment 2025; Geotechnical Report 2024).

- Sustainability: The development is off-grid, employing solar energy, rainwater harvesting, and on-site wastewater management systems, thereby eliminating reliance on municipal infrastructure and reducing carbon emissions.
- Minimal Visual Impact: The Visual Compliance Statement (2025) confirms that the site's dense vegetation and steep topography ensure a high Visual Absorption Capacity, effectively screening the development from Groenvlei Beach, Cola Beach, and the N2.
- Compliance with Spatial Planning Frameworks: The proposal fully aligns with the Knysna SDF (2020), Western Cape PSDF (2014), and Rural Areas Guidelines (2019), which promote conservation-compatible development outside the urban edge.
- Protection of Agricultural Integrity: The Agricultural Compliance Statement (2025) confirms that the property has very low agricultural potential. Therefore, the establishment of a single dwelling and conservation management area represents the most sustainable and appropriate land-use option for this site.

Potential negative impacts, such as temporary construction-related disturbance, have been mitigated through comprehensive management measures, including erosion control, dust suppression, rehabilitation of disturbed areas, and ongoing environmental compliance monitoring by the appointed ECO.

In conclusion, the proposed development yields clear environmental, social, and planning benefits that substantially outweigh any short-term construction impacts. It secures the long-term ecological value of the site, upholds sustainable land-use principles, and ensures the preservation of the region's unique coastal and biodiversity heritage.

Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?

No.
The proposed development will not set a precedent for similar activities in the area. The applicant seeks only to exercise an existing primary land-use right permitted under the Agriculture Zone I zoning, which allows the construction of one dwelling house. The proposal does not introduce any new or intensified land use, nor does it involve subdivision, tourism, or commercial development that could influence future applications in the vicinity.

The surrounding area already includes similar low-density rural residential dwellings and conservation holdings, and this proposal remains consistent with those established land uses. The accompanying rezoning to Open Space III (Nature Conservation) will, in fact, reinforce environmental protection objectives by formalising conservation intent and preventing any future densification or inappropriate development on the site.

Accordingly, the proposal represents a site-specific, policy-compliant application that aligns with the Knysna Spatial Development Framework (2020) and will not establish any precedent for unrelated or higher-intensity developments within the local municipality.

Will any person's rights be negatively affected by the proposed activity/ies?

No.
The proposed development will not negatively affect the rights of any person. The application does not alter or infringe upon neighbouring landowners' existing land-use rights or access arrangements. The low-impact residential use is compatible with the surrounding rural and conservation land uses and will not introduce noise, traffic, or visual disturbance.

Furthermore, the presence of a permanent residence on the property will enhance passive surveillance in the area, improving local safety and security for adjacent landowners. The proposal therefore supports a balanced and

harmonious coexistence with neighbouring properties and complies fully with the constitutional environmental right to a safe and healthy environment as set out in Section 24 of the South African Constitution (Act 108 of 1996).

What will the benefits be to society in general and to the local communities?

The proposed development will contribute positively to both society in general and the local communities in several ways:

1. Employment Creation:

During the construction phase, the project will create temporary employment opportunities for local residents, including both skilled and unskilled labour. Local contractors and service providers will be prioritised for procurement of materials and construction activities, ensuring that economic benefits remain within the Sedgefield community.

2. Skills Development:

The project will indirectly promote skills transfer and training opportunities in environmentally sensitive construction, landscaping, and site management practices, which will contribute to long-term local capacity building.

3. Strengthening Rural Stewardship:

By establishing a privately managed conservation area through the proposed rezoning to Open Space III (Nature Conservation), the project enhances local conservation awareness and strengthens the region's ecological integrity, supporting the broader community's environmental and social well-being.

4. Safety and Security:

The presence of a permanent residence on the property will improve passive surveillance and local security, which benefits the surrounding rural community.

5. Broader Societal Benefits:

At a regional level, the project contributes to sustainable land management and helps maintain the scenic and ecological character of the Garden Route coastal corridor, supporting tourism and the overall quality of life for residents and visitors alike.

Any other need and desirability considerations related to the proposed activity?

Need

In terms of the Guideline on Need and Desirability (DEA&DP, 2017), "need" refers to the *timing* of the proposed development — whether the proposal is appropriate now in the context of current planning frameworks and land-use pressures. The need for the development must therefore be assessed against the approved Spatial Development Framework (SDF), Integrated Development Plan (IDP), and other municipal and provincial policies guiding development outside the urban edge.

The proposed development on Portion 79 of Farm Ruygte Valley No. 205 addresses a legitimate need for low-impact, conservation-compatible residential use. It provides for the construction of a single private dwelling within an area where agricultural potential is limited and where conservation value is high. The proposal represents an appropriate response to the growing demand for sustainable, small-scale residential land uses that complement biodiversity protection along the Garden Route coastal corridor.

The proposal is consistent with the Knysna SDF (2020), Western Cape PSDF (2014), and Rural Areas Guidelines (2019), all of which encourage the consolidation of ecologically valuable properties into the conservation estate and promote land uses that maintain ecosystem services while allowing for limited residential occupation. The timing of the proposal is therefore justified within the context of both local and regional development planning priorities.

Desirability

"Desirability" relates to the *placing* of the proposed development — whether this is the right activity in the right place. In this regard, NEMA associates desirability with the "best practicable environmental option," meaning the alternative that provides the most benefit with the least environmental harm, at a cost acceptable to society.

The site is environmentally suitable for limited residential development, as confirmed by the Terrestrial Biodiversity Assessment (2025), Preliminary Geotechnical and Geomatic Report (2024), and Visual Compliance Statement (2025). The design reflects careful environmental consideration by limiting disturbance to approximately 1 175 m² (<0.02% of the site), avoiding steep slopes and CBA1 areas, and preserving 99.98% of the land in its natural state.

The proposal is fully aligned with the applicable policy documentation, including the Western Cape Provincial SDF, Rural Development Guidelines, Eden District SDF, Knysna SDF, and Knysna IDP. Its approval will therefore not compromise the integrity of these frameworks, as agreed upon by the relevant authorities.

The development is consistent with all relevant planning and environmental legislation, represents the best practicable environmental option, and supports the long-term conservation and spatial vision for the area.
Accordingly, the boxes for Need and Desirability can both be ticked — the proposal is considered environmentally, socially, and spatially desirable and appropriate for the site.

Please describe how the general objectives of Integrated Environmental Management, as set out in section 23 of NEMA have been taken into account.

The general objective of integrated environmental management has been taken into account as follows:

(a) promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment.

(b) identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2.

(c) ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them.

(d) ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment.

(e) ensure the consideration of environmental attributes in management and decision-making, which may have a significant effect on the environment; and

(f) Identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2.

Section G

Motivation for the preferred site, activity and technology alternative

In accordance with the principles and requirements set out in the National Environmental Management Act (NEMA) and the Environmental Impact Assessment (EIA) Regulations, all reasonable and feasible alternatives must be considered and assessed in the environmental authorisation process. This includes the consideration of site, activity, design, layout, and the No-Go alternative, to ensure the selection of an option that results in the least environmental harm while still achieving the project objectives.

"Alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to –

(a) The property on which, or location where, it is proposed to undertake the activity	There is only one site.
(b) The type of activity to be undertaken	**The preferred alternative**: The development proposal entails the following: (ii) The construction of one (x1) primary dwelling house to be situated towards the south of the property, three cottages, a vehicle parking area, and a garage/storeroom. (ii) The construction of a new access road leading to the dwelling area. The building footprint will measure 525m² in total, and the planned access road will be about 200m long and 3m wide, ending in a parking area that calculates to about 660m². The total development area will amount to about 1 175m², which accounts for less than 0.02% of the site, leaving 99.98% of the site in a natural state. **Alternative 2** The proposed project will comprise one primary residence with a footprint of 400 square meters, in addition to three cottages, each with an area of 80 square meters. A boardwalk will connect all four units. Furthermore, the project will provide six parking bays allocated for the use of the units. There will also be an 80 square meter shed, along with a 50 square meter cottage designated as staff quarters.
(c) The design or layout of the activity	**The preferred alternative**: The development proposal entails the following: (i) The construction of one (x1) primary dwelling house to be situated towards the south of the property, three cottages, a vehicle parking area, and a garage/storeroom. (ii) The construction of a new access road leading to the dwelling area.

	The building footprint will measure 525m² in total, and the planned access road will be about 200m long and 3m wide, ending in a parking area that calculates to about 660m². The total development area will amount to about 1 175m², which accounts for less than 0.02% of the site, leaving 99.98% of the site in a natural state. **Alternative 2** The proposed project will comprise one primary residence with a footprint of 400 square meters, in addition to three cottages, each with an area of 80 square meters. A boardwalk will connect all four units. Furthermore, the project will provide six parking bays allocated for the use of the units. There will also be an 80 square meter shed, along with a 50 square meter cottage designated as staff quarters.
(d) The Technology to be used in the activity	The entire proposed development will operate independently of the municipal grid. The solar plant will be developed as an off-grid micro-generation system, harnessing solar energy to meet daily electricity demands while simultaneously recharging the battery storage system. If required, grid-tied photovoltaic inverters may be integrated through AC coupling to enhance system flexibility and ensure sufficient energy availability during extended low-sunlight periods. A sealed Lithium Iron Phosphate ($LiFePO_4$) battery system is proposed due to its proven reliability, safety, and long lifespan. The system is expected to achieve a service life of more than 10 years at a depth of discharge of approximately 70%, with a fast-charging capability that ensures optimal operational efficiency and minimal maintenance requirements.
(e) The operation aspect of the activity	The applicant intends to exercise their existing right to construct a residential dwelling on the property in accordance with the provisions of the Knysna Zoning Scheme Regulations (1992). Under the No-Go Option, no development would occur, and the site would remain in its current undeveloped state. The agricultural viability of the property is limited, as the land is unsuitable for cultivation or intensive farming due to its topography, soil conditions, and ecological sensitivity.

	While the No-Go Alternative would avoid construction-related impacts, it would also result in the continued degradation of the site by invasive alien vegetation and a lack of active land management or rehabilitation. Therefore, this option would not contribute to the long-term conservation or sustainable use of the property.
(f) The option of not implementing the activity	This option must always be assessed and is addressed below.

(I) Details of the Alternatives Considered:

Details of the alternatives considered

1. Site Alternative

The proposed site was selected based on its location within a previously disturbed area, accessibility via an existing public servitude road, and its limited agricultural potential. No alternative sites were considered, as the applicant owns the property and intends to exercise existing development rights lawfully, while aligning land use with the property's ecological characteristics. The property is already fragmented by environmentally sensitive areas and is therefore not viable for intensive or high-impact land uses.

2. Activity Alternative

The primary activity proposed involves the development of a small-scale, environmentally sensitive accommodation component, together with the long-term conservation of the majority of the site. No high-impact commercial or industrial activities were considered due to the site's ecological sensitivities and surrounding rural-residential and conservation-oriented land uses. The proposed activity aligns with the conservation value of the property and supports the principles of sustainable development as set out in the National Environmental Management Act (Act 107 of 1998).

3. Layout and Design Alternatives

Several layout configurations were considered to avoid ecologically sensitive zones, including Critical Biodiversity Areas (CBA) and steep slope areas. The selected layout positions all proposed structures within the least sensitive, degraded southern portion of the property, outside of erosion-prone zones and within an area already impacted by alien vegetation. The architectural design prioritises lightweight, eco-sensitive construction using materials such as steel, timber, glass, and natural stone that blend with the surrounding landscape, reducing visual intrusion and environmental disturbance..

The preferred Alternative 1

The landowners intend to reside permanently on the property and propose the construction of a single dwelling house of approximately 200 m² in extent. The construction of this dwelling constitutes a primary land use right in terms of the Knysna Zoning Scheme Regulations (1992).

In addition to the main residence, the landowners plan to establish three small self-catering units of approximately 65 m² each, which will be used exclusively by the owners and their family members. The development will also include staff accommodation (±50 m²) and a shed (±80 m²) for the storage of tools and equipment required for the maintenance of the property.

Access to the development area will be provided via a gravel access road, approximately 200 metres in length and no more than 3 metres in width, positioned along the eastern boundary of the site. The road will terminate at a small parking area (±660 m²) from which a timber boardwalk will provide access to the dwelling and units.

The residential structures are to be clustered on the southern portion of the property, situated on elevated terrain overlooking the ocean, to optimise scenic views while avoiding ecologically sensitive areas and steep slopes. Although the property is zoned Agriculture Zone I, the landowners do not intend to engage in agricultural production, as the site's agricultural potential is limited and its primary value lies in its natural landscape and biodiversity features. The remainder of the property will be conserved and rehabilitated in line with the recommendations of the specialist studies.

The architectural design will emphasise lightness and environmental sensitivity, employing steel, timber, glass, and natural stone in place of traditional brick and concrete. These materials have been selected to blend with the surrounding environment and minimise visual impact.

The total development footprint will measure approximately 1 175 m², comprising 525 m² of building coverage and 660 m² for access and parking areas. This represents less than 0.02% of the 5.1576 ha property, ensuring that 99.98% of the site remains in its natural state. The overall development concept is to create a tranquil and private retreat that complements the natural setting and supports the property's long-term conservation objectives.

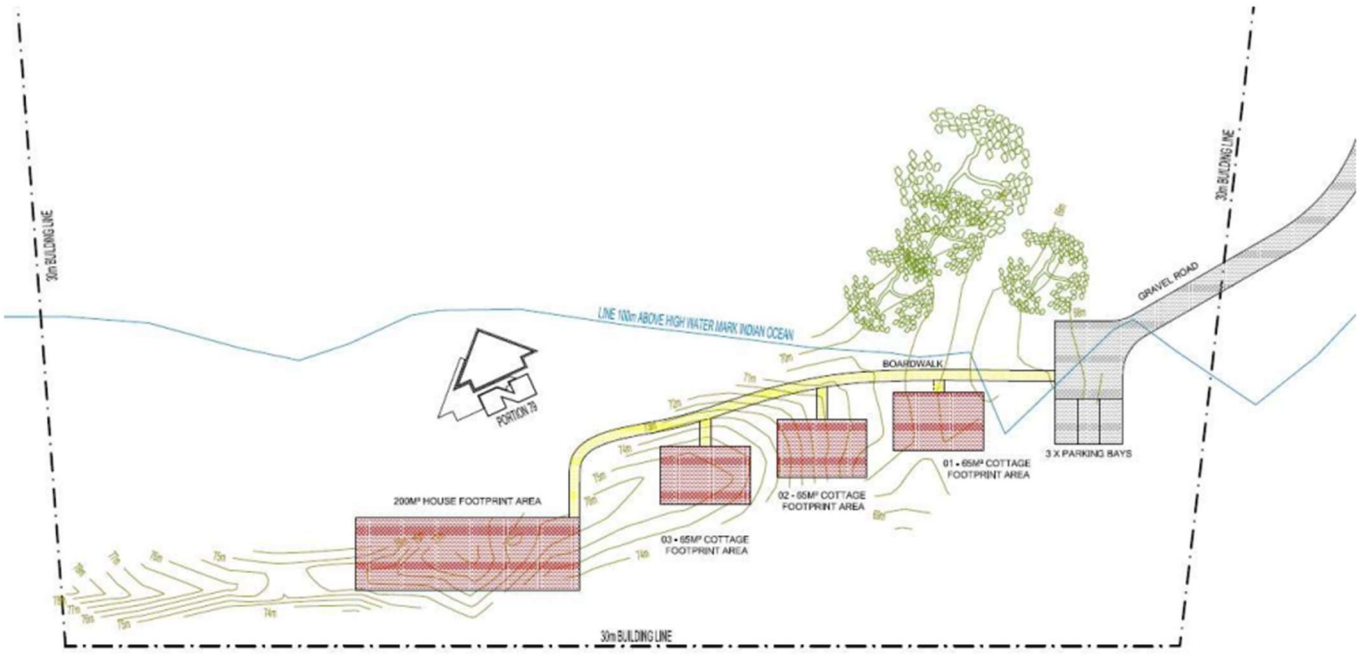


FIGURE 17: PREFERRED SDP

FIGURE 18: EXAMPLE OF BUILDING MATERIAL AND STRUCTURE

Electricity

There is currently no electrical infrastructure present on the property or within the adjacent road reserve. As such, the proposed development will operate entirely off-grid, utilising a stand-alone solar power system to meet all electrical requirements.

Solar Plant

Type and System

The solar energy system will be developed as an off-grid installation, generating power from photovoltaic panels to supply the load during daylight hours while recharging batteries for night-time use. Should future energy demands exceed generation capacity, grid-tied photovoltaic inverters may be incorporated into the micro-grid through AC coupling, ensuring flexibility and long-term sustainability.

Plant Location

It is recommended that roof-mounted solar panels be installed on the roofs of the main residence and the three small self-catering units to maximise available roof area, avoid additional ground disturbance, and optimise solar exposure. This configuration also enhances the visual integration of the energy system into the architectural design.

Plant Capacity

The proposed system will have a generation capacity of approximately 15 kWh, with an anticipated peak consumption of up to 30 kWh per day. This capacity is sufficient to power lighting, appliances, and water-pumping requirements associated with the off-grid residential and ancillary structures.

Energy Storage

A sealed Lithium-Iron Phosphate ($LiFePO_4$) battery system is proposed, offering an expected operational lifespan exceeding 10 years at a 70 % depth of discharge. This technology allows for rapid charging and efficient energy use, ensuring reliable power availability while minimising maintenance requirements.

Area and Street Lighting

The access road and parking area will be illuminated using low-intensity, motion-activated bollard luminaires powered by individual solar cells. These lights will activate only when movement is detected, minimising light pollution and reducing energy consumption.

Alternative 2

Under this alternative, the proposed development will comprise a primary residence with a footprint of approximately 400 m², accompanied by three cottages, each measuring approximately 80 m². The units will be connected by a timber boardwalk, which will minimise soil compaction and disturbance to the surrounding vegetation.

The layout will include six parking bays allocated for use by the dwelling and cottages. Additional structures will comprise an 80 m² shed, intended for the storage of maintenance equipment, and a 50 m² staff cottage to accommodate on-site personnel.

This alternative maintains a compact layout clustered within the southern portion of the property, thereby reducing ecological disturbance, visual exposure, and infrastructure requirements. The total built area will remain limited relative to the 5.1576 ha property, ensuring the majority of the site is retained in its natural state.

FIGURE 19: ALTERNATIVE 2 SDP

The No-Go Alternative

The No-Go Option involves maintaining the site in its current, undeveloped condition, prohibiting any construction or formal development without rezoning or an alternative land-use application. Under this scenario, the property would remain vacant, and no residential dwelling would be established.

While this option would preserve the site's current natural state, it does not align with the landowner's existing development rights under the Agriculture Zone I zoning, which permits a dwelling house as a primary land use right. The property is privately owned, and the applicant intends to exercise these lawful rights in a manner that is consistent with the applicable spatial planning frameworks and historical land-use patterns in the area.

Furthermore, the No-Go Alternative would result in the loss of potential socio-economic benefits, including local job creation and income generation during both the construction and operational phases. The proposed development will provide opportunities for local contractors, builders, and service providers, supporting small-scale economic activity in the Sedgefield area. The current proposal also promotes long-term conservation outcomes by rezoning the majority of the property (>99%) to Open Space III (Nature Conservation), thereby securing the protection of the Critical Biodiversity Area (CBA) and coastal forest while accommodating only a small, low-impact residential footprint.

From an agricultural perspective, the property has limited to negligible agricultural potential, as confirmed in the Agricultural Compliance Statement (2025). The land's small size (approximately 5.2 ha), steep coastal slopes, erodible sandy soils, and ecological constraints render it unsuitable for cultivation or intensive farming. The absence of supporting agricultural infrastructure, such as irrigation, arable soil, or vehicle access, further diminishes its viability for agricultural production. Retaining the land under its current zoning without rezoning or appropriate land-use adjustment would not contribute to food production, rural development, or sustainable resource management.

Ecologically, the No-Go Alternative would maintain the status quo but not actively enhance biodiversity or rehabilitate degraded areas currently invaded by *Acacia cyclops*. In contrast, the proposed development includes active rehabilitation and alien vegetation management, delivering measurable ecological improvement.

In summary, while the No-Go Alternative maintains the current condition of the site, it does not promote sustainable land use, ecological restoration, or socio-economic upliftment. The proposed development, through its limited footprint, environmental sensitivity, and strong conservation commitments, represents the Best Practicable Environmental Option (BPEO) for the property, balancing ecological protection with responsible rural development and lawful landowner rights.

Section H

1. Details of the public participation process undertaken in terms of Regulation 41 of the regulations, including copies and supporting documents and inputs.

Section 41 in Chapter 6 of Regulation 982 details the public participation process that needs to be adhered to as part of an environmental process. Compliance of the Public Participation Process as per the Legislated Requirements is indicated in the table below:

Regulation with regard to conducting a Public Participation Process	Description of adherence to the Legislated Requirements

1) If the proponent is not the owner or person in control of the land on which the activity is to be undertaken, the proponent must, before applying for environmental authorisation in respect of such an activity, obtain written consent of the landowner or person in control of the land to undertake such activity on that land	The proponent (applicant) is the landowner and therefore consent is not required.
2) The person conducting a public participation process must take into account any relevant guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties on an application or proposed application which is subject to public participation by -	
(a) Fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of – (i) The site where the activity to which the application or proposed application relates or is to be undertaken. (ii) Any alternative site.	(i) A site notice was placed on site. (ii) There is no alternative site. **See Appendix E**
(b) Giving written notice, in any of the manners provided for in section 47D of the Act, to – (i) The occupiers of the site and, if the proponent or applicant is not the owner or person in control of the site where the activity is to be undertaken and to any alternative site where the activity is to be undertaken.	(i) The applicant is the owner of the site and is in control of the site. The site is vacant and there is only one site.
(ii) Owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken and any alternative site where the activity is to be undertaken.	(ii) The owners of the land adjacent to the site will be notified via email. There is only one site.
(iii) The municipal councillors of the ward in which the site and alternative site are situated and any organisation of ratepayers that represent the community.	(iii) The ward Councillor (Knysna Municipality) will be notified. The ratepayer's association has been notified
(iv) The Municipality which has jurisdiction in the area.	(iv) Knysna Municipality will be notified
(v) Any organ of state having jurisdiction in respect of any activity; and	(v) Please refer to Appendix E showing a list of organs of state notified.
(vi) Any other party as required by the competent authority.	(vi) Please refer to Appendix E showing a list of all organisations, NGO's and the public that have been notified.

(c) Placing an advertisement in – (i) One Local Newspaper; or (ii) Any official Gazette that is published specifically for the purpose of providing public notices of applications or other submissions made in terms of these Regulations;	(i) CX Newspaper, a local free newspaper will be used to be advertised. Please refer to a copy of the advert in **Appendix E.**
(d) Placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond its boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not to be complied with if an advertisement has been placed in an official gazette referred to in paragraph (c)(ii); and	This is not applicable to the proposed development activity as there is no impact (i.e. air emissions) that extends beyond the boundaries of the district municipality.
(e) Using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desirous of but unable to participate in the process due to – (i) Illiteracy (ii) Disability; or (iii) Any other disadvantages	Should the need arise, *Eco Route Environmental Consultancy* will identify the correct manner with the assistance of the competent authority to engage with such an individual.
3) A notice, notice board or advertisement referred to in sub-regulation (2) must – (a) Give details of the application or proposed application which is subjected to public participation; and (b) State – (i) Whether basic assessment or S&EIR procedures are being applied to the application; (ii) The nature and location of the activity to which the application relates; (iii) Where further information on the application or proposed application can be obtained; and (iv) The manner in which and the person to whom representations in respect of the application or proposed application may be made.	Refer to **Appendix E**.
4) A notice board referred to in sub regulation (2) must – (a) Be of a size of at least 60cm by 42cm; and	Refer to **Appendix E.**

(b) Display the required information in lettering and in a format as may be determined by the competent authority	
5) Where public participation is conducted in terms of this regulation for an application or proposed application, sub-regulation (2)(a), (b), (c) and (d) need not be complied with again during the additional public participation process contemplated in regulations 19(1)(b) or 23(1)(b) or the public participation process contemplated in regulations 21(2)(d), on condition that – (a) Such a process has been preceded by a public participation process which included compliance with sub-regulation (2)(a), (b), (c) and (d); and (b) Written notices are given to registered I&AP's regarding where the – (i) Revised basic assessment report or, EMPr or closure plan, as contemplated in regulation 19(1)(b); (ii) Revised environmental impact assessment report or EMPr as contemplated in regulation 23(1)(b); or (iii) Environmental impact assessment report and EMPr as contemplated in regulation 21(2)(d); (iv) May be obtained, the manner in which and the person to whom representations on these reports or plans may be made and the date on which such representations are due.	Refer to **Appendix E.**
6) When complying with this regulation, the person conducting the public participation process must ensure that – (a) Information containing all relevant facts in respect of the application or proposed application is made available to potential interested and affected parties; and (b) Participation by potential or registered interested and affected parties is facilitated in such a manner that all registered interested and affected parties are provided with a reasonable	Refer to **Appendix E.** The Draft BAR will be made available on the website of Eco Rout Environmental Consultants for the relevant organs of state. Kindly refer to Appendix E for verification of the delivery method. A hard copy will be placed in the Knysna Library for the review of interested and affected parties (I&APs), and an electronic version is accessible at www.ecoroute.co.za.

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

Registration of Key Stakeholders

The key stakeholders identified will be given an opportunity to comment on the consultation Basic Assessment Report. A list of key stakeholders for this process is included in the table below. This will be updated in the Draft BAR:

STATE DEPARTMENTS			
Name	**Contact Person**	**Postal Address**	**HC/WEBSITE LINK/L**
Department of Agriculture Western Cape	Mr Cor van der Walt	P/Bag X1 Elsenburg 7607	WEBSITE LINK
Department of Agriculture - National		P/Bag X120 Pretoria 0001	WEBSITE LINK
Department of Agriculture, Forestry & Fisheries	Mr Jeffery Sass	P/Bag X12 Knysna 6570	WEBSITE LINK
Department of Economic Development & Tourism-Western Cape	Mr Mark Lakay	P.O. Box 979 Cape Town 8000	WEBSITE LINK
Department of Environmental Affairs & Development Planning	Mr Danie Swanepoel Jessica Christie	P/Bag X6509 George. 6530	WEBSITE LINK
Department of Provincial Health	Manie Abrahams	P/Bag X6592 George 6530	WEBSITE LINK
Department of Rural Develop. & Land Reform	Glen Smith	P.O. Box 872 George 6530	WEBSITE LINK
District Roads Engineer	H. Ottervanger	Private Bag X12 George 6530	WEBSITE LINK

Department of Transport & Public Works	J. Prodehl	P/Bag X617 Oudshoorn 6620	WEBSITE LINK
Department of Water Affairs	John Roberts	P/Bag X16 Sanlamhof 7532	WEBSITE LINK
South African National Roads Agency	Colleen Runkel	P/Bag X19 Bellville 7535	WEBSITE LINK
Gouritz WMA: Environmental Officer	Caroline Tlowana	Private Bag X16 Sanlamhof Bellville 7532	WEBSITE LINK
ORGANS OF STATE			
Name	**Contact Person**	**Postal Address**	**HC/WEBSITE LINK/L**
Cape Nature – Western Cape	Colin Fordham	P/Bag 6546, George. 6530	HD/WEBSITE LINK
Cape Nature - Bitou	Henk Niewoudt	P/Bag X1003 Plettenberg Bay 6600	WEBSITE LINK
Eskom Western Cape – Land & Rights	Rochelle McPherson	P.O. Box 222 Brackenfell 7561	WEBSITE LINK
Heritage Western Cape	C. van Wijk	P/Bag X9067 Cape Town. 8000	WEBSITE LINK
SANParks	Maretha Alant	P.O. Box 3542 Knysna 6570	WEBSITE LINK
NGO's			
Name	**Contact Person**	**Postal Address**	**HC/WEBSITE LINK/L**
Knysna Ratepayers Association	Mr. Ian Uys	P.O. Box 2475, Knysna. 6570	WEBSITE LINK
Knysna Catchment Management Forum	Johan de Klerk	P.O. Box Knysna 6570	WEBSITE LINK
Ward 1 Councillor Knysna Municipality	Mr R. Dawson	P.O. Box 21, Knysna. 6570	WEBSITE LINK
MUNICIPALITIES			
Name	**Contact Person**	**Postal Address**	**HC/WEBSITE LINK/L**

Knysna Municipality – Environmental Management	Pam Booth	P.O. Box 21 Knysna 6570	WEBSITE LINK
Knysna Municipality – Town Planning	Mr H. Smit	P.O. Box 21 Knysna 6570	WEBSITE LINK

PUBLIC			
Erf Number	**Contact Person**	**Postal Address**	**HC/WEBSITE LINK/L**
TBC			

Availability of the Draft Basic Assessment Report

Registered I&AP's including all identified I&AP's will be notified of the availability of the report on die Eco Route Environmental Consultancy website for review. The registered I&AP's including the notice placed in the newspaper, advertised that the digital copy can be obtained at www.ecoroute.co.za.

The Consultation Basic Assessment report will be made available for a 30-day commenting period. Proof of notifications and availability of the report will be included in the final BAR.

Comments and Response Report on the Consultation BAR

A Summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them, are described below:

Authority / I&AP	Summary of Comment	Response / Outcome
CapeNature (Megan Simons, 26 June 2025)	Confirmed property lies within the *Wilderness Lakes Protected Environment* and contains CBA 1, CBA 2 and ESA 1 areas. Requested confirmation that the layout avoids sensitive habitats, and that rehabilitation/offsetting be included.	Development footprint avoids all CBA 1 and forest areas; site is off-grid with low-impact design. Long-term conservation is supported through rezoning to Open Space III and a potential stewardship agreement. No residual impacts expected; any disturbance will be rehabilitated in line with EMPr.
SANParks (Dr Vanessa Weyer, 23 June 2025)	Highlighted that the site falls within the Garden Route National Park buffer zone and borders the Coastal Public Property inside the Coastal Protection Zone (CPZ). Requested clarity on total disturbance footprint, inclusion of full comments in DBAR, and alignment with NEM:ICMA.	The BAR acknowledges CPZ and buffer-zone context; total disturbance area ≈ 1 175 m² (verified spatially). Full SANParks submission to be included as an annexure to the DBAR. Clarification on layout and environmental controls added for transparency.

Breede-Olifants CMA (S.I. Ndlovu, 20 June 2025)	Requested confirmation of absence of watercourses and clarification of any potential water use under NWA s.21.	Specialist confirmed no inland watercourses on site. Rainwater harvesting tanks serve all units, no surface or groundwater abstraction without authorisation. If a borehole is added later, a hydrogeological study and WUL will precede its use. All effluent via sealed conservancy tanks; wastewater removed by licensed contractor.
Department of Agriculture	Requested confirmation of agricultural potential and implications for land use change.	Agricultural Compliance Statement confirmed very low agricultural potential due to sandy erodible soils and absence of irrigation or viable cropland; loss of agricultural land is negligible and acceptable.
Knysna Municipality	Queried service provision and zoning consistency with SDF.	Development is fully off grid (solar, rainwater harvesting, sealed tanks). Rezoning to Open Space III for conservation is consistent with the Knysna SDF and Rural Development Guidelines.
Neighbours / Local Residents	Raised concerns about visual impact, precedent for future development, and public access.	Visual Assessment confirmed low visual impact due to natural screening and site topography; proposal is context-sensitive and non-precedent-forming. Public access routes remain unaffected.

2. Site Description and Environmental Attributes

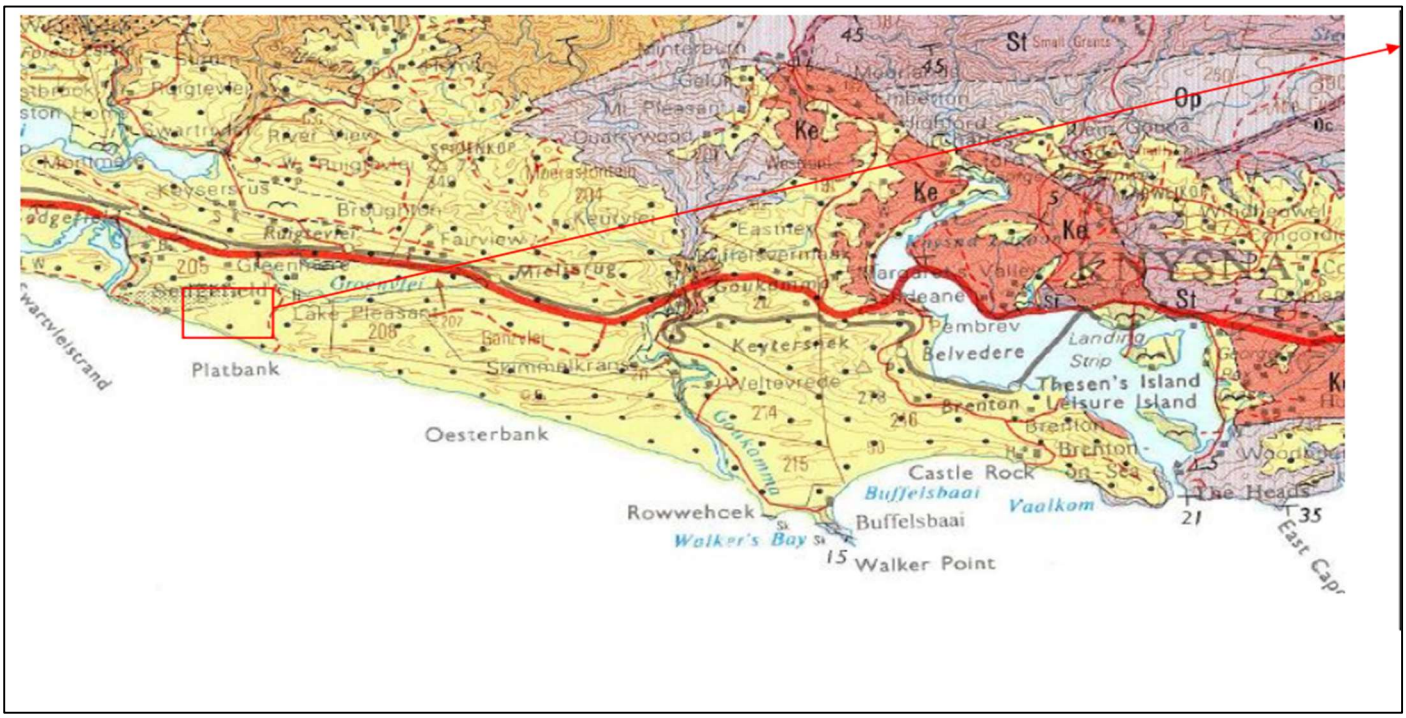
Geographical and Physical Aspects

Preliminary Geomatic and Geotechnical Investigation

Rock Hounds (Pty) Ltd was appointed to undertake the Preliminary Geomatic Geotechnical investigation which was undertaken in May 2024. The purpose of the study was to determine dune stability and morphology over time. Parcel 79 of Farm 205 Ruygte Valley is situated within the Knysna Municipal Area and constitutes one of the farm portions of Groenvlei, located to the east of Sedgefield. This property encompasses approximately 5.21 hectares and shares its southern boundary with coastal public land. It directly adjoins Portion 78 of Farm Ruygte Valley No. 205, which has been designated as a private nature reserve.

Topographical Features

The property (approximately in red block) is located within the Cape Supergroup rocks, on thick sand (light yellow Bredasdorp formation). Kirkwood formation conglomerates (Ke dark orange) might be present in thin layers under the sand. Peninsula sandstones (Light pink Op) underly the sand and conglomerates at depths of typically approximately 70-90m. Steep topographical features are present due to the formation of high wind-blown recent sand dunes and semi consolidated fossil sand dune.



REGIONAL GEOLOGICAL MAP 1:250 000 MAP (COUNCIL FOR GEOSCIENCE)

The designated area is categorized as low-sloped, characterized by the presence of tall trees from the 65-meter contour, with slope angles ranging from 0 to 21 degrees. Conversely, there are significant slope gradients originating from the BM area and extending towards the lookout point and the coastline, where the terrain is predominantly covered in coastal shrubs. This segment spans from the 75-meter contour down to sea level, exhibiting slope angles between 26 and 70 degrees over a distance of 50 meters. The stretch from the lookout to the coastal zone is identified as a high-risk area due to the pronounced steepness of the slopes.

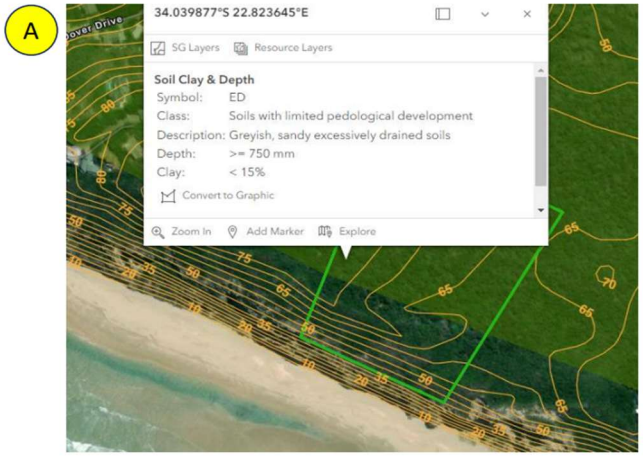
POSITIONS OF MEASUREMENTS (GOOGLE EARTH PRO, 3D TERRAIN VIEW): POSITIONS OF INTEREST PE- WESTERN POINT ON PATH & SURVEY POINT (75M ABOVE SEA LEVEL); LOOKOUT – PATH OVERLOOKING SEA (76M ABOVE SEA LEVEL); D7 – POSITION OF DEEP

FRACTURE ON SCAN (79M ABOVE SEA LEVEL); CROSS – SPLIT IN PATH (77M ABOVE SEA LEVEL); BM – SURVEY POINT (72M ABOVE SEA LEVEL); HW2 – SURVEY POINT & TALL TREES (70M ABOVE SEA LEVEL)

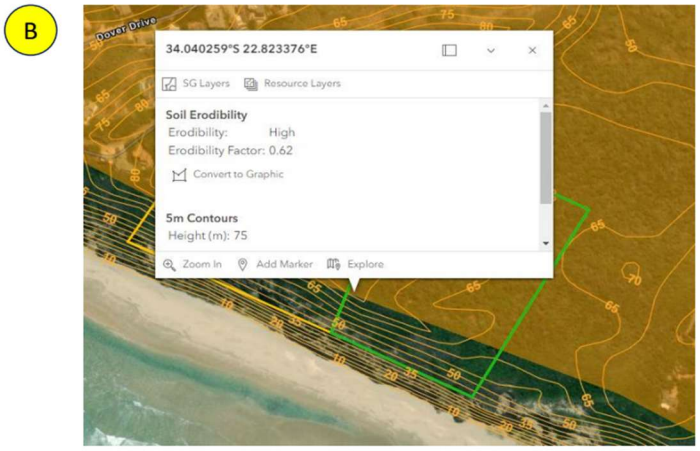
The region is characterised by coastal sand dunes, which are underlain by fossilized dunes. The area features a layer of soft and semi-consolidated materials that overspans a peninsula sandstone formation, which exhibits an east-west orientation and dips at an angle of 45 degrees to the south, at depths between 60 and 80 meters. Observations from the geophysical survey indicate a notable transition in the sandy overburden, shifting from a depth of 15 meters to 25 meters. Furthermore, a structurally weak point has been identified at a depth of 120 meters.

Soil

The soil profile at the Lookout Point test pit is primarily composed of silty loam, sandy loam, and sand at varying depths. One of the test pits exhibits both silty loam and sandy loam. Both sites feature organic-rich top layers; however, the organic layer is notably deeper at one location, indicating a more developed and older soil profile with in-situ development. The topsoil in this region is characterized by a loose texture, rendering it highly susceptible to erosion. The combination of a steep slope and high erodibility values serves as a significant indicator of potential soil movement. The moisture content is within expected parameters and is typical for coastal regions characterised by high organic layers.



A Field observations: Sandy soil with high organic matter was present to 150 cm depth on both test pit sites. Minor Clays are present.



B Field observations: Soil is highly erodible in this area and loosely packed.

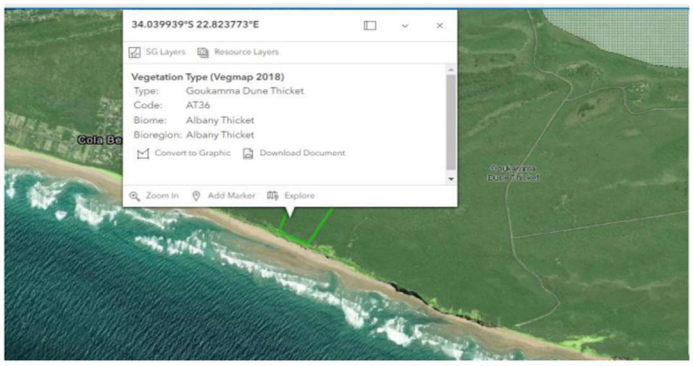
A) SOIL CLAY AND DEPTH (CFM) 1: 1 000 000: SOIL THICKNESS IS AVERAGE, MORE THAN 750MM DEEP, WITH LITTLE ACCUMULATION OF CLAY MATERIALS AND IS SANDY AND EXCESSIVELY DRAINED. B) SOIL ERODIBILITY (CFM) 1: 1 000 000: THE SOIL IN THIS AREA IS HIGHLY ERODIBLE. THE 0.62 FACTOR INDICATOR POINTS TO A HIGH PROBABILITY OF A MOVEABLE SOIL HORIZON IN THIS AREA, ESPECIALLY IN CONJUNCTION WITH THE STEEP SLOPES FROM THE LOOKOUT POINT TOWARDS THE COASTAL ZONE.

Soils at the site had no pebbles and were coarse to medium-grained, predominantly organic-rich to sandy from the top to the bottom layers. Grainsize changed gradually from coarse organic material to medium-grained sand layers down to 1,5m depth. Soil colour ranged from dark brown to grey, brown. Soil type is predominantly Organic material to 90cm, to Silty loam with 20-40% silt in the top layers, to Sandy Loam at 60-150cm depth. Clay is not predominant. Moisture ranges from25% in the top layers, gradually changing to 5% from 15 to 135cm, with a slight moisture increase at 150cm.

Vegetation

A well-established coastal forest is present, extending from the 65-meter contour and gradually tapering towards the 30-meter coastal zone, where it transitions to shrubbery. This observation is corroborated by historical satellite

imagery. Soil samples have revealed the presence of roots at depths of 60 centimetres and greater, indicative of robust vegetation that contributes to the stabilization of the dune. Furthermore, from 2005 to 2024, there has been consistent vegetation growth from the 25-meter contour inland, which demonstrates the long-term stability of the dune system.



Well established coastal forest (Albany thicket),

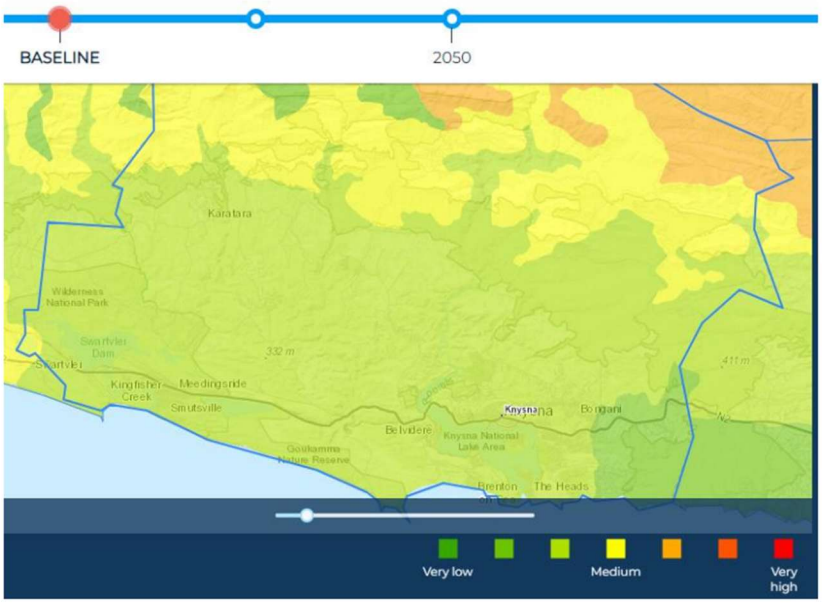
2024 satellite image: Well established coastal forest (Albany thicket), gradually tapering from the 65m contour towards the 30m coastal zone to shrubs

VEGETATION TYPE (CFM)

The designated area has been classified as a Critical Biodiversity Area (CBA:1 for maintenance and CBA:2 for restoration), which includes essential features related to terrestrial biodiversity and forest ecosystems. This ecosystem encompasses the Goukamma Dune Thicket, which retains its classification as being of Least Concern (LC). The property is situated on low-sloping terrain behind the front dune edge, exhibiting a gentle incline that ranges from 0 to 21 degrees toward the east. Notably, the slope experiences a significant transformation as it approaches the coast, attaining gradients between 26 and 70 degrees over a horizontal distance of 70 meters.

Coastal Flooding

A modest increase in seasonal rainfall is anticipated, rising from 196 mm to 202 mm over the next century, while a decline in average rainfall is projected. By the year 2050, the region is expected to experience four fewer days of extreme rainfall events. Currently, the risk of coastal flooding at the property is low, and this is expected to remain very low by 2050. Additionally, average wind speeds in the area are recorded at 5.75 m/s.

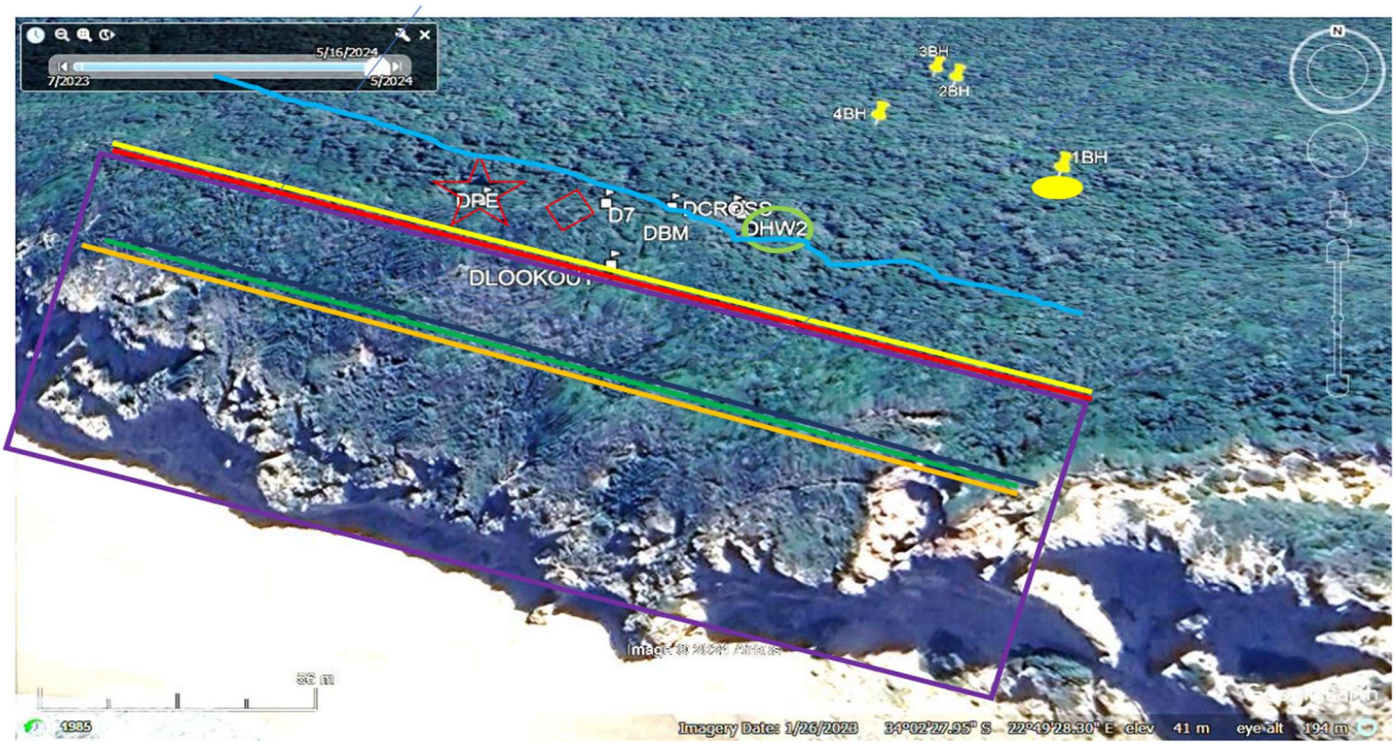


COASTAL FLOODING (CSIR): BASELINE (CURRENT) AND PROJECTED (2050) EXPOSURE TO FLOODING INDICATE THAT THE PROPERTY IS CURRENTLY LOCATED IN A LOW-RISK AREA AND IN 2050 IN A VERY LOW-RISK AREA FOR COASTAL FLOODING.

The 100-year low-risk projection indicates that the coastal zone will coincide with the 40-meter contour, which serves as the property boundary. In contrast, the high-risk projection suggests that the coastal zone will reach Lookout Point, located 50 meters from the current coastal line.

Exclusion Zones for the Proposed Erecting of Structures Terrain View

1. Yellow line: High-risk 100-year flood line, as per high-risk projection to the year 2100
2. Red block: Current structurally weak zone, as per geophysical survey data.
3. Purple block: Current high-risk zone due to steep slope values
4. Orange line – low risk projection for coastal flooding and sea level rise for the next 100 years, corresponding to the current property border.
5. Green line indicates the calculated 100-year coastal zone movement inland, as per measurements of the historical satellite images.
6. Note: The border (dark blue line), low-risk projection 100-year coastal flooding (orange line), and the measured 100-year coastal zone movement (green) overlap. The building line (red) and the high-risk projection of 100-year coastal flooding (yellow line) overlap.



SUMMARY IMAGE OF EXCLUSION ZONES FOR PROPOSED ERECTING OF STRUCTURES TERRAIN VIEW: 3D FEATURES ENABLED

Observation Summary

Geologically: A structurally weak area is located on position D7. Do not place weight-bearing structures on this position, or design structures around it. Position PE is far enough, but be aware not to place excessive weight bearing pillars on this position when designing foundations for the dwelling

Foundations: Lookout, BM path split and PE sites have soft, but consistent highly erodible soil profiles. Sites HW2 in the tall trees have weak areas at 160 and 360mm depth due to high organic matter content. All sites consist of soft

material that needs special foundation, and compaction designs to carry weight for the proposed dwellings. The area is low risk for soil movement due to the low slope from BM to HW2. However, the zone south of the lookout is high risk due to high slope changes.

Climatic conditions is projected to be low risk for rainfall, temperature, wind and vegetation cover is well established indicating dune stability.

2100 flooding high risk projections indicate that the 100-year coastal flood line may be level with the lookout point coordinates. Satellite image measurements from 2005 to 2024 indicate that the coastal zone might move inland 30m over 100 years (based on 6m inland movement every 20 years), this is in line with the low-risk coastal flooding projections, in line with the 40m contour line, or on the current property border. Conclusions:

The dune morphology is stable north of the property's coastal border, as indicated by well established vegetation and thick organic layers in the soil. Thick vegetation protects the dune from wind erosion. Cyclic wave erosion is present at the high tide mark in the coastal zone and it is projected to move 30m inland over 100 years.

Foundation design has to allow for soft, uncompressed highly erodible sandy material at all sites, allow for a compacted zone of 1,5m around the foundations of any outside walls, and has to be designed and signed off by an ECSA registered structural engineer.

The proposed dwellings at location PE is not in the current erosion zone, nor in the projected low or high risk 100-year coastal flooding zones, nor in the measured projected 100-year zone and not located on position D7. It is located 15m north (inland) of the 100-year high risk projection zone.

The border line, low risk projection 100-year coastal flooding zone, and the measured 100-year coastal zone movement overlap. The 30m building line and the high-risk projection 100-year coastal flooding overlaps.

The 100m line above the high-water mark is located north of location PE. Locations BM and HW2 are north of the 100m line above the high-water mark.

Existing dwellings in the adjacent developed areas of Sedgefield have been built between the 100-year low and high-risk projection lines, and south of the 100m high water mark.

Should the local authority change building regulations and move the 30m building line to the 100m line above the high water mark, the municipal authority has to first give permission for the proposed dwelling at the PE location, irrespective of the above findings and observations, Then the BM location is the next best option for a dwelling as it is located on the 100m line above the high water mark and above all the other risk projection lines.

Conclusion

The geological assessment of the site highlights a structurally weak area at position D7, which should be avoided for weight-bearing structures, while position PE is suitable with caution regarding excessive foundation loads. The soil profile at Lookout, BM path split, and PE sites consists of soft, highly erodible material, necessitating specialized foundation and compaction designs to ensure structural integrity. The HW2 site within the tall trees presents weak zones at 160mm and 360mm depths due to high organic content, requiring further reinforcement. Although most of the area is classified as low risk for soil movement, the zone south of the Lookout Point is high risk due to significant slope changes.

Climatic projections indicate a low risk for rainfall, temperature, and wind impacts, with well-established vegetation contributing to dune stability. Long-term coastal flood risk projections suggest that by 2100, the high-risk flood line may reach the Lookout Point coordinates, with a 30m inland movement of the coastal zone expected over a century. However, the site north of the coastal border remains stable, as indicated by dense vegetation and thick organic soil layers, which protect the dune from wind erosion.

Given these conditions, foundation designs must accommodate soft, highly erodible sandy material and include a compacted zone of at least 1.5m around any external walls. All structural plans must be designed and approved by an ECSA-registered structural engineer to ensure compliance with safety and stability requirements. The proposed dwellings at location PE are positioned outside the current and projected erosion and flood risk zones, maintaining a 15m buffer inland from the 100-year high-risk projection zone.

The borderline, low-risk 100-year coastal flood zone and measured 100-year coastal movement projections align, reinforcing the need for careful planning. While the 30m building line overlaps with the high-risk projection zone, the 100m setback above the high-water mark remains a crucial reference point, with locations BM and HW2 positioned beyond it. Existing dwellings in the adjacent developed areas of Sedgefield have been constructed between the low and high-risk 100-year projection lines, south of the 100m high-water mark, setting a precedent for controlled and responsible development within the region.

Overall, while the site presents some geological and coastal constraints, careful planning, strategic foundation design, and adherence to engineering best practices can ensure a sustainable and structurally sound development.

Agricultural Compliance Statement and Site Sensitivity Verification

The Agricultural Compliance Statement and Sensitivity Verification was compiled by Soil ZA in January 2025 as part of the environmental and land-use assessment for the proposed development. This report serves to verify the current cropping status and agricultural land use across the site, ensuring compliance with national and regional agricultural policies and environmental regulations. Additionally, it provides a comprehensive assessment of agricultural conditions, including soil composition, land capability, and long-term agricultural potential.

The proposed project is for accommodation on portion 79 of farm 205 Ruygte Valley. The project will consist of one house with a footprint of 400m², three cottages at 80m² each, a boardwalk connecting the four units, 6 parking bays for the four units, an 80m² shed, and a 50m2 cottage as staff quarters. The proposed project is located west of the town of Knysna.

The project is likely to require agricultural approval (or at least comment from the Department of Agriculture) as part of the required approval in terms of applicable municipal land use legislation, as well as in terms of the Subdivision of Agricultural Land Act (Act 70 of 1970 - SALA), because it is on land currently zoned for agriculture.

A specialist agricultural assessment is required to include a verification of the agricultural sensitivity of the development site as per the sensitivity categories used by the web-based environmental screening tool of the Department of Forestry, Fisheries and the Environment (DFFE). The screening tool's classification of sensitivity is merely an initial indication of what the sensitivity of a piece of land might be. What the screening tool attempts to indicate is whether the land is suitable for crop production (high and very high sensitivity) or unsuitable for crop production (low and medium sensitivity). To do this, the screening tool uses two independent criteria, from two independent data sets, which are indicators of suitability for crop production but are limited in that the first is outdated and the second is fairly coarse, modelled data, which is not accurate at the site scale. The two criteria are:

1. Whether the land is classified as cropland or not on the field crop boundary data set (Crop Estimates Consortium, 2019). All classified cropland is, by definition, either high or very high sensitivity.
2. Its land capability rating as per the Department of Agriculture's updated and refined, country-wide land capability mapping (DAFF, 2017). Land capability is defined as the combination of soil, climate, and terrain suitability factors for supporting rain-fed agricultural production. The direct relationship between land capability rating, agricultural sensitivity, and rain-fed cropping suitability.

It is important to note that agricultural sensitivity is not necessarily correlated with the significance of an agricultural impact and is therefore often of very limited value for assessing agricultural impact. What is of importance to an agricultural assessment, rather than the site sensitivity verification, is its assessment of the impact significance.

THE ASSESSED PROPERTY (BLUE OUTLINE) OVERLAID ON AGRICULTURAL SENSITIVITY, AS GIVEN BY THE SCREENING TOOL (GREEN = LOW; YELLOW = MEDIUM; RED = HIGH; DARK RED = VERY HIGH). DUE TO A SCREENING TOOL ERROR, A LAND CAPABILITY OF 8 IS NOT SHOWN AS HIGH SENSITIVITY. THE SCREENING TOOL'S HIGH SENSITIVITY IS DISPUTED BY THIS ASSESSMENT.

The assessment verifies that the site is not within crop boundaries and therefore confirms the less-than-high sensitivity rating by the screening tool that is based on the cropping status component of sensitivity. Crop production in the area is confined to land types that have higher water and nutrient holding capacity. This assessment, therefore, rates the assessed area as having a maximum land capability of 6 and, therefore, as being of medium agricultural sensitivity in terms of the land capability component of sensitivity.

In conclusion, this assessment confirms the low, medium sensitivity rating of the site by the screening tool because of the site's assessed agricultural production potential and current agricultural land use. It, however, disputes the classified land capability of >6 and rates the entire assessed area as having a maximum land capability of 6.

Baseline Description of the Agro-Ecosystem

The site is not within a Protected Agricultural Area (PAA) (DALRRD, 2020). A PAA is a demarcated area in which the climate, terrain, and soil are generally conducive to agricultural production and which, historically, or in a regional context, has made important contributions to the production of the various crops that are grown across South Africa. Within PAAs, the protection of viable, arable land is considered a priority for the protection of food security in South Africa.

The entire development footprint 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 proposed development on this land will result in negligible 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 low significance and as acceptable.

	Parameter	Value
Climate	Köppen-Geiger climate description (Beck *et al*, 2018)	Temperate, no dry season, hot summer
	Mean Annual Rainfall (mm) (Schulze, 2009)	632
	Reference Crop Evaporation Annual Total (mm) (Schulze, 2009)	764
	Climate capability classification (out of 9) (DAFF, 2017)	6 (moderate-high)
Terrain	Terrain type	Coastal dunes
	Terrain morphological unit	Varied
	Slope gradients (%)	0 to 12
	Altitude (m)	75
	Terrain capability classification (out of 9) (DAFF, 2017)	3 (low) to 5 (moderate)
Soil	Geology (DAFF, 2002)	Fixed dunes and dune rock.
	Land type (DAFF, 2002)	Hb12
	Description of the soils	Deep, light textured soils, grey soils.
	Dominant soil forms	Fernwood, Mispah
	Soil capability classification (out of 9) (DAFF, 2017)	6 (moderate-high)
	Soil limitations	Unlimited depth, Low water & nutrient holding capacity.
Land use	Agricultural land use in the surrounding area	None
	Agricultural land use on the site	None
General	Long-term grazing capacity (ha/LSU) (DAFF, 2018)	25
	Land capability classification (out of 15) (DAFF, 2017)	4 (low-very low) to 8 (moderate)
	Within Protected Agricultural Area (DALRRD, 2020)	No

PARAMETERS THAT CONTROL AND/OR DESCRIBE THE AGRICULTURAL PRODUCTION POTENTIAL OF THE SITE.

The cropping potential of the site is limited by its soil constraints, predominantly that the soils are deep, very sandy, with low water and nutrient holding capacity. Because of these constraints, the site is completely unsuitable for viable rainfed crop production. It is in an area that is not utilised for agricultural production at all.

ASSESSMENT OF THE AGRICULTURAL IMPACT

Impact identification and assessment

It should be noted that an Agricultural Compliance Statement is not required to formally rate agricultural impacts by way of impact assessment tables.

An agricultural impact is a change to the future agricultural production potential of land. In most developments, including the one being assessed here, this is primarily caused by the exclusion of agriculture from the footprint of the development. The significance of an agricultural impact is a direct function of the following three factors:

1. The size of the footprint of land from which agriculture will be excluded (or the footprint that will have its potential decreased)
2. The baseline production potential (particularly cropping potential) of that land
3. The length of time for which agriculture will be excluded (or for which potential will be decreased).

The most significant loss of agricultural land possible, for any development anywhere in the country, is of high-yielding cropland, and the least significant possible is of low carrying capacity grazing land.

Cropping potential is highlighted in factor 2, above, because the threshold, above which it is a priority to conserve land for agricultural production, is determined by the scarcity of arable crop production land in South Africa (approximately only 13% of the country's surface area) and the relative abundance of the rest of agricultural land across the country that is only good enough to be used for grazing. If land can support viable and sustainable crop production, then it is considered to be above the threshold and is a priority for being conserved as agricultural production land. If land is unable to support viable and sustainable crop production, then it is considered to be below the threshold and of much lower priority for being conserved.

In this case, the entire development footprint 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 proposed development on this land will result in negligible 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 low significance and as acceptable.

Cumulative impact assessment

Specialist assessments for environmental authorisation must consider cumulative impacts, which include the combined effects of past, present, and foreseeable future activities on the environment. The key agricultural concern is the regional loss of future production potential. However, due to its negligible agricultural impact, the proposed development will not significantly contribute to this loss. The cumulative agricultural impact is assessed as low and acceptable, with no unacceptable negative effects on the area's agricultural capability. From this perspective, the development is recommended for approval.

Assessment of alternatives

Specialist assessments for environmental authorisation are required to include a comparative assessment of alternatives, including the no-go alternative. Because there is no viable cropland within the assessed site, the exact positions of all proposed infrastructure within it will make absolutely no difference to agricultural impacts. Any alternative layouts within the same assessed site will have an equal agricultural impact and are assessed as equally acceptable.

The no-go alternative considers impacts that will occur to the agricultural environment in the absence of the proposed development. There are no agricultural impacts of the no-go alternative, but this is not significantly different from the negligible impact of the development, and so from an agricultural impact perspective, there is no preferred alternative between the no-go and the development.

MITIGATION

The most important and effective mitigation of agricultural impacts for any development is avoidance of viable croplands. This development has already applied this mitigation by selecting a site on which there are not viable

croplands. No mitigation measures are required for the protection of agricultural production potential on the site because the development poses negligible degradation risk to agricultural resources.

The cumulative impact of a development is the impact that development will have when its impact is added to the incremental impacts of other past, present, or reasonably foreseeable future activities that will affect the same environment. The potential cumulative agricultural impact of importance is a regional loss of future agricultural production potential.

Due to its negligible agricultural impact, the assessed development will not contribute to the cumulative impact. The cumulative agricultural impact of the proposed development is therefore assessed here as being of low significance and therefore as acceptable. The development will not have an unacceptable negative impact on the agricultural production capability of the area, and it is therefore recommended, from a cumulative agricultural impact perspective, that the development be approved.

ADDITIONAL ASPECTS REQUIRED IN AN AGRICULTURAL ASSESSMENT

Micro-siting

The agricultural protocol requires confirmation that all reasonable measures have been taken through micro-siting to minimise fragmentation and disturbance of agricultural activities. Because of the uniformly low agricultural potential of the environment, with no cropping, micro-siting will make no material difference to agricultural impacts and disturbance.

Confirmation of linear activity exclusion

If linear infrastructure has been given exclusion from complying with certain requirements of the 15 agricultural protocols because of its linear nature, the protocol requires confirmation that the land impacted by that linear infrastructure can be returned to the current state within two years of completion of the construction phase. No such exclusion applies to this project.

The overall conclusion of this assessment is that the proposed development is acceptable because it leads to negligible loss of future agricultural production potential. This assessment confirms the low, medium sensitivity rating of the site by the screening tool because of the site's assessed agricultural production potential and current agricultural land use.

It, however, disputes the classified land capability of >6 and rates the entire assessed area as having a maximum land capability of 6.

The cropping potential of the site is limited by its soil constraints, predominantly that soils are very sandy with low water and nutrient holding capacity. Because of these constraints, the site is completely unsuitable for viable rainfed crop production.

It is in an area that is not utlised for agricultural production at all. 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 entire development footprint 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 proposed development on this land will result in negligible 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 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.

Biological Components

VEGETATION

Terrestrial Biodiversity Specialist Assessment

BioCensus (Pty) Ltd was appointed to undertake the Terrestrial Biodiversity Specialist Assessment in March 2025.

The site is located above the coastal cliffs to the east of Cola Beach, Sedgefield in the Garden Route (Figure 1). It is accessed from the Groenvlei Beach road, which is a gravel road that runs past the western side of Groenvlei to the beach on the western edge of Goukamma Nature Reserve.

The site is in an area of untransformed coastal thicket between Goukamma Nature Reserve and Cola Beach in Sedgefield. The strip of land is privately owned and has been divided into several small holdings, some of which overlook the sea. One of these sea-facing sites has already been partially developed, and there is strong pressure to develop the area.

Most of the areas to the north and north-east of the site are in a natural state. This natural area between Sedgefield and Goukamma Nature Reserve provides an important natural buffer to the vegetation in Goukamma Nature Reserve.

The scope of this report is the entire property, part of which is being considered for development, which is 5.21 ha.

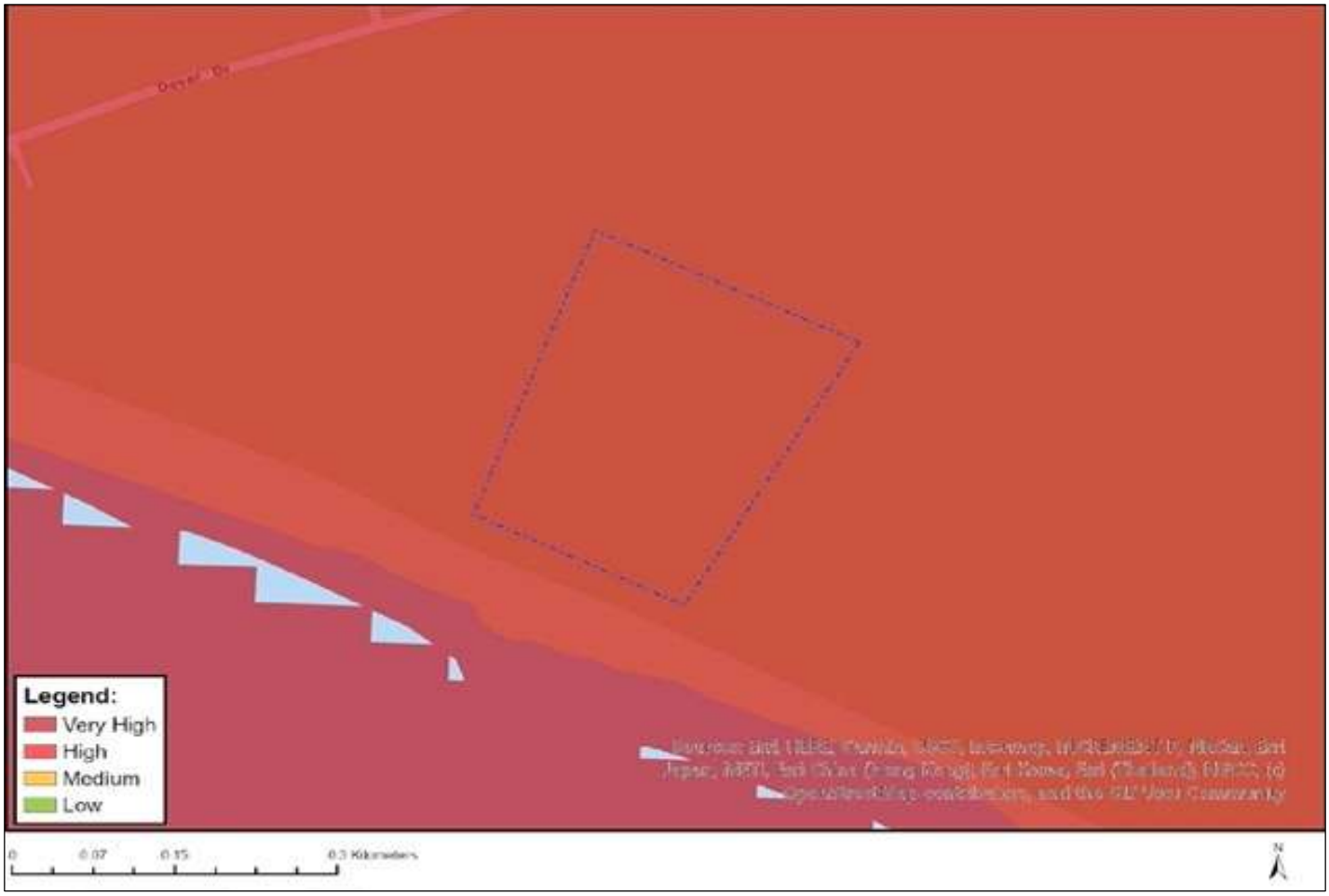
Figure 1: Location of the site near Sedgefield.

LOCATION OF THE SITE NEAR SEDGEFIELD.

Terrestrial Biodiversity Theme Sensitivities

A sensitivity screening report from the DEA Online Screening Tool was requested in the application category: Transformation of land | Indigenous vegetation. The DEA Screening Tool report for the area indicates the following sensitivities:

Sensitivity	Feature(s)
Very High	Lake Pleasant Private Nature Reserve Section No.5
Very High	Wilderness National Lake Area
Very High	CBA 2: Forest
Very High	CBA 2: Terrestrial
Very High	CBA 1: Forest
Very High	CBA 1: Terrestrial
Very High	FEPA Subcatchment
Very High	National Protected Area Expansion Strategy (NPAES)



TERRESTRIAL BIODIVERSITY THEME SENSITIVITY FOR THE SITE AND SURROUNDING AREAS.

Survey timing

The study commenced as a desktop-study followed by site-specific field studies on 4 October 2024. The site is within the Fynbos Biome with an all-year rainfall season with a slight dip in early winter.

DESKTOP DESCRIPTION OF SITE

Regional vegetation patterns

The property is within one mapped regional terrestrial vegetation type, namely Goukamma Strandveld (Figure 6). The vegetation map also shows Cape Seashore Vegetation, which occurs at the base of the cliffs and not above the

cliffs where the proposed development is situated. Any natural vegetation on site would therefore fall within Goukamma Strandveld.

Goukamma Strandveld

Distribution

This vegetation type occurs in the Western Cape Province in Sedgefield Bay, wedged between the Knysna Heads to the east and Wilderness to the west, covering 39 km^2.

Vegetation & Landscape Features

Parabolic dunes occur along the coastal margin, with inland ridges supporting Knysna Sand Fynbos. Mesic Dune Thicket patches are common in the Goukamma Strandveld, and in fire-protected and locally wet areas, they grow into forests. Altitude ranging between 1 – 196 metres (median 49 m).

Geology & Soils

FIGURE 2: REGIONAL VEGETATION TYPES OF THE SITE AND SURROUNDING AREAS.

Geology & Soils

The vegetation is overlaying the Klein Brak Formation rocks cemented beach deposits, Waenhuiskrans aeolianite sand on oxidised, neutral sands. The Klein Brak Formation rocks, which are primarily quartz-rich, shelly sandstones, border the dune cordon between Arniston and De Hoop Nature Reserve.

Climate

Like that of the St Francis Strandveld but with a lower annual rainfall 500–700 mmyr^{-1}. Warm temperate, subhumid to semi-arid and sub-Mediterranean. The temperature regime is equable: mean midsummer temperatures are 20−22 °C, and midwinter temperatures 16−18 °C.

Other descriptions of vegetation patterns in the area

The vegetation of the Wilderness Lakes area has been complexed to map and describe. The vegetation of the coastal dunes was initially included in the national vegetation map as being within a single broad unit called Southern Cape Dune Fynbos, which occurred from Wilderness to Oyster Bay in the Eastern Cape. The national vegetation map initially mapped this area as falling within Goukamma Dune Thicket, but this unit was recently split into Goukamma Dune Thicket and Goukamma Strandveld. There are now primarily three regional terrestrial vegetation units currently described for the Wilderness Lakes area, namely Goukamma Dune Thicket, Goukamma Strandveld and Knysna Sand Fynbos. Some valleys with Southern Afrotemperate Forest also intrude into the area from the north and there is also a small patch of vegetation near Sedgefield named Southern Cape Dune Fynbos.

Goukamma Strandveld is mapped as a unit that stretches along the coastline and slightly inland from Wilderness to Knysna. This area encompasses high variation in topography, moisture regime and substrate conditions. For example, the vegetation of this area was described in a project done for the Garden Route Initiative (Vlok et al. 2008) and, within the Wilderness Lakes area, the following habitat types are mapped (with equivalent VegMap units shown):

Habitat	**Variant**	**Equivalent VegMap vegetation type**
Dune Sandplain Fynbos	Hoogekraal Sandplain Fynbos	Knysna Sand Fynbos
Dune Sandplain Fynbos	Sedgefield Sandplain Fynbos	Goukamma Strandveld
Dune Sandplain Mosaic Thicket	Sedgefield Thicket Fynbos	Goukamma Strandveld
Dune Thicket Mosaic Forest	Sedgefield Thicket Fynbos	Goukamma Dune Thicket / Goukamma Strandveld
Dune Thicket Mosaic Forest	Wilderness Forest Thicket	Goukamma Strandveld
Dune Thicket Mosaic Littoral Vegetation	Kleinkrantz Littoral-Thicket	Goukamma Strandveld
Drift Sands	Kleinkrantz Drift Sands	Goukamma Strandveld
Coastal Dune Milkwood & Ekebergia	Groenvlei Coastal Forest	Goukamma Dune Thicket / Goukamma Strandveld
Primary Dune	Hartenbos Primary Dune	Cape Seashore Vegetation
Coastal Solid	Sedgefield Coastal Grassland	Southern Cape Dune Fynbos

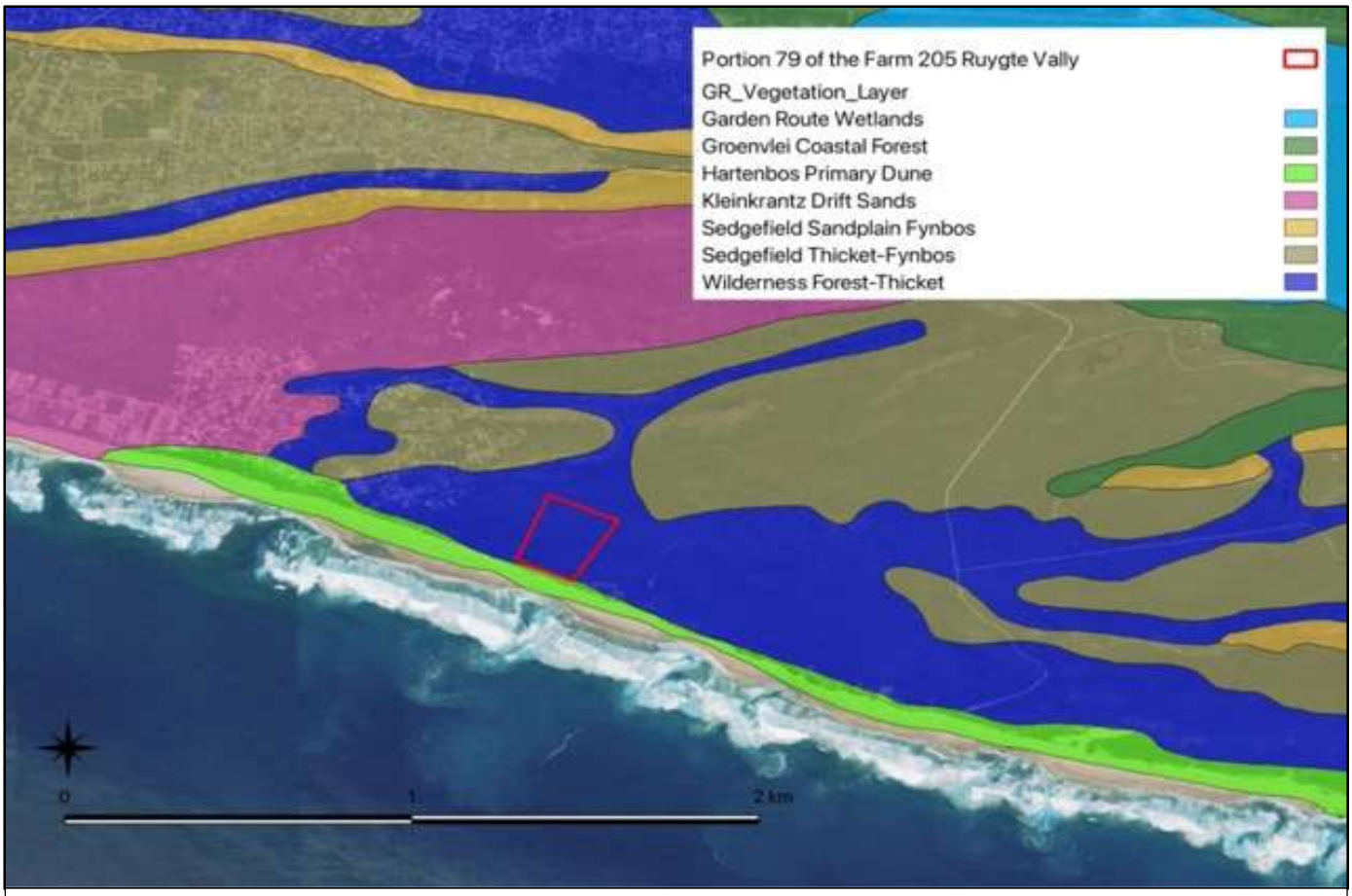


FIGURE 3: VEGETATION TYPES ACCORDING TO THE GARDEN ROUTE INITIATIVE VEGETATION MAP.

It is clear from the Garden Route Initiative description that what is currently mapped as Goukamma Strandveld encompasses variation that includes fynbos, thicket, littoral vegetation, forest and grassland.

Studies at Goukamma Nature Reserve (van der Merwe 1976, Hoare 1994) identified several vegetation communities within areas mapped as Goukamma Dune Thicket. On sea-facing cliffs and headlands that are included within the mapped region called Goukamma Dune Thicket are additional communities that have been described (Hoare 1993, Hoare *et al*. 2000).

According to the vegetation map of the Garden Route Initiative (Vlok et al. 2008) the vegetation on site is mapped as Wilderness Forest Thicket and Hartenbos Primary Dune. There is also some Sedgefield Thicket-Fynbos nearby, but not on site. Vlok et al. indicate proportional areas for different units, which shows that Wilderness Forest Thicket consists of only 28.5 hectares in total.

Cowling et al. (2023) described the vegetation of the Holocene coastal dunes of the Cape south coast and distinguished the unit now called Goukamma Strandveld (Figure 8). This has been separated from Goukamma Dune Thicket in VegMap2024. Goukamma Strandveld comprises 41% of the original extent of Goukamma Dune Thicket, and excludes all areas inland that occur on older Pleistocene sediments. Cowling et al. (2023) emphasize that Holocene sands are physically and chemically different from Pleistocene sands. The vegetation of the southern Cape coast is highly responsive to these differences, with alkaline Holocene sand supporting a floristically distinct vegetation with a different structure to, and sharing few species with the Sand Fynbos of the older sediments (Cowling, 1990).

FIGURE 4: GOUKAMMA STRANDVELD (COWLING ET AL. 2023).

The vegetation unit described by Cowling et al. (2023), Goukamma Strandveld, includes numerous patches of Goukamma Mesic Dune Thicket that occurs in sites with high levels of soil moisture. (Cowling et al. 2023) describe Mesic Dune Thicket vegetation as dominated by species with multi-stemmed, laterally spreading architecture (e.g., *Sideroxylon inerme* and *Pterocelastrus tricuspidatus*), but single-stemmed, vertically-growing species are indicative, for example *Zanthoxylum capense*, *Apodytes dimidiata*, *Celtis africana*, *Clausena anisata*, *Afrocanthium mundianum* and *Acokanthera oppositifolia*. Canopy height is approximately 4–6 m. Mesic Dune Thicket usually has a well-developed herbaceous understorey comprising of species such as *Brachiaria chusqueoides*, *Hypoestes aristata*, *Amaranthus thunbergii*, *Droguetia iners* and *Stipa dregeana*. The liana and vine floras are rich with the most common and widespread species being *Asparagus scandens*, *Capparis sepiaria*, *Dioscorea mundii*, *Secamone alpini*, *Behnia reticulata* and *Kedrostis nana*. This description is typical of the vegetation found on site.

Conservation status of broad vegetation types

Rouget et al. (2006) classified South African vegetation types according to their ecosystem status, a measure based on the extent of remaining untransformed area of a vegetation type in relation to its biodiversity target (% area). An updated status assessment, based on the latest classification of South Africa's vegetation (Dayaram et al., 2019) and implementing the IUCN Red List of Ecosystems V. 1.1 protocol (Keith et al., 2013), classified most Cape south coast dune vegetation as "Least Concern". However, the delimitation of vegetation units on coastal dunes of the Cape south coast is not accurate and therefore there are inherent errors in the threat status assessments of these ecosystems. Given the continuing threat of coastal development and encroachment by invasive plants, Cowling et al. (2023) propose that all remnant South Coast Strandveld vegetation be protected.

The conservation status for Goukamma Dune Thicket in accordance with the Revised National List of Ecosystems (Government Notice No 2747 of 18 November 2022) published under the National Environmental Management: Biodiversity Act (Act No. 10, 2004), is given below. Note that there is no assessment for Goukamma Strandveld, therefore the status of the vegetation unit from which Goukamma Strandveld was eparated is provided here.

Vegetation Type	**Conservation status**
	Revised National Ecosystem List (NEM:BA) (2022)
Goukamma Dune Thicket	Not listed - Least concern

It is therefore verified that the site DOES NOT occur within a Listed Ecosystem, as listed in the Revised National List of Ecosystems that are Threatened and in need of protection (GN2747 of 2022) and therefore has LOW sensitivity with respect to this attribute.

Biodiversity conservation plans

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

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

The WCBSP map for Knysna (Figure 9) shows that most of the site is within a CBA1 area, with a band of CBA2 along the southern part of the site. There are also two ESA2 areas on site. There are several protected areas in nearby areas, including the neighbouring property to the east (which is already partly developed!). The more inland areas that are protected are Lake Pleasant Nature Reserve.

The WCBSP map includes a layer that provides reasons for including areas within specific conservation categories. For the area within the site, the following reasons are given:

1. Ecological processes.
2. Indigenous forest type.
3. Threatened SA Vegetation type - Southern Cape Dune Fynbos (VU) - note that the vegetation map has been updated and this unit no longer exists.
4. Water resource protection - Swartvlei.
5. Coastal resource protection.

This verifies the output from the Online Screening Tool in concept and spatial placement and confirms that the majority of the site has VERY HIGH sensitivity from a Terrestrial Biodiversity perspective. A specialist assessment is therefore required.

FIGURE 5: WESTERN CAPE BIODIVERSITY SPATIAL PLAN OF THE SITE AND SURROUNDING AREAS.

Natural Forest on site

According to the National Forests Act 84 of 1998, various natural forest types have been declared as national forests under section 7(3)(a) of the Act. A list of forest types declared as National Forest Types was published in GN 1388 dated 30 October 1998, amended in Notice 167 of 2017. Included in this list of National Forest Types is Western Cape Milkwood Forests (VEGMAP CODE FOz VI3).

The description for this forest type (Western Cape Milkwood Forest) states that it occurs in the Western Cape Province, near the coast from the Groenvlei forest (Goukamma Nature Reserve), the Standford-Hermanus area, to parts on the eastern and western side of the Cape Peninsula (von Maltitz et al. 2003). The site falls within this geographical range.

The official forest type is described as being generally a low forest with trees with large stems and widely spreading crowns. The stands are often dominated by *Sideroxylon inerme*, and/or *Celtis africana* and/or *Apodytes dimidiata*. The understorey is either open or a shrub layer with diverse species, including soft shrubs of the Acanthaceae (von Maltitz et al. 2003). It occurs mainly on aeolian sand, as well as on limestone.

At the time of publishing this description (von Maltitz et al. 2003) there was insufficient distribution data to calculate area or conservation status. However, an unpublished map from the The Garden Route Biodiversity Sector Plan for the George, Knysna and Bitou Municipalities (Vromans et al. 2010) shows that the site is within an area mapped as "Dune Thicket Mosaic Forest: Wilderness Forest-Thicket variant". The short description for this unit (Vlok et al. 2008, pp. 43) provides a species list that is typical of that found on the current site (see next section of this report). This same unpublished document also describes the thicket at Goukamma Nature Reserve (see description above for Groenvlei forest) as being Groenvlei Coastal Forest, although Wilderness Forest-Thicket also occurs at Goukamma Nature Reserve.

Although it is therefore not clear whether or not the thicket on site falls under Western Cape Milkwood Forest (protected under the National Forests Act), it is dominated by the Milkwood, *Sideroxylon inerme*, which is protected under the same Act.

Results of field surveys

The vegetation on site is an almost closed canopy of milkwood-dominated mesic thicket or low forest. It matches the description by Cowling et al. (2023) for Goukamma Mesic Dune Thicket. Closer to the edge of the sea-facing cliff, this changes to a low, wind-cropped vegetation, dominated by the alien, *Acacia cyclops*, along with milkwoods (*Sideroxylon inerme*). This wind-cropped thicket has been found all along the coastal cliffs to Glentana (Hoare et al. 2000) and is characteristically short (less than 1 m tall but dominated by typical thicket species.

A list of plant species found on the site is provided in Appendix 1.

There are existing pathways through the forest/thicket. The original pathway/roadway is visible on the 1973 aerial photograph, but the footpaths onto the site may be more recent.

The entire site is in a natural state. Due to the fact that it occurs within either CBA1 or CBA2 areas, this means that the entire site has Very High sensitivity with respect to the Terrestrial Biodiversity Theme. According to PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL BIODIVERSITY, the following is stated:

"1.5. If any part of the proposed development footprint falls within an area of “very high” sensitivity, the assessment and reporting requirements prescribed for the “very high” sensitivity apply to the entire footprint, excluding linear activities for which impacts on terrestrial biodiversity are temporary and the land in the opinion of the terrestrial biodiversity specialist, based on the mitigation and remedial measures, can be returned to the current state within two years of the completion of the construction phase, in which case a compliance statement applies.

IMPACT ASSESSMENT

Proposed development

The proposal is to build a series of units along the top of the cliff, with an access road running back towards the existing access road. The proposed layout is shown in Figure 12, which also shows the existing development on the neighbouring property. This is useful because it gives an indication of the likely level of impact.

The units are mostly within the steeper slope area overlooking the coast. This is preferable in the sense that it is heavily invaded by rooikrans (*Acacia cyclops*) and is therefore somewhat degraded from a biodiversity perspective, but it introduces a strong erosion and general pollution risk to downslope areas from the proposed development. It is also preferable in the sense that it has a smaller footprint area within the forest, which is the most sensitive vegetation on site. Finally, it is preferable because it is mostly within CBA2 areas, which is better than being within CBA1 areas.

Forest is vulnerable to development because the vegetation health is dependent on the integrity of the canopy - any break in the canopy introduces edge effects, including modification of micro-environmental conditions and an environment suitable for invasive species.

Figure 6: Proposed layout superimposed on broad habitat map.

Potential impacts

In terms of the Terrestrial Biodiversity Theme, any sensitivities (from a terrestrial perspective) would be linked primarily to the existence of indigenous forests, and CBA1 and CBA2 areas on site. The site is also within the buffer of the Wilderness National Lake Area and the Lake Pleasant Private Nature Reserve and also includes areas highlighted for future protection in the National Protected Area Expansion Strategy (NPAES). The habitat on site is supportive of all of these sensitivities and is in an ecologically functional state. The site therefore has VERY HIGH sensitivity with respect to the Terrestrial Biodiversity Theme.

Impacts assessed here are as follows:

1. IMPACTS ON FOREST.
2. IMPACTS ON PROTECTED TREES.
3. IMPACTS ON EXISTING AND FUTURE CONSERVATION PLANNING OPTIONS.
4. IMPACTS ON DOWNSLOPE CLIFF THICKET.

Impacts on forests

The forest on site is part of relatively narrow bands of coastal forest that match the description of Western Cape Milkwood Forest, protected under the National Forests Act 84 of 1998. The forests are part of a natural vegetated area to the east of Cola Beach that is currently almost fully intact, with strong linkages to forests within Goukamma Nature Reserve. Development on site will have localised impacts that will introduce edge effects in a line from the coast inland, as well as along the top of the coastal cliff. It would be the beginning of what is likely to be a series of small developments that will extend Coal Beach eastwards. Each development on its own has relatively minor impacts,

but the cumulative effect will be fragmentation of the forest in this row of properties. Although protected in Goukamma Nature Reserve, the affected area of forest here is the largest intact patch of coastal forest within the Holocene Dune system of the Wilderness Lakes area.

BIODIVERSITY VALUE / SENSITIVITY CRITERIA	DESCRIPTION	SCORE
Irreplaceability (I)	The affected areas are within an CBA1 & 2.	4
Threshold (T)	Potential impacts would be related to construction damage on vegetation, as well as edge effects (trampling, erosion, runoff, pollution, spread of alien invasive species). The impact affects a small proportion of the overall biodiversity resource - the proposed footprint is relatively small relative to the overall remaining area of the vegetation.	3
Condition (C)	The potentially affected vegetation the site is in good condition.	4
Reversibility (R)	Impacts are IRREVERSIBLE..	5
IMPACT MAGNITUDE CRITERIA		
Extent (E)	The impact will occur in within the site boundary (CBA).	1
Duration (D)	Loss of vegetation on site, if it occurs, is assessed as being permanent (for the structures proposed), although localised.	5
Magnitude (M)	Although localised, impacts on vegetation will result in processes continuing but in a modified way. The potential impact is therefore scored as being of MEDIUM intensity.	3
Probability of Occurrence (P)	PROBABLE	5
Significance (S) $S = [(R + I + T + C)/4 \times (E + D + M)/3\ ]/5$	[(4+3+4+5)/4 x (1+5+3)/3]/5 = [4.00 x 3.00]/5 = 12.00/5 = 2.40 MODERATE negative significance	

<u>Possible mitigation measures</u>

Possible mitigation measures that can be applied are as follows:

1. Obtain a permit from the relevant Department for impacts on a protected forest area.
2. Areas outside of the development footprint must be protected under some form of formal conservation agreement. It has been proposed that the entire property be rezoned “Open Space III” (Nature conservation area). This proposal is supported and will mitigate against future vegetation loss.
3. Strictly adhere to footprint areas.
4. No entry beyond construction footprint by construction personnel.
5. No pathways to the beach to be constructed - only public access routes to be used.
6. An approved Alien Invasive Management Plan must be implemented.
7. Use existing access roads for construction and operation.

It is noted that the current footprint area has undergone several iterations and is currently as small as possible and located in the most appropriate position to minimise loss of habitat. These measures are commended and assist in reducing the potential significance of impacts. It is also noted that there is an existing right to construct a primary dwelling on site and that there are also concession rights that may apply to the site. In this regard, the efforts to minimise the proposed footprint are commended and supported.

Impacts on protected trees

The forest on site is dominated by milkwoods, *Sideroxylon inerme*, which are protected under the National Forests Act 84 of 1998. Any impacts on protected trees will require a permit from the relevant Department.

BIODIVERSITY VALUE / SENSITIVITY CRITERIA	DESCRIPTION	SCORE
Irreplaceability (I)	The milkwoods on site are protected under the National Forests Act, but are relativbely common and widespread.	1
Threshold (T)	The milkwoods on site are relativbely common and widespread	1
Condition (C)	The trees on site are in good condition.	5
Reversibility (R)	Impacts are BARELYREVERSIBLE..	4
IMPACT MAGNITUDE CRITERIA		
Extent (E)	The impact will occur in within the site boundary	1
Duration (D)	Loss of trees on site, if it occurs, is assessed as being permanent (for the structures proposed), although localised.	5
Magnitude (M)	Although localised, impacts on trees will result in processes continuing but in a modified way. The potential impact is therefore scored as being of MEDIUM intensity.	3
Probability of Occurrence (P)	PROBABLE	5
Significance (S) $S = [(R + I + T + C)/4 \times (E + D + M)/3\ ]/5$	[(1+1+5+4)/4 x (1+5+3)/3]/5 = [2.75 x 3.00]/5 = 8.25/5 = 1.65 LOW negative significance	

Possible mitigation measures

Possible mitigation measures that can be applied are as follows:

1. Shift access roads to avoid as many trees as possible. This may require curving the road instead of having it straight, as is currently indicated.
2. Obtain permits for any protected trees that will be affected.

Impacts on existing & future conservation planning

The site is within CBA1 and CBA2 areas, which are ideal areas to include in future conservation areas due to already being identified as being high value biodiversity areas. The site is also within the buffer of the Wilderness National Lake Area and the Lake Pleasant Private Nature Reserve, and also includes areas highlighted for future protection in the National Protected Area Expansion Strategy (NPAES).

BIODIVERSITY VALUE / SENSITIVITY CRITERIA	DESCRIPTION	SCORE
Irreplaceability (I)	The affected areas are within an CBA1 & 2..	4
Threshold (T)	Loss of habitat within identified high-value biodiversity areas means that alternative sites are required to meet biodiversity targets and to protect ecosystem processes within protected area buffer zones.	3
Condition (C)	The vegetation on site is in good condition.	4
Reversibility (R)	Impacts are IRREVERSIBLE..	5

IMPACT MAGNITUDE CRITERIA		
Extent (E)	The impact will occur in within the site boundary but affects regional level conservation planning	4
Duration (D)	Loss of vegetation on site, if it occurs, is assessed as being permanent (for the structures proposed), although localised.	5
Magnitude (M)	Although localised, impacts on vegetation will result in processes continuing but in a modified way. The potential impact is scored as being of LOW intensity.	2
Probability of Occurrence (P)	PROBABLE	5
Significance (S) $S = [(R + I + T + C)/4 \times (E + D + M)/3\ ]/5$	[(4+3+4+5)/4 x (4+5+2)/3]/5 = [4.00 x 3.67]/5 = 14.67/5 = 2.93 MEDIUM negative significance	

Possible mitigation measures

Possible mitigation measures that can be applied are as follows:

1. Areas outside of the development footprint must be protected under some form of formal conservation agreement. It has been proposed that the entire property be rezoned "Open Space III" (Nature conservation area). This proposal is supported and will mitigate against future vegetation loss.

It is noted that the current footprint area has undergone several iterations and is currently as small as possible and located in the most appropriate position to minimise loss of habitat. These measures are commended and assist in reducing the potential significance of impacts. It is also noted that there is an existing right to construct a primary dwelling on site and that there are also concession rights that may apply to the site. In this regard, the efforts to minimise the proposed footprint are commended and supported.

Impacts on downslope cliff areas

The site is on the summit of the coastal cliffs. High-tide often reaches the foot of the cliffs. The scree slopes below the development area are covered in wind-cropped dwarf thicket. Although heavily invaded, this vegetation is sensitive and has a relatively narrow distribution between Glentana and Knysna. The coastal cliffs are mostly Pleistocene age consolidated beach sand and are easily erodable once the vegetation cover has been lost (as can be seen near Gericke Point).

BIODIVERSITY VALUE / SENSITIVITY CRITERIA	DESCRIPTION	SCORE
Irreplaceability (I)	The wind-cropped thicket with the specific composition and structure as found on site is limited to the area between Glentana and Knysna.	2
Threshold (T)	It is estimated that about 10-20% of this ecosystem on this coastline has been degraded.	4
Condition (C)	The potentially affected vegetation the site is in poor condition (heavily invaded).	2
Reversibility (R)	Impacts are probably IRREVERSIBLE - once this vegetation is lost it is unlikely to re-establish.	5
IMPACT MAGNITUDE CRITERIA		
Extent (E)	The impact will occur in within the site boundary but will affect downslope and adjacent areas.	2
Duration (D)	Loss of vegetation on site, if it occurs, is assessed as being permanent (for the structures proposed), although localised.	5

Magnitude (M)	Although localised, impacts on vegetation will result in processes continuing but in a modified way. The potential impact is therefore scored as being of MEDIUM intensity.	3
Probability of Occurrence (P)	PROBABLE	5
Significance (S) $S = [(R + I + T + C)/4 \times (E + D + M)/3\ ]/5$	[(2+4+2+5)/4 x (2+5+3)/3]/5 = [3.25 x 3.33]/5 = 10.83/5 = 2.17 MODERATE negative significance	

Possible mitigation measures

Possible mitigation measures that can be applied are as follows:

1. Strictly adhere to footprint areas.
2. Management of all activities that could result in downslope effects must be strictly managed, both during construction and operation. This includes water-flow, diffuse pollutants, material slip, etc.
3. No entry beyond construction footprint by construction personnel, especially in downslope areas.
4. No pathways to the beach to be constructed - only public access routes to be used, such as at Groenvlei Beach.
5. An approved Alien Invasive Management Plan must be implemented. Note that removal of aliens without simultaneous rehabilitation will result in slope failure and permanent loss of vegetation characteristic of this ecosystem.

Summary of potential impacts

The assessment here considered several possible impacts associated with the proposed development. These are as follows:

There are low coastal forests on site that are part of a connected area of forests linked to Goukamma Nature Reserve. Even small impacts on these forests can cause local ecosystem damage, as well as wider fragmentation effects. Due to the relatively long life-span of the trees, impacts may only become evident decades into the future. The footprint area of the proposed project is relatively small, but the significance has been assessed here as being MODERATE. negative These forests fit the description of Western Cape Milkwood Forest, protected under the National Forests Act 84 of 1998.

The dominant tree species on site is the milkwood (*Sideroxylon inerme*). This tree species is protected under the National Forests Act 84 of 1998. Any trees to be damaged by the proposed project will require a permit. As an impact, loss of these trees was assessed as having LOW negative significance.

The site is close to Goukamma Nature Reserve and the Lake Pleasant Private Nature Reserve. It is also within CBA1 and CBA2 areas, which are defined on the value of the biodiversity, therefore they are seen as being important areas for the conservation of biodiversity. Unsurprisingly, the area has been earmarked for future conservation. Development of the site therefore compromises these conservation objectives, an impact which was assessed as having MODERATE negative significance.

The proposed development is at the summit of the coastal cliffs. There is therefore a strong risk from the project towards any ecosystems directly below the proposed buildings. The vegetation on these slopes is in poor condition due to alien invasion, but it is currently stable. Destabilisation of the slope due to loss of vegetation will lead to collapsing, as can currently be seen close to Gericke Point. Possible impacts related to this from the proposed development were assessed as having MODERATE negative significance.

These impacts will be permanent, are difficult to mitigate, and are probably irreversible.

Conclusion

Desktop information, field data collection and analysis of aerial imagery provides the following verifications of patterns for the Terrestrial Biodiversity Theme:

1. The site is within one regional vegetation type, Goukamma Strandveld, which is not listed. in any threat category. However, the mapping and description of this vegetation unit has been criticised for not reflecting the high diversity of vegetation, habitats and species that it contains. A recent assessment of coastal dune ecosystems (Cowling et al. 2023) suggests that this vegetation type needs re-assessment and that the coastal components should be a high priority for protection.
2. The proposed development is almost entirely within areas of natural habitat that have high biodiversity value. The site is within CBA1 and CBA2 areas, is an indigenous forest protected under the National Forests Act 84 of 1998, is adjacent to protected areas and therefore falls within the buffer zones of these, and has been earmarked as being desirable for future conservation.
3. The vegetation on site is dominated by the protected tree species, *Sideroxylon inerme*.
4. The proposed development is on the lip of the coastal cliffs that run along this coast. These cliffs are comprised of recent (Holocene era) sand deposits and are therefore unstable without established vegetation.
5. An impact assessment considered four impacts of which three were assessed as being of concern, namely:
    a. Impacts on forests: MODERATE negative significance.
    b. Impacts on protected trees: LOW negative significance.
    c. Impacts on existing and future conservation planning: MODERATE negative significance.
    d. Impacts on downslope cliff areas: MODERATE negative significance.
6. It is noted that the current footprint area has undergone several iterations and is currently as small as possible and located in the most appropriate position to minimise loss of habitat. These measures are commended and assist in reducing the potential significance of impacts. It is also noted that there is an existing right to construct a primary dwelling on site and that there are also concession rights that may apply to the site. In this regard, the efforts to minimise the proposed footprint are commended and supported.

TERRESTRIAL BIODIVERSITY STATEMENT:

1. The entire site is in a natural state and also falls within CBA1 and CBA2 areas, as well as being an indigenous natural forest. All parts of the site therefore have VERY HIGH sensitivity with respect to the Terrestrial Biodiversity Theme. According to the "Protocols", a Specialist Assessment is therefore required.
2. An impact assessment assessed that potential impacts associated with the proposed development could have MODERATE and LOW negative significance, primarily because of the high conservation value of the forest habitats on site and the value that this areas has for current and future conservation. Although relatively small in extent, the proposed development will form part of a cumulative trend that will lead to posible disruption of ecological processes.
3. The property is zoned for Agriculture, which carries rights with respect to dwellings that can be constructed. Given the existing rights, the small proposed footprint and intent to protect remaining undeveloped parts of the site from any other loss of vegetation, the proposal provides a compromise that is supportive of conservation. This makes the proposed development as compatible as possible with conservation planning and biodiversity protection while exercising existing rights. On condition the risks to coastal forest ecosystems are well managed, the proposed project can be approved.
4. This statement is subject to any conditions contained in the final approved EMPr, including the requirement for permits under the National Forests Act.

RECOMMENDATIONS

The following measures are recommended:

1. An Alien Invasive Management Plan must be compiled for the project, as well as an Ecological Management Plan.
2. Any clearance must be only for the direct footprint of the proposed structure and other required infrastructure or space, including any fire-management requirements. Remaining areas must be kept in a natural state - no gardens are to be created.
3. Any construction disturbances not required for infrastructure must be allowed to convert back to thicket. If this requires active intervention, then it must be formalised in a management plan.
4. Obtain the required permit from the Department of Forestry for loss of forest vegetation on site that constitutes a National Forest, under section 7(3)(a) of the National Forests Act, Act 84 of 1998.
5. Commit remaining undeveloped areas to formal conservation. It has been proposed that the entire property be rezoned "*Open Space III*" (Nature conservation area). This proposal is supported and will mitigate against future vegetation loss.

Sensitivity Maps

FIGURE 14: SANBI ORIGINAL ECOSYSTEM STATUS INDICATING GOUKAMMA DUNE THICKET

FIGURE 15: SANBI REMAINING ECOSYSTEM STATUS STILL INCLUDING GOUKAMMA DUNE THICKET

FIGURE 16: WESTERN CAPE BIODIVERSITY SPATIAL PLAN (2017) PROTECTED AREAS (CBA 1 AND CBA 2)

FIGURE 17: INDICATION THAT THE ENTIRE PROPOSED DEVELOPMENT WILL FALL WITHIN THE 100-METER HIGH-WATER MARK

Initial Visual Statement

Paul Buchholz was appointed to undertake the Initial Visual Impact Statement for the proposed development on Portion 79 of Farm Ruygte Valley No. 205, situated near Sedgefield, within the Knysna Municipal Area of the Western Cape. The objective of this assessment is to provide an initial appraisal of the visual and aesthetic sensitivity of the receiving environment, to inform the environmental assessment and conceptual design of the proposed development.

Visual, scenic, and cultural landscape components represent a finite and valuable resource that significantly influences the sense of place and environmental quality. The visual assessment forms part of the iterative design process to ensure that the project integrates sensitively within its setting and minimises potential visual intrusion.

Scope and Methodology

The visual assessment approach is informed by local and international best-practice methodologies, including:

- The Provincial Guideline for Involving Visual and Aesthetic Specialists in EIA Processes (DEA&DP, 2005);
- The Landscape Institute and IEMA Guidelines for Landscape and Visual Impact Assessment; and
- US Bureau of Land Management Visual Resource Management Framework.

The assessment considers both quantitative factors (e.g. visibility, viewsheds, and elevation) and qualitative factors (e.g. aesthetic value, sense of place, and landscape harmony). Key tasks included:

- Characterisation of the existing landscape and visual setting;
- Identification of key viewpoints and visual receptors;
- Description of the proposed project elements and their visual form;
- Determination of visual sensitivity and modification levels; and
- Preliminary mitigation and design recommendations.

Site Context and Landscape Character

The property measures approximately 5.21 hectares and is located on a stabilised coastal dune overlooking the Indian Ocean, approximately 700m east of Cola Beach and south of Groenvlei Lake. The site forms part of a predominantly natural coastal landscape characterised by:

- Dense coastal thicket and dune fynbos vegetation;
- Steep dune slopes and elevated topography reaching approximately 70m above sea level;
- Minimal existing built infrastructure; and
- High scenic quality due to panoramic ocean and mountain views.

The landscape's visual integrity is high, with strong natural character and limited human disturbance.

Visual Sensitivity and Potential Impact

Visual sensitivity is considered moderate to high due to the site's natural character and proximity to the coastal edge. However, several mitigating factors reduce the potential impact:

- The dense vegetation cover and elevated topography provide effective visual screening.
- The site is not visible from the N2, Groenvlei Road, or Lake Pleasant due to natural screening; and
- Views from Groenvlei Beach and coastal areas are obstructed by dune cliffs and vegetation.

Preliminary observations indicate that the proposed development footprint (approximately 0.02% of the site area) can be accommodated with minimal visual intrusion if design mitigation principles are applied.

Mitigation and Design Recommendations

To ensure minimal visual disturbance and maintain the natural aesthetic quality, the following measures are recommended:

- Retain and integrate existing vegetation as natural screening elements;
- Utilise lightweight structures and natural materials (timber, steel, glass, and stone);
- Apply earth-toned colour palettes compatible with the dune and thicket environment;
- Restrict night lighting through low-intensity, motion-sensor solar lights; and
- Implement vegetation rehabilitation post-construction to restore disturbed areas.

Assumptions and Limitations

Visual perception is inherently subjective and influenced by the viewer's context. This initial statement is based on available site data, field observations, and preliminary design information. A comprehensive Visual Impact Assessment (VIA) will follow once detailed design plans and elevations become available, incorporating photomontages and quantitative visibility modelling.

Conclusion

The proposed development, as currently conceptualised, is visually compatible with its natural coastal setting. With the application of appropriate design, placement, and material mitigation, the project's potential visual impact is expected to be low and manageable. The site demonstrates sufficient Visual Absorption Capacity (VAC) to integrate small-scale, eco-sensitive structures without detracting from the area's scenic character.

Visual Compliance Statement

Outline Landscape Architects has been commissioned to prepare a Visual Compliance Statement for the proposed development located on Portion 79 of the Farm Ruygte Valley no. 205, situated between Knysna and Sedgefield, along the Garden Route in the Western Cape Province. This Visual Compliance Statement will examine the potential impacts of the physical characteristics of the proposed development, specifically concerning its form, scale, and bulk, and will assess their potential influence within the local landscape and receptor context.

The scope of work, from the conceptual design, includes:

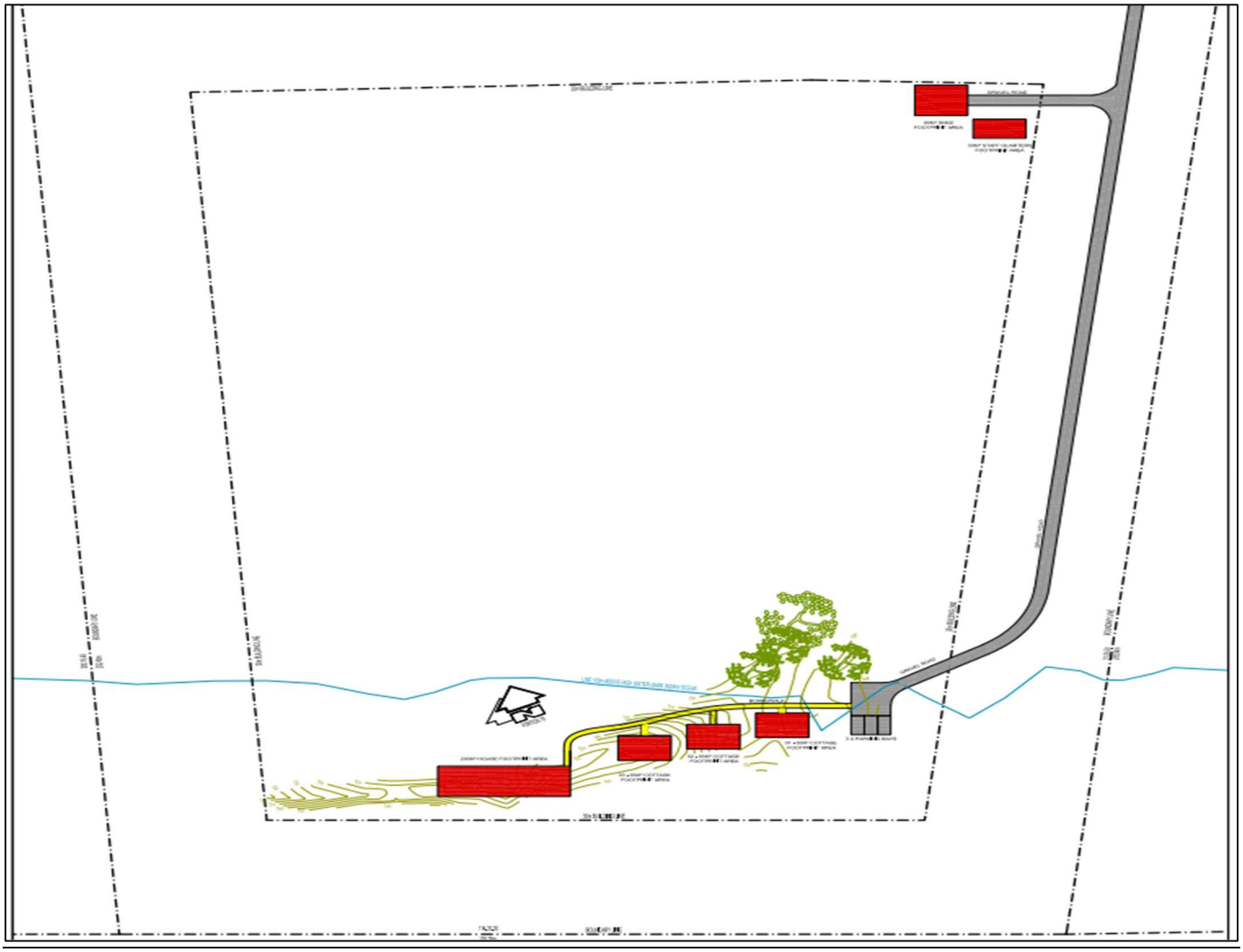
- Construction of a residential home of 200m2 in a footprint area.
- Construction of 3 free-standing cottages of 65m2 in footprint area.
- A raised boardwalk connecting the cottages and house with the parking area.
- Construction of a shed of 80m2 in the footprint area.
- Construction of a staff quarter building of 50m2 in footprint area
- A gravel road, approximately 3m in width and parking for 3 vehicles.

This Visual Compliance Statement will address the following objectives:

- Determination of the extent of the study area.
- Description of the proposed project and the receiving environment.
- Identification of the elements of particular visual value and -quality that could be affected by the proposed project.
- Identification of landscape- and visual receptors in the study area that may be affected by the proposed project and their sensitivity.
- Indication of potential landscape- and visual impacts.

LOCALITY PLAN

The study area is located to the west of Knysna and to the south-east of Sedgefield and is approximately 700m in direct distance to the east of Cola Beach. The site is within the Garden Route District Municipality and the Knysna Local Municipality. The site is located south of Lake Pleasant Resort and Groenvlei Lake, on an unspoilt site above the beach.



CONCEPTUAL DESIGN PLAN OF THE PROPOSED DEVELOPMENT

ARCHITECTURAL CONCEPT IDEAS FOR THE PROPOSED BUILDING DESIGNS

Landscape Character

The study area consists primarily of coastal towns and natural fynbos and agricultural landscapes in the inland. Sedgefield is a seaside village along the Garden Route. The prominent thoroughfare road is the N2 connecting Cape Town to Gqeberha. The study area consists of pockets of un-spoilt natural landscape and long stretches of beaches. The background of the site is the Outeniqua Mountain range. The proposed development will be situated on top of a stabilized coastal dune that allows for beautiful vistas over the ocean and towards Gericke's Point. The property is located on low sloping areas behind the front dune edge. The site rises to about 70m above sea level. The area falls within the Fynbos biome. The coastal vegetation consists mainly of coastal shrubs, dune vegetation and small trees. The majority of the site consists of dense, shrubby, thicket vegetation, with large trees close to the highest point of the site.

Visual Observations

The site visit provided essential insights into the visual dynamics of the proposed development onto the landscape. The site is accessed from Groenvlei Road off the N2. The road passes the Groenvlei Lake and the Lake Pleasant Holiday Resort. A smaller gravel road diverges from the Groenvlei Road, which is a concealed one-way dirt road leading to another residential development on the neighbouring site. A new road will have to extended and constructed to the proposed development. The development is proposed on the highest point of the site and is on a cliff approximately 70m above the beach. From the site visit, it was established that the site is not visible from the N2 and Lake Pleasant Resort due to the higher topography and dense vegetation of the site. The development will also not be visible to viewers on the beach due to the highly elevated and eroded cliffs.

Visual Absorption Capacity (VAC): Visual Absorption Capacity (VAC) signifies the ability of the landscape to accept additional human intervention without serious loss of character and visual quality or value. VAC is founded on the characteristics of the physical environment such as:

- Degree of visual screening: A degree of visual screening is provided by landforms, vegetation cover and/or structures such as buildings. For example, a high degree of visual screening is present in an area that is mountainous and is covered with a forest compared to an undulating and mundane landscape covered in grass.
- Terrain variability: Terrain variability reflects the magnitude of topographic elevation and diversity in slope variation. A highly variable terrain will be recognised as one with great elevation differences and a diversity of slope variation creating talus slopes, cliffs and valleys. An undulating landscape with a monotonous and repetitive landform will be an example of a low terrain variability.
- Land cover: Land cover refers to the perceivable surface of the landscape and the diversity of patterns, colours and textures that are presented by the particular land cover (i.e. urbanised, cultivated, forested, etc.)

A basic rating system is used to evaluate the three VAC parameters. The values are relative and relate to the type of project that is proposed and how it may be absorbed into the landscape. A three-value range is used; three (3) being the highest potential to absorb an element in the landscape and one (1) being the lowest potential. The values are counted together and categorised in a high, medium or low VAC rating.

The topography of the study area and the moderate height of the vegetation provide a high VAC.

Visual Intrusion: Visual Intrusion is the nature of an object on the visual quality of the environment resulting in its compatibility (absorbed into the landscape elements) or discord (contrasts of the landscape elements) with the landscape and surrounding land uses.

The proposed development is planned to have a very sensitive design approach. The total site is approximately 5 hectares, and the footprint of the buildings encompasses only an area of 525m2. Smaller, separate buildings are planned, instead of one large, voluminous building. This allows for the breaking of a solid mass and allows for vegetated areas between buildings, providing screening of the development. The building materials are envisioned to be natural materials, with a combination of light steel and glass structures, to easily blend into the natural environment.

Identified Impacts

During the site assessment for the proposed development, a few issues were identified that could potentially impact the visual harmony of the environment:

Natural Vegetation

The area is characterised by dense natural vegetation typical of the Fynbos biome which offers visual screening. Existing vegetation should be minimally removed and will be a large mitigating factor to lessen the visual impact of the proposed development. The preservation of as much as possible existing vegetation is important to enhance the site's natural aesthetic appeal.

Topography

The topography of the area is varied and sloping landscapes surround the site. The elevated topography of the site allows for optimal views over the ocean, but structures should be designed to fit into the landscape to minimise the visual intrusion of the new buildings. Utilising the natural depressions and contours of the land to minimise visibility during construction activities is important and will facilitate quicker recovery, post-construction, which will help reduce the visual footprint of the development.

Existing Infrastructure

There is little existing infrastructure directly surrounding the site; therefore, the area is relatively unspoilt. This emphasises the need for strategic placement and thoughtful design to integrate seamlessly with the existing environment. Special consideration is also required during construction activities so that they do not disrupt the current usage patterns and visual aesthetics of the environment. By proactively addressing each identified challenge, the project can be tailored to respect the local landscape, ensuring that visual impacts are minimised.

Visual Influence

The zone of potential visual influence determines the extent of visibility and impact of the proposed development. Due to distance, topography, and dense vegetation, the development's visual impact is expected to be minimal.

The nearest residence is 250m east, occupied by a neighbour with similar interests. Cola Beach (700m west) is shielded by vegetation and terrain, preventing visual impact. Motorists on the N2 (2km north) and Groenvlei Road (1km away) will not have direct views of the site due to the winding nature of the road and existing viewpoints.

Groenvlei Beach, located 70m below the site, primarily attracts locals and fishermen. The eroded cliffs and overhangs obstruct direct views of the development, and beachgoers are naturally focused on the ocean and shoreline, further minimising visual impact.

Existing Visual Context: A thorough review of the area's existing visual context, which comprises natural landscapes and intermittent infrastructural features, has confirmed the project's capacity to harmonise with the regional

aesthetic. The strategic environmentally sensitive design of the development will minimise physical visibility, thereby enhancing visual integration and reducing potential disruptions.

Visibility and Exposure: Strategic visual integration involves employing construction strategies that mimic the natural environment and using landscaping to enhance visual buffering. These mitigation measures will ensure harmonious integration of the proposed development into the environment.

Expected Visual Impacts

Negative impacts that may arise from the proposed development include:

Alteration of Landscape Character: Although the design should seamlessly be integrated into the landscape, the temporary construction activities and removal of some vegetation could alter the visual character of the natural views.

Dust and Construction Impact: As with most construction projects, activities are expected to generate dust and debris, which could temporarily affect the local visual environment.

Nighttime Lighting: The use of lighting for security and operational purposes may introduce light pollution. This could impact wildlife and diminish the local community's enjoyment of naturally dark night skies. The selection of lighting solutions that will keep light pollution to a minimum should be taken into consideration during the design phase.

To mitigate the visual impacts identified, the detail design should have mitigation measure in place to reduce visual impacts. These include sensitive site placement of the buildings, natural materials and colours to be used for buildings. A rehabilitation strategy should be put in place where plants that have to be removed due to construction activities, can be salvaged and kept in a nursery. These plants can then be replanted once construction is completed.

Construction management practices should be implemented for effective dust suppression techniques and restricting operations to daylight hours to reduce disturbances. Controlled lighting is carefully designed to minimise light pollution, ensuring minimal disruption to the natural nighttime environment.

All temporary structures and debris should be promptly removed after construction to restore the site's visual integrity, maintaining the visual aesthetic of the landscape.

Conclusion

It can be concluded that the proposed development can be authorised provided it is integrated effectively within the environment with minimal visual intrusions. The use of the land's inherent VAC enhances the project's ability to minimise visual impacts substantially. The visual impact of the project is minimal, given its scope and nature, and must be continually managed through best practice methods throughout the project's lifecycle.

The report has assessed the existing visual conditions and the project's compatibility with the landscape. The potential visual impacts, while inherently minimal due to the project's environmentally sensitive approach, can be effectively mitigated through careful planning, strategic placement, and conscientious ongoing management.

The proposed development is situated in a visually sensitive environment, surrounded by natural vegetation, varied topography, and minimal existing infrastructure. A well-planned design and construction approach will ensure that the development integrates harmoniously with its surroundings while minimising visual impacts.

By preserving natural vegetation, incorporating strategic site placement, and using earth-toned materials, the visual footprint of the development can be significantly reduced. The site's elevated position offers panoramic ocean views, but careful design must ensure that structures blend into the landscape rather than dominate it. The use of natural land depressions and existing vegetation as visual buffers will further reduce visibility from key viewpoints.

The impact on local receptors, including nearby residents, motorists, and beach visitors, is expected to be minimal due to the shielding effects of dense vegetation, topography, and distance. Construction-related impacts, such as dust, temporary landscape changes, and nighttime lighting, must be carefully managed through dust suppression, controlled lighting, and site rehabilitation efforts.

To maintain the visual integrity of the area, mitigation measures should include the sensitive placement of buildings, the use of natural materials and colours, and a rehabilitation strategy to restore vegetation post-construction. Temporary structures and debris should be promptly removed, ensuring that the final development enhances rather than detracts from the visual appeal of the landscape.

With these mitigation strategies in place, the development is expected to be visually sustainable, aligning with the natural character of the region while minimising disruption to the local environment and community.

VRM VISUAL ASSESSMENT – WRONG SITE

Visual Resource Management Africa (VRMA) was appointed to conduct a Visual Impact Assessment (VIA) for the proposed development on Portion 79 of Farm Ruygte Valley No. 205, within the Knysna Municipality, Western Cape. The assessment applied the BLM (U.S. Bureau of Land Management) Visual Resource Management (VRM) methodology, which classifies landscapes according to scenic quality, viewer sensitivity, and distance zones to determine appropriate development thresholds.

Methodology and Study Approach

The VIA was undertaken according to the VRM framework, which evaluates:

- Scenic Quality (landform, vegetation, water, colour, cultural modifications, and scarcity value);
- Viewer Sensitivity (proximity of receptors, viewer numbers, frequency, and concern); and
- Distance Zones (foreground, middleground, background).

The objective was to assess whether the proposed development could be visually absorbed within the landscape without causing significant alteration to its character or aesthetic quality.

Site Description (as assessed by VRMA)

The report describes the site as a “high coastal cliff-edge property immediately above Groenvlei Beach,” characterised by:

“Active erosion along the southern boundary with significant dune movement and a high scenic quality typical of the coastal cliff landscape.”
(VRM Africa, 2024: Section 2)

It further notes:

“The proposed structures are located on the crest of the dune ridge and are likely to intrude on the skyline as viewed from the beach and sea.”
(VRM Africa, 2024: Section 3.1)

According to VRMA, the site is directly visible from Groenvlei Beach, forming part of the immediate coastal viewshed frequented by local recreational users.

Scenic Quality and Sensitivity

The VRMA study classified the site as having "High Scenic Quality and High Viewer Sensitivity", corresponding to VRM Class II (High Visual Sensitivity).

It emphasised that:

"The area possesses exceptional scenic value within the Garden Route coastal corridor, defined by the combination of steep dune cliffs, indigenous vegetation, and expansive ocean views."
(VRM Africa, 2024: Section 3.2)

Viewer sensitivity was rated High, as beachgoers, local residents, and visitors were considered primary receptors with sustained visual exposure.

Identified Visual Impacts

The VIA identified twelve key visual risks, including:

- Skyline intrusion from elevated buildings positioned on the dune crest;
- Increased visual contrast against the natural landform and vegetation;
- Linear scarring due to the proposed access road alignment through Goukamma Dune Thicket (CBA) vegetation;
- Loss of visual integrity from vegetation clearance and cut-and-fill operations; and
- High potential for night-time light pollution due to the elevated location.

The report concluded:

"The proposed development will significantly alter the landscape character of the coastal cliff and result in a visual contrast inconsistent with the surrounding natural landform. The impact is considered high in magnitude and permanent in duration."
(VRM Africa, 2024: Section 4.1)

VRMA Recommendations

VRMA recommended that the site be considered unsuitable for development, stating:

"This location should be classified as a Fatal Flaw from a visual perspective. Relocation of the footprint behind the dune crest, where visual containment can be achieved, is strongly recommended."
(VRM Africa, 2024: Section 4.3)

Mitigation measures such as natural materials, vegetation buffers, and low lighting were noted, but VRMA concluded these would not sufficiently reduce the visual intrusion given the exposed coastal position of the assessed site.

Correction and Clarification

Following submission of the VRM Africa report, subsequent geospatial verification (Eco Route Environmental Consultancy, 2025) confirmed that the site assessed by VRMA does not correspond to the actual Portion 79 of Farm Ruygte Valley No. 205 under this Basic Assessment process.

Correct Site Description

The correct project site:

- Lies inland from the coastal cliff, approximately 700 m east of Cola Beach,
- Occupies stabilised consolidated dunes at elevations of 65–75 m above sea level,
- Is covered by dense Goukamma Strandveld and coastal thicket vegetation,
- Has no direct visual exposure to Groenvlei Beach or the N2, and
- Lies behind the dune ridge, not on an active cliff edge.

The actual development footprint, covering ±1 175 m² (0.02% of the property), will be screened by vegetation and topography, and will not result in skyline intrusion or beach visibility.

Revised Visual Findings

Subsequent visual specialists – Outline Landscape Architects (2025) and Paul Buchholz (2025) – both confirmed that:

- The site has High Visual Absorption Capacity (VAC) due to dense vegetation and complex terrain;
- No visual exposure exists from the beach, Groenvlei Lake, or public roads;
- The project's architectural scale, materials, and siting are consistent with low visual sensitivity; and
- The expected residual visual impact significance is Low with standard mitigation.

Conclusion

While the VRM Africa assessment (2024) provides a useful methodological context, it was conducted on an incorrect coastal parcel and is therefore not applicable to the actual Portion 79 under consideration.

For the purposes of the draft Basic Assessment Report:

- The findings of the VRMA report are superseded.
- The correct visual sensitivity classification for the actual site is Low, and
- The proposed development is visually compatible with the natural coastal landscape when mitigation is implemented.

Civil and Structural Engineering Confirmation

The report was prepared by a professionally registered civil and structural engineer in support of the Environmental Impact Assessment for the proposed residential development on Erf 79/205, Ruygte Valley, Cola Beach, Sedgefield. The purpose of the report was to confirm the engineering suitability of the site and to identify design and construction measures to ensure safe, sustainable development in accordance with NEMA, the Integrated Coastal Management Act (ICMA), and applicable SANS standards.

Site Conditions and Findings

The site forms part of a coastal dune system composed of recent aeolian sands and semi-consolidated fossil dunes typical of the Garden Route coastline.

Key findings include:

- Soil conditions: Loose to medium-dense fine sands with good drainage but high erodibility and low natural bearing capacity.
- Topography: Steep slopes (1 V : 3–5 H) descending toward the sea.
- Stability: A geotechnical study identified a structurally weak zone, but the proposed building footprint ("Location PE") is outside this area and beyond the 100-year coastal flood and erosion line
- Hydrology: The site lies outside all current and projected flood or erosion hazard areas, with adequate inland setback from the high-water mark.

From an engineering standpoint, the site is suitable for the proposed dwelling, provided that recommended controls are implemented.

Recommended Design and Construction Controls

The report prescribes detailed measures to mitigate erosion, ensure structural stability, and comply with national standards:

1. Dune stability verification – formal slope analysis per *SANS 1936-2: 2012* before construction.
2. Foundation design – raft, deepened strip, or piled footings anchored in semi-consolidated sands, with a compacted 1.5 m perimeter zone (95 % Mod AASHTO).
3. Stormwater management – non-concentrated discharge, infiltration areas, and compliance with *SANS 1200 DA*.
4. Erosion control – use of geotextiles, bioengineering systems, and immediate revegetation with indigenous dune species.
5. Engineering supervision – continuous oversight, compaction testing, and certification by an ECSA-registered engineer.
6. Post-construction monitoring – annual stability and drainage inspections for two years after completion

Professional Confirmation

The engineer confirmed that the proposed residential footprint (Location PE):

- Lies outside the 100-year flood and erosion hazard zones;
- Is geotechnically and structurally suitable for residential development;
- Will not compromise dune stability or natural coastal processes; and
- Poses no significant engineering or structural risk when built under the specified conditions

Conclusion

The civil and structural engineering assessment concludes that the site is fit for development subject to compliance with the recommended foundation, erosion-control, and monitoring measures. The project aligns with the principles of sustainable coastal development, ensures structural safety, and upholds the intent of NEMA and ICMA.

Professional Opinion:

"Erf 79/205, Ruygte Valley, Cola Beach, is suitable for the proposed residential construction, subject to implementation of the prescribed engineering measures."
— Marius C. van Coller Pr. Eng (ECSA No. 20060275)

Heritage

Sections 38(1)(c)(i) and 38(1)(a) of the National Heritage Resources Act (Act 25 of 1999, NHRA) come into effect, necessitating the submission of a Notification of Intent to Develop (NID) application to Heritage Western Cape (HWC). The NID will be submitted to HWC.

Social Economic Value of the Activity

What is the expected capital value of the activity on completion?	± R 8 00 000.00	
What is the expected yearly income that will be generated by or as a result of the activity?	None	
Will the activity contribute to service infrastructure?	~~YES~~	NO
Is the activity a public amenity?	~~YES~~	NO
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	± 20	
What is the expected value of the employment opportunities during the development and construction phase?	± R150 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	100%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	3 - 5	
What is the expected current value of the employment opportunities during the first 10 years?	± R1 800 000	
What percentage of this will accrue to previously disadvantaged individuals?	100%	

The vision of the Knysna Municipality, as expressed in its Integrated Development Plan (2012–2017), emphasises transforming the local economy to create decent work and sustainable livelihoods. The municipality recognises that significant action is required to regenerate the economy, address unemployment, and enhance local skills.

According to the municipality's Economic Development Strategy (2019), the key sectors contributing to Knysna's economy include finance and business services, wholesale and retail trade, and accommodation, with tourism remaining a central driver of job creation and local economic resilience. Although the construction sector has shown limited growth in recent years, post-disaster recovery efforts following the 2017 Knysna fires are projected to create short- to medium-term employment opportunities.

The IDP acknowledges that sustained action is necessary to revitalise the local economy and improve socio-economic conditions. Achieving this long-term vision requires a comprehensive understanding of the municipal economy and the contribution of various sectors to income and employment generation.

The Knysna economy ranks as the third largest within the Eden District, with a Gross Geographic Product (GGP) of approximately R2.3 billion in 2011 (Stats SA, 2013). The foremost contributing sectors remain finance and business services, as well as wholesale, retail, trade, and accommodation.

Between 2011 and 2018, the construction sector within the greater Knysna area experienced subdued growth, recording a GDP-R rate of -3.4% in 2018, one of the lowest performances since the global recession. However, rebuilding after the Knysna fires generated a short- to medium-term boost for the sector. This is reflected in the approval of 588 residential building plans in 2018, compared with 179 in 2016—an increase of 228.5%.

Overall, wholesale and retail trade, including catering and accommodation, remains the largest sector in the Knysna economy, underscoring the importance of sustainable tourism and service industries for local growth and employment creation.

3. Methodology for Assessment of Impacts

There are mainly three categories of environmental impacts:

Direct Impacts: These impacts are caused by the development itself, for example, the clearing of vegetation for a development.

Indirect Impacts: These impacts are usually linked closely with the project and may have more profound results than the direct impacts, for example, the degradation of surface water due to soil erosion emanating from the site where vegetation clearance has taken place.

Cumulative Impacts: These impacts can be defined as the ability of natural and social environments to incorporate cumulative stresses placed on them and the likelihood of negative synergistic effects. Cumulative impacts also arise when existing future development rights set a precedent in an area. The process of cumulative impacts may arise from any of the following four events**:**

- A single larger event
- Multiple interrelated events
- Sudden or catastrophic events
- Incremental change

Environmental Impacts

Ecosystem and Biodiversity

Impact: The development targets the degraded CBA2 area invaded by *Acacia cyclops*, minimising the impact on the sensitive CBA1 Milkwood Forest (Terrestrial Biodiversity Assessment, Appendix D4). Clearing invasives and rehabilitating Goukamma Strandveld via the Alien Invasive Management Plan improves local biodiversity. However, vegetation removal (1175 m²) and construction activities (e.g., road, boardwalk) could fragment habitats, adding to

existing pressures from nearby developments (e.g., 250 m east residence; Visual Compliance Statement, Appendix D1, Page 10). Future coastal developments could exacerbate habitat loss if not similarly constrained to degraded areas.

Cumulative Effect: Short-term habitat disturbance is offset by long-term ecological restoration, but incremental vegetation loss from multiple projects could reduce biodiversity resilience, particularly if CBA1 areas are targeted elsewhere. The Terrestrial Biodiversity Assessment suggests a net positive impact if rehabilitation is sustained.

Mitigation: Implement and monitor the Alien Invasive Management Plan**,** salvaging native plants for replanting (Visual Compliance Statement, Appendix D1, Page 11). Limit future developments to degraded zones and enforce municipal biodiversity offsets.

Coastal Stability and Erosion

Impact: The *Preliminary Geotechnical and Geomatic Report* (Appendix D2, pp. 27 & 36) identifies cyclic dune erosion of approximately 4–6 m between 2005 and 2024 and projects a potential inland retreat of ±30 m by 2100. The proposed development footprint—particularly if positioned at the Preferred Alternative (PE) within 100 m of the High-Water Mark (HWM)—may exert minor additional stress on the erodible coastal dune soils. This risk is compounded by the presence of existing coastal structures in Sedgefield, located between the low- and high-risk flood lines (Appendix D2, p. 38).

The *Civil and Structural Engineering Confirmation* (Appendix D5) supports the feasibility of the development based on the preliminary findings but emphasises that foundation design, slope stabilisation, and drainage controls must be guided by detailed ECSA-certified engineering input.

The *Letter from Dr E. Spicer (Rock Hounds Pty Ltd, 10 September 2025)* (Appendix D6) confirms that Report RH160524 provides first-level baseline data only and is not a definitive design-basis investigation. This caution is particularly relevant given the sensitivity of the coastal dune system, the evidence of localised slope instability, and the ecological importance of maintaining vegetative dune cover.

Cumulative Effect: Incremental soil disturbance from multiple coastal developments could accelerate dune erosion, particularly under sea-level-rise projections of 1–2.5 m by 2100 (Appendix D2, p. 29). Locating the development at BM or HW2 (on or north of the 100 m HWM line) would significantly reduce this long-term erosion and flooding risk (Appendix D2, p. 38).

Mitigation Measures:

- Apply ECSA-certified foundation designs with a minimum 1.5 m compacted zone around all exterior walls.
- Retain stabilising dune vegetation with root systems ≥ 60 cm deep to limit erosion.
- Maintain a minimum 100 m HWM setback for all future development.
- Undertake a detailed geotechnical investigation at the final design stage (Appendix D6).
- Implement continuous slope-stability monitoring and rehabilitate disturbed areas post-construction using indigenous Goukamma Strandveld vegetation.

Coastal Flooding

Impact: The site is low-risk for flooding now and very low-risk by 2050, with high-risk 100-year projections reaching Lookout by 2100 (Preliminary Geotechnical and Geomatic Report, Appendix D2, Pages 18, 33). The development's small footprint and elevated placement (above 40 m contour) add negligible flood risk, but cumulative coastal developments could increase runoff or alter drainage patterns.

Cumulative Effect: Incremental changes to coastal hydrology from multiple projects could heighten flooding risks by 2100, particularly if setbacks are not enforced. The development's off-grid systems (rainwater tanks) mitigate runoff (Town Planning Report, Appendix D5, Page 11).

Mitigation: Prioritise BM or HW2 and use flood-resistant designs (Appendix D2, Page 38). Develop a regional coastal management plan to regulate future projects.

Social Impacts

Impact: The proposed private residential use — consisting of a main dwelling and small family cottages — supports Sedgefield's low-density coastal character and reinforces the area's sustainable identity (Town Planning Report, Appendix D5, p. 8). Public access to Groenvlei Beach via Bushy Way and Groenvlei Beach Road will remain available and unaffected by the development. However, limited short-term construction activities (e.g., road surface improvement or service installation) may temporarily disrupt access and contribute to minor cumulative pressure on local routes already used by nearby tourism and residential developments (e.g., Lake Pleasant Resort; Visual Compliance Statement, Appendix D1, p. 6).

Cumulative Effect: Although the proposal itself will not increase tourism traffic, gradual residential and tourism-related development in the area could collectively affect perceptions of accessibility or exclusivity along the coastal corridor if not consistently managed.

Mitigation: Engage neighbouring property owners and local community representatives during construction to address temporary access disruptions. Maintain full public access via Bushy Way and Groenvlei Beach Road and ensure that no fencing, signage, or landscaping restricts traditional movement to the coast.

Aesthetic and Lifestyle Impacts**:**

Impact: According to the Visual Compliance Statement (Appendix D1, p. 10), the site has a high Visual Absorption Capacity (VAC) due to dense indigenous vegetation, topographic screening, and the coastal dune form. The proposed family dwellings will not be visible from major public viewpoints such as the N2, Groenvlei Beach, or Cola Beach. Short-term construction impacts (dust, machinery noise, and temporary disturbance) will be minor and localised. The structures' design, scale, and natural materials will integrate with the setting and maintain the visual integrity of the coastal landscape. Limited visibility may occur for the nearest neighbour approximately 250 m east, but overall scenic quality will remain intact.

Cumulative Effect: While the proposed private development has a negligible individual impact, continued incremental residential and tourism growth along the coastal ridge could gradually alter Sedgefield's tranquil and "unspoilt" visual character if design and siting are not carefully controlled.

Mitigation: Apply dust suppression measures, restrict construction to daylight hours, and install low-intensity, downward-facing lighting to preserve night-time ambience (Visual Compliance Statement, Appendix D1, p. 11). Any future coastal development should be subject to site-specific visual assessments to ensure continued conformity with Knysna's coastal landscape guidelines.

Economic Impacts

Impact: As the cottages will be used privately by the landowners and not operated as tourism accommodation, no long-term tourism-related revenue or hospitality employment is expected. Economic effects are therefore limited to the construction phase, which will generate approximately 5–10 temporary jobs and provide indirect benefit to local suppliers and service providers (Town Planning Report, Appendix D5, pp. 7–8). The project's small scale means it will

not contribute to, or compete with, the existing tourism economy centred around nearby facilities such as Lake Pleasant Resort.

Cumulative Effect: Although this project's direct economic footprint is minimal, similar low-density residential developments cumulatively contribute to the local construction and service economy. However, excessive conversion of natural land for residential purposes could gradually reduce the availability of land for tourism or conservation uses if not spatially managed.

Mitigation: Prioritise local employment and procurement during construction (Town Planning Report, Appendix D5, p. 7). Encourage ongoing maintenance contracts and landscaping work to be sourced from nearby communities. Future land use planning should maintain a balance between residential, conservation, and tourism-oriented areas within the Groenvlei coastal corridor.

Infrastructure and Public Resources

Impact: The proposed private residential development will be self-sufficient and off-grid, relying on private borehole water, on-site wastewater treatment, solar energy generation, and private road maintenance (Town Planning Report, Appendix D5, p. 11). These measures ensure that the project places no demand on municipal bulk infrastructure or public utilities. Construction-related waste and vehicle movement may temporarily increase local service use, but this will be minimal and short-term.

Cumulative Effect: While this individual development does not burden municipal services, cumulative residential and tourism expansion in the Groenvlei coastal area could eventually strain Knysna Municipality's capacity if new projects do not implement similar self-sustaining systems.

Mitigation: Maintain complete off-grid operation, including renewable energy and on-site water and wastewater management. Require future developments in the area to adopt comparable private infrastructure funding and self-sufficiency standards (Town Planning Report, Appendix D5, p. 10). Implement a construction waste management plan to ensure proper disposal through licensed local facilities.

Conclusion

The cumulative impacts of the Portion 79 development are manageable and acceptable with the implementation of the prescribed mitigation measures.

Environmentally, the project enhances the local ecosystem through invasive alien vegetation removal, erosion control, and maintenance of natural vegetation buffers. While the site's dune setting requires careful engineering design, the use of certified foundations, appropriate siting away from erosion-prone zones, and adherence to the 30 m and 100 m coastal setback lines will prevent incremental habitat or stability loss (Preliminary Geotechnical and Geomatic Report, p. 38).

Socially, the development maintains the area's rural residential character and supports community pride in sustainable, low-impact living. Short-term construction activities will generate local employment and limited disturbance, while preservation of public access routes (Bushy Way and Groenvlei Beach Road) and consultation with neighbours will ensure continued social cohesion (Town Planning Report, p. 10).

Economically, the proposal's contribution will be confined to temporary construction jobs and local service procurement, rather than tourism revenue. Its off-grid infrastructure and privately funded access and maintenance minimise demand on municipal resources, promoting a self-reliant and low-impact development model (Town Planning Report, Appendix D5, pp. 10–11).

In summary, the cumulative impacts of the Portion 79 development are assessed as low to moderate in significance, provided all environmental and engineering mitigation measures are implemented. The project delivers net ecological and visual benefits, causes minimal social disruption, and aligns with the intent of the Knysna Municipal Spatial Development Framework and the Western Cape PSDF for sustainable coastal development. With continued compliance monitoring and integration into local coastal management frameworks, the proposal represents a context-appropriate, environmentally responsible rural residential development.

Definition of key terminology:

Nature of the Impact – A description of positive or negative impacts of the project on the affected environment. This description should include who or what would be affected and how.

Extent – the impact could:

- Be site-specific
- Be limited to the site and its immediate surroundings
- Have an impact on the region
- Have an impact on a national scale
- Have an impact across international borders

Duration – It is important to indicate whether or not the lifetime of the impact will be:

- Short term (e.g. during construction)
- Medium term (e.g. during part or all of the operational phase)
- Long term (e.g. beyond the operational phase, but not permanently)
- Permanent (where the impact is for all intents and purposes irreversible. An irreversible negative impact may also result in irreplaceable loss of natural capital or biodiversity if it were to result in extinction or loss of species or ecosystem); or

Intensity or Magnitude - The size of the impact (if positive) or its severity (if negative):

- Low, where biodiversity is negligibly affected or where the impact is so low that remedial action is not required.
- Medium, where biodiversity pattern, process and/or ecosystem services are altered, but not severely affected, and the impact can be remedied successfully; and
- High, where, pattern, process and/or ecosystem services would substantially be affected. If a negative impact, could lead to irreplaceable loss of biodiversity and/or unacceptable consequences for human wellbeing.

Probability –Should describe the likelihood of the impact occurring indicated as:

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

Significance – The significance of impacts can be determined through a synthesis of the assessment criteria. Significance can be described as:

- Low, where it would have a negligible effect on biodiversity, and on the decision.
- Medium, where it would have a moderate effect on biodiversity, and should influence the decision.

- High, where it would have, or there would be a high risk of a large effect on biodiversity. These impacts should have a major influence on the decision.
- Very high, where it would have, or there would be a high risk of, an irreversible negative impact on biodiversity and irreplaceable loss of natural capital or a major positive effect. Impacts of very high significance should be a central factor in decision-making.

Confidence – The level of confidence in predicting the impact can be described as:

- Low, where there is little confidence in the prediction, due to inherent uncertainty about the likely specialists. However, co-operation between these specialists and the biodiversity specialist is recommended, as biodiversity values are often overlooked by specialists in these other disciplines.
- Medium, where there is a moderate level of confidence in the prediction; or
- High, where the impact can be predicted with a high level of confidence.

4. The impacts and risks identified for the preferred alternative

The preferred Alternative 1

The landowners intend to reside permanently on their property and seek to construct a primary dwelling house of approximately 200 m². The construction of a dwelling constitutes a primary right under the existing Agriculture Zone I zoning.

In addition to the residence, the owners propose to establish three small family cottages, each measuring approximately 65 m², intended exclusively for private family use and not for commercial or tourism accommodation. Ancillary structures will include staff accommodation (≈ 50 m²) and a storage shed (≈ 80 m²) for maintenance tools and equipment. A gravel access road, not exceeding 3 m in width, will run along the eastern boundary to a small parking area, from which an elevated timber boardwalk will provide access to the dwellings, thereby reducing surface disturbance and maintaining natural drainage patterns.

The residential cluster is positioned on the southern, elevated portion of the property overlooking the ocean, optimising scenic views while avoiding ecologically sensitive zones identified in the Terrestrial Biodiversity Assessment. Although the property is zoned Agriculture Zone I, the owners have no intention of pursuing agricultural production due to poor soil capability and limited viability (Agricultural Compliance Statement, Appendix D3). Instead, the natural landscape and ecological value of the land will be enhanced through active conservation and rehabilitation.

Architecturally, the development will employ lightweight, environmentally sensitive design, utilising steel, timber, glass, and natural stone rather than conventional brick and concrete to achieve low embodied energy and minimal visual intrusion. The total building footprint will be approximately 525 m², while the access road (≈ 200 m × 3 m) and parking area (≈ 660 m²) together yield a total development footprint of ±1 175 m², representing less than 0.02 % of the 5.21-ha property. Consequently, over 99.9 % of the site will remain in its natural state, contributing to biodiversity protection, dune stability, and coastal landscape integrity.

Impacts that may result from the planning, design and construction phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the planning, design and construction phase.

As per the identified triggered Activities in NEMA, the following impacts need to be assessed:

Listed Activity described in GN R. 325, 324, 327	Activity description	Identified Impacts
GN R. 327 Activity 17	Development— (vi) in the sea; (vii) in an estuary; (viii) within the littoral active zone; (ix) in front of a development setback; or (x) if no development setback exists, within a **distance of 100 metres inland** of **the high-water mark** of the sea or an estuary, whichever is the greater; in respect of— (a) fixed or floating jetties and slipways; (b) tidal pools; (c) embankments; (d) rock revetments or stabilising structures including stabilising walls; or (e) **infrastructure or structures with a development footprint of 50 square metres or more** — but excluding— (ee) the development of infrastructure and structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (ff) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;	The current indicated area for the proposed development falls within the 100-meter high-water mark.
GN R.327 activity 19A:	The infilling or depositing of any material of more than 5 cubic metres into, or the **dredging, excavation, removal or moving of** soil, sand,	Excavation of building the primary property within 100-meter of the high-water mark will require excavation more than 5 cubic meter.

	shells, shell grit, pebbles or rock of more than **5 cubic metres** from— (iv) the seashore; (v) the littoral active zone, an estuary or a distance of **100 metres inland** of the **high-water mark** of the sea or an estuary, whichever distance is the greater; or (vi) the sea; — but excluding where such infilling, depositing, dredging, excavation, removal or moving— (e) will occur behind a development setback; (f) is for maintenance purposes undertaken in accordance with a maintenance management plan; (g) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (h) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.	
GN R.327 activity 27:	The **clearance of an area of 1 hectares or more**, but less than 20 hectares of **indigenous vegetation**, except where such clearance of indigenous vegetation is required for— The undertaking of a linear activity, or maintenance purposes, undertaken in accordance with a maintenance management plan.	Construction of both the primary dwelling and an access road may require the removal of the indigenous Goukamma Dune Thicket of more than 1 Ha.
GN R.324 activity 4:	The development of a road wider than 4 metres with a reserve less than 13,5 metres. **Western Cape:**	Portion 79 of Farm 205 is located outside the urban area; therefore, the development of an access road that exceeds this threshold will trigger this listed activity and require environmental authorisation.

	iv. Areas zoned for use as public open space or equivalent zoning. v. **Areas outside urban areas**. (cc) Areas containing indigenous vegetation. (dd) 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 vi. Inside urban areas: Areas zoned for conservation use, or Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	

The Environmental Impacts associated with the construction of the primary residential home, the 3 free-standing cottages, the raised boardwalk, the shed, the staff quarter building and the gravel road.

Environmental Impacts:

- Surface water run-off/groundwater/soil, air quality
- 100m High Water Mark and Dune Stability
- Impacts on the Critical Biodiversity Area
- Socio-economic impacts
- Noise disturbance
- Aesthetic impacts
- Safety on site
- Waste
- Cultural-historical impacts

Impacts that may result from the planning, design and construction phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the planning, design and construction phase.

Planning, Design and Construction Phase

Potential impacts on geographical and physical aspects:	**Surface water run-off/groundwater/soil, air quality**
Nature of impact:	Construction activities — including vegetation clearance (±1 175 m²), grading for the gravel access road and boardwalk

	foundations — may temporarily increase surface run-off, disturb sandy soils (> 750 mm deep, < 15 % clay), and cause localised erosion or compaction. The *Preliminary Geotechnical and Geomatic Report* (Appendix D2, pp. 7–10) identifies highly erodible soils with weak zones at HW2 (160 mm and 360 mm depths). Removal of *Acacia cyclops* and temporary vegetation loss during site preparation may exacerbate surface run-off and sediment displacement (Terrestrial Biodiversity Assessment). Potential groundwater contamination could occur if fuels, oils, or cement are mishandled during construction. However, groundwater lies at depth, and risks are short-term and readily mitigated through standard containment and spill-response measures. <u>Air Quality</u> Dust generation from excavation and vehicle movement will be limited and short-lived. The *Visual Compliance Statement* (Appendix D1, p. 11) confirms that construction-phase dust and emissions are expected to be minor, localised, and reversible with standard suppression practices.
Extent and duration of impact:	Local, short-term — confined to the immediate site and neighbouring properties during construction.
Probability of occurrence:	High (without mitigation).
Degree to which the impact can be mitigated:	High - This impact can be mitigated.
Degree to which the impact may cause irreplaceable loss of resources:	Low - Soil erosion is reversible with rehabilitation, and groundwater is deep, reducing contamination risk. Vegetation loss in degraded CBA2 is offset by replanting. Air quality impacts are temporary and reversible, with no loss of resources.
Cumulative impact prior to mitigation:	Moderate — small-scale but incremental erosion and run-off from Portion 79 could add to regional dune disturbance and hydrological change, especially in combination with nearby Sedgefield developments. Dust emissions contribute minimally to cumulative air-quality effects but remain temporary. Temporary dust and emissions add to existing tourism-related air quality impacts (e.g., Lake Pleasant Resort but are localised and short-term. Future developments could increase dust if not mitigated. Potential contamination of stormwater run-off, soil, and groundwater, dust generation and soil erosion.

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Effective erosion control, spill prevention, and vegetation management can significantly reduce impacts Dust suppression and emission controls can minimize air quality impacts. • Erosion Control: Use silt fences, temporary cover crops, and retain vegetation (roots to 60 cm) to stabilize soils (Preliminary Geotechnical and Geomatic Report, Page 38). • Run-Off Management: Install swales and sediment traps to divert run-off (Town Planning Report, Page 11). • Spill Prevention: Store fuel in bunded areas, use spill kits, and train workers (Terrestrial Biodiversity Assessment). • Vegetation: Salvage natives for replanting, clear *Acacia cyclops* per Alien Invasive Management Plan (Visual Compliance Statement, Page 11; Terrestrial Biodiversity Assessment). • Monitoring: Regular site inspections during construction (Q3–Q4 2025; Town Planning Report, Page 6). As per the Geotechnical Report: 1. Structural Foundation and Stability Measures • Avoid weight-bearing structures at position D7, as it has been identified as structurally weak. • Specialized foundation designs must be implemented for sites with soft, highly erodible soil (Lookout, BM path split, and PE) to prevent settlement and ensure long-term stability. • Compacted foundation zones of at least 1.5m around external walls should be established to enhance soil stability and reduce erosion risk. • Reinforcement at HW2 is required due to weak soil zones at 160mm and 360mm depths, where additional stabilization (such as deep compaction or geogrid reinforcement) should be incorporated. • All structural plans must be reviewed and approved by an ECSA-registered structural engineer to ensure compliance with engineering safety standards.

	2. Erosion and Soil Movement Mitigation • Implement soil stabilization techniques, such as geotextiles, retaining walls, or soil-binding vegetation, to counteract erosion, especially in the high-risk zone south of Lookout Point. • Grading and slope management should be prioritized to minimize excessive soil displacement and reduce the risk of landslides. • Minimize ground disturbance during construction and phase excavation activities to reduce exposure of erodible soil to wind and water forces. • Erosion control barriers, such as silt fences or terracing, should be installed in vulnerable areas to limit sediment displacement. 3. Coastal and Flood Risk Management • Development should remain outside the 100-year high-risk flood protection zone, maintaining a 15m buffer inland from projected flood boundaries. • Elevated foundation designs should be considered for structures in areas susceptible to long-term coastal movement and erosion risk. • Stormwater management systems must be designed to prevent waterlogging and excessive runoff, which could exacerbate erosion. • Long-term monitoring of coastal retreat and adaptive planning should be implemented to address future shifts in the coastal boundary. 4. Climate-Resilient Infrastructure • Wind-resistant and weatherproof materials should be used to account for long-term climatic variations. • Sustainable drainage solutions, such as permeable surfaces, should be incorporated to reduce surface runoff and prevent soil saturation. • Dune stabilisation measures, including vegetation reinforcement and dune rehabilitation programs, should be applied to safeguard against wind-driven erosion. 5. Construction Best Practices • Limit heavy machinery operations in sensitive areas to prevent unnecessary soil compaction and degradation. • Monitor construction activities regularly to ensure compliance with erosion control and soil stabilisation protocols. • Implement revegetation strategies post-construction, using indigenous plant species to restore disturbed areas and strengthen soil structure.

	• Strict compliance with setback regulations (30m building line, 100m high-water mark) should be enforced to align with regional coastal development precedents. Rainwater tanks will be placed around the main dwelling to collect rainwater for reuse from roofs. Stockpiles of excavated materials or spoils during the construction phase should be strategically positioned to mitigate wind erosion and avoid adverse impacts on drainage lines. Dust suppression measures should be implemented in accordance with specific site conditions. Vehicles transporting materials prone to being displaced by wind must be securely covered. Ingress and egress points onto public roads must be cleared of any dust or mud. To minimise emissions resulting from exhaust fumes, regular maintenance of vehicles and equipment is essential to ensure optimal working conditions. • Blanket clearing of the site. • It is proposed that steel or concrete piling be utilised for the building structures, thereby limiting the exposure of bare soils and wind-blown dust. • Erosion protection measures must be implemented in disturbed areas. • Topsoil and soil stockpiles should be covered, wetted or otherwise stabilised to prevent wind erosion and dust generation. • A water cart must be employed on windy days to wet soils that would be prone to wind erosion to limit dust generation. • Disturbed areas should be rehabilitated in parallel with construction completion. • Compile and implement an Environmental Management Programme; and audit reporting by an ECO during construction. • During construction: New roads need to be made using the same/similar materials and methods as the neighbouring road. • Dust Suppression: Apply water sprays and cover stockpiles during clearing/grading (Visual Compliance Statement, Page 11). • Emission Control: Use low-emission machinery and limit idling (Visual Compliance Statement, Page 11). • Construction Timing: Daylight-only operations to reduce dust spread (Visual Compliance Statement, Page 11). • Monitoring: Daily air quality checks during construction (Q3–Q4 2025; Town Planning Report, Page 6).

	Soil and Run-Off Control • Install silt fences, sediment traps, and temporary cover crops to stabilise exposed soils (*Geotechnical Report*, p. 38). • Retain root structures (> 60 cm) of indigenous vegetation and rehabilitate cleared areas immediately after construction. • Design stormwater swales to divert run-off safely away from steep slopes (*Town Planning Report*, p. 11). • Maintain the required 30 m building line and 100 m high-water-mark setback. Foundation and Stability • Avoid construction at position D7 (structurally weak). • Implement ECSA-certified foundation designs with ≥ 1.5 m compacted zones around all exterior walls for slope and structural stability (*Civil and Structural Engineering Confirmation*, Appendix D5). • Reinforce HW2 using deep compaction or geogrid where weak layers were identified. Spill and Waste Management • Store fuels and lubricants in bunded, sealed areas; provide spill kits on-site. • Prohibit servicing of machinery on-site; use drip trays only for emergencies. • Dispose of contaminated soil and absorbent materials at a licensed hazardous-waste facility. • Prohibit direct ground mixing of cement; collect and remove residues promptly. Air-Quality Control • Use water carts or sprays on windy days and cover all soil stockpiles. • Cover trucks transporting fine materials; clean site access points daily. • Restrict construction to daylight hours and maintain equipment regularly to reduce emissions (*Visual Compliance Statement*, p. 11). Rehabilitation and Monitoring • Maintain an on-site nursery for rescued indigenous plants and re-establish vegetation immediately after works. • Conduct regular ECO inspections during Q3–Q4 2025 and compile environmental audit reports. • Implement ongoing slope and erosion monitoring post-construction.

	Climate-Resilient Design • Use weather-resistant, low-maintenance materials (steel, timber, stone). • Employ permeable surfaces for parking and pathways to enhance infiltration. • Stabilise dunes through indigenous vegetation restoration (*Terrestrial Biodiversity Assessment*). Construction activities Storage of potential pollutants such as fuel, oil, cement, etc. should be confined to a sealed surface with a bund wall to prevent soil contamination from accidental leaks and spills. Only the volume of fuel required for the day should be stored. The use of potentially polluting substances should be strictly controlled and handled in designated areas under the supervision of competent and trained personnel as stipulated in the EMPr. No vehicle or equipment will be serviced on-site. Appropriately sized drip trays must always be used in emergency situations. Approved absorbent material must be kept on-site in sufficient quantities to deal with small spills. Absorbent material and contaminated soil should be disposed of at a registered hazardous waste site. No cement mixing is to occur directly on the ground and any cement or hydrocarbon spills should be cleared away immediately. The generation of dust during the construction phase is expected to be minimal. Stockpiles of fine construction materials should be positioned such that they are not exposed to wind erosion or drainage lines. Dust suppression should be implemented according to the prevailing site-specific conditions. Construction vehicles transporting construction materials must be suitably covered to prevent materials from being blown off. Vehicles and machinery will be kept in good working order to avoid excess emissions. All development activities must remain within the demarcated construction area. Chemical toilets should be provided for construction workers if the on-site ablution facilities are not adequate (1 toilet per 30 workers). Their use should be enforced. Chemical toilets will be serviced by an appropriate service provider, provided with toilet paper and cleaned regularly. Servicing will include emptying without spills and appropriate disposal by the service provider.

	It is essential to maintain an onsite nursery, and the search-and-rescue plants should be repurposed for the rehabilitation of the site following construction activities. These measures, grounded in specialist reports, ensure environmental integrity and compliance with NEMA principles during construction.
Cumulative impact post mitigation:	Potential contamination of stormwater run-off, soil, groundwater, and nuisance as a result of dust generation will be minimised by implementing mitigation measures. Low: Mitigated run-off and erosion limit contributions to regional soil loss and hydrological changes. Rehabilitation enhances biodiversity, offsetting impacts from existing/future developments (Preliminary Geotechnical and Geomatic Report, Page 38; Terrestrial Biodiversity Assessment). Negligible: Mitigated dust and emissions have minimal cumulative effects, aligning with low impacts from existing tourism activities (Visual Compliance Statement, Page 11). Soil & Water: Low — effective erosion control and spill prevention reduce run-off and contamination risk; rehabilitated vegetation enhances soil retention (Geotechnical Report, p. 38). Air Quality: Very Low — dust and emissions are negligible after mitigation (Visual Compliance Statement, p. 11). Overall Significance (Post-Mitigation): Low.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low: Mitigation reduces erosion, run-off, and contamination risks to negligible levels, ensuring soil and water resource integrity (Preliminary Geotechnical and Geomatic Report, Page 38). Very Low: Mitigation eliminates significant air quality impacts, ensuring no harm to residents or workers (Visual Compliance Statement, Page 11).

Potential impact on geographical and physical aspects:	**100-Highwater Mark and Dune Stability**
Nature of impact:	Construction activities — including vegetation clearance (± 1 175 m²), grading for the gravel access road and boardwalk, and foundation excavation — within or near the 100 m High-Water Mark (HWM) may temporarily destabilise the coastal

	dune system by removing vegetation (e.g., *Acacia cyclops* and indigenous *Goukamma Strandveld*) and disturbing loose, highly erodible sands (> 750 mm deep, < 15 % clay). The *Preliminary Geotechnical and Geomatic Report* (Appendix D2, pp. 27 & 36) records cyclic dune erosion of 4–6 m between 2005 and 2024 and projects a 30 m inland retreat by 2100. Weak zones were identified at D7 (fractured layer at 120 m) and PE (within 100 m HWM), where slopes of 26–70° heighten instability risk.
Extent and duration of impact:	Local, short- to medium-term — confined to the 5.16 ha site and adjacent coastal zone (within/near the 100 m HWM). Impacts may persist for 1–5 years post-construction if erosion is triggered before full rehabilitation.
Probability of occurrence:	High — proximity to the 100 m HWM, steep gradients, and erodible soils make short-term dune disturbance likely, particularly during high-rainfall or wind events. Risk is greatest at PE or Lookout and lowest at BM or HW2 (north of 100 m HWM).
Degree to which the impact can be reversed:	High — dune stability can be restored within 1–3 years through geotextiles, re-vegetation, and targeted rehabilitation. Severe dune loss near the HWM could be partly irreversible if sediment is lost to the marine zone.
Degree to which the impact may cause irreplaceable loss of resources:	Low to Moderate — soils are recoverable in this degraded CBA2 area through stabilisation and replanting, but severe erosion could reduce natural coastal-protection capacity.
Cumulative impact prior to mitigation:	Moderate — in combination with existing Sedgefield dwellings between flood lines (*Geotechnical Report*, p. 38) and historic erosion (4–6 m retreat, 2005–2024), additional disturbance could incrementally weaken dune integrity, especially under projected 30 m inland retreat by 2100.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-High — due to high likelihood, localised extent, and potential medium-term effects on the HWM buffer.
Degree to which the impact can be mitigated:	High: Strategic site selection (e.g., BM, HW2), erosion controls, and vegetation management can significantly reduce dune instability and protect the 100 m HWM buffer.
Proposed mitigation:	▪ Site Selection: Avoid D7 (weak zone) and Lookout (steep slopes); prioritize BM or HW2 (on/north of 100 m HWM, gentler slopes 0–21°) for dwellings to minimize HWM impact (Preliminary Geotechnical and Geomatic Report, Page 38). ▪ Erosion Control: Install silt fences, geotextiles, and temporary cover crops to stabilize dunes during construction (Preliminary Geotechnical and Geomatic Report, Page 38). ▪ Vegetation Management: Retain existing vegetation (roots to 60 cm) where possible; salvage natives for

	replanting per Alien Invasive Management Plan to enhance dune stability (Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 11). ▪ Foundation Design: Use ECSA-certified foundations with 1.5 m compacted zones for erodible soils to prevent subsidence (Preliminary Geotechnical and Geomatic Report, Page 38). ▪ Construction Practices: Limit clearing to 1175 m², use raised boardwalks to minimize soil disturbance, and schedule work during low-rainfall periods (Q3–Q4 2025; Town Planning Report, Page 6; Visual Compliance Statement, Page 3). ▪ Monitoring: Conduct weekly geotechnical inspections during construction to detect instability or HWM encroachment early (Preliminary Geotechnical and Geomatic Report, Page 38). ▪ Site Selection**:** Avoid D7 (weak zone) and Lookout (steep slopes); prioritise BM or HW2 (north of 100 m HWM, gentler 0–21° slopes) for dwellings to minimise coastal risk (*Geotechnical Report*, p. 38). ▪ Erosion Control**:** Install silt fences, geotextiles, and temporary cover crops during construction; phase clearing to retain root cohesion (*Geotechnical Report*, p. 38). ▪ Vegetation Management: Retain existing deep-rooted vegetation (> 60 cm); salvage indigenous plants for re-use per the Alien Invasive Management Plan (*Terrestrial Biodiversity Assessment*; *Visual Compliance Statement*, p. 11). ▪ Foundation Design: Apply ECSA-certified foundations with ≥ 1.5 m compacted zones to stabilise erodible soils and prevent subsidence (*Geotechnical Report*, p. 38). ▪ Construction Practices: Restrict disturbance to ± 1 175 m², use raised boardwalks to reduce ground contact, and schedule work in low-rainfall periods (Q3–Q4 2025; *Town Planning Report*, p. 6). ▪ Monitoring: Conduct weekly geotechnical inspections during construction and periodic post-construction checks to detect instability or HWM encroachment early (*Geotechnical Report*, p. 38).
Cumulative impact post mitigation:	Low — stabilised dunes and retained 100 m HWM buffer limit contribution to regional erosion trends; rehabilitation improves dune resilience against climate-related pressures.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low — mitigation reduces dune instability and HWM encroachment to negligible levels, ensuring long-term coastal stability and compliance with NEMA and Integrated Coastal Management Act principles.

Potential impact on biological aspects:	Habitat and biodiversity loss
Nature of impact:	Negative: Construction activities (clearing 1175 m² for buildings, road, boardwalk) will remove vegetation, including invasive *Acacia cyclops* and some native Goukamma Strandveld, disrupting habitats in the degraded CBA2 area. This may displace fauna (e.g., small mammals and birds) and reduce local biodiversity temporarily. The Preliminary Geotechnical and Geomatic Report (Page 20) notes a well-established coastal forest (Albany Thicket, assumed Strandveld for consistency), with roots stabilising dunes, and clearing could fragment habitats. No impact on CBA1 Milkwood Forest occurs (Terrestrial Biodiversity Assessment).
Extent and duration of impact:	Local, Short-Term to Medium-Term: Impacts are confined to the 1175 m² footprint within the 5.1576 ha site, affecting only the degraded CBA2 southern portion. Vegetation loss and habitat disruption occur during construction (6–12 months; with recovery expected within 1–3 years post-rehabilitation. Fauna displacement is temporary, with recolonization likely after replanting.
Probability of occurrence:	Definite: Clearing 1175 m² will inevitably remove vegetation and disrupt habitats, though the degraded CBA2 area has lower biodiversity value due to *Acacia cyclops* invasion.
Degree to which the impact can be reversed:	High: Habitat loss is reversible through replanting native Goukamma Strandveld and restoring ecological function, as the CBA2 area is degraded and supports no rare species. Fauna displacement is temporary, with recolonization expected post-rehabilitation (1–3 years; Terrestrial Biodiversity Assessment). The Alien Invasive Management Plan enhances reversibility by replacing invasives with natives, improving biodiversity (Terrestrial Biodiversity Assessment).
Degree to which the impact may cause irreplaceable loss of resources:	With correct management in all probability, the degree to which the impact may cause irreplaceable loss of resources can be mitigated. Low: The CBA2 area is degraded, with *Acacia cyclops* reducing native biodiversity. No rare or endangered species are noted, and rehabilitation can restore or enhance habitats (Terrestrial Biodiversity Assessment). Loss is reversible with proper management.
Cumulative impact prior to mitigation:	Moderate: The development's habitat loss, combined with existing coastal developments (e.g., residences 250 m east; Visual Compliance Statement, Page 10) and potential future projects, could incrementally reduce biodiversity resilience in Sedgefield's coastal zone. Historical vegetation clearing

	and *Acacia cyclops* spread exacerbate this (Terrestrial Biodiversity Assessment). Potential impacts would be related to construction damage on vegetation, as well as edge effects (trampling, erosion, runoff, pollution and spread of alien invasive species). The impact affects a small proportion of the overall biodiversity resource - the proposed footprint is relatively small relative to the overall remaining area of the vegetation.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium: Definite occurrence and local extent, but the degraded CBA2 area and temporary nature reduce severity. Impacts are significant without mitigation due to habitat fragmentation (Terrestrial Biodiversity Assessment).
Degree to which the impact can be mitigated:	High: Targeted clearing, invasive species management, and native replanting can significantly reduce habitat and biodiversity loss, potentially yielding a net positive ecological outcome.
Proposed mitigation:	• Targeted Clearing: Limit vegetation removal to 1175 m² in CBA2, avoiding CBA1 Milkwood Forest (Terrestrial Biodiversity Assessment; Town Planning Report, Page 16). • Invasive Species Management: Implement the Alien Invasive Management Plan to clear *Acacia cyclops* and prevent regrowth (Terrestrial Biodiversity Assessment). • Rehabilitation: Salvage native plants for nursery propagation and replant post-construction to restore Strandveld (Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 11). • Construction Practices: Use raised boardwalks to minimize soil/habitat disturbance; schedule clearing during low wildlife activity (Q3–Q4 2025; Town Planning Report, Page 6; Visual Compliance Statement, Page 3). • Fauna Protection: Conduct pre-construction surveys to relocate small fauna; install temporary barriers to limit wildlife access (Terrestrial Biodiversity Assessment). • Monitoring: Monthly ecological inspections during construction to ensure compliance and early intervention (Terrestrial Biodiversity Assessment). It is imperative that impacts on the continuity of ecological processes and corridors must be taken into consideration irrespective of the type of land use proposed or envisaged in the region as a whole. • Removal of Alien Invasive Species during the construction phase. • An onsite nursery must be created and a search and rescue of all plants needs to be conducted prior to construction occurring on site. The plants rescued are to

	be reused in the rehabilitation of the site after construction. • Appointment of an Environmental Control Officer. • During construction: New roads need to be made using the same / similar materials and methods as the neighbouring road.
Cumulative impact post mitigation:	Low (Potentially Positive): Effective rehabilitation and invasive species removal enhance local biodiversity, offsetting impacts from the development and contributing to regional ecological restoration. Future developments must adopt similar measures to avoid cumulative loss.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low (Potentially Positive): Mitigation restores or improves habitats, reducing impacts to negligible levels and potentially increasing biodiversity through native replanting.

Potential impacts on socio-economic aspects:	**Socio-economic**
Nature of impact:	Job creation- Positive Impact. No negative impacts on the socioeconomic aspects are foreseen as the proposed construction will not negatively impact any person's social rights. Employment opportunities (temporary) will be generated during the construction phase. The positive socio-economic impact, including a few short, medium- and long-term jobs outweighs the negligible to zero negative impacts this project may have on heritage resources.
Extent and duration of impact:	Local — short-term (construction phase only, ±6–12 months).
Probability of occurrence:	Definite (local jobs and procurement will occur during construction).
Degree to which the impact can be reversed:	Positive impacts (temporary jobs and local expenditure) are short-term but beneficial. Once construction is complete, no ongoing employment is required as the cottages will be for private family use only.
Degree to which the impact may cause irreplaceable loss of resources:	None — no socio-economic resources are lost; the site remains privately owned and low-intensity.
Cumulative impact prior to mitigation:	Minor positive — short-term construction employment contributes marginally to the local Sedgefield economy.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-High (Positive)

Degree to which the impact can be mitigated:	High — by ensuring fair recruitment, local participation, and adherence to labour standards.
Proposed mitigation:	The contractor should employ people from the local community where possible and ensure that skill transfer and training are provided where feasible. Local Hiring**:** Prioritise ≥70 % of local workers for construction tasks to maximise community benefit (Town Planning Report, p. 7). • Provide skills transfer and short safety/skills training where feasible. • Use local suppliers and contractors for materials and transport to strengthen local economic linkages. • Ensure fair wages and safe working conditions for all site workers.
Cumulative impact post mitigation:	Sustained positive contribution through short-term job creation, local spending, and strengthened community relations. No negative cumulative socio-economic effects are expected as the development remains private and low intensity.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	High – Positive: local employment and procurement deliver tangible, short-term benefits, ensuring a net positive socio-economic outcome (Town Planning Report, p. 7).

Potential noise impacts:	**Noise disturbance**
Nature of impact:	Impacts associated with general building construction noise. The construction phase will result in a temporary increase in ambient noise levels from moving machinery, equipment and additional people on site. Construction activities (e.g., clearing, grading, foundation work, heavy machinery for road/boardwalk) will generate noise, potentially disturbing nearby residents (250 m east), using Groenvlei Beach Road, and local wildlife (e.g. birds, small mammals) in the CBA2 area. The use of light, small-scale construction machinery will limit disturbance, and all works will comply with Knysna Municipality's noise control bylaws.
Extent and duration of impact:	Local, short-term — confined to the 5.16 ha site and immediate surroundings (the nearest residence ~250 m east).
Probability of occurrence:	Definite: Noise from machinery and construction activities is inevitable during clearing, grading, and building within the 1175 m² footprint.

	Duration: limited to the 6–12 month construction period, during daylight hours only. Wildlife disturbance is temporary and reversible, with fauna expected to return post-construction (Terrestrial Biodiversity Assessment).
Degree to which the impact can be reversed:	Definite — noise generation from equipment and construction activities is inevitable during clearing, grading, and building within the ±1 175 m² footprint.
Degree to which the impact may cause irreplaceable loss of resources:	None — noise impacts are temporary and do not cause loss of socio-economic or ecological resources.
Cumulative impact prior to mitigation:	Minor — short-term increase in local noise levels from construction activity.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low — definite but short-term and localised, with only temporary disturbance to residents and wildlife.
Degree to which the impact can be mitigated:	High — effective implementation of construction timing, equipment maintenance, and communication measures will substantially reduce disturbance.
Proposed mitigation:	• Construction Timing: Restrict activities to daylight hours (07h00–17h00); no work on Sundays or public holidays. • Equipment Maintenance: Use well-maintained, low-noise machinery; fit silencers or mufflers where practical. • Noise Barriers: Install temporary acoustic screens around high-noise operations such as grading or mixing. • Wildlife Protection: Schedule high-noise activities during low wildlife activity periods (Q3–Q4 2025) and limit clearing near vegetated dune areas (Terrestrial Biodiversity Assessment). • Community Communication: Notify the neighbouring residence (250 m east) before noisy operations; establish a contact number for queries or complaints (Town Planning Report, p. 8). • Traffic Control: Limit heavy vehicle movements to off-peak hours to reduce traffic-related noise on Groenvlei Beach Road (Town Planning Report, p. 10). • Monitoring: Conduct weekly noise checks (<65 dB at site boundary) to confirm compliance with municipal standards.
Cumulative impact post mitigation:	Negligible — with restricted hours, maintained equipment, and effective communication, residual noise impacts are localised and short-lived.

Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low — mitigation reduces noise disturbance to negligible levels, ensuring minimal short-term impact on nearby residents and wildlife, while maintaining the site's rural tranquillity.

Potential visual impacts:	**Aesthetic impact**
Nature of impact:	Construction activities (e.g., clearing ± 1 175 m², grading, operation of light machinery, and temporary stockpiles) will temporarily alter the local coastal landscape of Sedgefield, which is valued for its natural scenic quality (*Visual Compliance Statement*, pp. 6 & 10). Visible construction elements such as machinery, scaffolding, or stockpiled material may momentarily detract from the visual quality experienced by the nearest residence (± 250 m east) and users of Groenvlei Beach Road. However, the site's high Visual Absorption Capacity (VAC**)** — created by its dense vegetation, coastal slopes, and intervening landforms — substantially limits broader visibility (*Visual Compliance Statement*, p. 7). Natural Vegetation: The property supports dense Goukamma Strandveld vegetation, which provides excellent natural screening and visual integration with the coastal landscape. Vegetation removal should be kept to the minimum necessary for construction. Retained vegetation will serve as a natural buffer, reducing visibility of works from surrounding viewpoints. Rehabilitation and replanting with indigenous species immediately after construction will enhance the site's aesthetic and support long-term ecological restoration. Topography: The site lies on varied, sloping terrain with elevated viewpoints toward the ocean. Building placement should follow the natural contours and utilise existing depressions to avoid skyline breakage and reduce visual exposure. Lightweight architectural design using steel, timber, and natural stone will allow the new dwellings to blend with the surrounding environment. Employing the land's natural form during construction will reduce visible disturbance and enable faster recovery of the visual landscape post-construction. Existing Infrastructure: The area surrounding the property is largely undeveloped, highlighting the importance of context-sensitive siting and design. Structures should adopt earth-toned, non-reflective materials and finishes that harmonise with coastal vegetation colours. All temporary construction

	materials and waste must be removed promptly on completion, and disturbed areas must be rehabilitated to restore the natural appearance of the site. Construction activities should be planned to avoid unnecessary scarring and maintain the existing visual harmony of the broader coastal environment.
Extent and duration of impact:	Local, Short-Term: Impacts are confined to the 5.16 ha property and its immediate surroundings, including the nearest residence (±250 m east) and Groenvlei Beach Road. Construction-related visual disturbance will occur only during the 6–12 month construction phase (*Town Planning Report*, p. 6). The site is not visible from the N2, Groenvlei Beach, or Cola Beach, substantially limiting the affected visual audience (*Visual Compliance Statement*, p. 10). Following completion, rehabilitation, replanting of indigenous vegetation, and landscaping will restore the site's natural appearance and ensure that all residual visual impacts cease post-construction (*Visual Compliance Statement*, p. 11).
Probability of occurrence:	Definite: Construction activities — including limited clearing and the use of light machinery within the ±1 175 m² development footprint — will inevitably cause temporary visual disturbance during the construction phase, slightly affecting the aesthetic experience of nearby viewers such as the residence located ±250 m east (*Visual Compliance Statement*, pp. 7 & 11).
Degree to which the impact can be reversed:	High: Noise impacts are fully reversible, ceasing immediately after the 6–12-month construction phase. No long-term disturbance to residents or wildlife is anticipated, and the site's tranquil coastal environment will return to baseline conditions post-construction (*Visual Compliance Statement*, p. 11; *Terrestrial Biodiversity Assessment*).
Degree to which the impact may cause irreplaceable loss of resources:	None: Aesthetic impacts are temporary and fully reversible. The site's high Visual Absorption Capacity (VAC), combined with post-construction rehabilitation and indigenous landscaping, ensures the restoration of the coastal landscape's visual quality (*Visual Compliance Statement*, pp. 7 & 11).
Cumulative impact prior to mitigation:	Low: Temporary aesthetic disruptions may add marginally to minor existing visual influences from nearby rural residences (±250 m east) and local infrastructure visible along Groenvlei Beach Road, but the site's screened position and high Visual Absorption Capacity (VAC) minimise cumulative visual exposure (*Visual Compliance Statement*, p. 10).

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low: The impact is definite but short-term and localised, with minimal visual disturbance due to the site's high Visual Absorption Capacity (VAC), invisibility from key viewpoints (N2, Groenvlei Beach, and Cola Beach), and distance from the nearest residence (± 250 m east) (*Visual Compliance Statement*, pp. 7 & 10).
Degree to which the impact can be mitigated:	High: Effective site management, debris and waste control, and immediate post-construction rehabilitation can substantially reduce aesthetic impacts, ensuring the site's visual reintegration and enhancement within the coastal landscape (*Visual Compliance Statement*, p. 11; *Terrestrial Biodiversity Assessment*).
Proposed mitigation:	• Site Management: The construction area must be fenced and screened from surrounding areas using green shade cloth or temporary natural barriers, including around chemical toilets (if required), to limit visual intrusion (*Visual Compliance Statement*, p. 11). • Good Housekeeping: Maintain a tidy and litter-free site at all times. Implement strict housekeeping practices and ensure all waste and debris are promptly removed. • Screening from Viewpoints: During the construction phase, the development must be screened from the N2 and nearby properties using green shade cloth and retained vegetation (*Visual Compliance Statement*, p. 11). • Debris and Stockpile Control: Cover and regularly clear stockpiles and construction materials to prevent unsightly accumulation and airborne dust (*Visual Compliance Statement*, p. 11). • Construction Timing: Schedule high-impact construction activities (e.g., clearing, grading, and deliveries) during standard working hours and low visitor activity periods, avoiding weekends and public holidays (*Town Planning Report*, p. 6). • Rehabilitation: Immediately after construction, replant indigenous Goukamma Strandveld vegetation and stabilise disturbed areas in accordance with the Alien Invasive Management Plan (*Terrestrial Biodiversity Assessment*; *Visual Compliance Statement*, p. 11). • Lighting Design: Install low-intensity, downward-facing lights with motion sensors to minimise unnecessary illumination. Use warm-coloured lighting to prevent glare and maintain the area's natural ambience. • Dust and Light Control: Apply water spraying and cover stockpiles to suppress dust. Restrict work to daylight hours only to avoid night-time light pollution and noise. • Monitoring: Conduct weekly visual inspections during construction to ensure compliance with aesthetic and

	housekeeping standards, with corrective action taken where required (*Visual Compliance Statement*, p. 11). • Community Communication: Notify the nearest residents (±250 m east) prior to construction commencement regarding expected timelines and visual screening measures, to promote transparency and cooperation (*Town Planning Report*, p. 8).
Cumulative impact post mitigation:	Negligible: With effective screening, immediate post-construction landscaping, and the site's inherent high Visual Absorption Capacity (VAC), residual aesthetic impacts will be minimal. The development will be visually unobtrusive during and after construction, contributing negligibly to regional visual change. Ongoing vegetation maintenance, good housekeeping, and low-impact architectural finishes will ensure the site remains visually integrated with the surrounding coastal landscape throughout its lifecycle (*Visual Compliance Statement*, p. 11; *Town Planning Report*, p. 10).
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low: Mitigation measures — including screening, site rehabilitation, and indigenous landscaping — will restore the site's visual integration within the natural setting, reducing aesthetic impacts to negligible levels and maintaining the coastal character of Sedgefield's landscape (*Visual Compliance Statement*, pp. 7 & 11).

Potential impacts on the cultural-historical aspects:	**Cultural-historical**
Nature of impact:	Heritage resources may be encountered during excavation activities on-site. A NID will be submitted to Heritage Western Cape. The DFFE Screening Tool indicated the Archaeological and Cultural Heritage Sensitivity as Low.
Extent and duration of impact:	Only during the construction phase.
Probability of occurrence:	Improbable
Degree to which the impact can be reversed:	Irreversible, should culture or historical resources be encountered, but this is not expected.
Degree to which the impact may cause irreplaceable loss of resources:	Full loss of irreplaceable resources should cultural or historical resources be encountered on-site, but this is not expected.
Cumulative impact prior to mitigation:	Potential loss of cultural or historical resources should it be encountered during construction activities. However, this is not expected.

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low, negative
Degree to which the impact can be mitigated:	It is not expected that cultural or historical resources will be encountered as the site. The impact cannot be avoided during the construction phase as excavation activities are required for the development.
Proposed mitigation:	There are no cultural or historical features on-site. However, the provisions of the National Heritage Resources Act will apply. Environmental awareness training should be presented to all employees at the site. Such training should include the identification of potential heritage resources and how to react if the presence of heritage resources is suspected. If any sign of a heritage or cultural site is unearthed during excavations, then all activities must cease until a heritage specialist has been consulted and had the opportunity to investigate the findings. In case of the unexpected uncovering of fossil bones in the surficial coversands and soil, or buried archaeological material, or unmarked graves, it is recommended that a protocol for finds of potential fossil material (and buried artefacts), the Fossil Finds Procedure (FFP), is included in the Environmental Management Plan (EMP) for the Construction Phase of the project. Adjustments to the development plan are not expected to change this recommendation"
Cumulative impact post mitigation:	Potential loss of cultural or historical resources should they be encountered during construction activities, but this is not expected. Because there are no significant heritage resources associated with the property, it does not meaningfully contribute to the already altered cultural landscape of the area. For the same reason, there will be negligible to no cumulative impact on the heritage value of the area. The positive socio-economic impact, including a few short, medium- and long-term jobs outweighs the negligible to zero negative impacts this project may have on heritage resources.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low

Potential impact on biological aspects:	**Safety on site**

Nature of impact:	Occupational exposure, fires, explosions, and health. Construction activities (e.g., clearing, grading, foundation work, heavy machinery use for road/boardwalk) pose safety risks to workers, including falls, equipment accidents, and exposure to hazardous materials (e.g., fuel spills). The site's erodible soils, steep slopes (26–70° at Lookout), and weak zones (D7 fracture) increase risks of slips or collapses. Unauthorised public access (e.g., via Groenvlei Beach Road) could also endanger visitors.
Extent and duration of impact:	Local, Short-Term: Safety risks are confined to the 5.1576 ha site and immediate surroundings (e.g., Groenvlei Beach Road), lasting during construction (6–12 months). Risks are highest during active work hours and cease post-construction, except for minor residual risks during site stabilisation.
Probability of occurrence:	High: Safety incidents are likely due to the inherent hazards of construction (e.g., machinery, uneven terrain), especially given the site's geotechnical challenges (erodible soils, steep slopes). Public access risks are probable without controls.
Degree to which the impact can be reversed:	Moderate: Minor injuries (e.g., cuts, bruises) are fully reversible with medical treatment, and site stabilisation reverses geotechnical risks post-construction. Severe injuries or fatalities, though unlikely with mitigation, are irreversible, lowering overall reversibility.
Degree to which the impact may cause irreplaceable loss of resources:	Low to Moderate: Most safety incidents (e.g., minor injuries) do not cause irreplaceable loss, but severe incidents (e.g., fatalities) could result in irreplaceable human loss. Geotechnical risks, if unmitigated, could damage equipment, but no ecological or cultural resources are at stake
Cumulative impact prior to mitigation:	Moderate: Safety risks from this development, combined with other construction projects in Sedgefield (e.g., future coastal developments), could strain local emergency services and increase regional incident rates if safety standards are not enforced. Existing tourism activities (e.g., Lake Pleasant Resort) contribute minimal safety risks.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium: High probability and potential for serious incidents (e.g., falls, collapses) due to site conditions (steep slopes, erodible soils) elevate significance, though risks are localized and short-term.
Degree to which the impact can be mitigated:	High: Robust safety protocols, training, site stabilisation, and access controls can significantly reduce risks to workers and

	the public, ensuring compliance with occupational health and safety regulations.
Proposed mitigation:	Adequate measures must be in place to ensure the safety of staff on-site, such as proper training of operators, first aid treatment, medical assistance, emergency treatment, prevention of inhalation of dust, protective clothing, footwear and gloves. Manuals and training regarding the correct handling of materials and operation of equipment should be in place and updated as new or updated material safety data sheets become available; and monitoring should be carried out on a regular basis, including accident reports. All employees are to be managed in strict accordance with the OH&S Act. Sufficient water must be available for firefighting purposes. All personnel must be trained in responsible fire protection measures. Regular inspections should be carried out to inspect and test fire-fighting equipment and pollution control measures. Relevant SANS Standards shall be implemented at the facility. • Safety Protocols: Implement a Health and Safety Plan per the Occupational Health and Safety Act (OHSA), including risk assessments, personal protective equipment (PPE), and first-aid stations. • Worker Training: Provide regular safety training for all workers (e.g., machinery operation, fall prevention) and appoint a qualified safety officer. • Site Stabilisation: Use ECSA-certified foundations with 1.5 m compacted zones and install temporary supports (e.g., geotextiles) at steep slopes (Lookout) and weak zones (D7). • Access Control: Erect fencing and signage to prevent unauthorised public access via Groenvlei Beach Road; monitor entry points during construction. • Hazard Management: Store hazardous materials (e.g., fuel) in bunded areas with spill kits to prevent worker exposure (Terrestrial Biodiversity Assessment). • Monitoring: Conduct daily safety inspections and weekly geotechnical checks to detect unstable areas, ensuring compliance with OSHA.
Cumulative impact post mitigation:	Low: Mitigated safety risks minimise contributions to regional incident rates, aligning with low safety impacts from existing tourism activities. Future projects must enforce similar OSHA-compliant measures to avoid cumulative strain on emergency services

	Workers are aware of safety risks and consequences and relevant procedures. Mitigatory measures will reduce the chance of an incident occurring.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low: Mitigation reduces safety risks to negligible levels, ensuring worker and public safety through robust protocols, training, and site controls, compliant with OSHA and NEMA.

Potential impact on biological aspects:	**Waste**
Nature of impact:	Waste generated through construction activities (general and hazardous) that is not correctly managed may result in pollution of water, air and soil resources.
Extent and duration of impact:	Neighbouring properties during the construction phase
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Reversible
Degree to which the impact may cause irreplaceable loss of resources:	No irreplaceable loss.
Cumulative impact prior to mitigation:	Pollution from waste generation (general and hazardous waste) through construction activities.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	The impacts can be managed by implementing mitigatory measures.
Proposed mitigation:	Appropriate containers for different types of waste should be provided throughout the site. The containers must have sufficient capacity and be removed frequently. Environmental awareness training should include a section on the impacts of waste generation and improper waste management. Ensure that rubble and construction waste is sorted on site and that recyclable material is separated from disposable waste. The contractor should keep safe disposal certificates for record purposes.
Cumulative impact post mitigation:	Little / no potential soil, water or air pollution
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

(b) **Impacts that may result from the operational phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the operational phase.**

Operational Phase

Potential impact on biological aspects:	**Surface water run-off/groundwater/soil, air quality**
Nature of Impact	Negative: Operational activities (e.g., vehicle movement on gravel access roads, minor landscaping, wastewater management) may increase surface water run-off due to compacted soils and limited permeable surfaces within the ±1,175 m² footprint. Potential small-scale spills (e.g., household cleaning agents, vehicle fuel) could affect shallow groundwater (< 2 m at HW2) or erodible sandy soils (> 750 mm deep, < 15 % clay). Inadequate stormwater maintenance could lead to localised erosion near the 100 m HWM (Preliminary Geotechnical and Geomatic Report, pp. 7–10, 35–38; Town Planning Report, p. 10).
Extent & Duration	Local, Long-Term: Confined to the 5.16 ha property and immediate surroundings. Impacts persist throughout the operational lifespan but remain manageable with maintenance (Preliminary Geotechnical and Geomatic Report, p. 36; Town Planning Report, p. 6).
Probability	Moderate: Possible if stormwater or waste-management systems are not properly maintained, especially during heavy rainfall (Preliminary Geotechnical and Geomatic Report, pp. 7 & 38).
Reversibility	High: Run-off and erosion are reversible through improved stormwater management and re-vegetation within 1–2 years. Minor spills are remediable; only unmanaged contamination may cause partial irreversibility (Preliminary Geotechnical and Geomatic Report, p. 36).
Irreplaceable Loss of Resources	Low: Soil and groundwater resources in the degraded CBA2 area are recoverable with management. Severe contamination or erosion near the 100 m HWM could cause localised effects but is unlikely with mitigation (Preliminary Geotechnical and Geomatic Report, p. 36; Terrestrial Biodiversity Assessment).
Cumulative Impact (Pre-Mitigation)	Moderate: Unmanaged run-off and contamination could add to cumulative coastal sedimentation and pollution from nearby properties and cyclic dune erosion (4–6 m retreat 2005–2024) (Preliminary Geotechnical and Geomatic Report, pp. 27 & 38; Town Planning Report, p. 10).

Significance Before Mitigation	Moderate: Long-term operational impacts possible if drainage and waste systems are inadequate near the 100 m HWM.
Degree to which Impact Can Be Mitigated	High: Properly designed and maintained stormwater, wastewater, and vegetation systems effectively reduce run-off, erosion, and contamination risks (Preliminary Geotechnical and Geomatic Report, p. 38; Terrestrial Biodiversity Assessment).
Proposed Mitigation	• Stormwater Management: Maintain permeable surfaces (gravel/pavers) and small detention basins; direct flows away from 100 m HWM. • Spill Prevention: Designate parking/maintenance areas on contained surfaces; store chemicals/fuels in bunded containers with spill kits. • Vegetation Maintenance: Maintain indigenous Goukamma Strandveld; implement the Alien Invasive Management Plan. • Wastewater Systems: Use sealed conservancy/septic tanks; service regularly to prevent groundwater contamination. • Operational Practices: Limit vehicle use to access roads; conduct landscaping in dry months (Q3–Q4 annually). • Monitoring: Quarterly site inspections and annual soil/water quality tests to detect erosion or contamination early.
Cumulative Impact (Post-Mitigation)	Low: Mitigated drainage and containment systems minimise contribution to regional sedimentation or pollution trends (Preliminary Geotechnical and Geomatic Report, p. 38; Town Planning Report, p. 10).
Significance After Mitigation	Low: Effective mitigation reduces operational-phase impacts to negligible levels, ensuring soil stability, groundwater protection, and long-term environmental compliance (Preliminary Geotechnical and Geomatic Report, p. 38; Terrestrial Biodiversity Assessment).

Potential impact on biological aspects:	**Operational: 100 m High-Water Mark and Dune Stability**
Nature of Impact	Negative: Operational activities (e.g., vehicle use on gravel roads, pedestrian traffic on boardwalks, landscaping maintenance) within the ±1 175 m² footprint may cause minor soil disturbance and vegetation stress, potentially destabilising dunes and risking encroachment into the 100 m HWM buffer critical for coastal protection. Poor stormwater management could exacerbate run-off, leading to erosion of erodible soils (> 750 mm deep, < 15 % clay), particularly at PE (within 100 m HWM) or Lookout (steep slopes 26–70°). Cyclic dune erosion (4–6 m retreat, 2005–2024) and weak zones (D7 fracture at 120 m) heighten

	vulnerability (*Preliminary Geotechnical and Geomatic Report*, pp. 7–10, 27, 35–38; *Terrestrial Biodiversity Assessment*).
Extent & Duration	Local, Long-Term: Impacts are confined to the 5.16 ha site and adjacent coastal zone, persisting throughout the operational phase. Rehabilitated vegetation (e.g., Goukamma Strandveld) and raised boardwalks reduce impacts, though ongoing activity poses low-level risk (*Preliminary Geotechnical and Geomatic Report*, p. 36; *Town Planning Report*, p. 10).
Probability	Low to Moderate: Dune instability or HWM encroachment may occur if vegetation or stormwater systems are poorly maintained, especially during heavy rainfall or wind. Risks are minimal at BM or HW2 (north of 100 m HWM) and higher only at PE or Lookout (*Preliminary Geotechnical and Geomatic Report*, pp. 7 & 38).
Reversibility	High: Dune stability impacts are reversible through stabilisation (e.g., replanting, erosion controls) within 1–2 years. Minor erosion is correctable; only severe dune loss near the 100 m HWM may be partially irreversible if significant sediment is lost (*Preliminary Geotechnical and Geomatic Report*, p. 36).
Irreplaceable Loss of Resources	Low: Dune soils in the degraded CBA2 area are recoverable through maintenance and replanting. Severe erosion near the 100 m HWM could cause localised dune-structure loss, but this is unlikely with mitigation (*Preliminary Geotechnical and Geomatic Report*, p. 36; *Terrestrial Biodiversity Assessment*).
Cumulative Impact (Pre-Mitigation)	Low to Moderate: Minor dune disturbance and run-off, combined with existing coastal developments (e.g., Sedgefield dwellings) and cyclic erosion (4–6 m retreat), could incrementally affect dune stability and HWM integrity. A projected 30 m inland shift by 2100 increases long-term risk (*Preliminary Geotechnical and Geomatic Report*, pp. 27 & 36).
Significance Before Mitigation	Low to Moderate: Long-term but low-intensity impacts yield low–moderate significance; risk higher only at PE or Lookout if maintenance is inadequate (*Preliminary Geotechnical and Geomatic Report*, pp. 35–38).
Degree to which Impact Can be Mitigated	High: Effective stormwater control, vegetation management, and restricted access can maintain dune stability and protect the 100 m HWM buffer (*Preliminary Geotechnical and Geomatic Report*, p. 38; *Terrestrial Biodiversity Assessment*).

Proposed Mitigation	• Site Management: Restrict vehicles and pedestrians to designated gravel roads and raised boardwalks (*Preliminary Geotechnical and Geomatic Report*, p. 38; *Town Planning Report*, p. 10).• Stormwater Management: Maintain permeable surfaces and detention basins to control run-off and prevent erosion near the 100 m HWM (*Preliminary Geotechnical and Geomatic Report*, p. 38).• Vegetation Maintenance: Maintain indigenous Goukamma Strandveld (root depth ≥ 60 cm) per the Alien Invasive Management Plan; replant annually where needed (*Terrestrial Biodiversity Assessment*; *Visual Compliance Statement*, p. 11).• Erosion Control: Install or maintain geotextiles/cover crops in high-risk areas (PE, Lookout) if erosion is detected (*Preliminary Geotechnical and Geomatic Report*, p. 38).• Operational Practices: Schedule landscaping during dry months (Q3–Q4 annually) to limit run-off (*Town Planning Report*, p. 6).• Monitoring: Quarterly geotechnical inspections and annual vegetation-health assessments to detect instability or HWM encroachment early (*Preliminary Geotechnical and Geomatic Report*, p. 38; *Terrestrial Biodiversity Assessment*).
Cumulative Impact (Post-Mitigation)	Low: Ongoing dune stabilisation and stormwater control minimise contribution to regional dune erosion and HWM degradation (*Preliminary Geotechnical and Geomatic Report*, p. 38).
Significance After Mitigation	Low: Effective mitigation reduces dune instability and HWM encroachment to negligible levels, ensuring long-term coastal stability and environmental compliance (*Preliminary Geotechnical and Geomatic Report*, p. 38; *Terrestrial Biodiversity Assessment*).

Potential impact on biological aspects:	**Habitat and biodiversity loss**
Nature of impact:	Negative: Operational activities (e.g., pedestrian traffic on boardwalks, landscaping maintenance, vehicle use on gravel roads) within the 1175 m² footprint may cause minor vegetation disturbance and habitat stress in the degraded CBA2 area, potentially affecting fauna (e.g., small mammals, birds). Improper management of invasive species (*Acacia cyclops*) or landscaping could reduce native Goukamma Strandveld cover, impacting biodiversity. No impact on CBA1 Milkwood Forest occurs (Terrestrial Biodiversity Assessment; Preliminary Geotechnical and Geomatic Report, Page 20).

Extent and duration of impact:	Local, Long-Term: Impacts are confined to the 1175 m² footprint within the 5.1576 ha site, persisting throughout the operational phase (decades). Rehabilitated vegetation (post-construction) minimizes impacts, but ongoing disturbance could delay habitat recovery (Terrestrial Biodiversity Assessment; Town Planning Report, Page 10).
Probability of occurrence:	Definite: Clearing 1175 m² will inevitably remove vegetation and disrupt habitats, though the degraded CBA2 area has lower biodiversity value due to *Acacia cyclops* invasion.
Degree to which the impact can be reversed:	High: Habitat and biodiversity impacts are reversible through enhanced vegetation management and replanting of native species within 1–2 years. No rare species are affected in the degraded CBA2 area (Terrestrial Biodiversity Assessment).
Degree to which the impact may cause irreplaceable loss of resources:	Low: No rare or endangered species are impacted, and the degraded CBA2 area can be restored through rehabilitation. Improper management could cause localized biodiversity loss, but this is unlikely with mitigation (Terrestrial Biodiversity Assessment).
Cumulative impact prior to mitigation:	Low to Moderate: Minor habitat disturbance, combined with existing coastal developments (e.g., residence 250 m east; Visual Compliance Statement, Page 10) and potential future projects, could incrementally reduce biodiversity resilience. Historical *Acacia cyclops* invasion exacerbates this (Terrestrial Biodiversity Assessment; Town Planning Report, Page 10).
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low: Low to moderate probability and minimal disturbance from operational activities result in low significance, supported by post-construction rehabilitation and the CBA2's degraded state (Terrestrial Biodiversity Assessment).
Degree to which the impact can be mitigated:	High: Effective vegetation management, invasive species control, and restricted access can significantly reduce habitat and biodiversity impacts (Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 11).
Proposed mitigation:	• Vegetation Management: Implement and sustain the Alien Invasive Management Plan to control *Acacia cyclops* and promote native Goukamma Strandveld growth (Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 11). • Access Control: Restrict pedestrian and vehicle access to designated boardwalks and gravel roads to minimise habitat disturbance (Terrestrial Biodiversity Assessment; Town Planning Report, Page 10). • Landscaping Practices: Use native species for landscaping; schedule maintenance during low wildlife activity (e.g.,

	Q3–Q4 annually) to avoid fauna disruption (Terrestrial Biodiversity Assessment; Town Planning Report, Page 6). • Fauna Protection: Install signage to deter wildlife disturbance; conduct annual fauna surveys to monitor populations (Terrestrial Biodiversity Assessment). - Community Engagement: Educate residents and tourists on biodiversity protection via annual updates (Town Planning Report, Page 8). • Monitoring: Conduct quarterly ecological inspections to assess vegetation health and biodiversity recovery (Terrestrial Biodiversity Assessment).
Cumulative impact post mitigation:	Low: Mitigated impacts minimise contributions to regional biodiversity loss. Sustained native vegetation enhances resilience against future developments (Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 10).
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low: Effective mitigation reduces habitat and biodiversity impacts to negligible levels, ensuring ecological stability during the operational phase (Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 11).

Potential Socio-Economic Impact:	**Socio-Economic**
Nature of Impact	Positive (Minor) and Negative (Negligible): The development contributes modestly to the local economy through employment for maintenance, cleaning, landscaping, and security (≈ 3–5 positions) and procurement of local goods and services (e.g., building materials, garden maintenance, refuse collection). The landowners' permanent residence and the small-scale family-use cottages support indirect spending in Sedgefield (e.g., local shops and service providers). No significant negative socio-economic impacts are foreseen, as the development does not displace residents or restrict access (*Town Planning Report*, p. 7).
Extent & Duration	Local to Regional, Long-Term: Benefits accrue mainly within Sedgefield and the Garden Route region and persist throughout the operational lifespan (*Town Planning Report*, p. 7).
Probability	High: Positive socio-economic effects (e.g., local job retention and small-scale service demand) are highly likely given ongoing property maintenance and occupancy.

Reversibility	High: Positive effects continue for as long as the property remains occupied and maintained. No adverse or irreversible socio-economic impacts occur.
Irreplaceable Loss of Resources	None: No socio-economic resources or livelihoods are lost. The project reinforces rather than replaces local economic activity.
Cumulative Impact (Pre-Mitigation)	Low to Moderate (Positive): Small-scale economic contribution complements existing tourism and residential investment in Sedgefield (e.g., Lake Pleasant Resort) and supports the municipality's local-employment goals (*Visual Compliance Statement*, p. 6).
Significance Before Mitigation	Moderate (Positive): Local job creation and spending provide moderate, sustained socio-economic benefits.
Degree to which Impact Can be Mitigated	High: Positive effects can be enhanced through structured local-hiring, training, and community-engagement initiatives.
Proposed Mitigation	• Local Employment: Prioritise hiring from the Sedgefield community (target ≈ 70 % local labour).• Skills Development: Provide basic training in maintenance, landscaping, and waste-management tasks where feasible.• Procurement: Source materials and services locally to strengthen small businesses.• Operational Scheduling: Conduct maintenance and landscaping during low-tourist periods (Q3–Q4 annually) and restrict noisy work to daytime hours (*Town Planning Report*, p. 6; *Visual Compliance Statement*, p. 11).• Community Communication: Maintain transparent communication with neighbours and local stakeholders regarding ongoing activities (*Town Planning Report*, p. 8).
Cumulative Impact (Post-Mitigation)	High (Positive): Local employment, procurement, and long-term stewardship of the property reinforce community cohesion and Sedgefield's sustainable-development objectives.
Significance After Mitigation	High (Positive): Implementation of local-employment and procurement commitments ensures a tangible, long-term socio-economic benefit with no negative trade-offs (*Town Planning Report*, p. 7; *Visual Compliance Statement*, p. 11).

Potential Noise Impact	**Noise Disturbance**
Nature of Impact	Negative (Low Intensity): Operational activities (e.g., vehicle movement on gravel access roads, landscaping, and general household use) may generate occasional low-level noise

	(e.g., vehicle engines, lawnmowers, conversation). These may be faintly audible to nearby residents (≈ 250 m east) or beach users along Groenvlei Beach Road. Noise could also momentarily affect local fauna (e.g., birds, small mammals) within the degraded CBA2 area, though the isolated location and dense vegetation provide effective buffering (*Town Planning Report*, pp. 8 & 10; *Visual Compliance Statement*, p. 7; *Terrestrial Biodiversity Assessment*).
Extent & Duration	Local, Long-Term: Confined to the 5.16 ha site and its immediate surroundings. Noise remains intermittent, low-intensity, and primarily limited to daytime operational activities (*Town Planning Report*, p. 10; *Visual Compliance Statement*, p. 10).
Probability	Low to Moderate: Likely during maintenance or vehicular movement but minimal given the site's isolation, vegetative cover, and distance (≈ 250 m) to the nearest residence. Impacts on fauna are minimal due to the already-transformed habitat (*Town Planning Report*, p. 10; *Terrestrial Biodiversity Assessment*).
Reversibility	High: Noise impacts are entirely reversible; all disturbance ceases immediately when activity stops. Residents and fauna rapidly readjust without residual effects (*Town Planning Report*, p. 8; *Terrestrial Biodiversity Assessment*).
Irreplaceable Loss of Resources	None: Temporary noise disturbance does not result in permanent loss of socio-economic or ecological resources (*Town Planning Report*, p. 10; *Terrestrial Biodiversity Assessment*).
Cumulative Impact (Pre-Mitigation)	Low: Minor operational noise adds marginally to background levels from nearby tourism and residential activity (e.g., Lake Pleasant Resort), remaining localised and minimal due to natural screening and the property's distance from the N2 (*Town Planning Report*, p. 10; *Visual Compliance Statement*, p. 6).
Significance Before Mitigation	Low: Low-intensity, short-duration, and spatially limited effects yield low significance.
Degree to which Impact Can be Mitigated	High: Routine noise-management measures (e.g., scheduling, maintenance of equipment, community awareness) can fully minimise operational-phase disturbance (*Town Planning Report*, p. 8; *Terrestrial Biodiversity Assessment*).
Proposed Mitigation	• Operational Controls: Restrict high-noise tasks (e.g., mowing) to daylight hours (07h00 – 17h00).• Equipment Maintenance: Keep generators and machinery in good

	working order to avoid excess noise.• Community Awareness: Notify adjacent residents of periodic maintenance activities, if applicable.• Design and Screening: Retain dense indigenous vegetation to absorb and deflect sound.• Note: No formal mitigation required for the single dwelling; the site's isolation and natural buffers are adequate.
Cumulative Impact (Post-Mitigation)	Negligible: With natural screening and adherence to daytime operations, no cumulative increase in regional noise levels is expected.
Significance After Mitigation	Very Low: Mitigation reduces operational noise to negligible levels, ensuring minimal disturbance to residents, visitors, and wildlife while maintaining Sedgefield's tranquil coastal character (*Visual Compliance Statement*, p. 11; *Town Planning Report*, p. 10).

Potential visual impacts:	**Operational: Visual / Aesthetic Impact**
Nature of Impact	Negative (Low Intensity): Operational activities (e.g., vehicle movement, lighting at night, and general occupation of the cottages and dwellings) may slightly alter the visual character of the site. However, due to the site's high Visual Absorption Capacity (VAC), dense indigenous vegetation, and natural topography, the development will remain visually unobtrusive from all key viewpoints (N2, Groenvlei Beach, Cola Beach). Indigenous landscaping, low-profile structures, and non-reflective materials maintain harmony with the surrounding coastal landscape (*Visual Compliance Statement*, pp. 7, 10–11; *Town Planning Report*, p. 10).
Extent & Duration	Local, Long-Term: The visual footprint is confined to the 5.16 ha property and its immediate surroundings. Operational impacts persist for the lifespan of the development but remain low due to screening vegetation and architectural integration (*Visual Compliance Statement*, p. 10).
Probability	Low: The site is screened by existing vegetation and topography, making it largely invisible from public vantage points (N2, Groenvlei Beach, Cola Beach). Only minimal visibility may occur to the east (≈ 250 m) during specific light conditions (*Visual Compliance Statement*, pp. 7 & 10).
Reversibility	High: The visual impacts are reversible through ongoing landscaping, maintenance of vegetation, and good housekeeping. Should the structures be removed, the site

	can easily be restored to its natural visual state (*Visual Compliance Statement*, p. 11).
Irreplaceable Loss of Resources	None: No scenic or visual resources are permanently lost. The project design respects the natural landscape and maintains the coastal character of the area (*Visual Compliance Statement*, p. 11).
Cumulative Impact (Pre-Mitigation)	Low: Minor visual alteration adds insignificantly to the cumulative aesthetic change from existing nearby residential and tourism developments (e.g., Lake Pleasant Resort), without affecting the overall visual integrity of the Sedgefield coastline (*Visual Compliance Statement*, pp. 6 & 10).
Significance Before Mitigation	Low: Definite but short-term and localised aesthetic effects remain minimal owing to the site's high VAC and distance from populated viewpoints (*Visual Compliance Statement*, pp. 7 & 10).
Degree to which Impact Can be Mitigated	High: Effective site management, screening, and landscaping ensure the visual integration of the development with its natural surroundings (*Visual Compliance Statement*, p. 11; *Terrestrial Biodiversity Assessment*).
Proposed Mitigation	• Site Management: Maintain fencing and green-shade screening around operational areas to conceal equipment and service zones.• Vegetation & Landscaping: Preserve indigenous vegetation; replant Goukamma Strandveld where needed to strengthen natural screening.• Lighting: Use low-intensity, downward-facing, warm-toned lighting with motion sensors to minimise night-time glow.• Maintenance: Keep structures, fences, and landscaping in good condition; remove litter and debris promptly.• Architectural Harmony: Retain natural finishes (timber, stone, neutral tones) that blend with the coastal palette.• Monitoring: Conduct annual inspections to ensure vegetation density and aesthetic integrity are maintained (*Visual Compliance Statement*, p. 11; *Town Planning Report*, p. 10).
Cumulative Impact (Post-Mitigation)	Negligible: Sustained landscaping and maintenance ensure the property remains visually integrated within the coastal landscape, with no measurable contribution to regional visual degradation.
Significance After Mitigation	Very Low: Mitigation restores and enhances visual integration, ensuring negligible long-term aesthetic impact

	while maintaining Sedgefield's natural coastal character (*Visual Compliance Statement*, pp. 7 & 11).

Potential impacts on the cultural-historical aspects:	**Cultural-historical**
Nature of impact:	It is not expected that any cultural-historical aspects will be impacted as a result of operational activities.
Extent and duration of impact:	N/A
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Potential impact on biological aspects:	**Safety on site**
Nature of impact:	Occupational exposure, fires, explosion, health.
Extent and duration of impact:	The owner of the property will be residing in the main dwelling.
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Potential impact on biological aspects:	**Waste**
Nature of impact:	Normal household waste will be generated.
Extent and duration of impact:	Site only.
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Alternative 2

Alternative 2 proposes a compact clustered development consisting of one primary residence with a building footprint of approximately 400 m², complemented by three self-catering cottages, each measuring ±80 m². These accommodation units will be interconnected by an elevated timber boardwalk to facilitate access while minimising surface disturbance and protecting underlying vegetation and dune soils.

A total of six parking bays will be provided for the use of the dwelling and cottages, situated within a stabilised gravel parking area designed to manage surface water runoff effectively.

In addition, the development will include an 80 m² shed for the storage of equipment and maintenance tools, as well as a 50 m² staff cottage to accommodate on-site personnel responsible for property and landscape management.

The total estimated development footprint for Alternative 2 is ±1 375 m², which represents a negligible proportion of the 5.16 ha property area. The layout prioritises environmental sensitivity, minimal disturbance, and aesthetic integration with the surrounding coastal landscape.

Environmental Impacts:

- Surface water run-off/groundwater/soil, air quality
- 100m High water mark and Dune stability
- Impacts on the Critical Biodiversity Area
- Socio-economic impacts
- Noise disturbance
- Aesthetic impacts
- Safety on site
- Waste
- Cultural-historical impacts

Impacts that may result from the planning, design and construction phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the planning, design and construction phase.

Planning, Design and Construction Phase

Aspect / Phase	**Alternative 2 – Construction Phase: Geographical & Physical Aspects**
Nature of Impact	Negative: Construction activities (clearing ≈ 1 375 m², grading, excavation, and foundation works) will increase surface-water run-off by removing vegetation (*Acacia cyclops*, *Goukamma Strandveld*) and disturbing erodible soils (> 750 mm deep, < 15 % clay). This raises erosion and sedimentation risks to nearby water bodies such as Groenvlei Lake. Potential contamination of shallow groundwater (< 2 m at HW2) may occur through accidental fuel or oil spills. Compaction from roadworks and building foundations could reduce infiltration and soil stability, especially near the 100 m HWM or on steep slopes (26–70°) at PE and Lookout (*Preliminary Geotechnical and Geomatic Report*, pp. 7–10, 35–38). Minor, short-term air-quality impacts (dust, exhaust emissions) are expected during excavation and transport but remain localised and temporary (*Visual Compliance Statement*, p. 11).
Extent & Duration	Local, Short- to Medium-Term: Impacts confined to the 5.16 ha site and immediate surroundings, occurring during 6–12 months of construction. Unmitigated

	erosion or contamination could persist 1–3 years until rehabilitation stabilises soils (*Town Planning Report*, p. 6).
Probability	High: The larger footprint (≈ 17 % increase over the preferred alternative) on erodible coastal soils raises the likelihood of run-off, erosion and contamination during rainfall events.
Reversibility	Moderate: Run-off and erosion are reversible through revegetation and stabilisation within 1–3 years. Minor spills can be remediated; severe erosion or pollution near the 100 m HWM may be partially irreversible.
Irreplaceable Loss of Resources	Moderate: Most soil and groundwater resources in the degraded CBA2 area are recoverable, but major erosion near the HWM could impair local coastal ecosystem functions.
Cumulative Impact (Pre-Mitigation)	Moderate to High: Increased run-off and soil loss combined with existing coastal developments and cyclic erosion (4–6 m retreat since 2005) may worsen sedimentation and pollution of Groenvlei Lake. Dust adds temporarily to existing tourism-related air impacts (*Visual Compliance Statement*, p. 6).
Significance Before Mitigation	High: The larger construction footprint and greater erosion risk increase impact significance, particularly for sites near the 100 m HWM.
Degree to which Impact Can be Mitigated	Moderate to High: Comprehensive erosion controls and spill prevention can substantially reduce impacts, though the larger footprint limits full mitigation potential compared to the preferred layout.
Proposed Mitigation	• Erosion Control: Install reinforced silt fences, geotextiles and temporary cover crops to stabilise soil (*Preliminary Geotechnical and Geomatic Report*, p. 38). • Vegetation Management: Retain existing vegetation where feasible; replant indigenous species per the Alien Invasive Management Plan (*Terrestrial Biodiversity Assessment*; *Visual Compliance Statement*, p. 11). • Spill Prevention: Store fuel in bunded areas with spill kits; use biodegradable fluids where possible. • Foundation Design: Apply ECSA-certified foundations with ≥ 2 m compacted zones to reduce settlement (*Preliminary Geotechnical and Geomatic Report*, p. 38). • Construction Practices: Limit clearing to 1 375 m²; use raised boardwalks; schedule works in dry months (Q3–Q4 2025). • Air Quality Control: Use water sprays and cover stockpiles to limit dust; maintain machinery to reduce emissions. • Monitoring: Weekly soil and water-quality checks; ECO site inspections; EMPr compliance audits.

Cumulative Impact (Post-Mitigation)	Moderate: Mitigation reduces erosion and contamination risk, but the larger disturbed area maintains some cumulative pressure on regional hydrology and soil stability.
Significance After Mitigation	Moderate: Although impacts are lowered through erosion and dust controls, the increased footprint and exposure to erosive soils sustain moderate significance, rendering Alternative 2 less preferred than the smaller footprint option.

Aspect / Phase	**Alternative 2 – Construction Phase: 100 m High-Water Mark and Dune Stability**
Nature of Impact	Negative: Construction activities (clearing ≈ 1 375 m², grading for road/boardwalk, foundation work) within or near the 100 m HWM increased dune-destabilisation risks by removing vegetation (*Acacia cyclops*, *Goukamma Strandveld*) and disturbing sandy, highly erodible soils (> 750 mm deep, < 15 % clay). This amplifies erosion and potential encroachment into the HWM buffer, which is critical for coastal protection. Existing cyclic erosion (4–6 m retreat, 2005–2024) and a weak fracture zone (D7 ≈ 120 m depth) heighten instability, particularly at PE (within 100 m HWM) and Lookout (steep 26–70° slopes) (*Preliminary Geotechnical and Geomatic Report*, pp. 7–10 & 36).
Extent & Duration	Local, Short- to Medium-Term: Impacts confined to the 5.16 ha site and adjacent coastal zone, primarily over 6–12 months of construction. Given the larger 1 375 m² footprint, destabilisation may persist 2–5 years if erosion occurs on steep or weak slopes (*Town Planning Report*, p. 6).
Probability	High: Increased vegetation clearance (≈ 17 % more than the preferred alternative) on erodible soils near the HWM makes dune instability and encroachment highly likely during rainfall or wind events. Risks are greatest at PE and Lookout positions.
Reversibility	Moderate: Dune stability can be restored through geotextiles and replanting within 2–5 years; however, the larger footprint raises erosion risk and potential semi-permanent sediment loss near the HWM.
Irreplaceable Loss of Resources	Moderate: The expanded disturbance area increases the chance of localised dune loss and coastal buffer weakening. While rehabilitation in the degraded CBA2 area is feasible, severe erosion near the HWM may not be fully reversible (*Preliminary Geotechnical and Geomatic Report*, p. 36).
Cumulative Impact (Pre-Mitigation)	Moderate to High: The larger footprint exacerbates impacts in combination with existing coastal

	developments (e.g., Sedgefield residences) and documented cyclic erosion (4–6 m retreat). Projected 30 m coastal retreat by 2100 intensifies regional risk (*Preliminary Geotechnical and Geomatic Report*, pp. 27 & 36).
Significance Before Mitigation	High: The increased construction area and high erosion probability elevate significance, with potential to compromise dune stability and coastal protection at vulnerable points.
Degree to which Impact Can be Mitigated	Moderate to High: Targeted site selection (e.g., BM or HW2), enhanced erosion controls, and vegetation management can reduce risk, though the larger footprint constrains full mitigation relative to the preferred alternative.
Proposed Mitigation	• Site Selection: Avoid D7 and Lookout; prioritise BM / HW2 (on / north of 100 m HWM with 0–21° slopes) (*Preliminary Geotechnical and Geomatic Report*, p. 38).• Enhanced Erosion Control: Install reinforced silt fences, geotextiles and cover crops to counter disturbance (*Preliminary Geotechnical and Geomatic Report*, p. 38).• Vegetation Management: Retain as much existing vegetation as possible (roots ≥ 60 cm); salvage and replant native species under the Alien Invasive Management Plan (*Terrestrial Biodiversity Assessment*; *Visual Compliance Statement*, p. 11).• Foundation Design: Apply ECSA-certified foundations with ≥ 2 m compacted zones to address greater soil disturbance (*Preliminary Geotechnical and Geomatic Report*, p. 38).• Construction Practices: Restrict clearing to 1 375 m²; use raised boardwalks; schedule works for dry months (Q3–Q4 2025) (*Town Planning Report*, p. 6; *Visual Compliance Statement*, p. 3).• Monitoring: Bi-weekly geotechnical inspections to detect instability or HWM encroachment early (*Preliminary Geotechnical and Geomatic Report*, p. 38).
Cumulative Impact (Post-Mitigation)	Moderate: Mitigation lessens erosion and stabilises dunes, but the larger footprint maintains some cumulative pressure on coastal stability; continued vegetation maintenance is essential.
Significance After Mitigation	Moderate: Mitigation reduces severity but cannot fully offset the larger disturbance and HWM proximity, leaving Alternative 2 moderately significant and less preferred than the smaller footprint option.

Aspect / Phase	**Alternative 2 – Construction Phase: Biological Aspects (Habitat and Biodiversity Loss)**

Nature of Impact	Negative: Clearing approximately 1 375 m² of vegetation during construction increases habitat disturbance within the degraded CBA2 area. This entails removal of *Acacia cyclops* and native *Goukamma Strandveld* vegetation, temporarily displacing fauna such as small mammals and birds. The *Preliminary Geotechnical and Geomatic Report* (p. 20) notes coastal forest elements (assumed Strandveld) whose roots stabilise dunes; increased clearing fragments these stabilising habitats. No impact on the adjacent CBA1 Milkwood Forest is anticipated (*Terrestrial Biodiversity Assessment*).
Extent & Duration	Local, Short- to Medium-Term: Effects are confined to the 1 375 m² footprint within the 5.16 ha property and occur during the 6–12-month construction phase. Vegetation recovery and fauna recolonisation may require 1–3 years post-rehabilitation, with the larger footprint slightly prolonging recovery (*Town Planning Report*, p. 6).
Probability	Definite: Clearing is unavoidable, but ecological sensitivity is limited due to the degraded condition of the CBA2 area and dominance of *Acacia cyclops* (*Terrestrial Biodiversity Assessment*).
Reversibility	High: Habitat loss is reversible through active replanting and restoration within 1–3 years. The increased footprint delays recovery marginally but does not affect rare species.
Irreplaceable Loss of Resources	Low: No rare or threatened species occur in the impacted area. Rehabilitation and invasive-species management will restore biodiversity functions, preventing irreplaceable loss (*Terrestrial Biodiversity Assessment*).
Cumulative Impact (Pre-Mitigation)	Moderate to High: Expanded clearing compounds historic habitat loss from nearby coastal developments (e.g., residence 250 m east) and further reduces local ecological resilience. *Acacia cyclops* invasion continues to threaten regional biodiversity integrity (*Visual Compliance Statement*, p. 10).
Significance Before Mitigation	Medium-High: The larger footprint elevates habitat fragmentation and fauna displacement despite the degraded baseline condition.
Degree to which Impact Can be Mitigated	Moderate to High: Targeted vegetation clearing, invasive-species control, and intensive post-construction rehabilitation can substantially offset impacts, though

	the larger footprint reduces full mitigation efficiency relative to the preferred alternative.
Proposed Mitigation	• Targeted Clearing: Restrict vegetation removal to 1 375 m² in the degraded CBA2 area, avoiding the adjacent CBA1 Milkwood Forest (*Terrestrial Biodiversity Assessment*; *Town Planning Report*, p. 16).• Invasive Species Management: Implement the Alien Invasive Management Plan to eradicate *Acacia cyclops* and prevent regrowth (*Terrestrial Biodiversity Assessment*).• Rehabilitation: Salvage and replant a greater quantity of indigenous Strandveld species post-construction to compensate for expanded clearing (*Terrestrial Biodiversity Assessment*; *Visual Compliance Statement*, p. 11).• Fauna Protection: Conduct pre-construction fauna search-and-rescue surveys; relocate small mammals, birds, and reptiles; install temporary exclusion barriers (*Terrestrial Biodiversity Assessment*).• Construction Practices: Utilise raised boardwalks to reduce soil disturbance; schedule clearing during low wildlife-activity months (Q3–Q4 2025) (*Town Planning Report*, p. 6; *Visual Compliance Statement*, p. 3).• On-site Nursery: Establish a nursery and reuse rescued plants in rehabilitation.• ECO Oversight: Appoint an Environmental Control Officer for continuous compliance monitoring.• Roadworks: Construct new internal roads using similar materials and methods to existing tracks to avoid additional habitat fragmentation.
Cumulative Impact (Post-Mitigation)	Moderate: Mitigation restores vegetation cover and improves habitat quality, yet the larger footprint sustains limited cumulative ecological effects when compared with the smaller, preferred alternative.
Significance After Mitigation	Moderate: Rehabilitation and invasive-species control substantially reduce impacts, but increased disturbance from the expanded footprint maintains moderate residual significance, rendering Alternative 2 less preferred.

Aspect / Phase	**Alternative 2 – Construction Phase: Socio-Economic Aspects**
Nature of Impact	Positive Impact: Job creation during construction. No adverse socio-economic effects are anticipated, as the proposed works do not infringe upon any person's social or economic rights. The development will generate temporary employment opportunities (estimated 5–10

	direct positions) and associated short-term income for local workers and suppliers. The positive socio-economic effects — short-, medium-, and long-term — outweigh any negligible or zero negative implications on heritage or community resources (*Town Planning Report*, p. 7).
Extent & Duration	Local to Regional, Short-Term: Benefits will accrue primarily to the surrounding neighbourhoods and Sedgefield area during the 6–12-month construction phase. Secondary benefits may extend regionally through procurement and service contracts.
Probability	Definite: Employment and expenditure injections will occur as part of standard construction activities; benefits are guaranteed once site works commence.
Reversibility	High (Positive): Positive impacts such as wages and skill transfer are temporary during construction but may continue into the operational phase through ongoing maintenance and management employment. No negative socio-economic conditions arise.
Irreplaceable Loss of Resources	None: The project does not result in any loss of socio-economic or cultural resources; rather, it enhances local livelihoods through temporary income opportunities.
Cumulative Impact (Pre-Mitigation)	Positive: Employment generation complements regional development initiatives and other local construction projects, further strengthening Sedgefield's employment base.
Significance Before Mitigation	High – Positive: The guaranteed creation of local jobs and related spending produces a high-significance beneficial outcome.
Degree to Which Impact Can Be Mitigated / Enhanced	High: Maximising benefits through equitable local hiring, fair wages, and basic skills training will enhance positive outcomes and ensure broad community participation.
Proposed Mitigation / Enhancement Measures	• Local Hiring: Prioritise at least 70 % local labour for construction positions (5–10 direct jobs) to maximise economic benefit (*Town Planning Report*, p. 7).• Skills Transfer: Provide on-site mentorship and training to improve local employability for future projects.• Inclusive Procurement: Source building materials and services from local small businesses where feasible.• Fair Employment Practices: Ensure gender equity, safety standards, and compliance with labour legislation.• Community Engagement: Inform nearby residents about

	job opportunities and project timelines via municipal or community channels.
Cumulative Impact (Post-Mitigation)	Enhanced Positive: Sustained employment, local expenditure, and skills development improve socio-economic resilience in Sedgefield and the broader Garden Route region.
Significance After Mitigation	High – Positive: Local job creation and economic stimulation yield measurable socio-economic gains, ensuring a net beneficial outcome during and beyond construction (*Town Planning Report*, p. 7; *Visual Compliance Statement*, p. 11).

Aspect / Phase	**Alternative 2 – Construction Phase: Noise Disturbance**
Nature of Impact	Negative: General building-construction noise will temporarily elevate ambient sound levels from moving machinery, equipment and additional personnel on site. Activities such as clearing, grading, foundation works, and road/boardwalk construction will generate intermittent noise that may disturb nearby residents (≈ 250 m east), tourists on Groenvlei Beach Road, and wildlife (e.g. birds, small mammals) within the degraded CBA2 area. Equipment (e.g. bulldozers, drills) and vehicle movements could briefly disrupt the tranquil coastal atmosphere of Sedgefield (*Town Planning Report*, p. 6; *Visual Compliance Statement*, p. 11).
Extent & Duration	Local, Short-Term: Impacts are limited to the 5.16 ha site and its immediate surroundings, persisting only for the 6–12-month construction period. Noise occurs mainly during daylight hours and ceases entirely post-construction. Faunal disturbance is temporary; most species are expected to return once activities conclude (*Visual Compliance Statement*, p. 11).
Probability	Definite: Construction noise from machinery and vehicles is unavoidable within the 1 375 m² footprint but will remain localized and time-bound.
Reversibility	High: Noise impacts end immediately upon completion of construction (≈ 6–12 months). No long-term effects on residents or wildlife are expected, and ambient tranquillity will be restored (*Visual Compliance Statement*, p. 11; *Terrestrial Biodiversity Assessment*).
Irreplaceable Loss of Resources	None: Noise disturbance is temporary and does not cause any permanent socio-economic or ecological

	resource loss. Residents' quality of life and wildlife behaviour will return to normal post-construction.
Cumulative Impact (Pre-Mitigation)	Low: Temporary elevation of ambient noise from vehicles, machinery, and workers adds slightly to background levels but remains minor compared with existing local tourism and traffic activity.
Significance Before Mitigation	Low: Definite but short-term, localized impacts cause only moderate nuisance without lasting harm. The site's isolation and ≈ 250 m distance from the nearest residence further limit severity (*Visual Compliance Statement*, p. 10).
Degree to Which Impact Can Be Mitigated	High: Through controlled working hours, well-maintained low-noise equipment, and temporary barriers, disturbance to residents, visitors, and fauna can be substantially reduced.
Proposed Mitigation Measures	• Construction Hours: Restrict work to daylight (07h00–17h00); no activities on Sundays / public holidays.• Equipment Maintenance: Service machinery regularly and fit mufflers or acoustic dampeners.• Noise Control: Erect temporary plywood or shade-cloth barriers around high-noise operations (e.g. grading).• Wildlife Protection: Schedule loud tasks (e.g. clearing) during low-activity seasons (Q3–Q4 2025) and perform pre-construction fauna surveys (*Terrestrial Biodiversity Assessment*).• Community Engagement: Notify nearby residents (≈ 250 m east) and beach users in advance; establish a complaints hotline (*Town Planning Report*, p. 8).• Traffic Management: Restrict heavy-vehicle movements to off-peak times to reduce roadside noise (*Town Planning Report*, p. 10).• Monitoring: Conduct weekly boundary noise-level checks (target < 65 dB) during construction to verify compliance with local regulations (*Town Planning Report*, p. 6).
Cumulative Impact (Post-Mitigation)	Negligible: Adherence to mitigation measures and restricted work hours ensure minimal contribution to regional noise levels, consistent with the area's existing low-intensity tourism soundscape.
Significance After Mitigation	Very Low: Implemented controls render noise impacts negligible, preserving the tranquillity of the Sedgefield coastal environment and avoiding disturbance to both residents and fauna (*Visual Compliance Statement*, pp. 7 & 11).

Aspect / Phase	Alternative 2 – Construction Phase: Visual / Aesthetic Impact
Nature of Impact	Negative: Expanded clearing of ±1 375 m² (≈ 17 % more than the preferred 1175 m²) and intensified construction activities (grading, machinery, temporary stockpiles) temporarily disrupt the scenic coastal landscape of Sedgefield, prized for its unspoilt aesthetic. The larger footprint slightly reduces the site's high Visual Absorption Capacity (VAC) by removing additional *Acacia cyclops* and *Goukamma Strandveld*, making construction more visible to nearby residents (≈ 250 m east) and tourists using Groenvlei Beach Road (*Visual Compliance Statement*, pp. 6 & 10).
Extent & Duration	Local, Short-Term: Impacts are confined to the 5.16 ha property and immediate surroundings (e.g., 250 m east residence, Groenvlei Beach Road) during the 6–12 month construction phase. Although the site is not visible from the N2, Groenvlei Beach, or Cola Beach, increased clearing heightens local visibility. Impacts cease post-construction following rehabilitation (*Town Planning Report*, p. 6).
Probability	Definite: The larger construction footprint and increased equipment use ensure temporary visual disturbance that lowers the area's short-term visual absorption capacity.
Reversibility	High: Visual impacts are fully reversible within 6–12 months through landscaping and replanting with indigenous *Goukamma Strandveld*, restoring the site's integration with the natural coastal setting (*Visual Compliance Statement*, p. 11).
Irreplaceable Loss of Resources	None: Temporary aesthetic disruptions cause no permanent loss of scenic resources. The site's natural VAC and post-construction rehabilitation ensure full restoration of visual quality.
Cumulative Impact (Pre-Mitigation)	Moderate: The larger footprint slightly increases visual disruption, adding to minor existing effects from nearby dwellings (≈ 250 m east) and tourism nodes (e.g., Lake Pleasant Resort). Uncoordinated future coastal projects could cumulatively degrade the region's visual character (*Town Planning Report*, p. 10).
Significance Before Mitigation	Moderate: The 1375 m² footprint reduces VAC, intensifying the short-term aesthetic impact for local observers, even though the site remains screened from

	key viewpoints (*Visual Compliance Statement*, pp. 7 & 10).
Degree to Which Impact Can Be Mitigated	Moderate to High: Effective screening, debris control, and timely rehabilitation substantially reduce visual disturbance; however, the enlarged footprint limits total mitigation potential compared with the preferred alternative (*Visual Compliance Statement*, p. 11; *Terrestrial Biodiversity Assessment*).
Proposed Mitigation Measures	• Site Screening: Fence and visually screen the construction area, including chemical toilets; use green shade-cloth barriers visible from the N2.• Good Housekeeping: Maintain a clean, organised site; promptly remove litter and waste; cover stockpiles with tarpaulins (*Visual Compliance Statement*, p. 11).• Enhanced Screening: Use denser temporary fencing and additional vegetation buffers to conceal machinery and stockpiles.• Construction Timing: Schedule high-impact works (clearing, grading) in low-tourist months (Q3–Q4 2025) to reduce exposure (*Town Planning Report*, p. 6).• Rehabilitation: Replant native *Goukamma Strandveld* immediately after construction in accordance with the Alien Invasive Management Plan (*Terrestrial Biodiversity Assessment*; *Visual Compliance Statement*, p. 11).• Community Engagement: Notify residents (≈ 250 m east) and beach users of construction schedules through Q3 2025 meetings (*Town Planning Report*, p. 8).• Monitoring: Conduct weekly site inspections to ensure compliance with aesthetic standards (*Visual Compliance Statement*, p. 11).Construction Management: Enforce dust suppression (water spraying, covered stockpiles); restrict work to daylight hours to avoid night-time light or noise; remove debris and temporary structures promptly. Lighting Design: Install low-intensity, downward-facing lights with motion sensors; use warm-toned fittings to maintain the area's natural ambience.
Cumulative Impact (Post-Mitigation)	Low: Enhanced screening, good housekeeping, and rapid rehabilitation minimise the project's contribution to regional visual degradation. Proper management of the land's inherent VAC ensures the site remains visually unobtrusive.
Significance After Mitigation	Low: Implemented measures restore the site's visual harmony and reduce aesthetic impacts to negligible levels. Despite the larger footprint, effective management maintains Sedgefield's scenic coastal character, making Alternative 2 acceptable but less

	preferred (*Visual Compliance Statement*, pp. 7 & 11; *Terrestrial Biodiversity Assessment*).

Potential impacts on the cultural-historical aspects:	**Cultural-historical**
Nature of impact:	Heritage resources may be encountered during excavation activities on-site. A NID will be submitted to Heritage Western Cape. The DFFE Screening Tool indicated the Archaeological and Cultural Heritage Sensitivity as Low.
Extent and duration of impact:	Only during the construction phase.
Probability of occurrence:	Improbable
Degree to which the impact can be reversed:	Irreversible, should culture or historical resources be encountered, but this is not expected.
Degree to which the impact may cause irreplaceable loss of resources:	Full loss of irreplaceable resources should cultural or historical resources be encountered on-site, but this is not expected.
Cumulative impact prior to mitigation:	Potential loss of cultural or historical resources should it be encountered during construction activities. However, this is not expected.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low, negative
Degree to which the impact can be mitigated:	It is not expected that cultural or historical resources will be encountered as the site. The impact cannot be avoided during the construction phase as excavation activities are required for the development.
Proposed mitigation:	There are no cultural or historical features on-site. However, the provisions of the National Heritage Resources Act will apply. Environmental awareness training should be presented to all employees at the site. Such training should include the identification of potential heritage resources and how to react if the presence of heritage resources is suspected. If any sign of a heritage or cultural site is unearthed during excavations, then all activities must cease until a heritage specialist has been consulted and has had the opportunity to investigate the findings. In case of the unexpected uncovering of fossil bones in the surficial coversands and soil, or buried archaeological material, or unmarked graves, it is recommended that a protocol for finds of potential fossil material (and buried

	artefacts), the Fossil Finds Procedure (FFP), is included in the Environmental Management Plan (EMP) for the Construction Phase of the project. Adjustments to the development plan are not expected to change this recommendation"
Cumulative impact post mitigation:	Potential loss of cultural or historical resources should they be encountered during construction activities, but this is not expected. Because there are no significant heritage resources associated with the property, it does not meaningfully contribute to the already altered cultural landscape of the area. For the same reason, there will be negligible to no cumulative impact on the heritage value of the area. The positive socio-economic impact, including a few short, medium, and long-term jobs outweighs the negligible to zero negative impacts this project may have on heritage resources.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low

Potential impact on biological aspects:	**Safety on site**
Nature of impact:	Occupational exposure, fires, explosions, and health. Construction activities (e.g., clearing, grading, foundation work, heavy machinery use for road/boardwalk) pose safety risks to workers, including falls, equipment accidents, and exposure to hazardous materials (e.g., fuel spills). The site's erodible soils, steep slopes (26–70° at Lookout), and weak zones (D7 fracture) increase risks of slips or collapses. Unauthorised public access (e.g., via Groenvlei Beach Road) could also endanger visitors.
Extent and duration of impact:	Local, Short-Term: Safety risks are confined to the 5.1576 ha site and immediate surroundings (e.g., Groenvlei Beach Road), lasting during construction (6–12 months). Risks are highest during active work hours and cease post-construction, except for minor residual risks during site stabilisation.
Probability of occurrence:	High: Safety incidents are likely due to the inherent hazards of construction (e.g., machinery, uneven terrain), especially given the site's geotechnical challenges (erodible soils, steep slopes). Public access risks are probable without controls.

Degree to which the impact can be reversed:	Moderate: Minor injuries (e.g., cuts, bruises) are fully reversible with medical treatment, and site stabilization reverses geotechnical risks post-construction. Severe injuries or fatalities, though unlikely with mitigation, are irreversible, lowering overall reversibility.
Degree to which the impact may cause irreplaceable loss of resources:	Low to Moderate: Most safety incidents (e.g., minor injuries) do not cause irreplaceable loss, but severe incidents (e.g., fatalities) could result in irreplaceable human loss. Geotechnical risks, if unmitigated, could damage equipment, but no ecological or cultural resources are at stake
Cumulative impact prior to mitigation:	Moderate: Safety risks from this development, combined with other construction projects in Sedgefield (e.g., future coastal developments), could strain local emergency services and increase regional incident rates if safety standards are not enforced. Existing tourism activities (e.g., Lake Pleasant Resort) contribute minimal safety risks.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium: High probability and potential for serious incidents (e.g., falls, collapses) due to site conditions (steep slopes, erodible soils) elevate significance, though risks are localised and short-term.
Degree to which the impact can be mitigated:	High: Robust safety protocols, training, site stabilisation, and access controls can significantly reduce risks to workers and the public, ensuring compliance with occupational health and safety regulations.
Proposed mitigation:	Adequate measures must be in place to ensure the safety of staff on-site, such as proper training of operators, first aid treatment, medical assistance, emergency treatment, prevention of inhalation of dust, protective clothing, footwear and gloves. Manuals and training regarding the correct handling of materials and operation of equipment should be in place and updated as new or updated material safety data sheets become available; and monitoring should be carried out on a regular basis, including accident reports. All employees are to be managed in strict accordance with the OH&S Act. Sufficient water must be available for firefighting purposes. All personnel must be trained in responsible fire protection measures. Regular inspections should be carried out to inspect and test fire-fighting equipment and pollution control measures. Relevant SANS Standards shall be implemented at the facility. • Safety Protocols: Implement a Health and Safety Plan per the Occupational Health and Safety Act (OHSA),

	including risk assessments, personal protective equipment (PPE), and first-aid stations. • Worker Training: Provide regular safety training for all workers (e.g., machinery operation, fall prevention) and appoint a qualified safety officer. • Site Stabilization: Use ECSA-certified foundations with 1.5 m compacted zones and install temporary supports (e.g., geotextiles) at steep slopes (Lookout) and weak zones (D7). • Access Control: Erect fencing and signage to prevent unauthorized public access via Groenvlei Beach Road; monitor entry points during construction. • Hazard Management: Store hazardous materials (e.g., fuel) in bunded areas with spill kits to prevent worker exposure (Terrestrial Biodiversity Assessment). • Monitoring: Conduct daily safety inspections and weekly geotechnical checks to detect unstable areas, ensuring compliance with OHSA.
Cumulative impact post mitigation:	Low: Mitigated safety risks minimize contributions to regional incident rates, aligning with low safety impacts from existing tourism activities. Future projects must enforce similar OHSA-compliant measures to avoid cumulative strain on emergency services Workers are aware of safety risks and consequences and relevant procedures. Mitigatory measures will reduce the chance of an incident occurring.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low: Mitigation reduces safety risks to negligible levels, ensuring worker and public safety through robust protocols, training, and site controls, compliant with OHSA and NEMA.

Potential impact on biological aspects:	**Waste**
Nature of impact:	Waste generated through construction activities (general and hazardous) that is not correctly managed may result in pollution of water, air and soil resources.
Extent and duration of impact:	Neighbouring properties during the construction phase
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Reversible
Degree to which the impact may cause irreplaceable loss of resources:	No irreplaceable loss.

Cumulative impact prior to mitigation:	Pollution from waste generation (general and hazardous waste) through construction activities.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	The impacts can be managed by implementing mitigatory measures.
Proposed mitigation:	Appropriate containers for different types of waste should be provided throughout the site. The containers must have sufficient capacity and be removed frequently. Environmental awareness training should include a section on the impacts of waste generation and improper waste management. Ensure that rubble and construction waste are sorted on site and that recyclable material is separated from disposable waste. The contractor should keep safe disposal certificates for record purposes.
Cumulative impact post mitigation:	Little / no potential soil, water or air pollution
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

(c) **Impacts that may result from the operational phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the operational phase.**

Operational Phase

Potential impacts on geographical and physical aspects:	**Surface water run-off/groundwater/soil, air quality**
Nature of impact:	Negative: Operational activities (e.g., vehicle use on gravel roads, landscaping, wastewater management) may increase surface water run-off due to compacted soils and impermeable surfaces (e.g., parking areas) within the 1375 m² footprint. Potential spills (e.g., cleaning chemicals, fuel from vehicles) risk contaminating shallow groundwater (<2 m depth at HW2) and erodible soils (>750 mm deep, <15% clay). Inadequate stormwater management could lead to localized erosion, particularly near the 100 m HWM (Preliminary Geotechnical and Geomatic Report, Pages 7–10, 35–38; Town Planning Report, Page 10).

	Increased impervious surfaces (roof, paving) lead to greater surface water run-off, reduced infiltration, potential erosion on slopes, and altered shallow groundwater patterns. Soil compaction from foot and vehicle traffic may reduce biological activity and increase runoff velocity.
Extent and duration of impact:	Local, Long-Term: Impacts are confined to the 5.1576 ha site and adjacent areas (e.g., Groenvlei Lake), persisting throughout the operational phase (decades). Run-off and contamination risks are ongoing but manageable with maintenance (Preliminary Geotechnical and Geomatic Report, Page 36; Town Planning Report, Page 6). Local (on-site and immediately downslope); Long-term – especially if hydrological pathways or soils are degraded.
Probability of occurrence:	High: Larger footprint increases hydrological disruption likelihood. Run-off and contamination are likely if stormwater and waste systems are poorly maintained, especially during heavy rainfall. The rehabilitated site (post-construction revegetation) reduces risks compared to the construction phase (Preliminary Geotechnical and Geomatic Report, Pages 7, 38; Terrestrial Biodiversity Assessment).
Degree to which the impact can be reversed:	Moderate: Restoration is possible through soil rehabilitation and stormwater management but can be resource intensive. Run-off and soil erosion are reversible through improved stormwater management and revegetation within 1–2 years. Minor groundwater contamination (e.g., small spills) is treatable, but severe contamination could be partially irreversible if it affects deeper aquifers (Preliminary Geotechnical and Geomatic Report, Page 36; Terrestrial Biodiversity Assessment).
Degree to which the impact may cause irreplaceable loss of resources:	Moderate: Potential for irreversible loss of native soil structure and small-scale groundwater-dependent ecosystems. Soil and groundwater resources in the degraded CBA2 area are recoverable with proper management. Severe contamination or erosion near the 100 m HWM could cause localized ecosystem impacts, but these are unlikely with mitigation (Preliminary Geotechnical and Geomatic Report, Page 36; Terrestrial Biodiversity Assessment).
Cumulative impact prior to mitigation:	Medium-High: Larger developments across dune systems increase sedimentation and habitat loss. Ongoing run-off and potential contamination, combined with existing coastal developments (e.g., Sedgefield dwellings) and cyclic erosion (4–6 m retreat, 2005–2024), could increase sedimentation and pollution risks to Groenvlei Lake and regional

	groundwater (Preliminary Geotechnical and Geomatic Report, Pages 27, 38; Town Planning Report, Page 10).
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High: Due to sensitive terrain, sandy soils, and limited buffering capacity. Moderate probability and long-term impacts from operational activities elevate significance, particularly if stormwater or waste systems are inadequate near the 100 m HWM (Preliminary Geotechnical and Geomatic Report, Pages 35–38).
Degree to which the impact can be mitigated:	Moderate to High: With engineered drainage, runoff reduction strategies, and revegetation. Effective stormwater systems, spill prevention, and vegetation maintenance can significantly reduce run-off, contamination, and erosion risks (Preliminary Geotechnical and Geomatic Report, Page 38; Terrestrial Biodiversity Assessment).
Proposed mitigation:	▪ Implement permeable paving or gravel instead of concrete. ▪ Install swales or infiltration trenches along slopes. ▪ Restore natural vegetation buffers along drainage lines. ▪ Avoid channelling runoff near dune edges or exposed soils. ▪ Restrict vehicle movement to designated gravel roads. ▪ Stormwater Management: Install and maintain permeable surfaces (e.g., gravel) and detention basins to control run-off; direct flows away from the 100 m HWM (Preliminary Geotechnical and Geomatic Report, Page 38). ▪ Spill Prevention: Use designated areas for vehicle maintenance with spill kits; store chemicals in bunded containers (Terrestrial Biodiversity Assessment). ▪ Vegetation Maintenance: Sustain native Goukamma Strandveld to stabilize soils and reduce run-off per Alien Invasive Management Plan (Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 11). ▪ Wastewater Systems: Install compliant septic or conservancy tanks with regular servicing to prevent groundwater contamination (Town Planning Report, Page 6). ▪ Operational Practices: Limit vehicle use and schedule landscaping during low-rainfall periods (e.g., Q3–Q4 annually; Town Planning Report, Page 6). ▪ Monitoring: Conduct quarterly soil and water quality checks to detect erosion or contamination early (Preliminary Geotechnical and Geomatic Report, Page 38).
Cumulative impact post mitigation:	Low to Medium: Effectiveness depends on long-term maintenance. Mitigated run-off and contamination risks

	minimize contributions to regional sedimentation and pollution. Future developments must adopt similar measures (Preliminary Geotechnical and Geomatic Report, Page 38; Town Planning Report, Page 10).
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium

Potential impact on geographical and physical aspects:	**100-Highwater Mark and Dune Stability**
Nature of impact:	Negative: Operational activities (e.g., vehicle use on gravel roads, pedestrian traffic on boardwalks, landscaping maintenance) within the 1375 m² footprint may cause minor soil disturbance and vegetation stress, potentially destabilizing dunes and risking encroachment into the 100 m HWM buffer, critical for coastal protection. Poor stormwater management could exacerbate run-off, leading to erosion of erodible soils (>750 mm deep, <15% clay), particularly at PE (within 100 m HWM) or Lookout (steep slopes, 26–70°). Cyclic dune erosion (4–6 m retreat, 2005–2024) and weak zones (D7 fracture at 120 m) increase vulnerability (Preliminary Geotechnical and Geomatic Report, Pages 7–10, 27, 35–38; Terrestrial Biodiversity Assessment). Potential encroachment into the legislated 100m buffer zone from the high-water mark of the Indian Ocean. Larger structure and associated infrastructure (e.g., boardwalks, roads) may disturb or destabilise sensitive coastal dune systems that act as natural erosion and climate buffers
Extent and duration of impact:	Local, Long-Term: Impacts are confined to the 5.1576 ha site and adjacent coastal zone, persisting throughout the operational phase (decades). Rehabilitated vegetation (e.g., Goukamma Strandveld) and raised boardwalks reduce impacts, but ongoing activities pose low-level risks (Preliminary Geotechnical and Geomatic Report, Page 36; Town Planning Report, Page 10). Local (site-specific but critical); Long-term to permanent if erosion processes are triggered or dune vegetation is degraded.
Probability of occurrence:	High: Increased development footprint raises the likelihood of infringing buffer and disturbing dune integrity through vegetation clearing or altered drainage.
Degree to which the impact can be reversed:	Low: Once destabilised, dune systems are difficult and expensive to rehabilitate; recovery may take decades and depends on specific plant community restoration.

Degree to which the impact may cause irreplaceable loss of resources:	High: Coastal dunes are critical buffers against sea-level rise, wind erosion, and protect inland biodiversity; loss may be ecologically and geologically irreversible
Cumulative impact prior to mitigation:	High: dune systems in the region are vulnerable; cumulative encroachment leads to systemic erosion and biodiversity degradation.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High: Especially if buildings or services are within the 100m HWM setback or if sensitive dune vegetation is disturbed.
Degree to which the impact can be mitigated:	Moderate: Mitigation is possible but must be proactively integrated during siting and detailed design.
Proposed mitigation:	▪ Strict enforcement of the 100m HWM setback for all permanent structures and excavation. ▪ Use raised, removable boardwalks instead of footpaths across dunes. ▪ Preserve primary dune vegetation; revegetate any disturbed areas with native pioneer species. ▪ Avoid channelised drainage that could destabilise dune slopes. ▪ Include erosion control measures (e.g., coir logs, root mats). ▪ Site Management: Restrict vehicle and pedestrian access to designated gravel roads and raised boardwalks to minimize soil disturbance (Preliminary Geotechnical and Geomatic Report, Page 38; Town Planning Report, Page 10). ▪ Stormwater Management: Maintain permeable surfaces and detention basins to control run-off and prevent erosion near the 100 m HWM (Preliminary Geotechnical and Geomatic Report, Page 38). ▪ Vegetation Maintenance: Sustain native Goukamma Strandveld (roots to 60 cm) per Alien Invasive Management Plan to enhance dune stability; conduct annual replanting as needed (Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 11). ▪ Erosion Control: Install and maintain geotextiles or cover crops in high-risk areas (e.g., PE, Lookout) if erosion is detected (Preliminary Geotechnical and Geomatic Report, Page 38). ▪ Operational Practices: Schedule landscaping during low-rainfall periods (e.g., Q3–Q4 annually) to reduce run-off risks (Town Planning Report, Page 6). ▪ Monitoring: Conduct quarterly geotechnical inspections to detect instability or HWM encroachment early; monitor vegetation health annually (Preliminary Geotechnical and Geomatic Report, Page 38; Terrestrial Biodiversity Assessment).

Cumulative impact post mitigation:	Medium: Provided no encroachment occurs and restoration actions are actively implemented.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-High: Sensitive natural systems remain vulnerable even with strong mitigation, especially under changing climate conditions.

Potential impact on biological aspects:	**Habitat and biodiversity loss**
Nature of impact:	Negative: Operational activities (e.g., pedestrian traffic on boardwalks, landscaping maintenance, vehicle use on gravel roads) within the 1135 m² footprint may cause minor vegetation disturbance and habitat stress in the degraded CBA2 area, potentially affecting fauna (e.g., small mammals, birds). A larger development footprint may reduce connectivity and displace native flora/fauna, including species with small habitat ranges. Improper management of invasive species (*Acacia cyclops*) or landscaping could reduce native Goukamma Strandveld cover, impacting biodiversity. No impact on CBA1 Milkwood Forest occurs (Terrestrial Biodiversity Assessment; Preliminary Geotechnical and Geomatic Report, Page 20).
Extent and duration of impact:	Local, Long-Term: Impacts are confined to the 1375 m² footprint within the 5.1576 ha site, persisting throughout the operational phase (decades). Rehabilitated vegetation (post-construction) minimizes impacts, but ongoing disturbance could delay habitat recovery (Terrestrial Biodiversity Assessment; Town Planning Report, Page 10).
Probability of occurrence:	Definite: Clearing 1375 m² will inevitably remove vegetation and disrupt habitats, though the degraded CBA2 area has lower biodiversity value due to *Acacia cyclops* invasion. High: A 400 m² structure and associated infrastructure (roads, services) will almost certainly lead to greater vegetation removal and habitat disruption.
Degree to which the impact can be reversed:	Low to Moderate: Once disturbed, fynbos habitats are slow to recover and highly sensitive to soil disturbance and edge effects.
Degree to which the impact may cause irreplaceable loss of resources:	Moderate to High: Potential loss of endemic or regionally significant plant species and critical cover for small fauna. Fynbos ecosystems are biodiversity hotspots with limited resilience to disturbance.
Cumulative impact prior to mitigation:	High: The site lies in an unspoilt natural area; additional habitat conversion reduces ecological integrity over time.

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High: Compared to the preferred alternative, the expanded footprint has higher biodiversity consequences.
Degree to which the impact can be mitigated:	Moderate: Mitigation through selective clearing, rehabilitation, and planting is possible but limited in scope.
Proposed mitigation:	• Site structures to avoid highest-value vegetation zones. • Minimise clearing during construction; retain existing tree canopies. • Establish a native plant nursery for post-construction replanting. • Create biodiversity corridors between vegetated patches. • Monitor and manage invasive species. • Vegetation Management: Implement and sustain the Alien Invasive Management Plan to control *Acacia cyclops* and promote native Goukamma Strandveld growth (Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 11). • Access Control: Restrict pedestrian and vehicle access to designated boardwalks and gravel roads to minimize habitat disturbance (Terrestrial Biodiversity Assessment; Town Planning Report, Page 10). • Landscaping Practices: Use native species for landscaping; schedule maintenance during low wildlife activity (e.g., Q3–Q4 annually) to avoid fauna disruption (Terrestrial Biodiversity Assessment; Town Planning Report, Page 6). • Fauna Protection: Install signage to deter wildlife disturbance; conduct annual fauna surveys to monitor populations (Terrestrial Biodiversity Assessment). - Community Engagement: Educate residents and tourists on biodiversity protection via annual updates (Town Planning Report, Page 8). • Monitoring: Conduct quarterly ecological inspections to assess vegetation health and biodiversity recovery (Terrestrial Biodiversity Assessment).
Cumulative impact post mitigation:	Medium: Recovery is possible but depends on long-term active management.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-High: Impact remains notable due to ecological sensitivity, but can be reduced through strong stewardship

Potential impacts on socio-economic aspects:	**Socio-economic**

Nature of impact:	Positive and Negative: Positive: The development supports local tourism through three 65 m² cottages, generating revenue and creating permanent jobs (e.g., 3–5 positions for staff quarters, maintenance, hospitality). It aligns with Sedgefield's tourism-driven economy (e.g., proximity to Groenvlei Beach Road, Lake Pleasant Resort).
Extent and duration of impact:	Local to Regional, Long-Term: Positive impacts (e.g., jobs, tourism revenue) benefit Sedgefield and the Garden Route region, persisting throughout the operational phase (decades).
Probability of occurrence:	High: Positive impacts (e.g., job creation, tourism revenue) are highly likely due to the development's design for tourist accommodation and alignment with Sedgefield's tourism market.
Degree to which the impact can be reversed:	High: Positive impacts (e.g., jobs) are sustained unless the development ceases operation, which is unlikely.
Degree to which the impact may cause irreplaceable loss of resources:	None. No socio-economic resources are irreparably lost.
Cumulative impact prior to mitigation:	Moderate: Positive impacts add to Sedgefield's tourism and employment base, complementing existing developments (e.g., Lake Pleasant Resort; Visual Compliance Statement, Page 6). Employment opportunities for people from the local community.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Moderate (Positive): High-probability positive impacts (e.g., jobs, tourism) have moderate significance due to economic benefits.
Degree to which the impact can be mitigated:	Managing the number of previously disadvantaged/unemployed persons selected for this phase with the relevant skills.
Proposed mitigation:	Employ people from the local community where possible and ensure that skill transfer and training are provided where feasible. Operational Restrictions: Schedule maintenance (e.g., landscaping) during low-tourist seasons (Q3–Q4 annually) and restrict noisy activities to daytime hours (Town Planning Report, Page 6; Visual Compliance Statement, Page 11).
Cumulative impact post mitigation:	Employment opportunities for people from the local community. Job creation and sustained beach access enhance Sedgefield's socio-economic resilience.Mitigation

	enhances positive impacts to high significance by maximizing economic benefits.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	High–Positive: job creation delivers tangible benefits, ensuring a net positive socio-economic outcome (Town Planning Report, Page 7; Visual Compliance Statement, Page 11).

Potential noise impacts:	**Noise disturbance**
Nature of impact:	Negative: Operational activities (e.g., vehicle use on gravel roads, tourist activities in cottages, landscaping maintenance) within the 1375 m² footprint generate low-level noise (e.g., vehicle engines, lawnmowers, human activity), potentially disturbing residents (250 m east) and tourists on Groenvlei Beach Road. Noise may also affect fauna (e.g., birds, small mammals) in the degraded CBA2 area, though impacts are minimal compared to construction. The site's isolation and high Visual Absorption Capacity (VAC) reduce noise propagation (Town Planning Report, Pages 8, 10; Terrestrial Biodiversity Assessment; Visual Compliance Statement, Page 7).
Extent and duration of impact:	Local, Long-Term: Impacts are confined to the 5.1576 ha site and immediate surroundings (e.g., 250 m east residence, Groenvlei Beach Road), persisting throughout the operational phase (decades). Noise is intermittent and low-intensity, occurring during daytime activities (Town Planning Report, Page 10; Visual Compliance Statement, Page 10).
Probability of occurrence:	Low to Moderate: Noise from vehicles, tourists, and maintenance is likely but reduced by low traffic volumes (e.g., residents, occasional tourists) and the site's isolation (250 m to nearest residence). Impacts on fauna are less likely due to the CBA2's degraded state (Town Planning Report, Page 10; Terrestrial Biodiversity Assessment).
Degree to which the impact can be reversed:	High: Noise impacts are fully reversible, as disturbances cease immediately upon stopping activities. Fauna and residents adapt quickly with proper management, with no lasting effects (Terrestrial Biodiversity Assessment; Town Planning Report, Page 8).
Degree to which the impact may cause irreplaceable loss of resources:	None: Temporary noise disturbances cause no permanent loss of socio-economic or ecological resources. Residents and fauna experience no long-term harm (Town Planning Report, Page 10; Terrestrial Biodiversity Assessment).

Cumulative impact prior to mitigation:	Low: Minor noise from operational activities adds to existing low-level noise from tourism (e.g., traffic near Lake Pleasant Resort) and potential future coastal developments, but impacts remain localized and minimal due to the site's isolation (Town Planning Report, Page 10; Visual Compliance Statement, Page 6).
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low: Low to moderate probability and low-intensity noise result.
Degree to which the impact can be mitigated:	High: Noise control measures, activity scheduling, and community engagement can effectively minimize disturbances for residents and fauna (Town Planning Report, Page 8; Terrestrial Biodiversity Assessment).
Proposed mitigation:	No mitigation is required for the one dwelling unit.
Cumulative impact post mitigation:	No cumulative impacts are anticipated following the implementation of mitigation measures.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low: Mitigation reduces noise impacts to negligible levels, ensuring minimal disturbance to residents, tourists, and wildlife, and maintaining Sedgefield's tranquil character.

Potential visual impacts:	**Aesthetic impact**
Nature of impact:	Long-term visual intrusion into a coastal fynbos landscape due to the operational presence of a built structure. Potential change in the area's visual character and aesthetic quality. Visual intrusion into a pristine natural landscape. A 400 m² structure increases massing and breaks the natural character more substantially than the preferred alternative. Aesthetic discord may arise from bulk, form, or dominance on the dune crest (Visual Compliance Statement).
Extent and duration of impact:	Local, Short-Term: Impacts are confined to the 5.1576 ha site and immediate surroundings (e.g., 250 m east residence, Groenvlei Beach Road), The site is not visible from N2, Groenvlei Beach, or Cola Beach, limiting the affected audience (Visual Compliance Statement, Page 10). Localised – confined to the development footprint and immediate surroundings; Long-term – for the lifespan of the structure.
Probability of occurrence:	High: Larger structure and scale make aesthetic impacts more likely, even with dense vegetation and elevation shielding.

Degree to which the impact can be reversed:	Low to Moderate – Although theoretically removable, structural intervention (e.g., site leveling, vegetation clearance) causes lasting changes. Building removal or major alteration would be needed to reverse form and visual scale impacts.
Degree to which the impact may cause irreplaceable loss of resources:	Moderate: While not affecting specific protected views, the increased scale could permanently alter visual harmony in an unspoilt setting.
Cumulative impact prior to mitigation:	High: One larger building contributes more significantly to the cumulative transformation of a natural visual landscape than dispersed low-impact forms.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High: In a high-sensitivity visual landscape with low current development footprint, the increased structure scale raises concern.
Degree to which the impact can be mitigated:	Moderate: Design can reduce visual prominence, but scale limits integration potential compared to smaller, fragmented buildings.
Proposed mitigation:	• Use of muted, natural building materials (timber, stone, matte finishes). • Vegetation buffers maintained and enhanced around the building. • Avoid overly rectilinear or monolithic massing; introduce architectural articulation. • Screen lighting; limit night-time illumination spill.
Cumulative impact post mitigation:	Medium: Mitigation reduces visibility and intrusion, but the massing remains significantly larger than the surrounding natural forms.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-High: Even with a sensitive design, the increased bulk introduces aesthetic dissonance in a visually sensitive area.

Potential impacts on the cultural-historical aspects:	**Cultural-historical**
Nature of impact:	It is not expected that any cultural-historical aspects will be impacted as a result of operational activities.
Extent and duration of impact:	N/A
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A

Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Potential impact on biological aspects:	**Safety on site**
Nature of impact:	Occupational exposure, fires, explosion, health.
Extent and duration of impact:	The owner of the property will be residing in the main dwelling.
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Potential impact on biological aspects:	**Waste**

Nature of impact:	Normal household waste will be generated.
Extent and duration of impact:	Site only.
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

No-Go Alternative Impact Summary

The No-Go Option entails maintaining the property in its current undeveloped condition, prohibiting any construction or formal development unless a separate rezoning process or alternative land use proposal is initiated. Under this scenario, the site would remain vacant, and no residential dwelling or associated infrastructure would be established.

While this approach would preserve the site's current natural state, it does not align with the landowner's existing development rights or the intent of the applicable land-use zoning. The property is privately owned and zoned Agriculture Zone I, which permits a dwelling as a primary right. The landowners therefore intend to exercise their lawful right to construct a primary residence — a right that aligns with local planning frameworks and historical land-use patterns in the Sedgefield area.

Economically, the No-Go Option would forgo an opportunity to generate local employment and economic activity associated with both construction and operation. The proposed development offers short-term construction jobs, as well as longer-term maintenance and service positions. In addition, it supports local procurement of materials and services, contributing to small business growth in the Sedgefield area.

Environmentally, the current proposal provides a balanced approach to development and conservation, proposing a land use change to Open Space Zone III across the majority of the property — thereby protecting over 99% of the 5.21 ha site for nature conservation purposes. This zoning change ensures the long-term protection of the Critical Biodiversity Area (CBA) and coastal forest, while allowing a small, low-impact residential footprint within a previously disturbed area. Retaining the site in its current agricultural zoning without enabling rezoning or controlled development would therefore limit the opportunity for formal conservation protection.

From an agricultural perspective, the No-Go Option is also not advantageous. The Agricultural Compliance Statement confirms that the site's agricultural potential is negligible, given its small size, steep topography, sandy and erosion-prone soils, and absence of irrigation infrastructure. The property lacks viable land for cultivation or intensive farming and is instead characterised by coastal forest and Fynbos vegetation, both of which have high biodiversity value but low agricultural potential. Consequently, maintaining the site under agricultural zoning without allowing an alternative, environmentally suitable land use would not promote sustainable rural development or efficient land management.

In contrast, the proposed development introduces controlled, low-impact residential use that aligns with the property's biophysical constraints and broader spatial development goals for the region. Through careful siting, minimal disturbance, and robust rehabilitation measures, it achieves compatibility between private land use and environmental stewardship.

In conclusion, while the No-Go Option maintains the environmental status quo, it fails to realise the property's potential for balanced, conservation-compatible development. It also restricts the landowner's lawful use rights and precludes socio-economic benefits such as local job creation. The proposed development — with its integrated conservation and management plan — presents a more desirable and sustainable outcome that supports both environmental protection and responsible land use.

As noted in the Agricultural Compliance Statement, the No-Go Alternative has no agricultural impact, but this outcome is not significantly different from the negligible agricultural impact associated with the proposed development. Therefore, from an agricultural perspective, neither alternative is preferred, and the determining factors lie within planning, environmental, and socio-economic considerations.

Environmental Impacts:

- Stormwater runoff and erosion as a result of the construction of the internal road
- Impacts on Ecosystems – biodiversity
- Impacts on the Critical Biodiversity Area

Impacts that may result from the planning, design and construction phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the planning, design and construction phase.

Potential impacts on geographical and physical aspects:	**Surface water run-off/groundwater/soil, air quality**
Nature of impact:	Under the No-Go Alternative, no construction activities would occur. There would be no soil compaction, vegetation clearance, or alteration of surface drainage patterns, as the site would remain undeveloped within its natural state. Consequently, there would be no impacts on surface water run-off, groundwater, soil stability, or air quality beyond existing natural conditions.
Extent and duration of impact:	No disturbances of the soil on the site.
Probability of occurrence:	Not applicable to the No-Go option

Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable to the No-Go option
Cumulative impact prior to mitigation:	Not applicable to the No-Go option
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Proposed mitigation:	Not applicable to the No-Go option
Cumulative impact post mitigation:	Not applicable to the No-Go option
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option

Potential impacts on geographical and physical aspects:	**100-Highwater Mark and Dune Stability**
Nature of impact:	Under the No-Go Alternative, no construction, grading, or foundation work would occur near the 100 m High-Water Mark (HWM). The coastal dunes and existing vegetation would remain undisturbed, maintaining their current stability and natural erosion patterns. Therefore, no dune destabilisation or vegetation loss would take place, and the natural coastal protection function of the site would be preserved.
Extent and duration of impact:	No disturbances of the soil on the site.
Probability of occurrence:	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable to the No-Go option
Cumulative impact prior to mitigation:	Not applicable to the No-Go option
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option

Proposed mitigation:	Not applicable to the No-Go option
Cumulative impact post mitigation:	Not applicable to the No-Go option
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option

Potential impacts on biological aspects:	**Habitat and biodiversity loss**
Nature of impact:	Under the No-Go Alternative, no vegetation disturbance or habitat alteration would occur. The degraded CBA2 area would remain in its current ecological state, with existing vegetation and fauna (e.g., small mammals, birds) continuing to function naturally. No additional habitat loss, fragmentation, or biodiversity stress would result, and the site's ecological integrity would be maintained in its present condition.
Extent and duration of impact:	No loss of vegetation as a result of construction activities.
Probability of occurrence:	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable to the No-Go option
Cumulative impact prior to mitigation:	Not applicable to the No-Go option
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Proposed mitigation:	Not applicable to the No-Go option
Cumulative impact post mitigation:	Not applicable to the No-Go option
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option

Potential impacts on socio-economic aspects:	**Socio-economic**

Nature of impact:	No job creation- negative Impact.
Extent and duration of impact:	Not applicable to the No-Go option
Probability of occurrence:	Not applicable to the No-Go option
Degree to which the impact can be reversed:	Not applicable to the No-Go option
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable to the No-Go option
Cumulative impact prior to mitigation:	Not applicable to the No-Go option
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Proposed mitigation:	Not applicable to the No-Go option
Cumulative impact post mitigation:	Not applicable to the No-Go option
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option

Potential noise impacts:	**Noise disturbance**
Nature of impact:	No additional ambient noise will be created.
Extent and duration of impact:	Not applicable to the No-Go option
Probability of occurrence:	Not applicable to the No-Go option
Degree to which the impact can be reversed:	Not applicable to the No-Go option
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable to the No-Go option
Cumulative impact prior to mitigation:	Not applicable to the No-Go option
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Proposed mitigation:	Not applicable to the No-Go option
Cumulative impact post mitigation:	Not applicable to the No-Go option

Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option

Potential visual impacts:	**Aesthetic impact**
Nature of impact:	No development will be undertaken,
Extent and duration of impact:	Not applicable to the No-Go option
Probability of occurrence:	Not applicable to the No-Go option
Degree to which the impact can be reversed:	Not applicable to the No-Go option
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable to the No-Go option
Cumulative impact prior to mitigation:	Not applicable to the No-Go option
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Proposed mitigation:	Not applicable to the No-Go option
Cumulative impact post mitigation:	Not applicable to the No-Go option
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option

Potential impacts on the cultural-historical aspects:	**Cultural-historical**
Nature of impact:	It is not expected that any cultural-historical aspects will be impacted as a result of no construction activities being undertaken.
Extent and duration of impact:	Not applicable to the No-Go option
Probability of occurrence:	Not applicable to the No-Go option
Degree to which the impact can be reversed:	Not applicable to the No-Go option
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable to the No-Go option
Cumulative impact prior to mitigation:	Not applicable to the No-Go option

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Proposed mitigation:	Not applicable to the No-Go option
Cumulative impact post mitigation:	Not applicable to the No-Go option
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option

Potential impact on biological aspects:	**Safety on site**
Nature of impact:	No development will be undertaken.
Extent and duration of impact:	Not applicable to the No-Go option
Probability of occurrence:	Not applicable to the No-Go option
Degree to which the impact can be reversed:	Not applicable to the No-Go option
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable to the No-Go option
Cumulative impact prior to mitigation:	Not applicable to the No-Go option
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Proposed mitigation:	Not applicable to the No-Go option
Cumulative impact post mitigation:	Not applicable to the No-Go option
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option

Potential impact on biological aspects:	**Waste**
Nature of impact:	No waste will be generated.
Extent and duration of impact:	Not applicable to the No-Go option
Probability of occurrence:	Not applicable to the No-Go option

Degree to which the impact can be reversed:	Not applicable to the No-Go option
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable to the No-Go option
Cumulative impact prior to mitigation:	Not applicable to the No-Go option
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option
Degree to which the impact can be mitigated:	Not applicable to the No-Go option
Proposed mitigation:	Not applicable to the No-Go option
Cumulative impact post mitigation:	Not applicable to the No-Go option
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Not applicable to the No-Go option

Section I

5. Conclusion and Recommendations

To be completed in the Final BAR

6. Recommended Mitigation and Conditions of Authorisation

To be completed in the Final BAR