

FINAL BASIC ASSESSMENT REPORT

FOR

PROPOSED DEVELOPMENT OF A RESIDENTIAL DWELLING ON PORTION 76 OF THE FARM 216 UITZICHT, KNYSNA, 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:	MIDNIGHT STORM INVESTMENTS 180 (PTY) LTD
PREPARED BY:	ECO ROUTE ENVIRONMENTAL CONSULTANCY
DEPARTMENT REF:	14/12/16/3/3/1/3185(PREVIOUS)
AUTHOR:	BIANCA GILFILLAN (EAPASA REG 2023/7929)
DATE:	29 July 2026

ECO-ROUTE ENVIRONMENTAL CONSULTANCY



REGISTRATION NO. 1998/031976/23

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STATEMENT OF INDEPENDENCE

I, **Bianca Gilfillan**, of Eco Route Environmental Consultancy, in terms of section 33 of the NEMA, 1998 (Act No. 107 of 1998), as amended, hereby declare that I provide services as an independent Environmental Assessment Practitioner (EAPASA Reg: **2023/7929**) and receive remuneration for services rendered for undertaking tasks required in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), and the Environmental Impact Assessment Regulations, 2014 (as amended). I have no financial or other vested interest in the project.

EAP SIGNATURE: B. Gilfillan

FINAL BASIC ASSESSMENT REPORT
Portion 76 (a Portion of Portion 54) of the Farm Uitzicht No. 216

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(iv) 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.	3
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Introduction

Portion 76 of Farm Uitzicht No. 216 is located approximately 1.5 km north of Brenton-on-Sea, within the jurisdiction of the Knysna Municipality, Western Cape. The southern boundary abuts Brenton Beach, and the total property extent is approximately 21.01 hectares.

Proposed Development Description

The proposed development comprises the construction of a single main dwelling in the south-western portion of the property, identified as the preferred layout, various specialist assessments and alternatives were assessed. The development remains intentionally limited in extent and is proposed as a single residential development node with associated access and services, while the majority of the property remains undeveloped and in a natural state.

Main Dwelling

- A single-storey structure of approximately 1000 m² (including covered verandas and integrated garage), downscaled from the previously proposed 3000 m².
- Designed in a low-profile, contemporary coastal style, using earth-toned, non-reflective materials to blend with the natural dune landscape.
- Positioned to minimise ecological disturbance and visual intrusion, in accordance with visual, botanical, and geotechnical recommendations.

Access

- Access to the site will be via the existing servitude from Kerk Laan, with an internal access road linking the servitude to the dwelling footprint.
- The access route will follow natural contours to reduce the need for cut-and-fill and minimise vegetation clearance.

Water Supply

- The development will be self-sufficient in water supply, relying primarily on rainwater harvesting from roof surfaces.
- Rainwater harvesting and on-site storage will be provided as part of the development. The final tank configuration and associated footprint form part of the total assessed development footprint and will be confirmed in the detailed civil and services design.
- Borehole abstraction will only be used as a supplementary source, subject to licensing by the Breede-Gouritz Catchment Management Agency (CMA).

Wastewater Management

- On-site sanitation will be provided by means of an engineered on-site wastewater solution. The final position, design and footprint of the septic tank and soakaway system, or other approved on-site sanitation alternative, will be informed by the detailed civil design and geotechnical input and will form part of the total development footprint assessed in this BAR.

Stormwater Management

- Runoff will be managed through infiltration-based measures such as:
 - Rainwater tanks
 - Permeable driveway surfaces

- Swales and soakaways, where applicable
- No subsoil drains are required along roads but are recommended behind retaining walls if used.

Landscaping

- Only indigenous vegetation will be used to:
 - Maintain ecological integrity
 - Reduce fire risk
 - Ensure the visual integration of the development with the surrounding landscape
- No disturbance will occur beyond the demarcated development footprint.
- Construction Footprint
- The total construction disturbance area will not exceed 0.25 ha (2 500 m²) for the principal built footprint and immediate construction platform. Where associated service infrastructure, road disturbance, tanks, sanitation infrastructure, and ancillary construction areas are required, these must remain within the clearly demarcated and authorised disturbance envelope shown on the final approved layout and engineering drawings.
- The layout was selected to avoid sensitive vegetation types and reduce fragmentation of natural habitats.

The preferred development layout has not been amended as part of this resubmission. The property remains within a highly sensitive coastal and biodiversity context, and the BAR recognises the need to consider the Garden Route District Municipality Integrated Coastal Management Plan, the broader Coastal Protection Zone, the Knysna Protected Environment, and specialist findings relating to dune stability, biodiversity sensitivity and visual impact. Should any additional specialist studies be required by the competent authority, the Draft BAR will be amended only to include such specialist information, clarification or supporting detail, where required, without introducing a revised layout.

Eco Route Environmental Consultancy was appointed by the applicant as an independent environmental practitioner to facilitate the Basic Assessment Process as stipulated in terms of the National Environmental Management Act (NEMA, Act 107 of 1998) as amended in 2017.

Marika Vreken, an urban and environmental planner, were appointed to apply for the required land use rights from Knysna Municipality.

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.	(i) Section B of the Report.

(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.	(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 – (i) An identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and have been considered in preparation of the report; and (ii) 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. (iii) A Summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them. (iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects. (v) The impacts and risks identified for each alternative, including the nature, significance,	Section G of this report. Section H of this report. Section H (1) of this report. Section H (2) of this report. Section H (4) of this report.

consequence, extent, duration and probability of the impacts, including the degree to which these impacts – (aa) can be reversed (bb) may cause irreplaceable loss of resources; and (cc) can be avoided, managed or mitigated. (vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives. (vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects. (viii) The possible mitigation measures that could be applied and level residual risk (ix) The outcome of the site selection matrix (x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and (xi) A concluding statement indicating the preferred alternatives, including the preferred location of the activity.	Section H (3) of this report. Section H (5) of this report. Section I of this report. Section G of this report. Section I of this report.
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Section A

Details of the EAP that prepared the draft Basic Assessment Report

Draft Basic Assessment Report has been compiled by:	Eco Route Environmental Consultancy
Environmental Assessment Practitioner:	Bianca Gilfillan
Highest Qualification:	BSc. Hons. Environmental Science
EAPASA Registration Number:	2023/7929
Postal Address:	P.O. Box 1252 Sedgefield 6573
Cell:	079 1895060
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
<u>Name:</u> Bianca Gilfillan <u>Role:</u> 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.

<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Low-cost housing development in Swellendam.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Various residential developments along the West Coast include Langebaan, Jacobsbaai, St Helena Bay, Dwarskersbos and Elands Bay.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Extension and development of Zweletemba Township (Worcester) abutting the Hex River, including river flood mitigation works.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Development of resorts, tourist facilities, golf courses and residential accommodation at Quaggaskloof, Worcester.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Applications for equestrian Estate in the West Coast and Boland areas.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Upgrade of the Water Treatment Works in Vanryhnsdorp.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> 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.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Rezoning and construction of an incinerator at Swartklip Products, Khayelitsha.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Extension of the Khayelitsha Railway Line, Cape Town.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Development and upgrading of various service stations, convenience stores and car wash facilities for ENGEN Petroleum Ltd.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Construction of a pipeline from the Potsdam Wastewater Treatment Works (WWTW) to a reservoir, Durbanville.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Relocation of a golf course and development of tourist facilities and residential accommodation at Clanwilliam Dam, Clanwilliam.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Development of chicken farms and upgrading of abattoirs, Cape Town.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Wind farm development in Hopefield and Beaufort West.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Rerouting and establishment of a new pipeline at Lebanon mountain area.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Development of housing units at Royal Palms, Paarl.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner.	Development of a waste disposal site in Murraysburg, Beaufort West.	Environmental Authorisation was obtained.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> 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, Veldrift 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.
<u>Name:</u> Bianca Gilfillan <u>Role:</u> Environmental Assessment Practitioner- Audits	• Boskloof Farm Eureogap compliance for the use of "virgin land" for export vineyards.	Approval obtained.

	• Food and human health safety in Protea Boerdery, Worcester, for Europgap. • ISO 14000 Management systems. • Various Filling Service Stations	
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CURRICULUM VITAE (CV)

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

Education:

Institution: Cape Peninsula University

Year: 2002

Degree: National Diploma in Environmental Management

Institution: Cape Peninsula University

Year: 2003

Degree: BTECH: Environmental Management

Institution: University of the Western Cape

Year: 2009

Degree: BSc. Hons in Environmental Management

Institution: Cape Peninsula University

Year: 2009

Degree: Certificate in Business Administration

Institution: Cape Peninsula University

Year: 2010

Degree: Certificate in Project Management

Employment record relevant to the assignment:

Period	Employing organisation and your title/position. Contact info for references	Country	Summary of activities performed relevant to the Assignment
2003 - 2021	Senior Environmental Assessment Practitioner Reference: Dupré Lombaard	South Africa	Basic Assessment Reports, Environmental Impact Assessment Reports, Environmental programmes, Environmental Control Officer
2022 -2024	Senior Environmental Assessment Practitioner	South Africa	Basic Assessment Reports, Environmental Impact Assessment Reports and Environmental Control Officer pertaining to: • Residential Developments • Industrial Developments • Filling Station Developments • Nature Reserves Environmental Management Programmes & Frameworks pertaining to: • Residential Developments • Industrial Developments

Membership in Professional Associations:

International Association for Impact Assessment (IAIAsa)

Environmental Assessment Practitioners Association of South Africa (EAPASA)

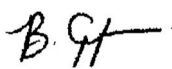
Language Skills:

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

Certification :

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



29 July 2026

Name of Expert

Signature

Date

Section B

Location Information

Province:	Western Cape
District Municipality:	Eden Municipality
Local Municipality:	Knysna Municipality
Ward number(s):	Ward 5
Nearest town(s):	Knysna
Farm name(s) and number(s):	Farm Uitzicht No 216
Portion number(s):	Portion 76

Property Information

Farm Name	Portion 76 of the Farm Uitzicht NO 216
Surveyor General 21-digit code:	C03900000000021600076
Zoning:	Agriculture I
Urban Edge:	Property located outside the urban edge of Brenton on Sea
Applicant name:	Midnight Storm Investments 180(Pty)Ltd
Registration number (if applicant is a company):	2004/207248/07
Trading name (if any):	Midnight Storm Investments 180(Pty)Ltd
Responsible person name:	Dr Andre Peach and Dr HJ Swart
Applicant/ Responsible person ID number:	6501175015081 / 5409145091086
Responsible position, e.g. Director, CEO, etc.:	Directors
Physical address of applicant:	653 Kamdebos Road, Florauna 0182
Postal address:	PO Box 59000 Karenpark
Postal code:	0118
Telephone:	083 271 9532
Fax:	012 3359591
E-mail:	andrepeach@lantic.net
GPS point middle of property:	Lat: -34.068388 Lon: 23.002727

Property Description

Portion 76 of the Farm Uitzicht No. 216 is located within the Knysna Municipal Area in the Western Cape Province. The southern boundary of the property directly abuts the Brenton Beach coastal dune system.

The entire property is mapped as a Critical Biodiversity Area (CBA) in terms of the Western Cape Biodiversity Spatial Plan (WCBSP, 2017; 2023 update). A CBA is defined as an area in a natural condition that is essential to meet biodiversity targets for species, ecosystems, ecological processes, or critical ecological infrastructure.

The management objective for CBAs is to maintain them in a natural or near-natural state, with no further loss of natural habitat permitted. Where degradation has occurred, rehabilitation is encouraged, and only low-impact, biodiversity-sensitive land uses are considered appropriate.

According to vegetation mapping and specialist studies:

- The northern portion of the property supports Knysna Sand Fynbos, which is classified as Critically Endangered (CR) under the National Environmental Management: Biodiversity Act (NEM:BA), 2022.
 - The southern portion of the property comprises Goukamma Dune Thicket, which is listed as Least Threatened.
- The property is currently undeveloped and vacant, with no existing residential structures on site.

Portion 76 is located within the coastal zone regulated by NEM:ICMA and guided by the Garden Route District Municipality's Integrated Coastal Management Plan. According to the ICMP, the southern boundary of the property forms part of a primary dune system identified as highly sensitive, erosion-prone, and unsuitable for structural development. The ICMP further requires that all structures be placed outside the 100 m High-Water Mark (HWM) coastal setback and landward of Coastal Public Property (CPP).

Field verification, geotechnical assessment, and specialist ecological inputs confirm that the inland forested area presents significantly lower geotechnical risk and improved ecological resilience compared to the southern dune. Accordingly, the preferred development footprint has been shifted inland—approximately 120–140 m from the HWM—ensuring full alignment with ICMP coastal erosion, stability, and environmental protection directives. This relocation substantially reduces potential coastal process impacts, visual intrusion, dune destabilisation, and vegetation loss.

Section C - Locality Map



Locality

Legend

Location Information
Lat: -34.067589 | Lon: 23.004063
Name: n/a
Farm Nr: 76/216
Area (Ha): 21.01
SG Code: C03900000000021600076
SG Region: KNYSNA
Legal Status: Registered

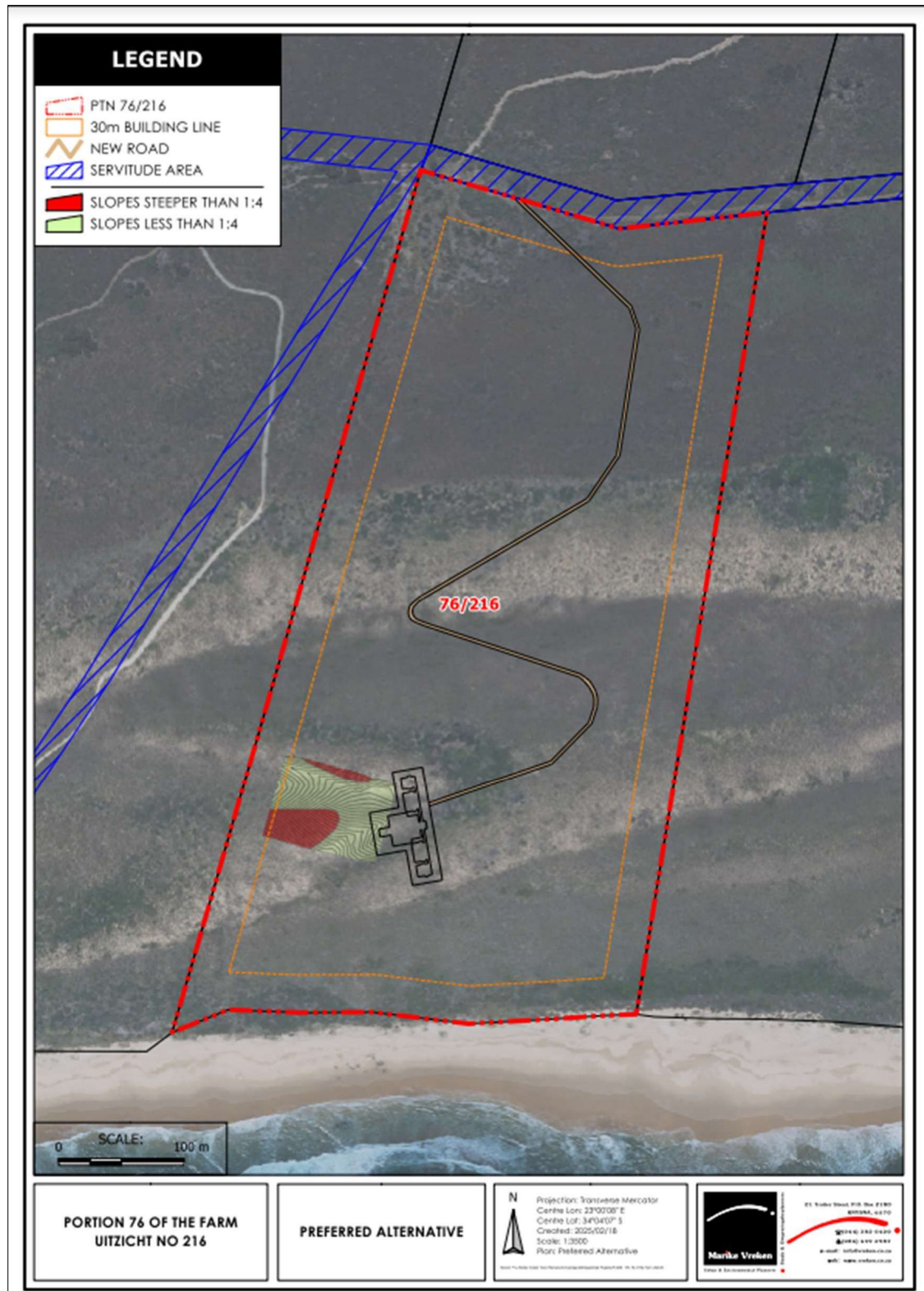
Property Boundary Marked in Red

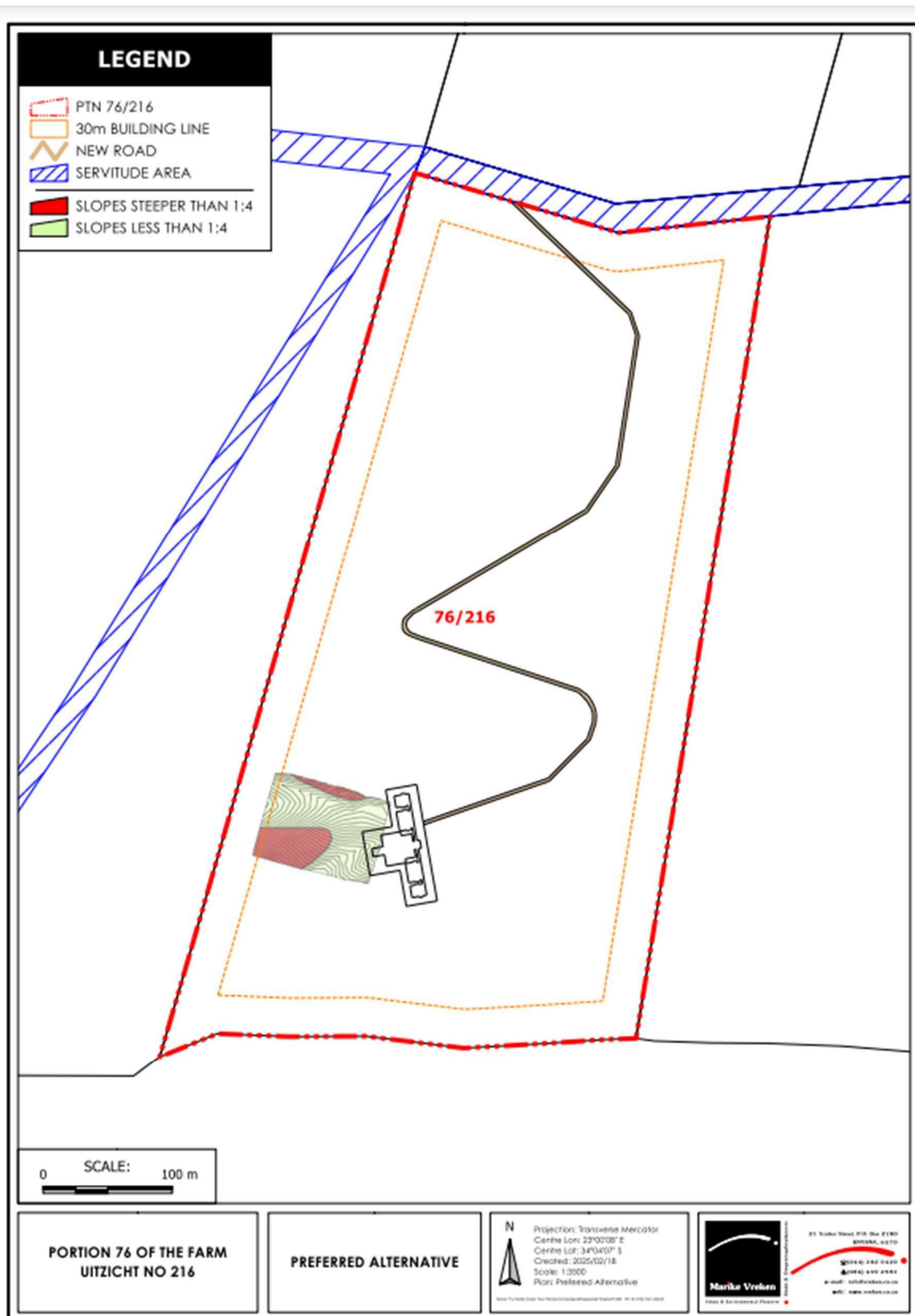
Scale: 1:36 112
Date created: August 10, 2020

Compiled with CapeFarmMapper



Western Cape Government
Agriculture





Section D

Description of the scope of the proposed activity

In terms of NEMA (April 2020):

(Refer to Architectural Drawings – ‘Nico Vreken Architect’)

The applicant proposes to exercise the primary land use rights of Portion 76 of the Farm Uitzicht No. 216, Knysna Municipality, through the construction of a single primary dwelling (main farmhouse) within the south-western portion of the site. The development proposal has been refined to significantly reduce its environmental footprint.

Main Dwelling House (Preferred Alternative)

- A low-profile, single-storey structure, limited to a total built footprint of $\pm 1\,000\text{ m}^2$, including covered verandas and an integrated garage.
- The design will reflect a contemporary coastal style, making use of non-reflective, earthy-toned materials to blend with the natural surroundings and reduce visual impact.

Access to Portion 76 of the Farm Uitzicht 216:

- A short internal driveway will be constructed, providing access from the existing servitude road off Kerk Laan to the dwelling footprint.
- The driveway will follow the natural contours of the site to minimise cut-and-fill, erosion risk, and vegetation clearance.



The existing public access road is shown on the General Plan (SG 6783/1951) and is indicated as a public access servitude (Kerk Laan), measuring 60 Cape Feet wide (i.e. 18,891m wide). Kerk Laan forms the northern boundary of the application area.



FIGURE 2: APPLICATION AREA IN RELATION TO EXISTING ACCESS SERVITUDE

Internal Road

The proposal entails the construction of a new internal road to provide access to the southern part of the property. The internal road will be 830 meters in length. The road surface area will be 2.5 meters wide and the disturbed area for construction of the road varies between 4 to 5.5 meters wide.

Integrated Coastal Management Plan (ICMP) Considerations

Portion 76 is located within the coastal zone regulated by NEM:ICMA and guided by the Garden Route District Municipality's Integrated Coastal Management Plan. According to the ICMP, the southern boundary of the property forms part of a primary dune system identified as highly sensitive, erosion-prone, and unsuitable for structural development. The ICMP further requires that all structures be placed outside the 100 m High-Water Mark (HWM) coastal setback and landward of Coastal Public Property (CPP).

Field verification, geotechnical assessment, and specialist ecological inputs confirm that the inland forested area presents significantly lower geotechnical risk and improved ecological resilience compared to the southern dune. Accordingly, the preferred development footprint has been shifted inland—approximately 120–140 m from the HWM—ensuring full alignment with ICMP coastal erosion, stability, and environmental protection directives. This relocation substantially reduces potential coastal process impacts, visual intrusion, dune destabilisation, and vegetation loss.

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 Forestry, Fisheries and the Environment (DFFE). 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
Listing Notice 1 Activity 27: The clearance of an area of 1 hectare or more of indigenous vegetation.”	The proposed dwelling (~1,000 m²), construction workspace, access requirements, and fire-safety management zone will cumulatively require the clearance and management of more than 1 hectare of indigenous vegetation. Although the development is placed in the southern portion where vegetation is least dense (Goukamma Dune Thicket – Least Threatened), the entire property is mapped as a CBA, and the total clearance exceeds 1 ha. (Retain only if the total disturbance has been confirmed to exceed 1 ha.)
Listing Notice 3 Activity No. 4 The development of a road wider than 4 meters with a reserve less than 13.5 meters (i) Western Cape ii. Areas outside urban areas: (aa) Areas containing indigenous vegetation	Access to the dwelling will require short internal access improvements within the southern portion of the site. While the travelled road surface will be ±2.5 m, the total disturbance width during construction will exceed 4 m due to clearing and edge stabilisation in indigenous vegetation.
Listing Notice 3 Activity No. 12 The clearance of an area of 300 square meters or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. (a) Western Cape I. Within any critically endangered or endangered ecosystems listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; II. Within critical biodiversity areas identified in bioregional plans.	The dwelling will be located in the southern portion of the property, where vegetation is Goukamma Dune Thicket (Least Threatened) and less dense. However, the entire property is mapped as a Critical Biodiversity Area (CBA), and more than 300 m² of indigenous vegetation will be cleared for the building platform, internal access road, associated infrastructure and construction activities. and associated site preparation.

Principals contained in Section 2 of the National Environmental Management Act, 1998 (Act 107 of 1998), as amended Environmental management must place people and their needs at the forefront of its concern, and serve their physical,

psychological, developmental, cultural and social interests equitably. The property is currently vacant with no residential dwellings on site.

Development must be socially, environmentally and economically sustainable.

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

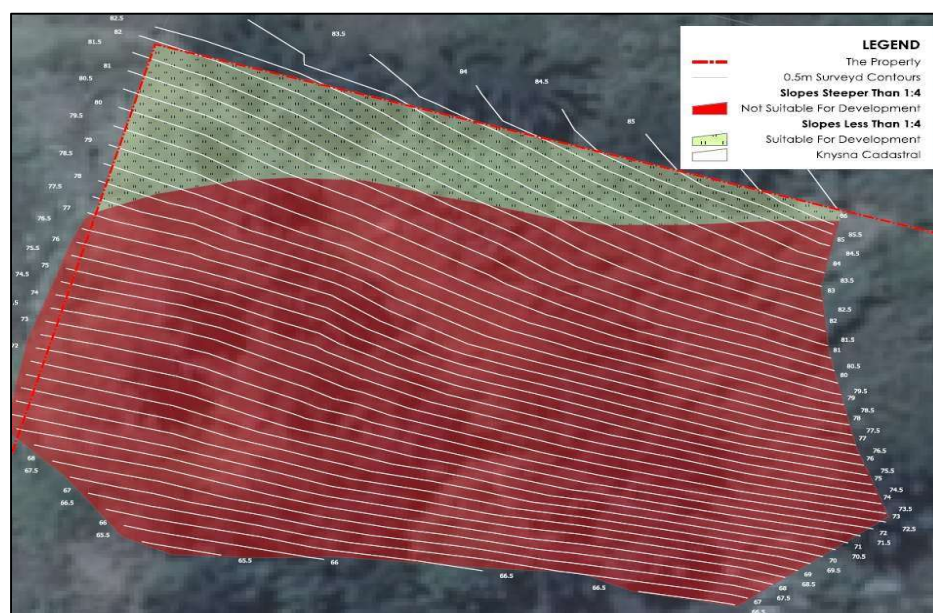
- (ii) **That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied.**

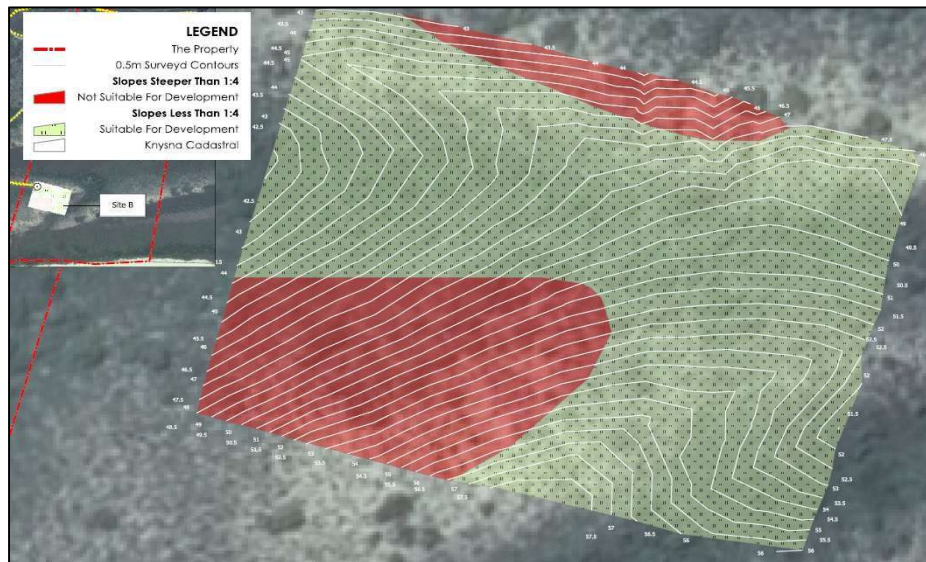
It is suggested that the proposed development works closely with SANParks to minimise negative impacts on the receiving environment. A survey was conducted by Eden Geomatics 2016 on the two identified sites suitable for development, situated on the northwestern corner and the south western corner of portion 76 of the farm Uitzicht 216.

The property is characterised by hilly topography, with distinct ridgelines and thickly vegetated valleys with moderate slopes.

The height of the application area is at an average height of between 40m and 60m above MSL. The average slope percentage is within the 25%+ category. The southern portion of the property has relatively steep slopes up to 55%.

The identified site has relatively even sloped in the southern portion of the site, which is suitable for development. The new buildings are proposed on one site in areas suitable for development. No development is proposed on the other sections of the site where steep slopes and uneven ground are present.





The internal road was designed after a geotechnical specialist was appointed to ensure that the negative impacts on the receiving environment are avoided and mitigated.

- (iii) **That pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied.**

An environmental impact assessment within this report will identify negative and positive environmental impacts and ensure that mitigation measures are identified to avoid pollution and degradation of the receiving environment.

- (iv) **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 all form part of the rural conservation agenda, both at the landscape and farm level. The WCG approach to Conservation is to formally protect priority conservation areas, establish ecological linkages across the rural landscape, and mainstream a conservation ethic into all rural activities.

The objectives for this category, as per the guidelines, are:

- Protect and conserve important terrestrial, aquatic (rivers, wetlands and estuaries) and marine habitats, as identified through a Systematic Biodiversity Planning or similar conservation planning process.
- Facilitate the formal protection of priority conservation areas (public and private), as well as implement conservation management actions for CBAs and ESAs that are not formally proclaimed nature reserves.
- Towards mitigating the impacts of climate change, to establish ecological corridors across the rural landscape.
- Protect the scenic qualities of the Western Cape's cultural and natural landscapes.
- Protect the Western Cape's rural 'sense of place' and structures of heritage and archaeological significance and ensure that new development respects cultural landscapes and sites.

- (v) **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 waste hierarchy will be followed during the construction and operational phase of the project.

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

No wastage will occur on-site during the construction phase. Rainwater tanks will be established at each building. Solar energy is to be implemented. The development is proposed to be “off grid”.

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

Rainwater tanks and solar energy will be implemented.

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

A risk-averse and cautious approach is being applied when assessing the receiving environment and people's environmental rights.

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

Negative impacts on the environment and people's environmental rights will be identified and mitigation measures put in place to prevent negative impacts and enhance positive impacts.

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 of a Main residential dwelling and internal road on Portion 76 of the Farm Uitzicht No 216.

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 have been identified as relevant Competent Authorities.	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	The Environment Conservation Act makes provision for the protection of areas which 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 have been identified as relevant Competent Authorities.	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	In 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 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 have been identified as relevant Competent Authorities.	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	The ICM Act is a Specific Environmental Management Act under NEMA and is applicable to the proposed development. While the development footprint is located outside the littoral

			active zone and outside Coastal Public Property, the southern portion of the property forms part of the broader coastal zone. Therefore, the provisions of the ICM Act and the Garden Route Integrated Coastal Management Plan (ICMP) must be considered in the decision-making process.”
NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS ACT (ACT 57 OF 2003) REGULATIONS FOR THE PROPER ADMINISTRATION OF THE KNYSNA PROTECTED ENVIRONMENT (R 1175 OF DEC 2009)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments, as well as Local Authorities, have been identified as relevant Competent Authorities.	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	The property falls within the Knysna Protected Environment context and broader coastal conservation landscape. While the site is not itself a formally declared protected area in terms of NEM:PAA, the Knysna Protected Environment regulations, associated Development Control Area provisions, and the comments of SANParks and other relevant authorities are applicable and must be considered in

			the decision-making process.
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, 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 phase. 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, 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 have been identified as relevant Competent Authorities. <u>DAFF Jurisdiction</u>	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	Should a protected tree need to be cut/ destroyed, relevant authorisation will be obtained from the Department of DAFF
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 have been identified as relevant Competent Authorities. <u>DAFF Jurisdiction</u>	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 have been identified as relevant Competent Authorities.	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	The borehole on the site needs to be registered.

	<u>Dept of Water Affairs Jurisdiction</u>		
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 have been identified as relevant Competent Authorities. <u>Dept of Water Affairs Jurisdiction</u>	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	The borehole on the site needs to be registered.
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 have been identified as relevant Competent Authorities.	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	The proposed development does not fall within the littoral active zone.
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 have been identified as relevant Competent Authorities. <u>CapeNature Jurisdiction</u>	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	Cape Nature to provide comments. A vegetation Sensitivity analysis specialist study was undertaken.
CONSERVATION OF AGRICULTURAL RESOURCES ACT (ACT 43 OF 1983)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities have been identified as relevant Competent Authorities. <u>Dept. of Agriculture Jurisdiction</u>	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	Department of Agriculture to provide comment.
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	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	An application will be made in terms of section 38(8) of the NHRA.

	identified as relevant Competent Authorities.		
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 have been identified as relevant Competent Authorities. <u>Dept. of Health Jurisdiction</u>	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.
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 have been identified as relevant Competent Authorities. <u>SANRAL Jurisdiction</u>	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	Asked to participate during the PPP
Outiniqua Sensitive Coastal Area Extension Report (OSCAER)	Department of Environmental Affairs, Republic of South Africa. All State and Provincial Departments as well as Local Authorities have been identified as relevant Competent Authorities.	PERMIT / LICENSE / AUTHORIZATION / COMMENT / RELEVANT CONSIDERATION	After Environmental Authorisation is obtained, it is 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. All Provincial Departments that have been identified as Competent Authorities.
EIA guideline and information document series. Guideline on Public Participation	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 Alternatives	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 Need and Desirability	Department of Environmental Affairs, Republic of South Africa. All Provincial Departments that have been identified as Competent Authorities.
DEA&DP (2010) Guideline on Public Participation, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA&DP)	Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)

Section F

Need and Desirability for the proposed development

The need for and the desirability of a proposed development form a key component of any EIA application. The consideration of proposed developments in the context of the various spatial planning tools and policies applicable to the study area forms an integral part of the present environmental processes. The “need and desirability” will be determined by considering the broader community’s needs and interests as reflected in a credible IDP, SDF and EMF for the area, and as determined by the EIA. It is essential that national policies and strategies support growth in the economy. It is also essential that these policies take cognisance of strategic concerns such as climate change and food security, as well as the sustainability of the supply of natural resources and the status of our ecosystem services. In other words, to achieve our Constitutional goal of a better quality of life for all now and in future, through equitable access to resources and shared prosperity, it is essential that society improves on the efficiency and responsibility with which we use resources, and improve on the level of integration of social, economic, ecological and governance systems [DEA (2017), *Guideline on Need and Desirability*, Department of Environmental Affairs (DEA), Pretoria, South Africa ISBN: 978-0-9802694-4-4]

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. The information was obtained from the Marike Vreken Specialist Town Planning Report for EIA purposes, April 2020:

Is the activity permitted in terms of the property's existing land use rights?	
The Application area is zoned "Agriculture Zone I", and "Agriculture" is a primary land use right in this zoning category. The Section 8 Zoning Scheme Regulations, 1988, define "Agriculture" as: <i>"...the cultivation of land for raising crops and plants, including plantations, or the breeding of animals, including any form of farming activity, for example, stock, bee or bird farming, or any stud farm or farm for the keeping or breeding of animals, or a riding schools, or running a game farm on an extensive basis, or natural veld, and comprises only those activities and buildings that directly relate to the main farming activities on the farm, but does not include abattoirs, feed pen farming, aquaculture or other defined consent uses..."</i> The proposal is to exercise the primary land use rights of the property (i.e. construction of a farmhouse (Main dwelling unit). The dwelling unit complies with the definition of 'dwelling unit'¹ as per the Section 8 Zoning Scheme Regulations, 1988.	
Will the activity be in line with the Provincial Spatial Development Framework (PSDF)	
The Western Cape Provincial SDF was approved in 2014 by the Western Cape Parliament and serves as a strategic spatial planning tool that "communicates the provinces spatial planning agenda". The PSDF sets out a policy framework within which the Western Cape Government will carry out its spatial planning responsibilities. Each of the three spatial themes contributes to the achievement of the Western Cape strategic objectives. These policies are categorised into three themes, namely: ▪ Resources: Sustainable use of spatial assets and resources ▪ Space Economy: Opening up opportunities in the Space Economy ▪ Settlement: Developing Integrated and sustainable settlements. The Western Cape's agenda for spatial transformation and improved efficiencies in the use of natural resources is closely linked. The PSDF states that the paradigm that economic growth implies the ongoing depletion of the province's natural capital needs to be broken. 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:	

¹ 'Dwelling unit' means a self-contained interleading group of rooms with not more than one kitchen, used only for the living accommodation and housing of a single family, together with such outbuildings as are ordinarily used therewith.

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 infrastructure	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

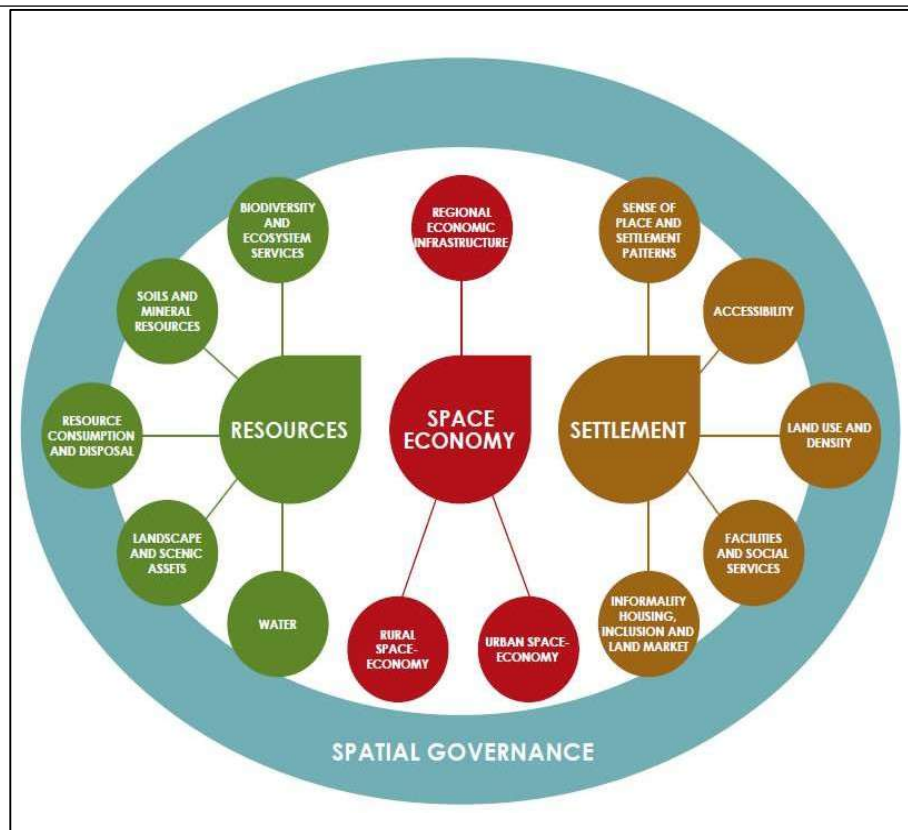
KEY TRANSITIONS FOR THE PSDF

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 that some of the key policies laid down by the PSDF have a bearing on the proposed development.



POLICIES APPLICABLE TO THE PROPOSED DEVELOPMENT

POLICY R1: PROTECT BIODIVERSITY AND ECOSYSTEM SERVICES

POLICY STATEMENT	DEVELOPMENT'S RESPONSE
1. The Western Cape's CBA mapping, which CapeNature is currently updating and refining, together with the draft priority climate change adaptation corridors, delineate the Western Cape's biodiversity network. Continue to use CBA mapping to inform spatial planning and land use management decisions in the province.	<i>The entire property is earmarked as "Terrestrial CBA".</i> <i>The objective of this is to "...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..."</i> <i>EIA is currently in the process and the mapping has to be "ground-truthed" and motivated. The Proposed Site A has been disturbed and is suitable for building a dwelling house development. No development is proposed on the remainder of the site.</i>

POLICY R3: SAFEGUARD THE WESTERN CAPE'S AGRICULTURAL AND MINERAL RESOURCES, AND MANAGE THEIR SUSTAINABLE USE

POLICY STATEMENT	DEVELOPMENT'S RESPONSE
1. Record unique and high-potential agricultural land (as currently being	<i>The application area makes no contribution whatsoever to agricultural production at this</i>

	mapped by the Provincial Department of Agriculture) in municipal SDFs, demarcate urban edges to protect these assets, and adopt and apply policies to protect this resource (especially in areas where raw water is available)	<i>stage for crop and grazing purposes. However, the preservation of natural veld and bee farming will be practised on this property and both are agricultural activities. Bee farming may occur as a small-scale complementary use, but the farmhouse is the primary right being exercised. It can, therefore, be concluded that the property has low agricultural potential and no productive agricultural land will be lost by allowing the construction of the proposed buildings.</i>	
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The property is situated outside of the Urban Edge

Planning Implication:

The subject property is situated **outside** the urban edge of the Brenton on-sea area. The landowner will be exercising their primary land use rights for Agriculture Zone I properties; however, they require an EIA to allow development in a CBA area and the relaxation of the prescribed building lines. The mapping must be “ground-truthed” and motivated during the EIA process. WCPSDF puts a lot of focus on the protection/conservation of cultural and scenic landscapes. The application area is located on a prominent hill area. The visual impact was taken into consideration with the current design. The proposal is in line with the provisions of this spatial document and will not detract from the existing spatial pattern of the area, which is agriculture-zoned properties.

The development proposal is consistent with the strategic objectives and policies set out by the Western Cape Spatial Development Framework. As stated above, it is directly in line with Policies R1 & R3.

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?).

Knysna Integrated Development Plan (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.

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.

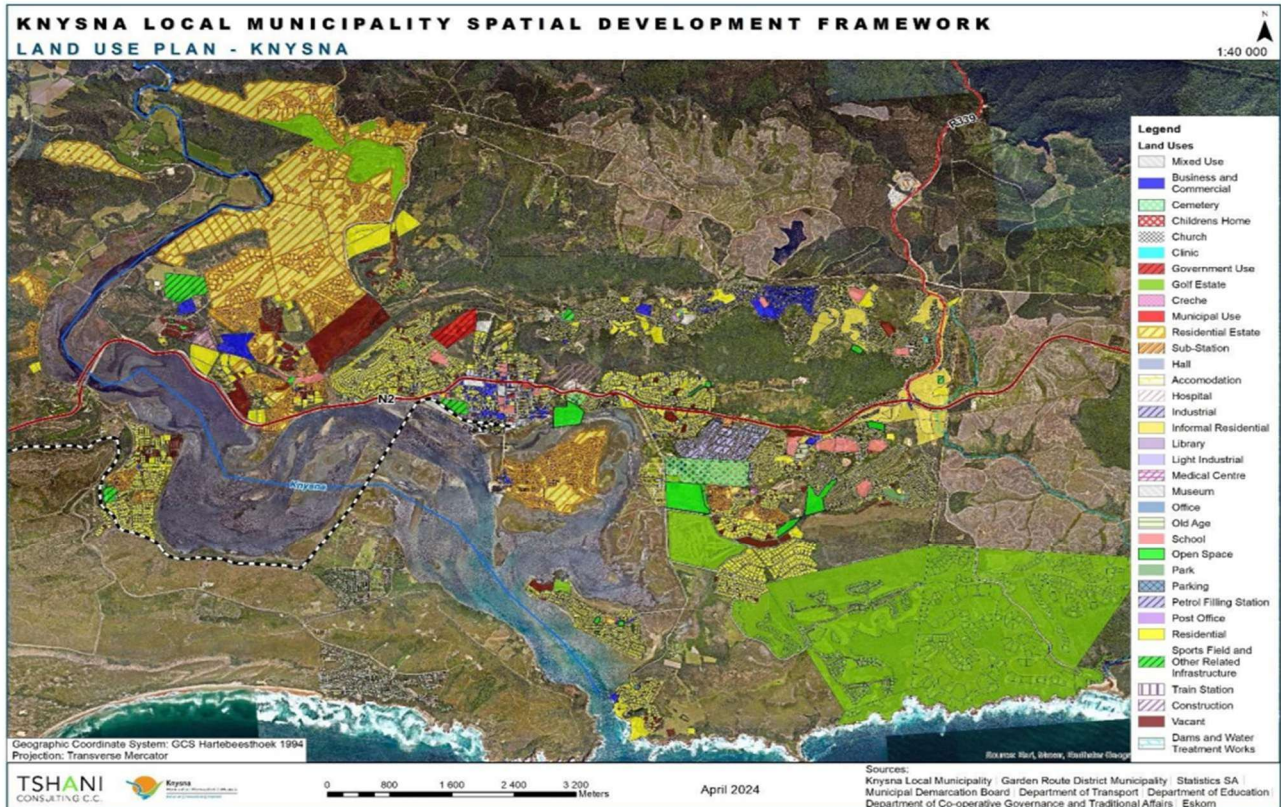
The subject property is located in Ward 5 of the Knysna Municipality. None of the issues raised in the community for Ward 5 applies to the proposed development.



KNYSNA WARDS

Planning Implication:

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. The proposal will also allow for a new agricultural activity in the form of bee farming that will also contribute to the growth of the local economy. It can be concluded that the proposed development is consistent with the strategic objectives and the envisioned outcome for the Knysna Municipal area.



According to the Knysna **SDF**, the application area is earmarked as a rural cluster or node as described in paragraph 6.1.2.a (IV)².

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, the property size in the node would apply.
- The primary right would be a dwelling house, essential outbuildings, and such 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.

Scenic Routes

The Brenton District Road 1600 is classified by the Knysna SDF as a Scenic Route³.

This route should be a carrier of people (locals and tourists) travelling (bicycle & motorised transport) to specific destinations and having coordinated nodal stops (viewpoints) at specific points, where people have the opportunity to stop and enjoy the scenery.

The property is located in Ward 5. According to the Latest IDP review 2016/2017, there are no development projects for this specific location in Ward 5. However, the proposed development is consistent with the following strategic objectives:

- *To create an enabling environment for economic growth that attracts investors, encourages innovation and facilitates pro-poor interventions.*
- *To promote access for all citizens to equitable, appropriate and sustainable infrastructure and services within a safe environment.*

The above information was extracted from the Marike Vreken Urban and Environmental Planners report dated April 2020.

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 EMF states the following on page 23:

Rural development, i.e. development outside the Urban Edge, shall not exceed densities of 1du/10ha and may be considerably lower in landscapes with low visual carrying capacity.

Draft Western Cape Rural Development Guidelines (2009)

The Western Cape Provincial Government has developed guidelines to provide guidance to its social partners on land use planning and management outside the urban edge (i.e. in rural areas). Forming part of the roll-out of the Provincial Spatial Development Framework (PSDF), their objectives in introducing rural land use planning and management guidelines are:

- To promote sustainable development in appropriate rural locations throughout the Western Cape and ensure that the poor also share in the growth of the rural economy.
- To safeguard the functionality of the province's life-supporting ecosystem services (i.e. environmental goods and services).
- To maintain the integrity, authenticity and accessibility of the Western Cape's significant farming, ecological, cultural and scenic rural landscapes, and natural resources.
- To provide clarity to the provincial government's social partners on what kind of development is appropriate beyond the urban edge, suitable locations where it could take place, and the desirable form and scale of such development

According to these guidelines, the principles underpinning the Western Cape's rural land use management guidelines are as follows:

- Decisions on rural development applications should be based on the following sustainable land use principles:

- social inclusion,
- effective protection and enhancement of the environment,
- prudent use of natural resources, and
- maintaining high and stable levels of economic growth.
- Good quality and ***carefully sited development should be encouraged in existing settlements.***
- ***Accessibility*** should be a ***key consideration*** in all development decisions.
- New building development in the open countryside away from existing settlements should be strictly controlled regarding scale, height, colour, roof profile, etc.
- ***Priority*** should be given ***to the re-use of previously developed*** sites in preference to greenfield sites.
- All ***development in rural*** areas should ***be well developed and inclusive***, in keeping with and scaled with its location, and sensitive to the character of the rural landscape and local distinctiveness.

Detailed management guidelines are presented for the full spectrum of rural land uses. The provincial approach to managing the various rural land uses is as follows:

Conservation use: Biodiversity, heritage and scenic resources all form part of the rural conservation agenda, both at landscape and farm scales. The approach is to formally protect priority conservation areas, ***establish ecological linkages across*** the rural landscape, and ***mainstream a conservation ethic into all rural activities.***

Holiday accommodation: Given the Western Cape's unique rural communities and landscapes, tourism offers exciting prospects to diversify and strengthen the rural economy. Accordingly, the provincial approach is to facilitate the provision of a variety of holiday accommodation across the rural landscape that is in keeping with the local character.

Rural Housing: Towards integrated rural development and sustainable human settlements in the Western Cape, ***new housing development beyond the urban edge urgently needs to be curtailed.*** The provincial approach is to channel pressures for residential development to existing towns, villages and hamlets. The only two exceptions put forward for housing development in the rural landscape are: providing 'on-and-off farm' security of tenure for farm workers; and providing restricted residential rights to incentivise the consolidation of rural properties of high biodiversity value and their incorporation into the conservation estate.

Tourist facilities: Towards ***diversifying*** the Western Cape's ***rural economic base*** into the ***tourism*** and ***recreation sectors and*** developing these sectors on a sustainable and equitable basis, the provincial approach is to facilitate appropriate investment in these sectors across the rural landscape.

The proposed development will also aim to conserve, rehabilitate and strengthen the existing biodiversity properties to achieve a higher conservation value, which would be beneficial to surrounding property owners.

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

Need, as defined by DFFE, refers to the timing of the proposal; as such, the question 'Do we need this development now?' In answering this question, the planning and land use policy of the area must be examined. Therefore, consistency with the existing approved Spatial Development Framework (SDF), the current Integrated Development Plan (IDP) and other municipal planning policies is important in the consideration of need.

Further considerations of need include the need of the community/area of the activity & land use – is the development “a societal priority”. Need for a project also relates to the service capacity and consistency with infrastructure planning.

The landowner seeks to exercise their primary agricultural zoning rights by constructing a lawful dwelling house (farmhouse) on Portion 76. The need for residential accommodation is recognised as a basic landowner right in terms of Agriculture Zone I.

Bee farming has been identified as a complementary agricultural activity on the property, consistent with the agricultural zoning, but it is not the primary driver of the development. The proposed dwelling is not dependent on the scale of the bee farming operation and has been designed to be self-sufficient in terms of services (rainwater, septic system, solar).

The proposal, therefore, represents a low-impact, biodiversity-sensitive land use, consistent with the requirements of a Critical Biodiversity Area (CBA) and is motivated primarily on the basis of the landowner’s right to a farmhouse, with bee farming as an incidental activity contributing to broader ecosystem services. The development footprint has been reduced to approximately 1000 m² to further minimise environmental impact while maintaining the landowner’s right to a lawful farmhouse. There exists a distinct necessity for the proposal. There exists a distinct necessity for the proposal, which is relevant not only to the landowner but also to the wider public.

Desirability

The desirability of a proposed development also relies heavily on the consistency with policy documentation but has a distinctly spatial focus. The guideline on Need and Desirability specifically poses the question “*Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities?*”

NEMA also links the desirability of development to the concept of the “*best practicable environmental option*”; this refers to the option that provides the most benefit and *causes the least damage to the environment, at a cost acceptable to society, in the long term as well as in the short term*. The consideration of alternatives is therefore closely related to this concept.

The subject property is currently zoned “Agriculture Zone I” in terms of the Section 8 Zoning Scheme Regulations (1988). The landowners intend to exercise their existing land use rights by utilising the property for agricultural activities and by constructing a dwelling house, as permitted by the specified scheme.

The entire application area is earmarked as a Critical Biodiversity Area, and therefore, the application must be made to obtain Environmental authorisation. The proposal was specifically designed for the best practicable environmental solution with the least disturbance. The refined design has downscaled the original dwelling from 3 000 m² to 1000 m² to ensure a proportionate and environmentally sensitive development footprint.

The proposal is in line with the applicable policy documentation (Western Cape Provincial SDF, Western Cape Rural Development Guidelines, Eden SDF, Knysna SDF and the Knysna IDP) meaning that it is in line with the spatial proposal and vision for the area whilst complying to the development guidelines for the current proposal. Therefore, the approval of this application would not compromise the integrity of the applicable policy documents agreed to by the relevant authorities.

It can, therefore, be concluded that the proposal can be regarded as desirable.

The above boxes for need and desirability can be ticked. The proposed development will not have a detrimental impact as it is in line with all planning legislation and consistent with the applicable spatial planning policies.

Planning Evaluation

The boxes above pertaining to need and desirability have been discussed and assessed.

The proposal aims to exercise the current land use rights to construct a primary dwelling house. The dwelling design and scale have been revised to a 1000 m² single-storey structure that aligns with the topography, thereby further reducing ecological disturbance. The dwelling unit complies with the definition of a dwelling unit as defined in the Section 8 Zoning Scheme Regulations, 1988. The proposed footprint in the building line area is an existing disturbed area.

The proposal is directly aligned with the strategic Objectives R1 & R3 as set out in the Western Cape Spatial Development Framework and in line with the overall vision for the area. The proposal is in line with the Provincial Rural Development Guidelines Criteria for implementation: Agriculture (Bird & Bee Farming), Rural Accommodation (Main dwelling), Conservation (Natural veld). The proposal is consistent with the Spatial Policy Statements & Guidelines of the Eden Spatial Development Framework and directly aligned with:

- Guideline 1.1.1. Contain development and manage rural areas through the appropriate application of SPCs
- Guideline 1.5.6. Coastal management

The proposal is in line with the demarcation as per the current Knysna SDF, which will remain agricultural. The Integrated Development Plan (IDP) sets out strategic objectives to achieve the desired goal of the Knysna Municipality. The proposal is directly linked with two of the strategic objectives, namely:

- To ensure the provision of bulk infrastructure and basic service through the upgrading and replacement of services.
- To promote a safe and healthy environment through the protection of our natural resources.

The landowners intend to assert their primary land use rights, and from a planning perspective, the proposal is both desirable and compliant with all relevant spatial planning documents. This proposed agricultural activity is anticipated to contribute to the global effort of bee repopulation, addressing a significant environmental concern. The proposal is expected to yield positive impacts on the local economy.

The proposal is consistent with the relevant spatial planning policies and will not impede any neighbouring landowner from lawfully exercising their existing land use rights. Furthermore, it will not negatively impact the character of the area and consequently, the proposal can be regarded as both desirable and suitable for the designated location.

The above information is extracted from the Marike Vreken Urban and Environmental Planners report dated April 2020.

Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?

Electricity

There is currently no electrical infrastructure present on the farm or in the adjacent road reserve to the north. 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 adjacent outbuilding units, should there be a requirement for increased energy generation capacity. The northern-facing roof of the main residence, which has an approximate area of 46 square meters, is capable of accommodating approximately 23 solar panels, providing a total capacity of 7 kilowatts.

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.

Distribution Network

A small distribution network of underground cabling is necessary to establish connections from the main house to all units. It is standard practice to excavate a trench measuring 450 mm in width and 800 mm in depth for the burial of the cables. Alternatively, the cables may be secured to walkways utilising cable trays.

Remote equipment that requires electrical power, such as boreholes, can be effectively sustained through the use of solar pumps with dedicated photovoltaic panels. Alternatively, a cable may be installed, contingent upon the distance from the main residence and the applicable regulations governing such installations.

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

Impact on Existing Electricity Consumers

The development is anticipated to have a minimal impact on the quality of supply for existing customers, as it will operate independently from the grid.

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:

- Installing boreholes – an application for a water licence will have to be submitted to the Breede-Gouritz Catchment Management Agency.
- A substantial proportion of the water demand will be addressed through the collection of rainwater. The aggregate roof area totals 842 m² and given the average annual rainfall of 500 mm in the Knysna region, this system is estimated to supply approximately 421 kilolitres (kl) of rainwater. It is important to note that this rainwater collection will only meet around 87% of the total water demand.
- The main building will make provision for 110kl rainwater/borehole storage.

Fire

This development is categorised as low-risk and falls within Group 2: residential areas (residential zone 1). In these designated areas, the gross floor area of dwelling houses, including any associated outbuildings, is typically expected to range between 100 square meters and 200 square meters, in accordance with the "Guidelines for Human Settlement Planning and Design."

The pool, with a capacity of 160 kilolitres (kl), shall serve as the primary reservoir for fire extinguishing purposes. Should the boreholes be equipped with power supplied by on-site generators, these boreholes may be classified as supplementary on-site storage capacity.

Sewer Reticulation

At this time, municipal bulk sewer services are not available in this area. Following consultation with the Technical Department of Knysna Municipality, it has been determined that the implementation of conservancy tanks is a viable option for managing effluent in this locality.

The above information was obtained from the Engeolab desktop investigation, Geophysical investigation & Feasibility Assessment into groundwater abstraction dated October 2018, and the Civil Services Report dated 2018.

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

This 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 is a private development.

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.)

The proposed development is designed to be sustainable and will effectively utilise the existing primary land use rights. This proposal will not contribute to urban sprawl.

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

The application area currently does not contribute to agricultural production for crop cultivation or grazing activities.

Nonetheless, the preservation of natural veld and the practice of bee farming will take place on this property, both of which are recognised as agricultural activities. Bee farming may occur as a small-scale complementary use, but the farmhouse is the primary right being exercised. Consequently, it can be concluded that this property possesses low agricultural potential, and the establishment of the proposed buildings will not result in the loss of productive agricultural land.

The properties in the immediate vicinity were initially designated for agricultural and conservation purposes. However, over time, agricultural utilisation in the area has declined, leading to the emergence of various alternative land uses. While some agricultural properties remain, they are predominantly employed for rural residential purposes with limited agricultural activities. Despite the diversification of land uses, the area has retained its primarily rural character.

The landowners are seeking to implement their existing land use rights, as stipulated in the Section 8 Zoning Scheme Regulations of 1988, specifically for properties classified as "Agricultural Zone I." The proposed agricultural activities, as well as the buildings planned for this property, will adhere to the established guidelines for the implementation of agricultural practices, rural accommodation, and conservation within the rural area. This initiative is designed to preserve the agricultural character of the region and is consistent with the principles outlined in the Rural Development guidelines.

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

The construction of the primary residential dwelling (Main dwelling) exerts a negligible impact on the surrounding environment, thereby safeguarding the natural beauty of the area and preserving vital ecological corridors.

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

No. The applicant possesses the legal right to construct a residential dwelling on the property.

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

The proposal allows surrounding landowners to retain their existing land use rights. The introduction of a residential dwelling will enhance surveillance in the rural area, resulting in increased safety and security within the area.

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

Employment opportunities will be generated for local communities throughout the construction phase.

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

Need

Need, as defined by DFFE, refers to the timing of the proposal; as such, the question 'Do we need this development now?' In answering this question, the planning and land use policy of the area must be examined. Therefore, consistency with the existing approved Spatial Development Framework (SDF), the current Integrated Development Plan (IDP) and other municipal planning policies are important in the consideration of need.

Further considerations of need include the need of the community/area of the activity & land use – is the development “a societal priority”. Need for a project also relates to the service capacity and consistency with infrastructure planning.

The landowner seeks to exercise their primary agricultural zoning rights by constructing a lawful dwelling house (farmhouse) on Portion 76. The need for residential accommodation is recognised as a basic landowner right in terms of Agriculture Zone I.

Bee farming has been identified as a complementary agricultural activity on the property, consistent with the agricultural zoning, but it is not the primary driver of the development. The proposed dwelling is not dependent on the scale of the bee farming operation and has been designed to be self-sufficient in terms of services (rainwater, septic system, solar).

The proposal, therefore, represents a low-impact, biodiversity-sensitive land use, consistent with the requirements of a Critical Biodiversity Area (CBA) and is motivated primarily on the basis of the landowner’s right to a farmhouse, with bee farming as an incidental activity contributing to broader ecosystem services.

There exists a distinct necessity for the proposal, which is relevant not only to the landowner but also to the wider public.

Desirability

The desirability of a proposed development also relies heavily on the consistency with policy documentation but has a distinctly spatial focus. The guideline on Need and Desirability specifically poses the question *“Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities?”*

NEMA also links the desirability of development to the concept of the *“best practicable environmental option”*; this refers to the option that provides the most benefit and *causes the least damage to the environment, at a cost acceptable to society, in the long term as well as in the short term*. The consideration of alternatives is therefore closely related to this concept.

The subject property is currently zoned “Agriculture Zone I” in terms of the Section 8 Zoning Scheme Regulations (1988). The landowners intend to exercise their existing land use rights by utilising the property for agricultural activities and by constructing a dwelling house, as permitted by the specified scheme.

The entire application area is earmarked as a Critical Biodiversity Area, and therefore, the application must be made to obtain Environmental authorisation. The proposal was specifically designed for the best practicable environmental solution with the least disturbance.

The proposal is in line with the applicable policy documentation (Western Cape Provincial SDF, Western Cape Rural Development Guidelines, Eden SDF, Knysna SDF and the Knysna IDP), meaning that it is in line with the spatial proposal and vision for the area whilst complying with the development guidelines for the current proposal. Therefore, the approval of this application would not compromise the integrity of the applicable policy documents agreed to by the relevant authorities.

It can, therefore, be concluded that the proposal can be regarded as desirable.

The above boxes for need and desirability can be ticked. The proposed development will not have an insignificant impact as it is in line with all planning legislation and consistent with the applicable spatial planning policies.

The above information was extracted from the Marike Vreken Urban and Environmental Planners report dated April 2020.

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

A motivation for the preferred site, activity and technology alternative

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

(a) The property on which, or the location where, it is proposed to undertake the activity	There is only one site.
(b) The type of activity to be undertaken	<u>The preferred alternative:</u> The development proposal entails the following: (i) The construction of one (x1) main dwelling house to be situated in the southwestern corner of the property (1000m²). (ii) The construction of a new internal road to provide access to the southern portion of the property. <u>Alternative 1:</u> The development proposal entails the following:

	(i) The construction of one (x1) main dwelling house to be situated in the southwestern corner of the property (3000m²). (ii) The construction of a new internal road to provide access to the southern portion of the property. <u>Alternative 2</u> The development proposal entails the following: (iii) The construction of one (x1) main dwelling house to be situated in the southwestern corner of the property (4000m²). (iv) The construction of one (x1) farm manager's house in the northwestern corner of the property (1200m²). (v) The construction of a new internal road to provide access to the southern portion of the property. <u>Alternative 3:</u> The main dwelling and all associated infrastructure to the northern portion of the property, adjacent to the existing public access route (Kerk Laan). The development proposal entails the following: (i) The construction of one (x1) main dwelling house to be situated in the northern corner of the property (3000m²). (ii) An internal access track would connect the development directly to Kerk Laan.
(c) The design or layout of the activity	<u>The preferred alternative:</u> The development proposal entails the following: (iii) The construction of one (x1) main dwelling house to be situated in the southwestern corner of the property (1000m²). (iv) The construction of a new internal road to provide access to the southern portion of the property. <u>Alternative 1:</u> The development proposal entails the following: (vi) The construction of one (x1) main dwelling house to be situated in the southwestern corner of the property (3000m²).

	(vii) The construction of a new internal road to provide access to the southern portion of the property. Alternative 2 The development proposal entails the following: (viii) The construction of one (x1) main dwelling house to be situated in the southwestern corner of the property (4000m²). (ix) The construction of one (x1) farm manager's house in the northwestern corner of the property (1200m²). (x) The construction of a new internal road to provide access to the southern portion of the property. Alternative 3: The main dwelling and all associated infrastructure to the northern portion of the property, adjacent to the existing public access route (Kerk Laan). The development proposal entails the following: (iii) The construction of one (x1) main dwelling house to be situated in the northern corner of the property (3000m²). (i) An internal access track would connect the development directly to Kerk Laan.
(d) The Technology to be used in the activity	N/A. The entire proposed development will be off-grid. 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. 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.
(e) The operation aspect of the activity	The agricultural practices proposed for the site will focus on bee farming. No Go Option – The site will remain as is.
(f) The option of not implementing the activity	This option must always be assessed and addressed below.

The preferred Alternative

Description of the Preferred Proposed Development

The proposal is to exercise the primary land use rights of the property (i.e. construction of a primary house). The development proposal entails the following:

- (i) The construction of one (1x) Main dwelling house to be situated in the south-western corner of the property.
- (ii) The construction of a new internal road to provide access to the southern portion of the property.

The Main Dwelling House

The primary dwelling unit will be situated in the south-western portion of the property, consisting of the following inter-leading rooms $\pm 1000\text{m}^2$:

- Bedrooms.
- Open plan living area consisting of the kitchen, lounge area, dining area, kitchen, bar, scullery, bathroom and wine cellar.
- Open deck and swimming pool.

The Internal Road

The internal road will be 830 meters in length. The road surface area will be 2.5 meters wide, and the disturbed area for construction of the road varies between 4 to 5.5 meters wide. The internal road is to access the southwestern side of the property.

Services

Electricity

There is currently no electrical infrastructure present on the farm or in the adjacent road reserve to the north. 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 adjacent outbuilding units, should there be a requirement for increased energy generation capacity. The northern-facing roof of the main residence, which has an approximate area of 46 square meters, is capable of accommodating approximately 23 solar panels, providing a total capacity of 7 kilowatts.

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.

Distribution Network

A small distribution network of underground cabling is necessary to establish connections from the main house to all units. It is standard practice to excavate a trench measuring 450 mm in width and 800 mm in depth for the burial of the cables. Alternatively, the cables may be secured to walkways utilising cable trays.

Remote equipment that requires electrical power, such as boreholes, can be effectively sustained through the use of solar pumps with dedicated photovoltaic panels. Alternatively, a cable may be installed, contingent upon the distance from the main residence and the applicable regulations governing such installations.

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

Impact on Existing Electricity Consumers

The development is anticipated to have a minimal impact on the quality of supply for existing customers, as it will operate independently from the grid.

Alternative 1

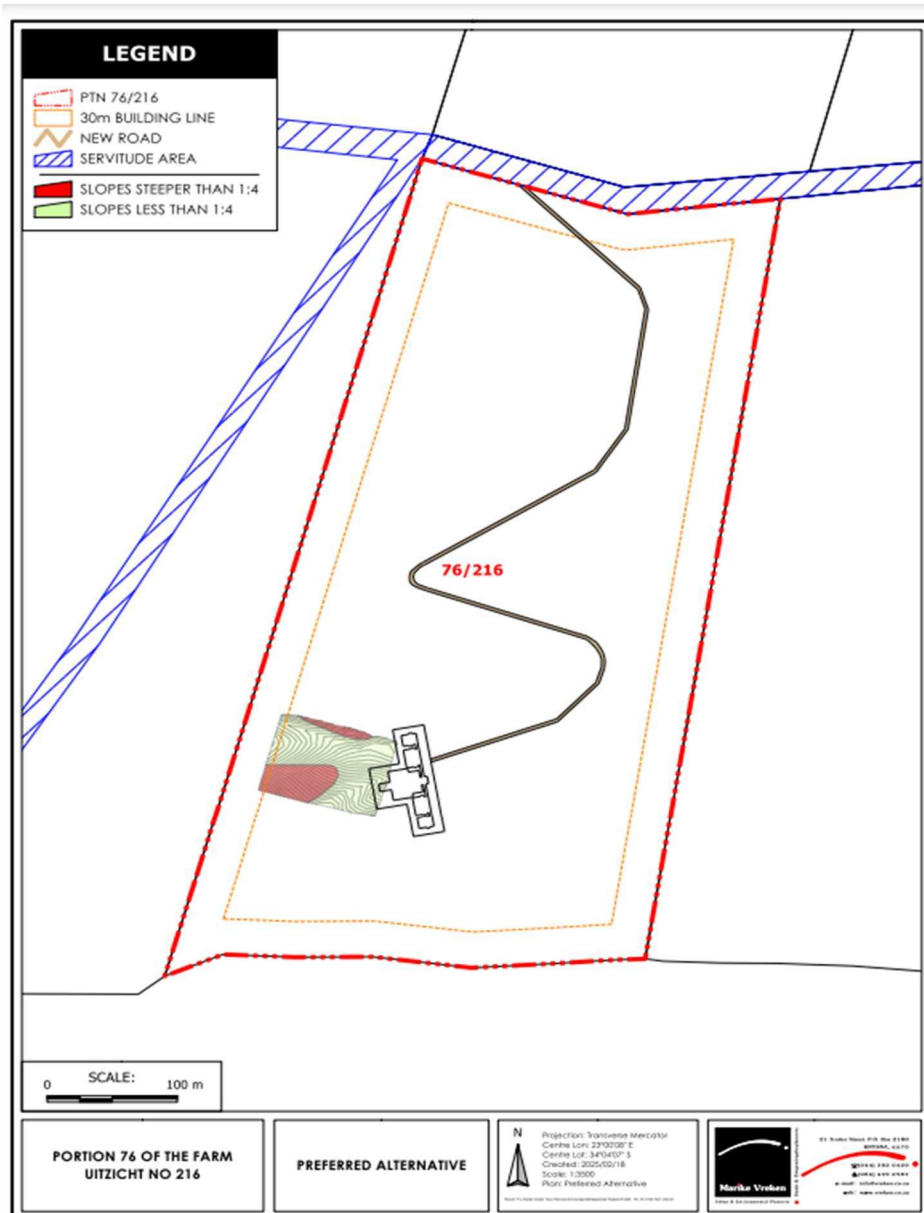
The proposal is to exercise the primary land use rights of the property (i.e. construction of a primary house). The development proposal entails the following:

- (iii) The construction of one (1x) Main dwelling house to be situated in the south-western corner of the property.
- (iv) The construction of a new internal road to provide access to the southern portion of the property.

The Main Dwelling House

The primary dwelling unit will be situated in the south-western portion of the property, consisting of the following inter-leading rooms $\pm 3000\text{m}^2$:

- 6 Bedrooms.
- Open plan living area consisting of the kitchen, lounge area, dining area, kitchen, bar, scullery, bathroom and wine cellar.
- Open deck and swimming pool.



Alternative 2

The proposal is to exercise the primary land use rights of the property (i.e. construction of a main farmhouse and the farm manager's house). The development proposal entails the following:

- (i) The construction of one (x1) main dwelling house to be situated in the south-western corner of the property (4000m²).
- (ii) The construction of one (x1) farm manager's house in the north-western corner of the property (1200m²).
- (iii) The construction of a new internal road to provide access to the southern portion of the property.

The Main Dwelling House

The primary dwelling unit will be situated in the south-western portion of the property, consisting of the following inter-leading rooms ±3000m²:

- 6 Bedrooms.

- Open plan living area consisting of the kitchen, lounge area, dining area, kitchen, bar, scullery, bathroom and wine cellar.

The Farm Manager's House

The Dwelling house to be situated in the north-western corner will encroach the prescribed 30m building line, and therefore, an application must be made for a permanent departure for the relaxation of the northern and western building lines.

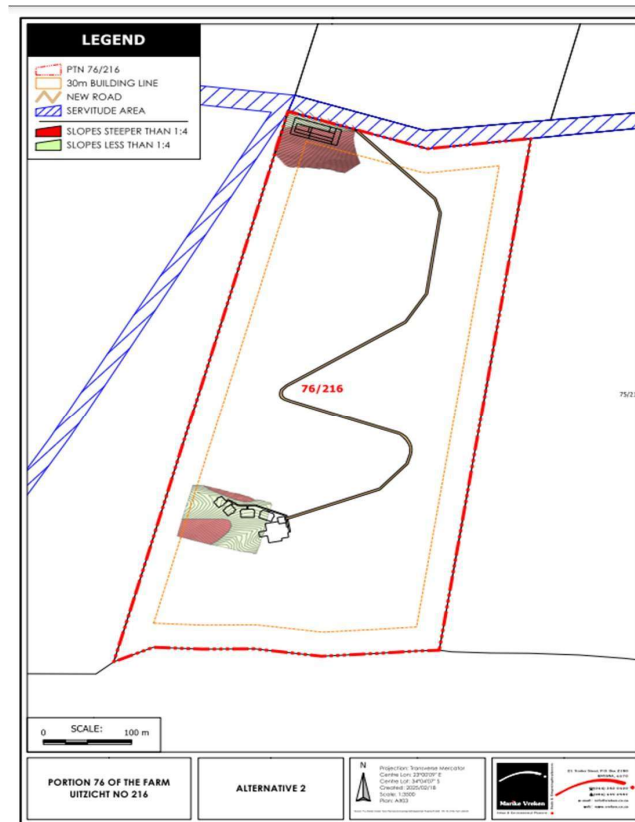
The main reason why the house encroaches on the prescribed building line is to prevent unnecessary disturbance of sensitive, pristine fynbos. The proposed footprint in the building line area is an existing transformed area, and consists of the following:

- Ground Floor: 600m²
- First Floor: 400m²
- Footprint: 600m²
- Disturbance area: 1200m²

This option would result in the direct loss of Critically Endangered Knysna Sand Fynbos (NEM:BA, 2022 list). The loss of such vegetation is considered irreplaceable and irreversible. For this reason, Alternative 1 is not viable and cannot be supported in terms of national legislation or provincial biodiversity planning frameworks (WCBSP)."

The Internal Road

The internal road will be 830 meters in length. The road surface area will be 2.5 meters wide and the disturbed area for construction of the road varies between 4 to 5.5 meters wide. The internal road is to access the south-western side of the property.



Alternative 3

The main dwelling and all associated infrastructure to the northern portion of the property, adjacent to the existing public access route (Kerk Laan).

The development proposal entails the following:

- (i) The construction of one (x1) main dwelling house to be situated in the northern corner of the property (3000m²).
- (ii) An internal access track would connect the development directly to Kerk Laan.

This option would result in the direct loss of Critically Endangered Knysna Sand Fynbos (NEM: BA, 2022 list). The loss of such vegetation is considered irreplaceable and irreversible. For this reason, Alternative 3 is not viable and cannot be supported in terms of national legislation or provincial biodiversity planning frameworks (WCBSP).

However, as per the Impact Assessment for the Proposed Development of Dwelling(s) on Portion 76/216 Uitzicht Farm, Knysna. Specialist Plant Species and Terrestrial Biodiversity Report (22 July 2024) page 53:

CONCLUSION

The proposed development on Portion 76/216 will have an impact on pristine fynbos and strandveld vegetation. The habitats here are biodiverse and support a host of plant species of conservation concern (SCC). The property is also part of a wider open corridor that is part of a CBA 1. The impact assessment presented makes it clear that Alternative 4 (this alternative 3 in the FBAR) is the most acceptable layout for the proposed dwellings on the property. Alternative 2 can also be considered without potentially triggering a requirement for an offset. This is because the residual impacts for Alternatives 2 and 4 (this alternative 3 in the FBAR) are reduced to Minor or Negligible negative for all of the impacts that were assessed. Given the highly sensitive nature of the vegetation here, all effort should be made to limit the total PAOI of the development.

Offset requirements will likely also be triggered for this development should Alternative options 1 or 3 be followed, due to the Moderate residual impacts that can't be reduced with the mitigation proposed in this report. Areas with a Very High SEI (not calculated in the first botanical report but presented in this report) may be developed where the residual impact is Minor or Negligibly negative. Even though avoidance mitigation is preferred in Very High SEI areas (Verburgt et al., 2020), Alternative 4 (this alternative 3 in the FBAR) is a viable option to be considered given:

- 1. The layout of the property and servitudes, which allows for a small project footprint & perimeter to surface ratio in the north-western corner,*
- 2. Long-term disturbances and invasion in the north-western corner of the site (see historical imagery).*
- 3. The relative reduction in fire risk (assuming alien clearing will be taken seriously on the property) which can be achieved by building in the north-western corner.*
- 4. A reduction in landscape fragmentation, which means more natural processes, including fire regimes, can persist and won't be suppressed in the landscape.*
- 5. The overall PAOI of Alternative 4 (this alternative 3 in the FBAR) is the only development option that will result in less than 1% transformation of the property, where all the other options result in at least 2% transformation*

The No Go Alternative

The proposed redevelopment of Portion 76 of the Farm Uitzicht 216 will remain unutilised and vacant, thereby restricting the landowner's ability to exercise their right to construct a residential dwelling.

CIVIL SERVICES: ROADS, STORMWATER, WATER AND SEWER

The report was prepared by Tuiniqua Consulting Engineers at their Knysna office, who have been appointed by the Developer, Mr Andre Peach, as the Civil Consultants for this project. The purpose of this report was to

provide the necessary information on the proposed civil services within the Development and the connections to the bulk infrastructure in the area.

The Knysna Municipality serves as the authority for supply in the area. A service agreement will be established to address water supply, sewage management, stormwater management, and access provisions. In the event that demand for these civil services increases, augmentation fees will be calculated and assessed according to the policies of the Council. Additionally, discussions with the Municipality have indicated that bulk water and sewage services are currently unavailable, necessitating that this development be self-sustaining.

Bulk Services

Water Reticulation

The proposed development lacks a bulk water network and will serve as holiday accommodation for a maximum of twelve people, assumed to be occupied for 200 days a year.

Water demand is 480,000 litres (480 kilolitres) annually. Rainwater collection from 842 square meters of roof space will provide about 421,000 litres (421 kilolitres), covering 87% of the demand. To make up for the shortfall, boreholes will be drilled, which can also serve as storage when powered by on-site generators. The main building will have a storage capacity of 110 kilolitres.

Fire

This development is classified as low-risk – Group 2: residential areas (zone 1), with dwelling sizes typically between 100 m² and 200 m², as per the "Guidelines for Human Settlement Planning and Design." The pool, holding 160 kL, will serve as the main fire extinguishing water source. If powered by on-site generators, the boreholes can also contribute to on-site storage capacity.

Sewer Reticulation

The development will utilise conservancy tanks, due to the fact that there is no municipal sewerage network available. Care will be taken when positioning the conservancy tanks in regard to the position of the borehole/s. Vehicle access to the conservancy tanks needs to be provided to allow suction of the tank, if and when required.

The conservancy tank will be positioned within the southern development platform, adjacent to the proposed dwelling footprint, as shown on the Preferred Layout Plan (Appendix B1).

This area comprises the least dense vegetation on the property and is located on gentle, stable slopes (slopes <1:4), making it the most suitable location from both an engineering and environmental perspective.

The tank will be placed on the inland side of the dwelling, outside the more sensitive dune vegetation and well away from any protected Milkwood trees. Locating the tank adjacent to the internal access route ensures safe and efficient maintenance access while minimising additional disturbance. No installation is proposed within the High-Water Mark buffer, steep slopes, or the northern Critically Endangered Knysna Sand Fynbos area.

Roads

There is an existing road network servicing this area, all roads leading to the road reserve are tarred and of good quality. The dirt track along the road reserve will need to be upgraded.

Stormwater

No formal stormwater system exists in the immediate vicinity of the development

Internal Services

Outline Scheme

The design of the development's services will follow the principles outlined in the Guidelines for Human Settlement Planning and Design by the Department of Housing and the Council's engineering requirements. Installation will comply with SANS 1200 standards, and all materials will meet ISO standards. Internal services will be placed in a service duct, primarily located in the center of existing paved routes to minimise disruption to the root systems of indigenous vegetation.

Water Reticulation

The water demand is 2.4 kiloliters per day, assuming occupancy for 200 days a year. As there is no municipal water network available, the development will include 110 kiloliters of rainwater storage and drilled boreholes for additional supply. Water may also be purchased from the Knysna Municipality via tanker.

We recommend a water filtration system to ensure potable water and suggest a second reticulation system for toilets to reduce filtration needs. Minimum standards include:

- Collecting rainwater from roofs and storing it at the main block, with a distribution network for the four nearby units.
- Testing borehole water for safety.
- Installing spikes if needed for garden watering.

Sewer Reticulation

The development will utilise conservancy tanks, due to the fact that there is no municipal sewerage network available. Care will be taken when positioning the conservancy tanks in regard to the position of the borehole/s. Vehicle access to the conservancy tanks needs to be provided to allow suction of the tank, if and when required.

The conservancy tank will be positioned within the southern development platform, adjacent to the proposed dwelling footprint, as shown on the Preferred Layout Plan (Appendix B1).

This area comprises the least dense vegetation on the property and is located on gentle, stable slopes (slopes <1:4), making it the most suitable location from both an engineering and environmental perspective.

The tank will be placed on the inland side of the dwelling, outside the more sensitive dune vegetation and well away from any protected Milkwood trees. Locating the tank adjacent to the internal access route ensures safe and efficient maintenance access while minimising additional disturbance. No installation is proposed within the High-Water Mark buffer, steep slopes, or the northern Critically Endangered Knysna Sand Fynbos area.

Internal Roads

The development will have one vehicular access on the northern boundary, from the road reserve. All roads inside the property will be private roads consisting of a 2.5m strip, reinforced concrete roads. Passing lanes will be provided at suitable intervals. The design methodology will be to have the smallest disturbance footprint possible.

Internal Stormwater

The stormwater will not be accumulated or concentrated at any point but will be allowed to drain naturally over the sandy surface. Care will be taken when designing the access road to ensure that stormwater is properly addressed, according to SUDS principles.

Waste Management

Disposal of all waste shall be undertaken by the developer to the relevant and appropriate waste sites and recycling centres. The development shall, upon completion, have a waste management facility. Any green waste as a result of the development will be chipped on-site and/or disposed of at an approved site.

Details of the alternatives considered

Preferred Alternative: Main Dwelling (1000m² in the Southwestern Section)

This option locates the main dwelling house within the south-western section of Portion 76, behind the 30 m coastal building line in accordance with municipal setback requirements. The selected area benefits from natural topographical screening, significantly reducing potential visual exposure from surrounding viewpoints, including Brenton Beach and Brenton-on-Sea.

Although the proposed access route does traverse areas of ecologically sensitive vegetation, the overall footprint is compact, and detailed mitigation measures have been proposed. These include narrowing of the road corridor, alignment along natural contours to reduce earthworks, and a commitment to ecological rehabilitation post-construction using rescued indigenous flora.

Development of Dwelling(s) on Portion 76/216 Uitzicht Farm, Knysna. Specialist Plant Species and Terrestrial Biodiversity Report (22 July 2024) page 53:

CONCLUSION

The proposed development on Portion 76/216 will have an impact on pristine fynbos and strandveld vegetation. The habitats here are biodiverse and support a host of plant species of conservation concern (SCC). The property is also part of a wider open corridor that is part of a CBA 1. The impact assessment presented makes it clear that Alternative 4 (this alternative 3 in the FBAR) is the most acceptable layout for the proposed dwellings on the property. Alternative 2 can also be considered without potentially triggering a requirement for an offset. This is because the residual impacts for Alternatives 2 and 4 (this alternative 3 in the FBAR) are reduced to Minor or Negligible negative for all of the impacts that were assessed. Given the highly sensitive nature of the vegetation here, all effort should be made to limit the total PAOI of the development.

Offset requirements will likely also be triggered for this development should Alternative options 1 or 3 be followed, due to the Moderate residual impacts that can't be reduced with the mitigation proposed in this report. Areas with a Very High SEI (not calculated in the first botanical report but presented in this report) may be developed where the residual impact is Minor or Negligibly negative. Even though avoidance mitigation is preferred in Very High SEI areas (Verburgt et al., 2020), Alternative 4 (this alternative 3 in the FBAR) is a viable option to be considered given:

1. The layout of the property and servitudes, which allows for a small project footprint & perimeter to surface ratio in the north-western corner,
2. Long-term disturbances and invasion in the north-western corner of the site (see historical imagery).
3. The relative reduction in fire risk (assuming alien clearing will be taken seriously on the property) which can be achieved by building in the north-western corner.
4. A reduction in landscape fragmentation, which means more natural processes, including fire regimes, can persist and won't be suppressed in the landscape.

5. The overall PAOI of Alternative 4 (this alternative 3 in the FBAR) is the only development option that will result in less than 1% transformation of the property, where all the other options result in at least 2% transformation

Alternative 1: Main Dwelling (3000m² in the Southwestern Section)

This alternative proposes the construction of a 3000 m² main dwelling within the south-western portion of the site, situated behind the 30 m coastal building line, in accordance with municipal building regulations. The location benefits from natural topographical screening, reducing the potential visual impact on neighbouring areas, including Brenton Beach. The area is also proximal to existing infrastructure, limiting the need for extensive internal road development.

However, due to the larger development footprint, this alternative would result in a greater extent of vegetation clearance and potential ecological disturbance, particularly in areas mapped as Goukamma Dune Thicket (Least Threatened). The internal access road, although aligned along natural contours, will still cross areas of ecological sensitivity. Mitigation measures such as road narrowing, erosion control, and rehabilitation of disturbed areas will be required to minimise impacts.

The increased scale of the dwelling reduces the overall environmental performance of this alternative compared to the preferred 1000 m² alternative, making it less favourable from a sustainability and biodiversity conservation perspective.

Alternative 2: Main Dwelling in the Southwestern Section & Farm Manager's House in the Northern Portion

This layout proposes the main dwelling in the southwestern corner and the farm manager's house in the northern part of the site. While this may assist with operational logistics, it introduces a second node of disturbance and increases ecological fragmentation, especially in the upper section. Furthermore, the proposed farm manager's house falls within the municipal northern building line restriction, requiring a departure application and would result in the direct loss of Critically Endangered Knysna Sand Fynbos (NEM: BA, 2022 list).

Alternative 3: Main Dwelling in the Northern Portion

Alternative 3 shifts the main dwelling house to the northern portion of the site, near the servitude access. Although this option avoids the central dune corridor and aligns with SANParks' recommendation to maintain habitat connectivity, the proposed location overlaps with Critically Endangered Knysna Sand Fynbos. Specialist input confirms that this vegetation type is highly sensitive and irreplaceable, and development here would result in a Minor negative as per the Impact Assessment for the Proposed Development of Dwelling(s) on Portion 76/216 Uitzicht Farm, Knysna. Specialist Plant Species and Terrestrial Biodiversity Report.

However as per the Impact Assessment for the Proposed Development of Dwelling(s) on Portion 76/216 Uitzicht Farm, Knysna. Specialist Plant Species and Terrestrial Biodiversity Report (22 July 2024) page 53:

CONCLUSION

The proposed development on Portion 76/216 will have an impact on pristine fynbos and strandveld vegetation. The habitats here are biodiverse and support a host of plant species of conservation concern (SCC). The property is also part of a wider open corridor that is part of a CBA 1. The impact assessment presented makes it clear that Alternative 4 (this alternative 3 in the FBAR) is the most acceptable layout for the proposed dwellings on the property. Alternative 2 can also be considered without potentially triggering a requirement for an offset. This is because the residual impacts for Alternatives 2 and 4 (this alternative 3 in the FBAR) are reduced to Minor or

Negligible negative for all of the impacts that were assessed. Given the highly sensitive nature of the vegetation here, all effort should be made to limit the total PAOI of the development.

Offset requirements will likely also be triggered for this development should Alternative options 1 or 3 be followed, due to the Moderate residual impacts that can't be reduced with the mitigation proposed in this report. Areas with a Very High SEI (not calculated in the first botanical report but presented in this report) may be developed where the residual impact is Minor or Negligibly negative. Even though avoidance mitigation is preferred in Very High SEI areas (Verburgt et al., 2020), Alternative 4 (this alternative 3 in the FBAR) is a viable option to be considered given:

1. The layout of the property and servitudes, which allows for a small project footprint & perimeter to surface ratio in the north-western corner,
2. Long-term disturbances and invasion in the north-western corner of the site (see historical imagery).
3. The relative reduction in fire risk (assuming alien clearing will be taken seriously on the property) which can be achieved by building in the north-western corner.
4. A reduction in landscape fragmentation, which means more natural processes, including fire regimes, can persist and won't be suppressed in the landscape.
5. The overall PAOI of Alternative 4 (this alternative 3 in the FBAR) is the only development option that will result in less than 1% transformation of the property, where all the other options result in at least 2% transformation

Alternative 4: No-Go Option

This option entails no development on the property. It results in the full preservation of ecological and visual characteristics, but it also prevents the landowner from utilising lawful development rights and provides no socio-economic benefit. Therefore, while environmentally neutral, it is not considered a viable or reasonable long-term solution.

CONCLUSION

The preferred alternative, which proposes the development of a single 1 000 m² main dwelling within the south-western portion of Portion 76 of Farm Uitzicht No. 216, represents a substantially refined development proposal compared to the original concept. The reduced development footprint limits the extent of vegetation clearance, visual intrusion and overall disturbance while maintaining the proposed residential use of the property.

The preferred layout is located behind the 30 m coastal building line and benefits from natural topographical screening, reducing visual exposure from surrounding viewpoints. Although the associated internal access road traverses areas of ecological sensitivity, detailed mitigation measures, including refinement of the road alignment, erosion control, ecological rehabilitation and strict environmental management, have been incorporated into the Environmental Management Programme (EMPr) to minimise environmental impacts.

The Specialist Plant Species and Terrestrial Biodiversity Report identified the northern development option (Alternative 3) as the preferred layout from a biodiversity perspective, primarily due to the reduced overall development footprint, lower landscape fragmentation, reduced fire risk and the potential to avoid biodiversity offset requirements. These findings have been fully considered as part of the Basic Assessment process and are reflected in the alternatives assessment.

Alternative 1, which proposed a 3 000 m² main dwelling within the south-western portion of the property, would result in a larger development footprint, increased vegetation clearance and a greater overall level of

environmental disturbance than the preferred alternative.

Alternative 2, comprising the 3 000 m² main dwelling together with a farm manager's house in the northern portion of the property, would introduce an additional development node, increase habitat fragmentation and result in direct impacts on Critically Endangered Knysna Sand Fynbos, while also requiring additional municipal planning approvals.

Alternative 3, which proposed the relocation of the main dwelling to the northern portion of the property adjacent to Kerk Laan, offers several practical advantages, including a substantially shorter access route, reduced disturbance associated with road construction and a reduced overall development footprint. The Specialist Plant Species and Terrestrial Biodiversity Report identified this alternative as the preferred biodiversity option. However, the proposed development footprint is located within Critically Endangered Knysna Sand Fynbos, and the integrated environmental assessment recognised that this alternative presents competing environmental, planning and engineering considerations that required careful balancing during the assessment process.

The No-Go Alternative would avoid all direct development-related impacts and retain the property in its current undeveloped condition. However, it would not meet the purpose and need of the proposed development, nor would it enable the Applicant to exercise the existing residential development rights associated with the property.

Overall, the preferred alternative represents a refined development proposal that incorporates the outcomes of the specialist investigations, comments received during the public participation process and the iterative assessment undertaken throughout the Basic Assessment process. Subject to the implementation of the recommended mitigation measures and the approved Environmental Management Programme (EMPr), the preferred alternative is considered suitable for consideration by the Competent Authority.

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Section H

Details of the Public Participation Process undertaken in terms of Regulation 41 of the Regulations, including copies and supporting documents and inputs.

Section 41 of the Environmental Impact Assessment Regulations, 2014 (GN R.982 of 4 December 2014), as amended, prescribes the minimum public participation requirements applicable to a Basic Assessment Process. The public participation process for the proposed development was undertaken in accordance with these requirements to ensure that all potentially Interested and Affected Parties (I&APs) and relevant authorities were afforded a reasonable opportunity to participate in the environmental assessment process.

The public participation process included notification of adjacent landowners, commenting authorities, organs of state, registered Interested and Affected Parties (I&APs), placement of site notices, publication of a newspaper advertisement, and the circulation of the Draft Basic Assessment Report for a 30-day public review period. Copies of all supporting documentation, including proof of notification, comments received and the Comments and Responses Report, are included in **Appendix G**.

Regulation with regard to conducting a Public Participation Process	Description to adherence of 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 subjected to public participation by -	
(a) Fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of – (i) The site where the activity to which the application or proposed application relates or is to be undertaken; (ii) Any alternative site	(i) A site notice will be placed on site. (ii) There is no alternative site. See Appendix G
(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. (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. (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. (iv) The Municipality which has jurisdiction in the area. (v) Any organ of state having jurisdiction in respect of any activity; and (vi) Any other party as required by the competent authority.	(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) The owners of the land adjacent to the site have been notified via email. There is only one site. (iii) The ward Councillor (Knysna Municipality) will be notified. The ratepayer's association will be notified (iv) Knysna Municipality has been notified (v) Please refer to Appendix G showing a list of organs of state notified. (vi) Please refer to Appendix G 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 advertised. Please refer to a copy of the advert in Appendix G.
(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	Should the need arise <i>Eco Route Environmental Consultancy</i> will identify the correct manner with the

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	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 G.
4) A notice board referred to in sub regulation (2) must – (a) Be of a size of at least 60cm by 42cm; and (b) Display the required information in lettering and in a format as may be determined by the competent authority	Refer to Appendix G.
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 –	Refer to Appendix G.

(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.	
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 opportunity to comment on the application or proposed application.	Refer to Appendix G. The Draft BAR will be recorded onto CDs for the relevant organs of state and will either be delivered by hand or sent via courier. Kindly refer to Appendix G 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.
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

As this is not the first application, the key stakeholders identified in the previous application processes have automatically been registered and will be afforded an opportunity to comment on the current Draft Basic Assessment Report. This application has progressed through previous public participation and submission phases under DFFE reference numbers 14/12/16/3/3/1/3114 and 14/12/16/3/3/1/3185, both of which lapsed due to administrative timeframes. The current submission constitutes a resubmission to DFFE, and a new DFFE reference number will be issued upon acceptance of the new application. A list of key stakeholders for this process is included in the table below:

STATE DEPARTMENTS		
Department of Agriculture, Forestry & Fisheries	Melanie Koen	P/Bag X12 Knysna 6570
Department of Economic Development & Tourism- Western Cape	Mr Mark Lakay	P.O. Box 979 Cape Town 8000
Department of Environmental Affairs - Authorisations	Mr Danie Smit	Private Bag X447 Pretoria 0001
Department of Environmental Affairs & Development Planning	Mr Danie Swanepoel	P/Bag X6509 George. 6530
DEA&DP – Coastal Management	Zain Jumat	P/Bag X9086 Cape Town 8000
Department of Provincial Health	Manie Abrahams	P/Bag X6592 George 6530
Department of Rural Develop. & Land Reform	Glen Smith	P.O. Box 872 George 6530
Department of Public Works	The Director-General	Private Bag X9027 Cape Town 8000
Department of Transport & Public Works	Lyle Martin	PO Box 2603 Cape Town 8000
Department of Water Affairs	John Roberts	P/Bag X16 Sanlamhof 7532
South African National Roads Agency	Colleen Runkel	P/Bag X19 Bellville 7535

ORGANS OF STATE		
Name	Contact Person	Postal Address
Cape Nature – Western Cape	Megan Simmons	P/Bag 6546, George. 6530
Heritage Western Cape	C. van Wijk	P/Bag X9067 Cape Town. 8000
Marine Coastal Management	Mervyn Arendse	P.O. Box 234 Knysna 6570
SANParks	Maretha Alant	P.O. Box 787 Pretoria 0001
Knysna Ratepayers Association	Mr Ian Uys	P.O. Box 2475, Knysna. 6570
Ward 5 Councillor Knysna Municipality		P.O. Box 21, Knysna. 6570
Western Head Conservancy	MR Gow	P.O. Box 21, Knysna. 6570
Knysna Municipality – Environmental Management	Pam Booth	P.O. Box 21 Knysna 6570
Knysna Municipality – Town Planning	Mr H. Smit	P.O. Box 21 Knysna 6570

Erf No.	Contact Person	Address To be completed
Portion 12 of Farm 216, Uitzicht	Evan Jones	ejones@biothermenergy.com
WESSA Knysna-Plett	Steve Gettliffe	stebar@barkly.co.za
	Christa le Roux and Owen Williams	christa.a.leroux@gmail.com
Portion 114 of Farm 216 Uitzicht, Brenton	John and Anne Sole	johnmsole@gmail.com
Brenton Ratepayers Association	Steve Krumm Judy Harrison	stevek@netactive.co.za
Western Heads-Goukamma Conservancy:	Dave Edge	orachrysops@gmail.com

portions 39, 40, 75, 78, 109, 112, 113, 114 and 115		
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Availability of the Basic Assessment Report

The Draft Basic Assessment Report (BAR) was previously made available during the public participation processes undertaken from 3 September 2020 to 3 October 2020, 6 March 2025 to 7 April 2025, and 11 November 2025 to 11 December 2025, and was made available on the Eco Route Environmental Consultancy website for review by registered Interested and Affected Parties (I&APs) and commenting authorities.

As the previous application lapsed due to the prescribed administrative timeframes, the current submission constituted a new Basic Assessment application. Accordingly, a new public participation process was undertaken in accordance with Regulation 41 of the Environmental Impact Assessment Regulations, 2014 (as amended). The current Draft Basic Assessment Report was made available to all registered I&APs and commenting authorities for the prescribed 30-day public review period, during which all comments received were considered and, where appropriate, incorporated into the Final Basic Assessment Report. The Final Basic Assessment Report is hereby submitted together with the updated Comments and Response Report, which records all comments received and the manner in which these comments have been addressed.

Comments and Response Report

A summary of the issues raised by Interested and Affected Parties (I&APs), commenting authorities and organs of state, together with the manner in which these issues were considered and addressed, is provided below.

Historical comments and responses received during the previous public participation processes have been retained as part of the decision-making record and process trail. In addition, comments received during the current public participation process have been considered and, where appropriate, incorporated into the Final Basic Assessment Report, Environmental Management Programme (EMPr), specialist studies and supporting documentation.

The complete Comments and Responses Report, together with copies of all correspondence received during the public participation process, is included in Appendix G.

Commenting Authority / I&AP	Summary of Key Issues Raised	How the Issue was Addressed in the Final BAR
SANParks (2020, 2021 and subsequent correspondence)	SANParks objected to the original proposal on the basis that Portion 76 forms part of the Garden Route National Park expansion footprint, Knysna Sand Fynbos Coastal Corridor and a Critical Biodiversity Area. SANParks considered the original proposal to result in unnecessary fragmentation of the landscape, loss of biodiversity and adverse impacts on ecological connectivity. SANParks supported consolidating development closer to Kerk Laan and objected to the proposed access road through the dune corridor. Additional concerns related to biodiversity	The original proposal has been substantially amended since the first Draft BAR. The proposed farm manager's dwelling has been removed entirely. The preferred dwelling footprint has been reduced from approximately 3 000 m ² to approximately 1 000 m ² , substantially reducing the overall disturbance footprint. Numerous additional specialist studies have since been completed, including terrestrial biodiversity, terrestrial fauna, botanical, geotechnical, visual and heritage investigations. The Final BAR includes a detailed alternatives assessment evaluating the northern and

	stewardship, rezoning of the remaining property for conservation purposes, fire management, swimming pool backwash, beach access, boreholes and visual impacts.	southern development options, together with updated mitigation measures, revised engineering information, an Alien Invasive Plant Management Plan, Rehabilitation Plan and updated EMPr. While SANParks' preference remains development adjacent to Kerk Laan, the applicant's preferred alternative remains the reduced south-western layout following consideration of all specialist findings and engineering constraints. SANParks' comments have therefore been fully considered and incorporated into the environmental assessment and decision-making process, although the applicant has elected not to adopt SANParks' preferred layout.
Western Heads– Goukamma Conservancy	The Conservancy objected to the proposal due to the Critical Biodiversity Area status, Critically Endangered Knysna Sand Fynbos, ecological corridors, visual impacts, dune instability, road construction, swimming pool backwash, groundwater contamination, boreholes, access road impacts, tourism impacts, precedent-setting, rare species and biodiversity legislation. They also questioned the original dwelling size, proposed manager's house and the adequacy of the biodiversity assessment.	The Final BAR has undergone extensive revision since these comments were received. The farm manager's dwelling has been removed entirely, the main dwelling has been reduced to approximately 1 000 m ² , the overall disturbance footprint has been significantly reduced, additional terrestrial biodiversity, botanical and fauna assessments have been completed, engineering designs refined, and specialist mitigation incorporated into the EMPr. The Final BAR now reflects the latest biodiversity information, revised layout plans, updated engineering proposals and strengthened mitigation measures. The comments materially influenced the evolution of the preferred alternative.
DFFE Directorate: Biodiversity Conservation	DFFE advised that the site has Very High biodiversity sensitivity and requested consultation with SANParks and CapeNature, consultation with DFFE Protected Areas Planning, completion of specialist biodiversity studies, preparation of an Alien Invasive Plant Management Plan and Rehabilitation Plan, compliance with the Environmental Theme Protocols and prevention of fragmentation of CBA areas.	These recommendations have been incorporated. Additional specialist assessments were completed, SANParks and CapeNature were consulted, the Alien Invasive Plant Management Plan and Rehabilitation Plan form part of the EMPr, the BAR complies with the Environmental Theme Protocols and the revised preferred layout substantially reduces the overall environmental footprint compared to the original proposal.
CapeNature	CapeNature raised concerns regarding biodiversity sensitivity, Critical Biodiversity	The biodiversity specialist studies, preferred layout and EMPr were amended to reflect CapeNature's recommendations.

	Areas, protected vegetation and ecological management.	CapeNature's comments have been incorporated into the Final BAR.
Forestry (DFFE)	Forestry requested updated botanical investigations following the fires, mapping of protected trees and forest patches and consideration of protected indigenous vegetation under the National Forests Act.	Updated botanical investigations have been completed. Protected vegetation and indigenous forest patches have been mapped and considered in the Final BAR. Compliance with the National Forests Act will be required should protected trees be affected.
Transport and Public Works	Requested upgrading of the northern road reserve intersection with DR1600 where required and compliance with the relevant road authority requirements.	The requirement has been acknowledged and will be implemented during detailed design in consultation with the relevant authority.
Adjacent landowners and registered I&APs	Concerns related to visual impacts, access road construction, road upgrades, security, overhead electricity lines, swimming pool backwash, boreholes, beach access, conservancy tanks, precedent, traffic and protection of the coastal landscape.	The Final BAR includes revised engineering designs, confirmation of an off-grid solar system, updated road design, revised services layout, strengthened mitigation measures and confirmation that the proposal comprises a single private dwelling only. These comments contributed to the refinement of the preferred alternative and environmental management measures.

The full comments and response can be viewed under **Appendix G**.

Site Description and Environmental Attributes

Geographical and Physical Aspects

Topography

A survey conducted by Eden Geomatics in November 2016 identified two sites deemed suitable for the proposed development, located in the northwestern and southwestern corners of the subject property.

A topographical survey undertaken by Eden Geomatics (November 2016) identified two potential development areas

on Portion 76 of Farm Uitzicht No. 216, located within the northwestern and southwestern portions of the property. These areas formed the basis of the alternatives assessment undertaken during the environmental impact assessment process.

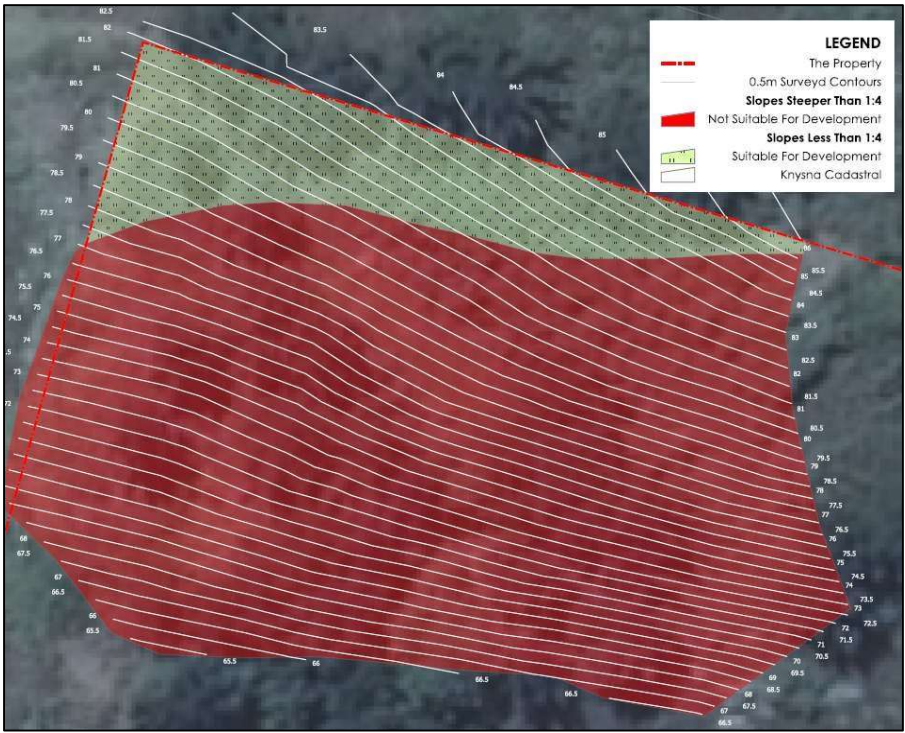
The property is characterised by undulating coastal topography comprising prominent ridgelines, densely vegetated valleys and moderately to steeply sloping terrain. Elevations across the property range from approximately 40 m to 60

m above mean sea level (MSL), with the southern dune system containing localised slopes of up to 55%.

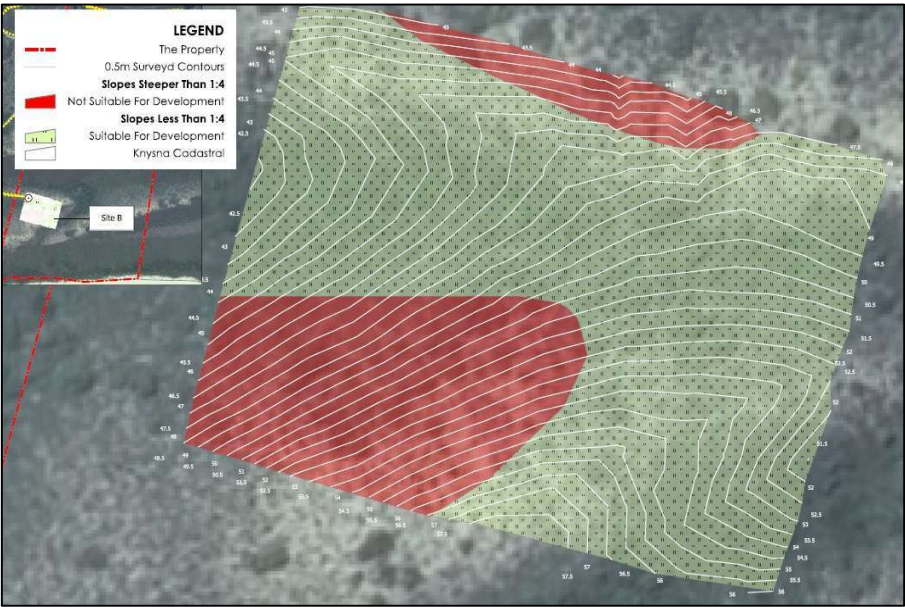
This area comprises comparatively gentler slopes, is more suitable from an engineering perspective, and enables the proposed development to be accommodated while minimising environmental impacts.

The preferred development comprises a single main dwelling (approximately 1 000 m²) together with an internal access road and associated services. The development footprint has been substantially reduced from the original proposal, while the remainder of the property will remain in its natural state.

Site: A



Site: A Layout



Site: B Layout

Please refer to the Locality map below:

Locality Map



Locality

Legend

Location Information
Lat: -34.067589 | Lon: 23.004063
Name: n/a
Farm Nr: 76/216
Area (Ha): 21.01
SG Code: C03900000000021600076
SG Region: KNYSNA
Legal Status: Registered

Property Boundary Marked in Red

Scale: 1:36 112
Date created: August 10, 2020

Compiled with CapeFarmMapper



Western Cape
Government

Agriculture

Biological Components

VEGETATION

The site supports two indigenous vegetation types, namely Knysna Sand Fynbos (FFd10) and Goukamma Dune Thicket (AT36). The northern portion of the property is mapped as Critically Endangered Knysna Sand Fynbos, while the southern portion comprises Goukamma Dune Thicket, which is classified as Least Concern. Despite its conservation status, the southern vegetation forms part of an intact coastal ecological system and contributes to the ecological functioning of the broader landscape.

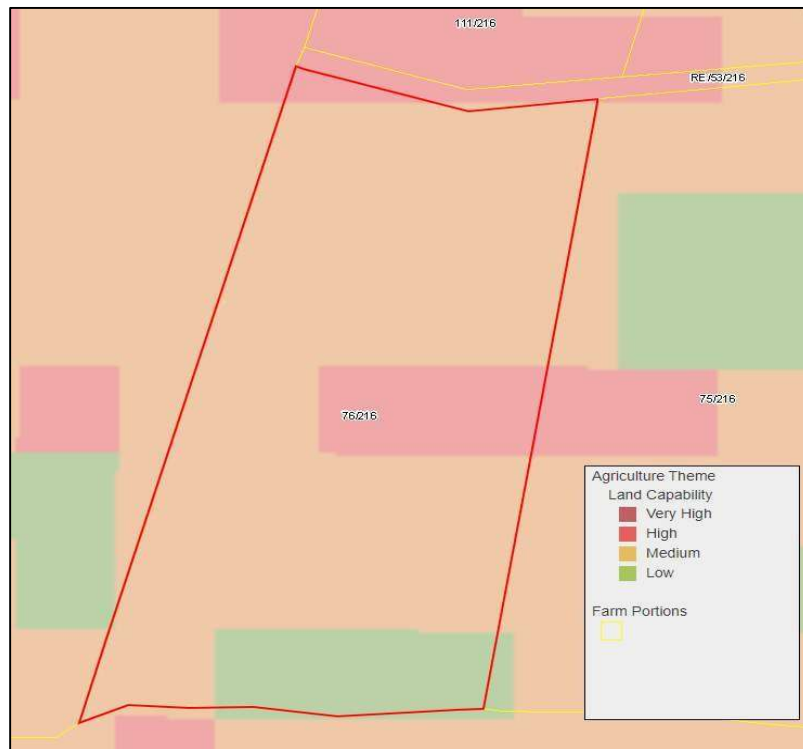
The Confluent Environmental Plant Species and Terrestrial Biodiversity Report confirmed that the property is largely in a natural condition and supports numerous Species of Conservation Concern (SCC). The site also forms part of an important Critical Biodiversity Area (CBA 1) and ecological corridor, with high ecological connectivity to adjacent conservation areas. The botanical assessment concluded that all development alternatives would result in some degree of habitat transformation; however, the magnitude of these impacts differs considerably between alternatives.

The specialist identified the northern development option (Alternative 3 in this Final BAR) as the preferred botanical alternative because it would result in the smallest overall project area of influence (PAOI), the lowest level of landscape fragmentation, a reduced fire risk, and less than 1% transformation of the property. The assessment further concluded that the residual biodiversity impacts associated with this alternative could be reduced to Minor or Negligible significance through the implementation of appropriate mitigation measures. In contrast, the larger southern development alternatives would result in greater habitat transformation and may trigger biodiversity offset requirements due to higher residual impacts.

The vegetation assessment informed the alternatives assessment presented in this Final Basic Assessment Report and was considered together with the findings of the remaining specialist investigations, engineering constraints, planning considerations and comments received during the public participation process.

Agricultural Potential

According to Cape Farm Mapper, the Dryland Potential Index is very high and in terms of land capability, the majority of the property has a low to moderate (medium) potential. A small section in the middle of the property has a moderate to high (high) potential and a small portion in the southeastern corner of the property has a low to very low potential (low).



AGRICULTURE POTENTIAL-LAND CAPABILITY

The application area makes no contribution whatsoever to agricultural production at this stage for crop and grazing purposes.

However, the preservation of natural veld and bee farming will be practised on this property, and both are seen as agriculture activities. It can, therefore, be concluded that the property has low agricultural potential and no productive agricultural land will be lost by allowing the construction of the proposed buildings.

Cognisance is taken of the following situations:

- In terms of section 52 of the National Environmental Management: Biodiversity Act (Act No. 10 of 2004), **Knysna Sand Fynbos**, a threatened ecosystem, occurs on the site, with an ecosystem status **critically endangered**.
- In terms of the Garden Route Initiative Fine Scale Planning Map, "*Critical Biodiversity Area*" occurs on the site.
- The size of the property is: 21,0427 (Twenty-One Thousand, Zero Four Two Seven) Hectares
- The proposed development is approximately 8 765m² in size, equating to approximately 4.3% of the property being developed and the rest of the property will remain in a natural state.

Site Sensitivity Verification

Confluent Environmental undertook a Site Sensitivity Verification Report (SSVR) for the botanical and terrestrial sensitivity of Farm 76 / 216 (called Uitzicht), located just west of Brenton on Sea. According to the Department of Forestry, Fisheries, and the Environment (DFFE) Screening Tool, the SSVR is required because the terrestrial plant species theme has been highlighted as having a Medium and High sensitivity over different areas of the site, and the terrestrial biodiversity has an overall Very High sensitivity.

The terrestrial biodiversity sensitivity of this site is classified as Very High due to a significant area of remaining natural vegetation, specifically Knysna Sand Fynbos, which is Critically Endangered (CR) and located north of the large barrier dune. This area faces threats from invasive species, particularly pines. The southern section consists of sensitive habitat, characterised by a strandveld-fynbos mosaic with thicket patches in fire refugia, including dune bases and crests.

Additionally, the site is designated as a Critical Biodiversity Area 1 (CBA1) and serves as an important ecological corridor along the coastline. It is rated as High for terrestrial plant species sensitivity, as it hosts several Species of Conservation Concern (SCC), with notable spatial variation in their distribution across the site.

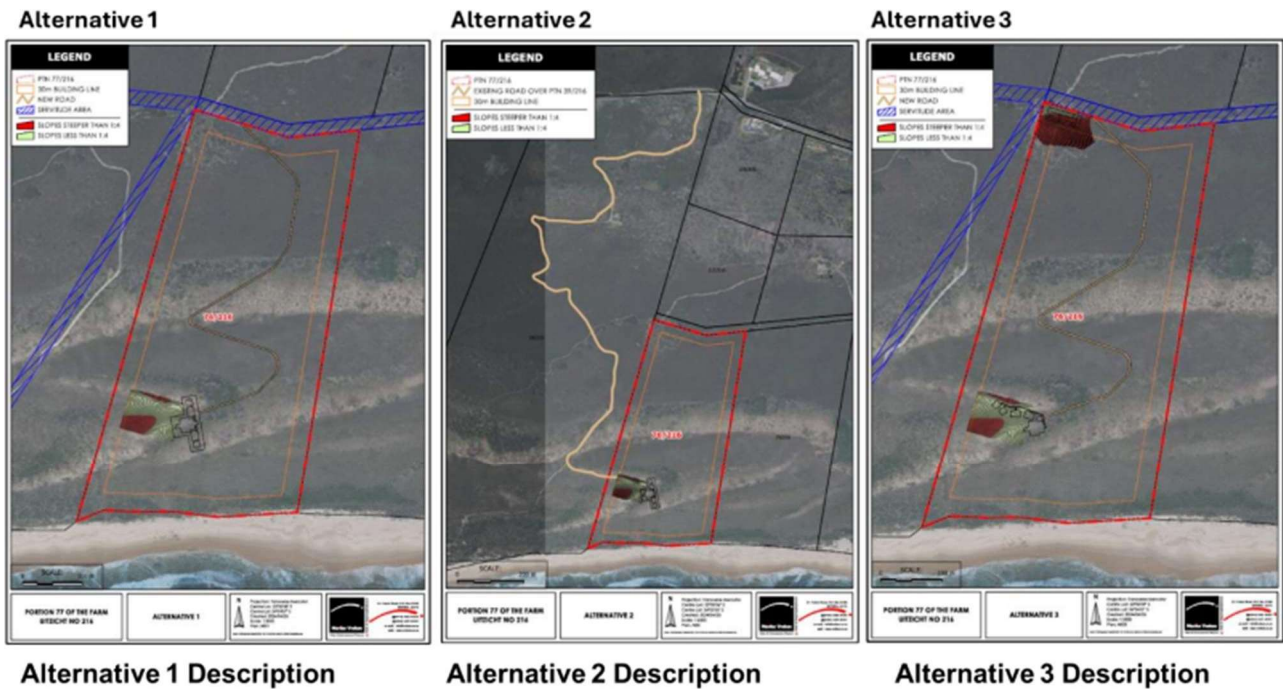
In July 2024, Confluent Environmental submitted an updated Site Sensitivity Verification Report (SSVR) assessing the botanical and terrestrial sensitivity of Farm 76/216, known as Uitzicht, located west of Brenton on Sea.

Portion 76/216 is situated south of the Knysna Lagoon and estuary, with its southern boundary bordering the coastline. Access is provided via a road on the neighbouring western farm, branching from C.R. Swart Drive. Currently, there is minimal development on adjacent properties, as this area is part of the Garden Route Biosphere Reserve and Knysna National Lake Area.

Approximately 5 kilometres from the site are several protected areas, including the Brenton Blue Butterfly Special Nature Reserve, established in July 2003 for a Critically Endangered species (CR PE). Other nearby protected areas include the Skuilte and Featherbed Private Nature Reserves, Pledge Nature Reserve, and Goukamma Provincial Nature Reserve, along with its Marine Protected Area.

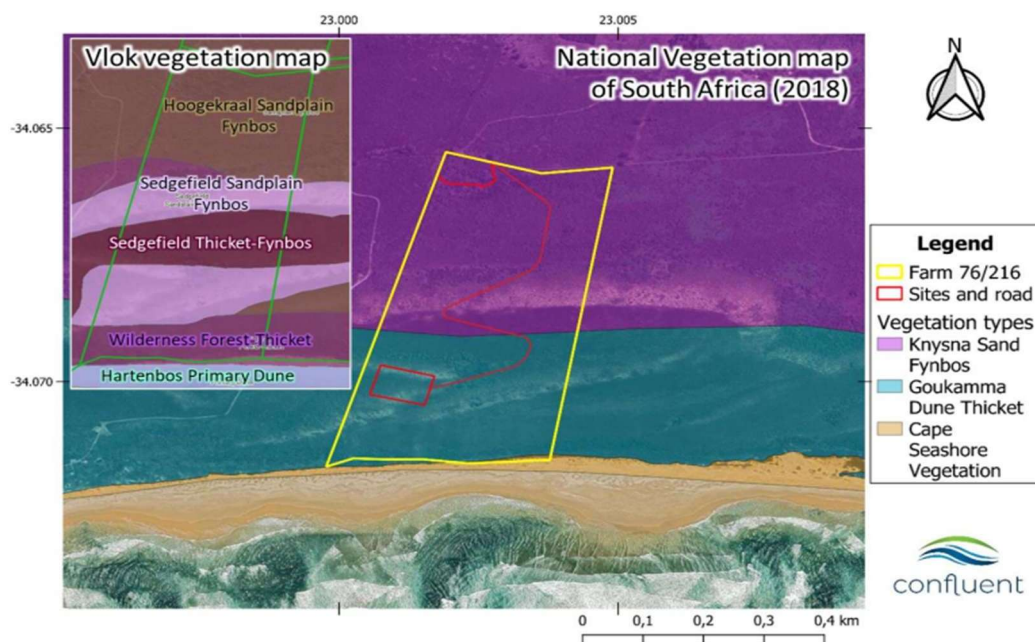
The Site Development Plans (SDP) present three alternatives. The primary proposal involves constructing a main dwelling in the southern section over the dunes, while option three includes a secondary dwelling in the northwest. Option one proposes a new road connecting the two dwellings, whereas option two recommends using the road of the adjacent property. Details on the proposed sewer and electricity systems are not provided in the SDP, but it is assumed they will not significantly impact the disturbance footprint.

The total area of Portion 76/216 is approximately 21 hectares. An overview of the disturbance footprints for each development scenario is provided below.



The National Vegetation Map of South Africa (2018; VEGMAP 2018; Dayaram et al., 2019; Grobler et al., 2018; Mucina & Rutherford, 2006) identifies two primary vegetation types on the property. The northern section, located above the prominent dune, is classified as Knysna Sand Fynbos (FFd 10), which is listed as critically endangered (CR) under the NEM:BA Act (2022). In contrast, the southern section is designated as Goukamma Dune Thicket (AT 36), which is categorized as Least Threatened (LT). The shoreline vegetation is classified as Cape Seashore Vegetation and will not be affected by the proposed development.

According to the Vlok vegetation map, the southern portion of the area designated as 76/216 includes "Sedgefield Sandplain Fynbos" and "Sedgefield Thicket Fynbos," with depressions identified as "Wilderness Forest-Thicket." Additionally, the southernmost dune is referred to as the "Hartenbos Primary Dune," while the northern section corresponds to "Hoogekraal Sandplain Fynbos."



THE MAPPED VEGETATION TYPES ACCORDING TO THE 2018 NATIONAL VEGETATION MAP OF SOUTH AFRICA (DAYARAM ET AL., 2019; MUCINA & RUTHERFORD, 2006), AND THE VLOK VEGETATION MAP CATEGORIES (INSET MAP) FOR PORTION 76/216 AND THE SURROUNDING AREA.

The site is classified as having a Very High sensitivity concerning terrestrial biodiversity due to the presence of a significant area of natural vegetation, specifically a Critically Endangered (CR) vegetation type known as Knysna Sand Fynbos, located north of the barrier dune. This area is threatened by invasive plant species, particularly pines.

The southern section features sensitive habitats, including a mosaic of strandveld and fynbos, with thicket patches serving as fire refugia. The entire site is designated as a Category 1 Critical Biodiversity Area (CBA1) and acts as a vital ecological corridor along the coastline. The sensitivity regarding terrestrial plant species is assessed as High, as the site hosts several species of conservation concern (SCC) and displays notable spatial variability in their distribution.

Site Ecological Importance

The site ecological importance (SEI) assessment is a function of biodiversity importance (BI) and receptor resilience (RR). The criteria for defining RR, CI and FI are provided in the Species Environmental Assessment Guidelines of 2022. BI can be derived from a simple matrix of CI and FI, as illustrated in the Table below.

		Conservation Importance				
		Very High	High	Medium	Low	Very Low
Functional Integrity	Very High	Very High	Very High	High	Medium	Low
	High	Very High	High	Medium	Medium	Low
	Medium	High	Medium	Medium	Low	Very Low
	Low	Medium	Medium	Low	Low	Very Low
	Very Low	Medium	Low	Very Low	Very Low	Very Low

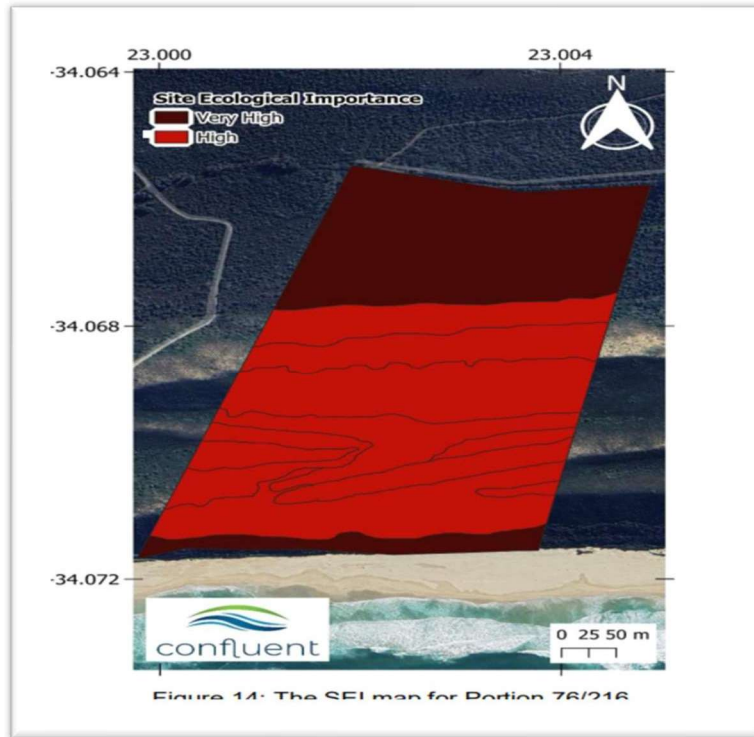
THE MATRIX THAT DEFINES THE BIODIVERSITY IMPORTANCE (BI) OF A GIVEN HABITAT TYPE, AS IDENTIFIED FROM A DESKTOP AND FIELD ASSESSMENT.

SEI can then be derived from a second matrix, as depicted in the table above. SEI is specific to the proposed development and can therefore only be compared between alternative layouts for the same proposed development, but not between developments.

		Biodiversity Importance				
		Very High	High	Medium	Low	Very Low
Receptor Resilience	Very High	Very High	Very High	High	Medium	Low
	High	Very High	Very High	High	Medium	Very Low
	Medium	Very High	High	Medium	Low	Very Low
	Low	High	Medium	Low	Very Low	Very Low
	Very Low	Medium	Low	Very Low	Very Low	Very Low

THE MATRIX THAT DEFINES THE SITE ECOLOGICAL IMPORTANCE (SEI) OF A GIVEN HABITAT TYPE, AS IDENTIFIED FROM A DESKTOP AND FIELD ASSESSMENT.

The SEI map that was produced for Portion 76/216 reflects the sensitivity of the site



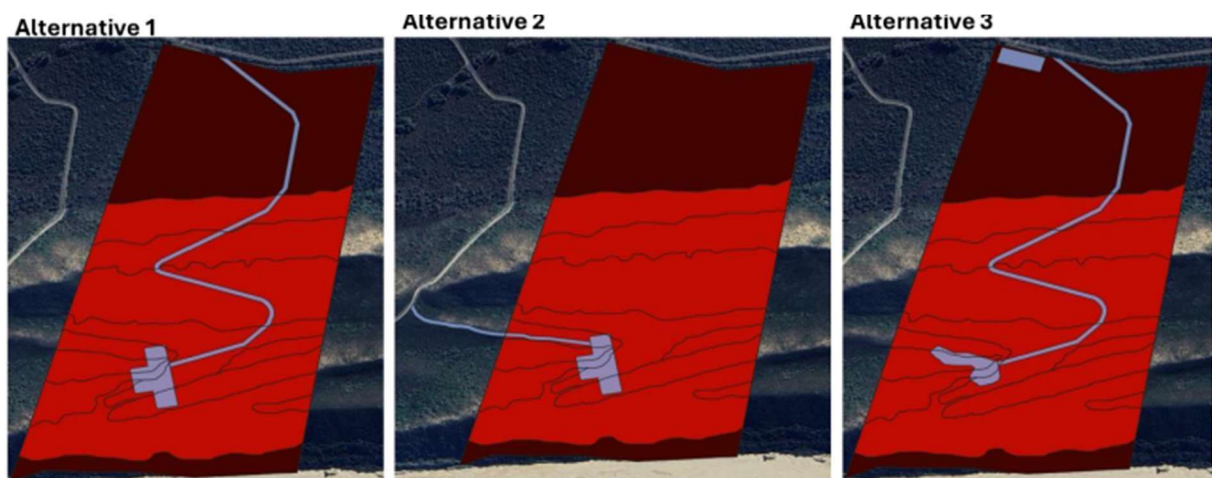
THE SEI MAP FOR PORTION 76/216

Project Area of Influence

The Project Area of Influence (PAOI) is delineated based on the ecosystem services and processes that may be impacted by the proposed development on Portion 76 of 216. The calculation of the PAOI is initially performed by the Environmental Assessment Practitioner (EAP) and subsequently validated by the specialists appointed for this purpose.

The Project Area of Impact (PAOI) is larger than the Site Development Plan (SDP), which only represents the direct disturbance footprint of the proposed project. The PAOI is defined by two principles.

First, an additional 2-meter disturbance envelope surrounds all proposed roads and dwellings, as illustrated in the three alternative layouts. Second, in the second layout of the main dwelling in Alternative Three, the edges of the buffered area were refined to improve the accuracy of edge effect assessments.



THE THREE PROPOSED ALTERNATIVE DEVELOPMENT OPTIONS FOR PORTION 76/216.

Negative impacts on the site include:

- Large stands of Rooikrans ("*Acacia cyclops*") and invasive "*Pinus radiata*" in the north.
- Roads affecting habitat connectivity and increasing invasive plant risks.
- Development causing fire suppression in an ecosystem that needs fire. The fynbos requires a burn by 2030, but controlled burns are unlikely without environmental authorisation.

Construction Phase

Construction on Portion 76 of 216 will involve activities that affect the themes assessed in this report. This phase will permanently eliminate habitat and vegetation on the site, including sensitive coastal communities (SCC). The impacts are ranked from most to least significant regarding Terrestrial Biodiversity and Plant Species. An Environmental Control Officer (ECO) should be appointed to ensure compliance with management plans and mitigation measures during construction.

During construction: New roads need to be made using the same/similar materials and methods as the neighbouring road.

The proposed development on Portion 76/216 will affect sensitive fynbos and strandveld vegetation within a Critical Biodiversity Area 1 (CBA 1). The impact assessment recommends Alternative 4 as the best layout, with Alternative 2 also being viable. Both result in Minor or Negligible impacts, while Alternatives 1 and 3 risk requiring offsets due to Moderate impacts. Alternative 4 is preferable because it minimises project footprint, reduces fire risk, limits landscape fragmentation, and results in less than 1% transformation of the property, compared to over 2% for other options.

The Vegetation Sensitivity Analysis can be found in **Appendix D**.



Veg Map 2018

Legend

- Farm Portions
- VEGMAP 2018 (Beta)**
- Estuary
- AT 36 Goukamma Dune Thicket
- AZd 3 Cape Seashore Vegetation
- FFd 10 Knysna Sand Fynbos
- FFd 11 Southern Cape Dune Fynbos

Scale: 1:18 056

Date created: August 10, 2020

Compiled with CapeFarmMapper



Western Cape Government

Agriculture

Source: Esri, Maxar, GeoEye, AeroGRID, IGN, and the GIS User Community
Department of Rural Development and Land Reform, Chief Surveyor-General
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Critical Biodiversity Area



Critical Biodiversity Areas

Category 1: CBA: Terrestrial

Category 2: CBA: Terrestrial

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.

Summary of Protected Areas, Ecological Support Areas and Critical Biodiversity Areas

Selected remaining areas of natural vegetation and habitat have been designated as either: declared Protected Areas (PAs); Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs), as habitat required as part of the CBA conservation network; in addition to Other Natural Areas. Intact CBAs and ESAs are required to prevent further degradation of the landscape, and ecosystem functioning and services by maintaining ecological and hydrological corridor linkages. Degraded lands within identified sensitive areas have also been selected to maintain ecological connectivity. The entire property is within a designated sensitive area, namely a Critical Biodiversity Area selected on the basis of being:

- Habitat required as part of the CBA network.

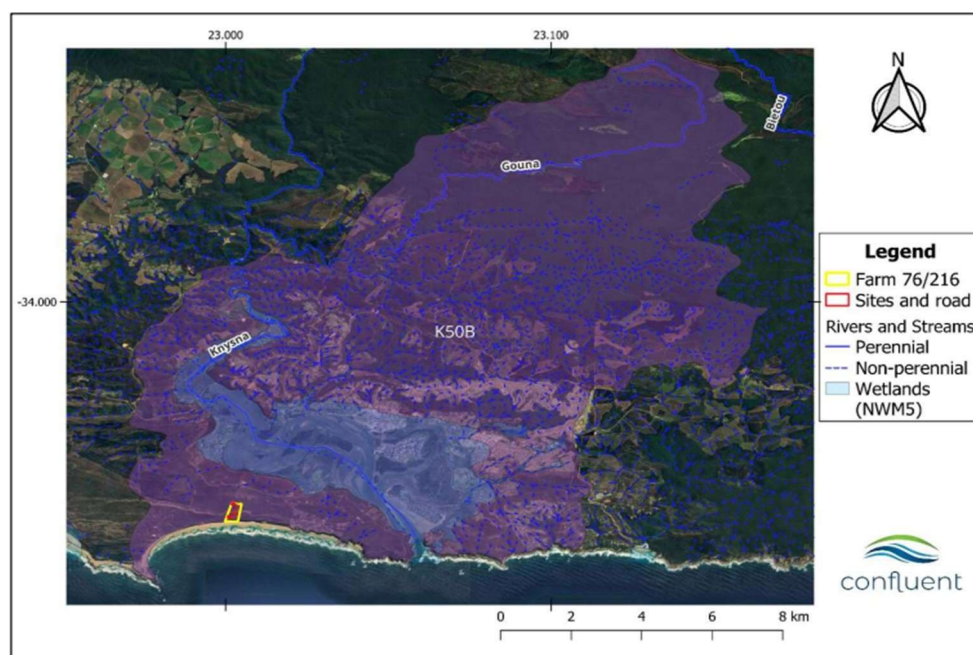
- A critical and important supporting area for maintaining corridors, linkages and ecological processes.
- A critical and important supporting area for maintaining hydrological processes.
- Areas with potential occurrence of threatened species or habitat important for supporting threatened species.
- the potential occurrence of a threatened ecosystem habitat or fine-scale habitat equivalent.
- An important area for protected habitats – like wetlands and forests.
- Critical and important supporting area for maintaining coastal processes.

The overarching management objectives for PAs / CBAs / ESAs are to maintain natural land, rehabilitate degraded land to a natural or near-natural condition and manage for no further degradation. In this regard, the area is an important critical and supporting area for corridors, linkages and ecological processes and for maintaining hydrological processes; and for conservation of threatened and protected habitats, as well as coastal processes.

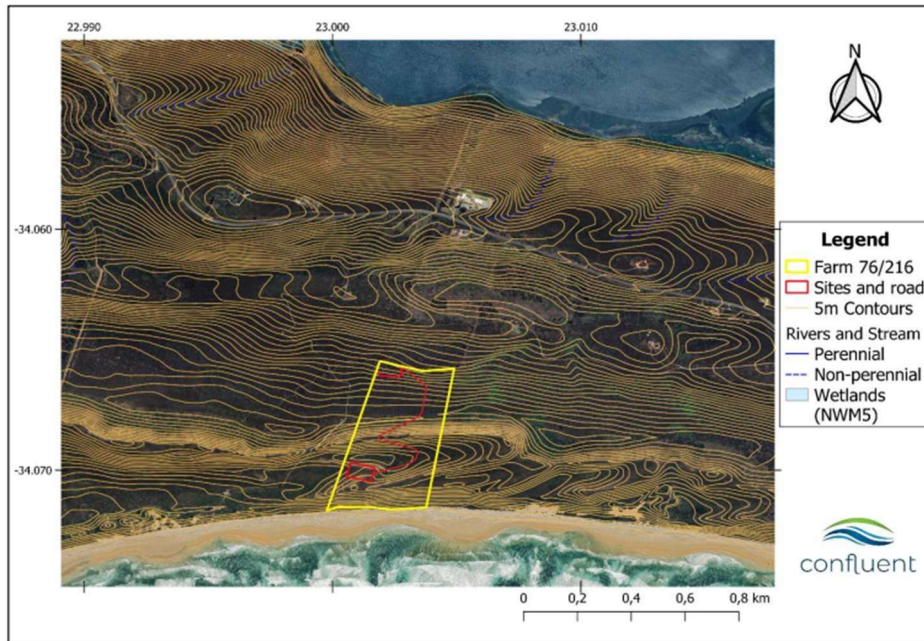
Aquatic

Confluent Environmental Pty (Ltd) was appointed by EcoRoute to provide aquatic specialist inputs for the proposed development of two residential dwellings described as a main farmhouse and farm manager's house. The site was visited on 11 October 2023 and again on 5 & 6 December 2023.

The development site (Farm 76/216) is in the quaternary catchment K50B in the catchment of the Knysna River/Estuary. However, given the site location, it cannot drain north to the Knysna Estuary due to steep slopes in that direction. Any wetlands or drainage lines would be either endorheic (inward draining) or drain to the sea. No rivers, streams, or wetlands are mapped on the property and there are no mapped streams or wetlands in the immediate vicinity of the property. As the rainfall intensity in the area is classified as Very High and the inherent erosion potential of soils is High, erosion of soils and stormwater management are factors which must be carefully considered when developing in this area. The mapped soils are very sandy and have high rates of drainage. This factor immediately limits the presence of surface water on the site.



LOCATION OF FARM 76/216 IN THE QUATERNARY CATCHMENT K50B.



LOCATION OF THE FARM 76/216 IN RELATION TO MAPPED WATERCOURSES.

The project area is located within the southeastern coastal belt (Ecoregion Level 2:20.02). The terrain is described as closed hills of moderate and high relief and moderately undulating plains. Altitude ranges between 0 – 1 300 m.a.m.s.l.

There are no identified watercourses on the property itself, nor within the regulated areas as defined by GN 4167 of the National Water Act.



MAP INDICATING NO MAPPED WATERCOURSES WITHIN 100 M OR 500 M FROM THE PROPOSED DEVELOPMENT SITE

The development will not impact a watercourse and is not located proximal to any watercourse. The report indicates that the existing access road on the adjacent property to the west (39/216 Uitzicht) is the preferred means of access for any dwelling situated south of 76/216. However, this option is not feasible for the landowner/applicant, as access to their property is required, and the sharing of a road is not considered a viable option for the landowner.

Geotechnical Soil Test Report

Outeniqua Consulting, comprising Geotechnical Engineers and Engineering Geologists, completed a Geotechnical Soil Test Report in 2019, which resulted in the following conclusions:

Three shallow test pits were excavated by hand to a max depth of 1.5m, one test was on the proposed house footprint and two test pits along the proposed road (refer to test positions indicated on the attached plan). Ten DCP tests were conducted from natural ground level to a depth of ~2m to assess soil consistency. Samples of soil were collected for Mod.AASHTO/CBR and Foundation Indicator tests.



MAP INDICATING TEST PIT LOCATIONS

Geology and Soil Profile

The site is underlain by unconsolidated aeolian sand with Quaternary shell inclusions, forming stable coastal dunes. The soil consists of an 800 mm dark brown silty fine sand topsoil over light brown cohesionless fine sand. DCP tests indicate the upper layer is very loose (40-75 mm/blow), becoming medium dense below 1 meter. Test pits showed wall collapses due to sandy conditions, with no bedrock expected for several meters below.

Lab results indicate that the soils are non-plastic and mostly consist of fine sand, with 99% passing through a 0.425 mm sieve. They are classified as either SP (poorly graded sand with little to no fines) or SM (silty sand with non-plastic fines). No heaving is expected due to the lack of plastic fines.

None of the test pits found groundwater, and there were no signs of poorly drained areas. The highly permeable sands will generally drain well, though seasonal seepage may occur along natural drainage lines on the site.

Recommendations

Earthworks

Excavations up to 3 meters deep are classified as "Soft" per SABS1200D. Sidewalls become unstable at angles over 30 degrees, so they should be battered or supported with retaining walls. The soil beneath the topsoil is generally suitable for backfilling in various applications but must be approved by the engineer before use.

The proposed dwelling site has a moderate slope of about 1:5 and will require significant earthworks for level platforms. The access road also has steep terrain, necessitating earthworks and retaining walls for the box cut.

Foundations and floor

For single and double-storey masonry and timber structures, use lightly reinforced concrete strips or pads at 0.6 meters depth on well-compacted sand or controlled fill (max bearing pressure: 100 kPa). Excavate foundation trenches to 1.2 meters, compact with a trench rammer, and backfill with 0.6 meters of moist sand in 0.15-meter layers. Test compaction with a Dynamic Cone Penetrometer (DCP) to ensure a maximum penetration of 20 mm/blow to at least 1 meter below the foundation level.

Avoid foundations on slopes (1:8 to 1:4) due to risks and costs. Consider deep foundations for steep slopes. Ensure an engineer inspects the site, and compact fill under reinforced concrete to 100% Mod AASHTO density.

Roads

The road layout should consider the site's natural contours and drainage to minimise earthworks. Deep box cuts should be retained, as they typically do not encounter rock. Fill can be used in-situ soil (excluding topsoil). The in-situ subgrade material varies from G7 to G9, so it's advised to import at least one G7 subgrade layer in addition to standard layer works for lightly trafficked internal roads and parking areas.

Drainage

The soil is highly permeable, and site drainage is not envisaged to be a problem. No subsoil drains are deemed necessary along roads but are recommended behind retaining walls as standard.

Conclusions

The site has been assessed as appropriate for the proposed development, subject to careful consideration of anticipated geotechnical constraints. Conventional construction methods are recommended, and a set of practical recommendations has been provided for the engineer's consideration to enhance the founding conditions on compressible soils.

The geotechnical investigation confirmed that the northern portion of the site is underlain by loose to medium-dense aeolian sands, with poor natural bearing capacity (G7–G9). This would require substantial soil import and compaction. By contrast, the south-western portion is more stable and less constrained. This supports the selection of the south-western alternative as the most feasible location.

Heritage Statement

The applicant, Midnight Storm Investments 180 (Pty) Ltd, proposes to exercise the primary land use rights of the property, which, for Agriculture Zone I, implies the construction of a primary dwelling and a secondary dwelling.

The proposed development site encompasses an area exceeding 5,000 m² and the length of the projected road footprint surpasses 300 m. Consequently, 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 applicant has engaged my services through Eco Route to facilitate the heritage process and to assist with the NID application directed to HWC.

The document should be regarded not as a Heritage Impact Assessment but as a scoping report that offers supplementary information in support of the NID application and articulates the rationale behind the recommendations provided herein.

The Heritage Statement, along with the accompanying NID application form, is designed to inform the Heritage Western Cape (HWC) about the proposed development activities while making recommendations concerning the potential impact on heritage resources. Furthermore, it addresses the necessity for any additional specialist investigations.

It is essential to consider the report, the NID application form, and the accompanying documentation in conjunction, as not all information is reiterated within each document.

The objective of this Heritage Statement is to articulate the findings derived from a site inspection, accompanied by a comprehensive review of relevant background information and preceding heritage-related studies. This statement aims to:

- 1) Support the Heritage Western Cape (HWC) in their decision-making process by ensuring that potentially significant heritage resources are thoroughly investigated and not disregarded, while also preventing the initiation of unnecessary heritage studies; and
- 2) Facilitate the applicant's navigation of the heritage application process, thereby mitigating costs associated with superfluous specialist studies and minimising potential delays and expenses resulting from the unforeseen discovery of significant heritage resources that have not been previously identified.

Study Area

The southern boundary of 76/212 aligns with the high-water mark of the Indian Ocean, while the northern boundary is approximately 650 m north of it. The main dwelling is proposed to be about 120 m from the shoreline, just inland of a steep 60 m high coastal dune. A second dune, around 70 m high, runs east-west through the property, with the site for the second house positioned about 80 m above mean sea level. The dunes are composed of Holocene sands, accumulated over the last 6,000 years, resting on aeolianites from the Waenhuiskrans Formation, which formed 80,000 to 130,000 years ago. No hard rock geological sediments or rock shelters are present on the property, and the nearest rocky intertidal zones are over 1.5 km east and 3 km west. There are modern structures on surrounding properties, but no built environment exists on 76/216.



FIGURE 5. OBLIQUE EASTERLY VIEW OF 76/216 (RED POLYGON) SHOWING THE TWO SITES FOR HOUSES (WHITE ELLIPSES), STEEP PARABOLIC COASTAL DUNES, AND BRENTON-ON-SEA IN THE BACKGROUND TO THE RIGHT. COURTESY OF GOOGLE EARTH 2023.

The northern section of the property is characterised by dense vegetation that has been significantly altered and contains a variety of exotic species, including black wattle, pine, blue gum, and rooikrans trees. Conversely, the remainder of the property is less modified, although exotic species are still present in the lower-lying thicket areas. Many sections of the property remain inaccessible for archaeological inspection due to the dense vegetation and ground cover. However, the presence of tracks, exposed surfaces, and widespread mole activity provided sufficient opportunities for observation pertinent to this baseline investigation.

The SAHRIS PalaeoSensitivity map shows that the study area is white/clear/unshaded, meaning that palaeontological sensitivity is UNKNOWN and that “these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map” (Figure below). Due to the UNKNOWN palaeontological sensitivity attributed to the study area, a professional palaeontologist, Prof John Pether, was consulted for inputs.

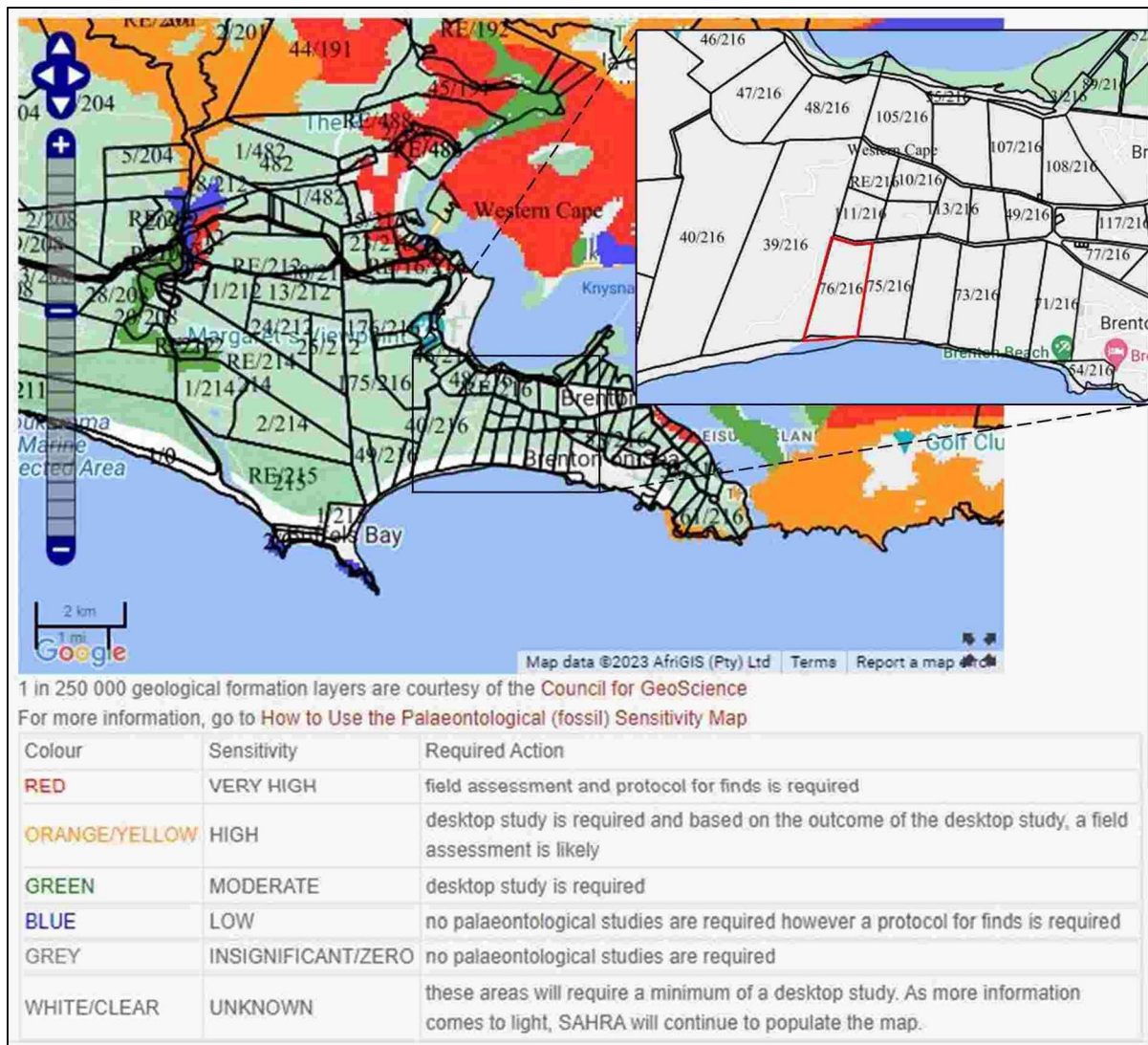


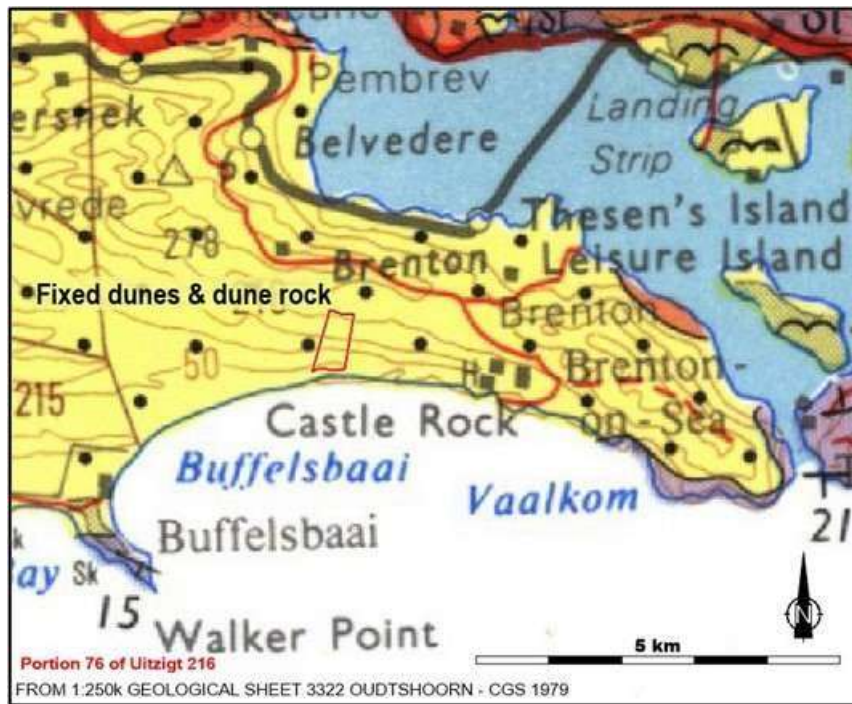
FIGURE 20. SAHRIS PALAEOSENSITIVITY MAP SHOWS THAT THE STUDY AREA (RED POLYGON IN INSET) IS WHITE/CLEAR/UNSHADED ([HTTP://WWW.SAHRA.ORG.ZA/](http://www.sahra.org.za/)).

The following includes key sections and full recommendations given in Prof Pether's report.

Geological Context

The Knysna property is situated on fixed dunes and dune rock, underlain by the Waenhuiskrans Formation of the Bredasdorp Group. This formation is classified as Very High/Red in the Worcester and Riversdale geological maps but is unclassified in Oudtshoorn

The area includes aeolianite formed during Marine Isotope Stage 5 (130,000 to 80,000 years ago) and older mid-Quaternary ridges. The seaward section features stacked parabolic dunes formed during the Holocene (past 6,000 years) and is covered by windblown grey coversands that support Knysna Sand Fynbos, with occasional buried palaeosols.



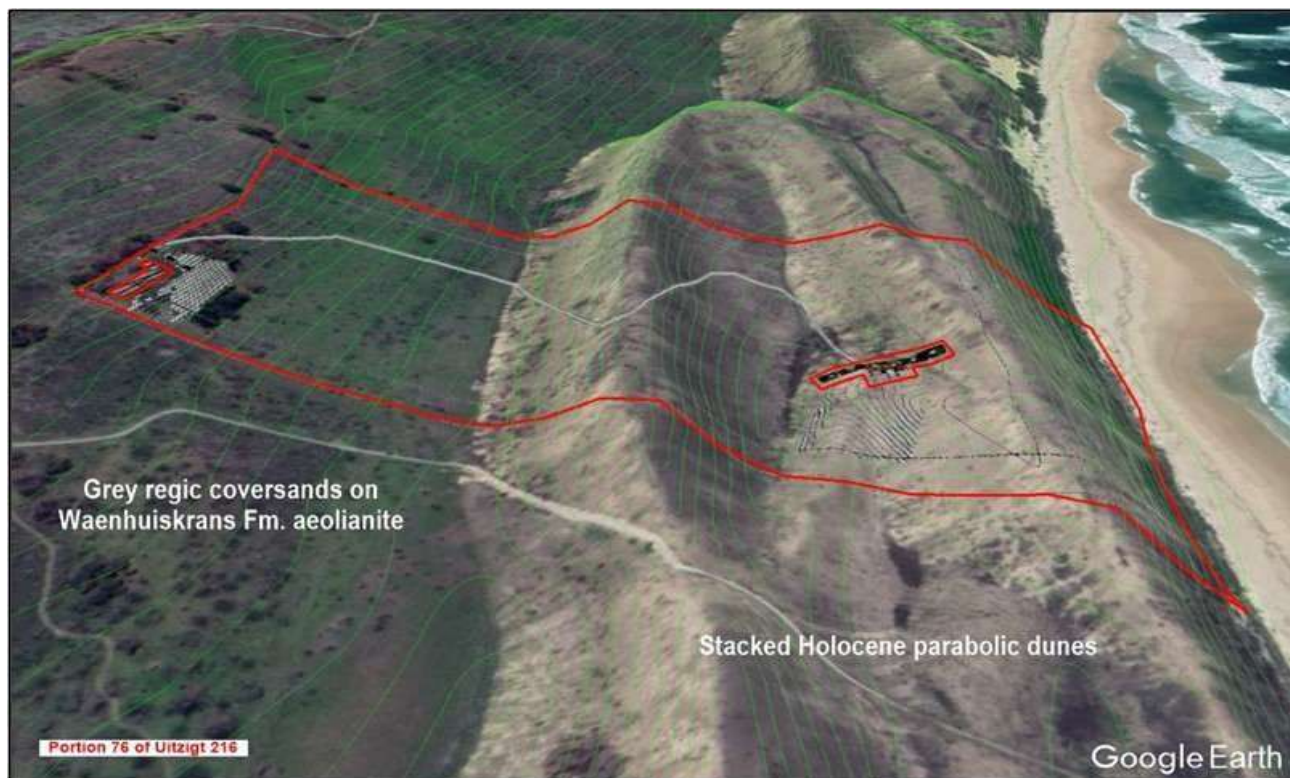
SURFACE GEOLOGY OF THE BRENTON AREA AND LOCATION OF PORTION 76 OF UITZICHT 216.



THE LANDSCAPE SETTING OF PORTION 76 OF UITZICHT 216

Anticipated Impacts

It is expected that the excavations for foundations and infrastructure will follow typical practices for conventional developments, generally reaching depths of 0.5 to 0.8 meters. However, deeper excavations, around 2 meters, will be required for septic tanks and swimming pools. The earthworks for the farm buildings in the northwest corner of the property will primarily impact the coversands but may also intersect the underlying palaeosurface and the buried soil that caps the Waenhuiskrans Formation aeolianite.



PROPOSED DEVELOPMENT AREAS, LOOKING EAST. IMAGE DATE 11/17.

Fossil bones in the Waenhuiskrans Formation are likely from the later Quaternary (160 to 80 ka) and mainly consist of extant species, with some potentially extinct. These finds hold moderate scientific importance, but significant discoveries are unlikely due to limited subsurface impact

In the Strandveld Formation dunes, rare bones of elephants, rhinos, and hippos are found, dating to less than 6,000 years old, reflecting modern fauna. Analyses of these subfossils provide ecological insights, with little impact expected from excavations.

Recommendations

The proposed developments are not expected to impact fossil heritage resources in the subsurface disturbance areas. However, if fossil bones, archaeological material, or unmarked graves are unexpectedly uncovered, it is recommended to include a Fossil Finds Procedure (FFP) in the Environmental Management Plan (EMP) for construction.

No archaeological studies have been done on 76/216, but previous work was conducted on nearby sites (Nilssen 2017). There are no National or Provincial Heritage Sites or graded archaeological resources in the immediate vicinity that would be affected by the development.

SG Diagrams, Historic Aerial Photographs and Results of Site Inspection

The property was examined for its potential impact on heritage resources of colonial and pre-colonial origin. Only heritage resources relevant to the immediate vicinity of the property are considered. Previous heritage studies and monitoring of geotechnical test excavations in the surrounding area have provided sufficient observations and information for the HWC NID application process.

The approach to the fieldwork was:

- to walk and inspect the development footprint to gain an understanding of its archaeological content and context by accessing a representative portion of the affected area,

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- and the site inspection was completed with an evaluation of the visual/aesthetic sensitivity of 76/216 from the unnamed road leading to and from Brenton-on-Sea.

A few fragments of white mussel shell were seen among numerous modern land snail shells atop the apex of the southernmost coastal dune. The shells appear modern and are not associated with any anthropogenic materials. They are likely recent bird or fisherman droppings and are not archaeological in origin. The observation is of no heritage value.

No archaeological or heritage resources of colonial or pre-colonial origin were identified on 76/216 or in its immediate vicinity.

Palaeontological and heritage studies indicate that the proposed development will not impact significant archaeological resources and will have negligible visual effects. The area, already transformed into a holiday and residential landscape, will remain unchanged in terms of heritage value.

Conclusions and Recommendations

The following conclusions and recommendations are arrived at after reviewing the information obtained through:

- previous heritage studies and HWC applications in the vicinity of the 76/216,
- SAHRIS PalaeoSensitivity map,
- Palaeontological Impact Statements (Pether 2023)
- previous archaeological and heritage-related studies in the surrounding area,
- SG Diagrams,
- historic and Google Earth aerial photographs, and
- a site inspection (archaeological walk-through).

The SAHRIS PalaeoSensitivity map shows that the study area has UNKNOWN palaeontological sensitivity, requiring a desktop study. Palaeontologist Prof John Pether concluded that the proposed development is unlikely to impact fossil resources, but recommended a Fossil Finds Procedure (FFP) in the Environmental Management Plan. No significant heritage resources were identified, and any potential Stone Age tools would have low significance. The area has a negligible visual impact and does not contribute to the cultural landscape. Overall, the socio-economic benefits, including job creation, outweigh any minor impacts. Therefore, the proposed activity should be approved without a Heritage Impact Assessment.

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

- ✓ Although not requiring further Palaeontological investigation, Prof Pether recommends that the Fossil Finds Procedure (FFP – see links above), should be included in the Environmental Authorisation / Environmental Management Program (EMPr) for the construction phase of the project.
- ✓ due to the findings of this, geotechnical test excavations, and previous archaeological studies, archaeological monitoring is NOT recommended, but
- ✓ if any human remains or significant archaeological materials are exposed during mining activities, then the find should be protected from further disturbance and work in the immediate area should be halted and Heritage Western Cape must be notified immediately. These heritage resources are protected by Section 36(3)(a) and Section 35(4) of the NHRA (Act 25 of 1999), respectively and may not be damaged or disturbed in any way without a permit from the heritage authorities. Any work in mitigation, if deemed appropriate, should be commissioned and completed before construction continues in the affected area and will be at the expense of the developer.

Heritage

A Notice of Intent to Develop has been submitted to the Department of Heritage Western Cape. The Department stated the following in a letter dated 13 February 2024:

You are hereby notified that, since there is no reason to believe that the proposed development on Portion 76 of Farm Uitzicht 216 has impacted heritage resources, no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required. HWC Chance finds the procedure to be included in the Environmental Authorisation.

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	
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%	

2. 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

Definition of key terminology:

Nature of the Impact – A description of the 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 historic experience
- Probable, where there is a distinct possibility that the impact will occur.
- Highly probable, where it is most likely that the impact will occur, or
- Definite, where the impact will occur regardless of any prevention measures.

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

- Low, where it would have a negligible effect on biodiversity and 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.

3. The impacts and risks identified for each alternative

Impact assessment in terms of Regulation 22(2)(i) of GN R.543

Preferred Alternative

Main Dwelling

The proposed development comprises the construction of a single 1 000 m² main dwelling within the south-western portion of Portion 76 of Farm Uitzicht No. 216. The dwelling will comprise:

- Bedrooms;
- Open-plan living area incorporating the kitchen, lounge, dining area, bar, scullery, bathrooms and wine cellar;
- Covered and open entertainment areas;
- Open deck and swimming pool; and
- Associated residential services and infrastructure.
- Internal Access Road

An internal access road of approximately 830 m in length will provide access to the dwelling. The road surface will be approximately 2.5 m wide, with a temporary construction disturbance corridor varying between approximately 4 m and 5.5 m where required for construction activities.

Potential Environmental Impacts

- The principal environmental impacts associated with the preferred alternative include:
- Loss of indigenous vegetation within the authorised development footprint;
- Localised impacts on biodiversity and ecological processes within the mapped Critical Biodiversity Area (CBA);
- Soil disturbance, erosion and alteration of local stormwater runoff associated with the construction of the internal access road and dwelling platform;
- Temporary dust, noise and visual impacts during the construction phase;
- Generation of construction and domestic waste;
- Potential impacts on groundwater and surface water resulting from inappropriate stormwater or wastewater management;
- Temporary disturbance to terrestrial fauna during construction;

- Permanent visual changes associated with the completed dwelling and associated infrastructure; and
- Positive socio-economic impacts through temporary employment during construction and limited long-term employment associated with the operation and maintenance of the property.

These potential impacts have been assessed in detail in this Basic Assessment Report, and appropriate mitigation measures have been incorporated into the Environmental Management Programme (EMPr) and specialist recommendations to minimise residual environmental impacts throughout the construction and operational phases.

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	Assessment
Potential impacts on geographical and physical aspects:	Surface water runoff, groundwater, soils and air quality.
Nature of impact:	Construction of the proposed 1 000 m ² main dwelling, associated internal access road and supporting infrastructure will result in localised soil disturbance and compaction within the authorised development footprint. Groundwater may be affected should fuels, oils or other hazardous substances associated with construction equipment be spilled and allowed to infiltrate the soil. Soils: Potential impacts include soil compaction, localised erosion, loss of topsoil and contamination from cement, fuels, oils or other hazardous materials if not appropriately managed. Mixing cement directly on the ground could contaminate soils. Any contaminated soil will require remediation or disposal at an appropriately licensed facility. Surface Water and Groundwater: Poor management of construction materials, fuels and stormwater may result in contamination of surface water runoff and groundwater. The highly permeable sandy soils require strict pollution prevention measures during construction. Air Quality: Temporary dust generation is expected during vegetation clearing, excavation, earthworks and construction of the dwelling and internal access road. Vehicle emissions and exhaust fumes from construction equipment will be temporary, localised and of low significance. Although these impacts are unavoidable during construction, the reduced development footprint significantly limits the extent of disturbance compared with the previously proposed larger development alternatives.
Extent and duration of impact:	Localised and temporary during the construction phase, limited primarily to the authorised development footprint and immediately adjacent areas.
Probability of occurrence:	Probable.
Degree to which the impact can be mitigated:	High. The impacts can be effectively mitigated through implementation of the recommendations contained in the specialist studies and the EMPr.
Degree to which the impact may cause irreplaceable loss of resources:	Low to partial irreplaceable loss.
Cumulative impact prior to mitigation:	Without mitigation, cumulative impacts may include localised soil erosion, sedimentation, contamination of stormwater runoff,

	groundwater and soils, together with temporary dust nuisance and degradation of disturbed areas.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Negative)
Degree to which the impact can be mitigated:	The impact cannot be completely avoided, as earthworks are required for construction of the dwelling and internal access road. However, the extent, duration and intensity of the impacts can be substantially reduced through implementation of appropriate mitigation measures.
Proposed mitigation:	Geotechnical recommendations: The internal access road shall follow the natural contours of the site as far as practicable to minimise earthworks. Deep excavations and box cuts shall be appropriately stabilised and retained where required. Suitable imported subgrade material shall be used where necessary in accordance with the geotechnical recommendations. Existing natural drainage patterns shall be maintained as far as practicable. Rainwater harvesting tanks shall be installed to reduce stormwater runoff. Stockpiles shall be located away from drainage lines and protected against wind erosion. Dust suppression measures shall be implemented during dry and windy conditions. Construction vehicles transporting loose material shall be covered. Construction vehicles and machinery shall be regularly maintained to minimise exhaust emissions. Vegetation clearance shall be limited strictly to the approved and demarcated development footprint. Appropriate erosion control measures shall be implemented throughout construction. Topsoil shall be stripped, stockpiled separately and protected for rehabilitation. Disturbed areas shall be rehabilitated progressively as construction is completed. An Environmental Control Officer (ECO) shall monitor compliance with the EMPr throughout construction. Construction activities: Fuel, oil, cement and other hazardous materials shall be stored within bunded areas on impermeable surfaces. Only the minimum quantity of fuel required for daily operations shall be stored on site. Construction equipment shall not be serviced on site unless emergency repairs are unavoidable. Drip trays and spill kits shall be available at all times. Contaminated soil and absorbent materials shall be removed to an appropriately licensed hazardous waste facility. Cement mixing shall not occur directly on exposed ground. Dust suppression shall be undertaken where required using water or other approved methods. All construction activities shall remain within the approved development footprint. Suitable ablution facilities shall be provided and serviced regularly. Search-and-rescue plants shall be maintained in the on-site nursery and utilised during rehabilitation in accordance with the Botanical Specialist's recommendations.
Alternative comparison:	The Preferred Alternative, comprising a single 1 000 m ² main dwelling in the south-western portion of the property, substantially reduces soil disturbance, stormwater runoff, vegetation clearance, construction material requirements and the potential for groundwater contamination when compared with the previously proposed larger development alternatives. Alternative 1 would result in a larger disturbance footprint and greater cumulative impacts on soils, stormwater management and air quality due to the increased scale of development. Alternative 2 would introduce a second development node within the northern portion of the

	property, increasing the overall development footprint and associated construction-related disturbance. Alternative 3 offers certain engineering advantages, including a substantially shorter internal access route and reduced disturbance associated with road construction. However, the proposed development footprint is located within Critically Endangered Knysna Sand Fynbos. The Specialist Plant Species and Terrestrial Biodiversity Report identified Alternative 3 as the preferred biodiversity option due to its reduced overall project area of influence, lower landscape fragmentation and reduced fire risk. These findings were considered as part of the integrated assessment together with the engineering, planning, environmental and socio-economic considerations presented in this Final BAR. The No-Go Alternative would avoid these impacts but would not meet the purpose and need of the proposed development or enable the Applicant to exercise the existing residential development rights associated with the property.
Cumulative impact post mitigation:	Following implementation of the recommended mitigation measures, cumulative impacts on soils, groundwater, stormwater runoff and air quality are expected to be localised, temporary and of low significance. Progressive rehabilitation and strict environmental management will further reduce residual impacts.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impact on biological aspects:	Habitat and biodiversity loss.
Nature of impact:	Construction of the proposed 1 000 m ² main dwelling, internal access road and associated infrastructure will result in the permanent loss of indigenous vegetation within the authorised development footprint. The preferred development area is located within the southern portion of the property, which comprises Goukamma Dune Thicket (Least Concern). Although the entire property is mapped as a Critical Biodiversity Area (CBA), the preferred layout substantially reduces the overall development footprint compared to the previously proposed larger development alternatives, thereby limiting vegetation clearance, habitat disturbance and fragmentation. Localised habitat loss and disturbance to fauna during construction remain unavoidable. The Specialist Plant Species and Terrestrial Biodiversity Report identified the northern development option (Alternative 3) as the preferred biodiversity alternative due to its reduced overall project area of influence, lower landscape fragmentation and reduced fire risk. These findings have been considered as part of the integrated environmental assessment presented in this Final Basic Assessment Report.
Extent and duration of impact:	Localised and permanent within the authorised development footprint. Construction-related disturbance will be temporary.
Probability of occurrence:	Probable.

Degree to which the impact can be reversed:	Low to Medium. While cleared vegetation cannot be fully restored in the short term, disturbed areas outside the permanent footprint can be rehabilitated using indigenous species.
Degree to which the impact may cause irreplaceable loss of resources:	Low. The preferred layout avoids the more sensitive northern portion of the property and substantially reduces impacts on indigenous vegetation. Any residual loss is limited to the approved development footprint.
Cumulative impact prior to mitigation:	Without mitigation, cumulative impacts include the loss of indigenous vegetation, habitat fragmentation, disruption of ecological processes and a reduction in ecological connectivity within the Critical Biodiversity Area.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Negative)
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Impacts on ecological processes and ecological corridors shall be minimised throughout construction and operation. • An Environmental Control Officer (ECO) shall monitor compliance with the EMP and specialist recommendations. • Alien invasive plant species shall be removed and controlled throughout construction and operation. • A search-and-rescue programme shall be undertaken prior to vegetation clearance, with rescued indigenous plants maintained in an on-site nursery and used during rehabilitation. • Vegetation clearance shall be limited strictly to the approved and demarcated development footprint. • The internal access road shall be constructed using the minimum practical disturbance width and follow natural contours where feasible. • Disturbed areas shall be rehabilitated progressively using locally indigenous vegetation. • No construction activities, stockpiling or vehicle movement shall occur outside the demarcated construction footprint. • The mitigation measures and recommendations contained in the Botanical, Terrestrial Fauna and other relevant specialist reports shall be implemented in full.
Alternative comparison:	The Preferred Alternative substantially reduces vegetation clearance, habitat disturbance and fragmentation when compared with Alternative 1 through the reduction of the dwelling footprint from 3 000 m ² to 1 000 m ² . Alternative 2 would introduce an additional development node within the northern portion of the property, increasing habitat fragmentation and resulting in direct impacts on Critically Endangered Knysna Sand Fynbos. Alternative 3 offers advantages from a biodiversity perspective and was identified by the Specialist Plant Species and Terrestrial Biodiversity Report as the preferred layout due to the reduced overall project area of influence, lower landscape fragmentation, reduced fire risk and the potential to avoid biodiversity offset requirements. However, the integrated environmental assessment considered these findings together with engineering, planning, visual, geotechnical and other environmental considerations in assessing

	the overall suitability of the alternatives. The No-Go Alternative would avoid biodiversity impacts but would not meet the purpose and need of the proposed development or enable the Applicant to exercise the existing residential development rights associated with the property.
Cumulative impact post mitigation:	Following implementation of the recommended mitigation measures, residual impacts on biodiversity are expected to be localised and of low significance. The preferred layout, reduced development footprint and rehabilitation measures minimise cumulative effects on ecological processes and habitat connectivity.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impacts on socio-economic aspects:	Socio-economic impacts.
Nature of impact:	The construction of the proposed 1 000 m ² main dwelling, internal access road and associated infrastructure will result in temporary positive socio-economic benefits through the creation of employment opportunities for contractors, subcontractors and local labour during the construction phase. The development will generate demand for local goods, materials and services, contributing positively to the local economy. Opportunities for skills transfer and training may also be created. No significant negative impacts on existing land uses, community livelihoods, public access or social well-being are anticipated.
Extent and duration of impact:	Local to the Knysna Municipal area during the construction phase. The positive economic benefits will be temporary, while any skills transfer may provide longer-term benefits.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Positive impact. The economic benefits will diminish once construction is complete; however, skills development and local economic stimulation may provide longer-term benefits.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Temporary employment opportunities and local economic stimulation through procurement of labour, materials and services. The project will contribute positively to the local economy during construction.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	High (Positive)
Degree to which the impact can be enhanced:	High. The positive impact can be enhanced through the appointment of local contractors, employment of local labour and the provision of training opportunities where feasible.
Proposed enhancement measures:	• Employ suitably qualified local labour where practical. • Provide employment opportunities to previously disadvantaged individuals where feasible. • Encourage the use of local suppliers and service providers. • Provide on-site training and skills transfer where appropriate. • Ensure fair labour practices and compliance with applicable labour legislation.

	• Maintain a safe working environment in accordance with the Occupational Health and Safety Act.
Cumulative impact post enhancement:	Continued positive contribution to the local economy through temporary employment, procurement of local goods and services, and potential skills development. No significant adverse cumulative socio-economic impacts are anticipated.
Significance rating of impact after enhancement (Low, Medium, Medium-High, High or Very High):	High (Positive)

Aspect	Assessment
Potential waste management impacts:	Waste generation.
Nature of impact:	Construction activities will generate general and limited hazardous waste. Inappropriate handling or disposal could result in pollution of soil, groundwater and surface water.
Extent and duration of impact:	Localised during construction.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	Reversible.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Potential pollution resulting from poor waste management practices.
Significance rating prior to mitigation:	Low (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Separate recyclable and general waste. • Provide suitable waste containers. • Remove waste regularly by licensed contractors. • Maintain waste disposal records. • Include waste management in environmental awareness training. • Dispose of hazardous waste at appropriately licensed facilities.
Cumulative impact post mitigation:	Waste generation will be effectively managed, minimising cumulative impacts on soil, water and air quality.
Significance rating after mitigation:	Low (Negative)

Aspect	Assessment
Potential noise impacts:	Noise disturbance
Nature of impact:	Construction activities associated with the proposed development will temporarily increase ambient noise levels due to the operation of construction vehicles, earthmoving equipment, power tools and increased worker activity. The impacts will be localised and limited to the construction phase.
Extent and duration of impact:	Localised to the site and immediately surrounding properties during construction.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	Fully reversible upon completion of construction.
Degree to which the impact may cause irreplaceable loss of resources:	None.

Cumulative impact prior to mitigation:	Temporary increase in ambient noise levels associated with construction vehicles, machinery and personnel.
Significance rating prior to mitigation:	Low (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Construction activities shall be limited to normal daytime working hours. • No construction shall occur on Sundays or public holidays unless authorised. • Construction equipment shall be regularly maintained. • Machinery shall not be left idling unnecessarily. • • Contractors shall minimise unnecessary noise generation.
Cumulative impact post mitigation:	Temporary construction noise will remain localised and short-term.
Significance rating after mitigation:	Low (Negative)

Aspect	Assessment
Potential visual impacts:	Visual and aesthetic impacts.
Nature of impact:	Construction activities will temporarily introduce visual disturbance through vegetation clearing, construction equipment, temporary stockpiles and worker activity. Although the site is currently undeveloped, the reduced scale of the preferred development limits the extent of visual disturbance.
Extent and duration of impact:	Localised to the site and surrounding area during construction. Permanent visual change is limited to the authorised development footprint.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Temporary construction impacts are reversible. Permanent visual changes relate only to the approved development footprint.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Temporary reduction in visual quality during construction due to equipment, stockpiles and site activities.
Significance rating prior to mitigation:	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Construction areas shall be kept neat and orderly. • Temporary construction areas shall be appropriately screened where practical. • Good housekeeping shall be maintained throughout construction. • Indigenous vegetation shall be retained where possible and used for rehabilitation. • Buildings shall utilise earth-toned, non-reflective materials in accordance with the architectural design.
Cumulative impact post mitigation:	Natural dune topography, indigenous landscaping and appropriate architectural design will substantially reduce residual visual impacts.
Significance rating after mitigation:	Low (Negative)

Aspect	Assessment
Potential impacts on cultural-historical aspects:	Heritage resources.
Nature of impact:	Heritage resources may potentially be encountered during excavation activities. A Notice of Intent to Develop (NID) was submitted to Heritage Western Cape. A Heritage Impact Statement prepared by Dr Peter Nilssen concluded that no significant archaeological or heritage resources occur within the development footprint. The palaeontological assessment concluded that the palaeontological sensitivity is low to unknown and recommended the implementation of a Fossil Finds Procedure.
Extent and duration of impact:	Limited to construction activities.
Probability of occurrence:	Improbable.
Degree to which the impact can be reversed:	Irreversible if heritage resources are damaged; however, this is unlikely.
Degree to which the impact may cause irreplaceable loss of resources:	Low. No significant heritage resources have been identified.
Cumulative impact prior to mitigation:	Low potential for accidental disturbance of previously unknown archaeological or palaeontological material.
Significance rating prior to mitigation:	Low (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Environmental awareness training shall include heritage awareness. • If archaeological material, fossils or graves are discovered, all work shall cease immediately, and Heritage Western Cape shall be notified. • The Fossil Finds Procedure shall form part of the EMP. • All recommendations contained within the Heritage Impact Statement shall be implemented.
Cumulative impact post mitigation:	No significant cumulative impacts on heritage resources are anticipated.
Significance rating after mitigation:	Low (Negative)

Aspect	Assessment
Potential occupational health and safety impacts:	Occupational health and safety.
Nature of impact:	Construction workers may be exposed to risks associated with machinery, excavation, dust, manual handling, electrical equipment and fire.
Extent and duration of impact:	Construction site during construction only.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	Reversible.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Potential injuries to workers if appropriate safety procedures are not implemented.
Significance rating prior to mitigation:	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Comply with the Occupational Health and Safety Act. • Provide appropriate PPE. • Maintain first-aid facilities. • Conduct regular safety training. • Maintain fire-fighting equipment.

	• Implement relevant SANS standards. • Maintain emergency response procedures.
Cumulative impact post mitigation:	Residual occupational risks are expected to be low following the implementation of health and safety measures.
Significance rating after mitigation:	Low (Negative)

- (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

Aspect	Assessment
Potential impacts on geographical and physical aspects:	Surface water runoff, groundwater, soils and stormwater management.
Nature of impact:	During the operational phase, the proposed development may result in localised impacts on soils, groundwater and surface water if stormwater, wastewater or other pollutants are not appropriately managed. Potential impacts include soil erosion associated with uncontrolled stormwater runoff, contamination from accidental spills, failure of the on-site wastewater management system, and inappropriate management of household waste. The development will be serviced by rainwater harvesting, supplementary borehole water (where authorised), and an on-site conservancy tank. Stormwater will be managed through infiltration-based measures designed to maintain natural drainage patterns and minimise erosion. Given the relatively small development footprint and the implementation of appropriate engineering controls, long-term impacts on the receiving environment are expected to be limited.
Extent and duration of impact:	Localised to the development footprint for the operational life of the development.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	Medium. Localised impacts can generally be rehabilitated should they occur.
Degree to which the impact may cause irreplaceable loss of resources:	Low. Appropriate management measures will minimise the risk of permanent impacts.
Cumulative impact prior to mitigation:	Without mitigation, poor stormwater management, wastewater leakage or accidental contamination may contribute to localised soil degradation, groundwater contamination and erosion over time.
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:	High.
Proposed mitigation:	• Maintain all stormwater management measures in accordance with the approved engineering design. • Ensure that runoff is dispersed naturally and does not result in concentrated flows or erosion. • Maintain rainwater harvesting systems in good working order. • Regularly inspect and maintain the conservancy tank and associated wastewater infrastructure to prevent leakage. • Store fuels, oils and hazardous substances appropriately and clean up spills immediately. • Prevent discharge of pollutants into surrounding natural areas. • Monitor disturbed areas for signs of erosion and implement rehabilitation where necessary. • Maintain indigenous groundcover to reduce erosion and promote infiltration.
Cumulative impact post mitigation:	Following implementation of the recommended mitigation measures, cumulative impacts on soils, groundwater and stormwater are expected to remain localised and of low significance throughout the operational life of the development.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impact on biological aspects:	Habitat and biodiversity.
Nature of impact:	During the operational phase, the presence of the proposed 1 000 m ² main dwelling, associated infrastructure and continued residential use may result in localised disturbance to indigenous vegetation and fauna within the immediate development footprint. Potential impacts include incidental disturbance of wildlife, trampling of adjacent vegetation, introduction or spread of alien invasive plant species, increased fire risk, domestic animal disturbance (if applicable), and ongoing fragmentation of habitat within the immediate vicinity of the development. The preferred development footprint is located within the southern portion of the property where Goukamma Dune Thicket (Least Concern) occurs, while the majority of the property will remain in its natural state. The Specialist Plant Species and Terrestrial Biodiversity Report identified the northern development option (Alternative 3) as the preferred biodiversity alternative due to its reduced overall project area of influence, lower landscape fragmentation and reduced fire risk. These findings were considered together with the remaining specialist investigations, engineering, planning and environmental considerations as part of the integrated assessment presented in this Final Basic Assessment Report.
Extent and duration of impact:	Localised to the authorised development footprint and immediate surroundings for the operational life of the development.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	Low to Medium. Permanent habitat loss within the approved development footprint cannot be reversed; however, disturbed areas outside the permanent footprint can be rehabilitated and managed.
Degree to which the impact may cause irreplaceable loss of resources:	Low. The preferred layout substantially reduces habitat loss and avoids direct impacts on the more sensitive northern vegetation communities.
Cumulative impact prior to mitigation:	Without mitigation, continued residential activities could contribute to incremental habitat degradation, spread of invasive alien plants, disturbance of fauna and reduced ecological functioning within the immediate development area.
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:	High.
Proposed mitigation:	• Restrict all operational activities to the approved development footprint. • Maintain all surrounding indigenous vegetation in a natural state and prevent unnecessary disturbance outside the authorised footprint. • Implement an Alien Invasive Plant Control Programme and remove invasive species on a continuous basis. • Rehabilitate disturbed areas using indigenous vegetation rescued during the construction phase. • No additional clearing of indigenous vegetation shall occur without the necessary environmental authorisations. • Outdoor lighting shall be low-intensity, downward-facing and designed to minimise disturbance to nocturnal fauna. • Fire management shall be implemented in accordance with the approved Fire Management Plan and EMPr. • Domestic animals, if present, should be appropriately controlled to minimise disturbance to indigenous fauna. • The

	recommendations contained in the Botanical, Terrestrial Fauna and other specialist reports shall be implemented throughout the operational phase.
Cumulative impact post mitigation:	Following implementation of the recommended mitigation measures, residual impacts on biodiversity are expected to remain localised and of low significance. The majority of the property will remain undeveloped, thereby maintaining ecological processes, habitat connectivity and the conservation value of the surrounding landscape.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential visual impacts:	Visual and aesthetic impacts.
Nature of impact:	During the operational phase, the completed dwelling, internal access road and associated infrastructure will permanently alter the visual character of the immediate development footprint. However, the preferred development comprises a single 1 000 m² dwelling designed in a low-profile contemporary coastal style using earth-toned, non-reflective materials that integrate with the surrounding landscape. The dwelling is positioned within the south-western portion of the property where existing topography and vegetation provide substantial natural screening from surrounding viewpoints, including Brenton Beach and Brenton-on-Sea. The reduced building footprint, together with indigenous landscaping, significantly reduces visual intrusion compared to the previously proposed larger development alternatives.
Extent and duration of impact:	Localised for the operational life of the development.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Low. The visual change associated with the permanent structures cannot be fully reversed without removal of the development.
Degree to which the impact may cause irreplaceable loss of resources:	Low. No irreplaceable visual or landscape resources will be lost.
Cumulative impact prior to mitigation:	The development will introduce a permanent built element into an otherwise natural landscape. Without appropriate design and landscaping, cumulative visual impacts could gradually reduce the natural character of the surrounding landscape.
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:	High.
Proposed mitigation:	• The approved architectural design shall be implemented, incorporating low-profile buildings and non-reflective, earth-toned finishes. • Existing indigenous vegetation shall be retained wherever possible. • Disturbed areas shall be rehabilitated using indigenous vegetation. • Additional indigenous landscaping shall be undertaken where required to soften the visual appearance of the development. • External lighting shall be low-intensity, downward-facing and designed to minimise light spill. • Satellite dishes, water tanks and other ancillary infrastructure shall be positioned to minimise visual intrusion. • No additional structures shall be erected outside the approved development footprint without the necessary authorisations.
Cumulative impact post mitigation:	Following implementation of the recommended design and landscaping measures, the development is expected to integrate

	with the surrounding landscape. Natural topography, indigenous vegetation and the reduced development footprint will minimise cumulative visual impacts and maintain the scenic character of the area. The Heritage Impact Assessment concluded that the proposed development is not expected to result in significant impacts on the visual or aesthetic heritage value of the surrounding landscape.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impacts on socio-economic aspects:	Socio-economic impacts.
Nature of impact:	During the operational phase, the proposed development will continue to generate positive socio-economic benefits through permanent employment associated with the maintenance and management of the property. The development will contribute to the local economy through the ongoing procurement of goods and services from local suppliers and contractors. The proposal represents the lawful exercise of the applicant's primary residential land use rights and is not expected to negatively affect surrounding land uses, public access, or community well-being. The operational phase is anticipated to create limited permanent employment opportunities and support local businesses through routine maintenance, security, landscaping and property management activities.
Extent and duration of impact:	Local to the Knysna Municipal area for the operational life of the development.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Positive impact. The socio-economic benefits will continue throughout the operational life of the development.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Continued support for the local economy through permanent employment, procurement of local goods and services, and expenditure associated with the ongoing operation and maintenance of the property.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Positive)
Degree to which the impact can be enhanced:	High. The positive impacts can be enhanced through continued use of local suppliers, employment of local labour and ongoing skills development where appropriate.
Proposed enhancement measures:	• Employ local contractors and service providers where practical. • Provide permanent employment opportunities for suitably qualified local residents where feasible. • Continue to utilise local suppliers for maintenance and operational requirements. • Promote skills development and training for employees where appropriate. • Ensure compliance with all applicable labour legislation and fair employment practices. • Maintain a safe and healthy working environment in accordance with the Occupational Health and Safety Act.
Cumulative impact post enhancement:	Continued positive contribution to the local economy through permanent employment opportunities, procurement of local goods and services, and long-term support of local businesses. No

	significant adverse cumulative socio-economic impacts are anticipated.
Significance rating of impact after enhancement (Low, Medium, Medium-High, High or Very High):	Medium (Positive)

Aspect	Assessment
Potential noise impacts:	Noise disturbance.
Nature of impact:	During the operational phase, the proposed development is expected to generate only low levels of noise associated with normal residential activities, including occasional vehicle movements, domestic maintenance activities and operation of household equipment. The development comprises a single private dwelling and is not expected to generate significant or continuous noise. The surrounding area is characterised by low-density residential development and natural open space, and the proposed activity is compatible with the existing acoustic environment.
Extent and duration of impact:	Localised to the immediate vicinity of the dwelling for the operational life of the development.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	High. Any temporary increase in noise levels can be eliminated through appropriate management practices.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Minor increases in ambient noise associated with normal residential activities. No significant cumulative noise impacts are anticipated due to the low-intensity nature of the proposed land use.
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:	High.
Proposed mitigation:	• Normal residential activities shall be conducted in a manner that minimises disturbance to neighbouring properties. • All mechanical equipment shall be properly maintained to prevent unnecessary noise. • Landscape maintenance activities shall be undertaken during normal daytime hours. • Outdoor entertainment areas shall be managed responsibly to minimise excessive noise. • Any backup generators, should they be required, shall comply with applicable noise regulations and be appropriately enclosed or screened to reduce noise emissions.
Cumulative impact post mitigation:	Following implementation of the recommended mitigation measures, operational noise levels are expected to remain compatible with the surrounding environment and will not result in significant cumulative impacts.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impacts on cultural-historical aspects:	Cultural and heritage resources.
Nature of impact:	During the operational phase, the proposed development is not expected to result in significant impacts on archaeological, palaeontological or cultural heritage resources. A Notice of Intent to Develop (NID) was submitted to Heritage Western Cape, and a Heritage Impact Statement prepared by Dr Peter Nilssen

	concluded that no significant heritage resources occur within the proposed development footprint. The palaeontological assessment similarly concluded that the palaeontological sensitivity of the site is low to unknown and no significant operational impacts are anticipated. The completed development will remain compatible with the surrounding cultural landscape due to its reduced footprint, low-profile architectural design and integration with the natural environment.
Extent and duration of impact:	Localised to the development footprint for the operational life of the development.
Probability of occurrence:	Improbable.
Degree to which the impact can be reversed:	Low. Should heritage resources be damaged, the impact would be irreversible; however, no such impacts are anticipated during the operational phase.
Degree to which the impact may cause irreplaceable loss of resources:	Low. No significant heritage resources have been identified within the development footprint.
Cumulative impact prior to mitigation:	No significant cumulative impacts on archaeological, palaeontological or cultural heritage resources are anticipated. The development will not materially alter the cultural landscape or heritage significance of the surrounding area.
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:	High.
Proposed mitigation:	• No additional disturbance shall occur outside the approved development footprint. • Any future maintenance or excavation outside the approved footprint shall comply with the provisions of the National Heritage Resources Act (Act 25 of 1999). • Should any previously unknown archaeological material, fossils or human remains be discovered during future maintenance works, all work shall cease immediately and Heritage Western Cape shall be notified. • The recommendations contained in the Heritage Impact Statement and palaeontological assessment shall continue to be implemented throughout the operational phase. • The visual character of the development shall be maintained through appropriate building maintenance and retention of indigenous landscaping.
Cumulative impact post mitigation:	Following implementation of the recommended management measures, no significant cumulative impacts on cultural or heritage resources are anticipated. The development will remain compatible with the surrounding cultural landscape and will not diminish its heritage significance.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential occupational health and safety impacts:	Occupational health and safety.
Nature of impact:	During the operational phase, potential health and safety risks will be associated with the routine occupation and maintenance of the dwelling, including the use of electrical installations, domestic equipment, vehicles, landscaping equipment, the swimming pool, fire hazards and maintenance activities. Given the nature of the proposed development as a single private residence, these risks are expected to be low and can be effectively managed through

	routine maintenance and adherence to applicable safety standards.
Extent and duration of impact:	Localised to the development footprint for the operational life of the development.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	High. Potential risks can be effectively managed through routine maintenance and implementation of appropriate safety measures.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Without appropriate maintenance and safety management, there is a potential risk of accidents, injuries, fires or equipment failure associated with normal residential activities.
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:	High.
Proposed mitigation:	• Electrical installations shall comply with all applicable SANS standards and be inspected and maintained regularly. • Fire protection equipment shall be maintained in good working order and readily accessible. • The swimming pool shall be appropriately secured and maintained to minimise safety risks. • Access roads and walkways shall be maintained in a safe condition. • Routine maintenance of buildings, retaining structures and associated infrastructure shall be undertaken to prevent structural deterioration. • Hazardous household substances (such as fuels, pesticides and cleaning chemicals) shall be stored safely and disposed of appropriately. • Emergency contact information and first aid equipment shall be readily available on site. • Fire management measures shall be implemented in accordance with the approved Fire Management Plan and EMPr.
Cumulative impact post mitigation:	Following implementation of the recommended safety measures and routine maintenance, operational health and safety risks are expected to remain low and no significant cumulative impacts are anticipated.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential waste management impacts:	Waste generation and waste management.
Nature of impact:	During the operational phase, the proposed development will generate typical domestic waste, including general household waste and limited recyclable materials. Small quantities of hazardous household waste (e.g. batteries, paints, oils, fluorescent light bulbs and electronic waste) may also be generated. If waste is not appropriately stored, separated and disposed of, it may result in littering, pollution of soils, groundwater and surface water, attract vermin and negatively affect the surrounding natural environment. Given the scale of the proposed development as a single private dwelling, waste generation is expected to be low and readily manageable through appropriate waste management practices.
Extent and duration of impact:	Localised to the development footprint for the operational life of the development.
Probability of occurrence:	Probable.

Degree to which the impact can be reversed:	High. Impacts associated with poor waste management can generally be reversed through proper clean-up and implementation of appropriate waste management practices.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Without appropriate waste management, cumulative impacts may include litter accumulation, pollution of soils and groundwater, attraction of pests, degradation of the surrounding natural environment and unnecessary disposal of recyclable materials.
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:	High.
Proposed mitigation:	• General waste shall be stored in suitable, covered waste receptacles until collection or disposal. • Recyclable materials shall be separated from general waste and recycled where practical. • Hazardous household waste shall be stored separately and disposed of at appropriately authorised facilities. • Waste shall not be burnt or buried on site. • No littering shall be permitted within the property or surrounding natural areas. • Waste shall be removed regularly by the local municipal waste collection service or an appropriately authorised waste contractor. • Composting of suitable organic waste is encouraged where practical. • Good housekeeping practices shall be maintained throughout the operational life of the development.
Cumulative impact post mitigation:	Following implementation of the recommended waste management measures, waste generation will be effectively managed and no significant cumulative impacts on soils, groundwater, surface water or the surrounding environment are anticipated.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Environmental Impact Statement

The proposed development comprises the construction of a single 1 000 m² main dwelling, associated internal access road and supporting infrastructure on Portion 76 of Farm Uitzicht No. 216, Brenton-on-Sea. The preferred layout represents a substantial reduction in the proposed development footprint compared to previous iterations of the project and was identified following the assessment of all reasonable and feasible alternatives.

The preferred development footprint is located within the south-western portion of the property, where the mapped vegetation comprises Goukamma Dune Thicket (Least Concern). The development incorporates a substantially reduced footprint, natural topographical screening and comprehensive mitigation measures designed to minimise environmental impacts while maintaining the intended residential use of the property. The majority of the property will remain in its natural state, thereby maintaining ecological functioning and the conservation value of the surrounding landscape.

The Specialist Plant Species and Terrestrial Biodiversity Report identified the northern development option (Alternative 3) as the preferred biodiversity alternative due to its reduced overall project area of influence, lower landscape fragmentation, reduced fire risk and potential to avoid biodiversity offset requirements. These findings have been fully considered together with the engineering, geotechnical, visual, heritage, planning and other

specialist investigations, as well as comments received during the public participation process, as part of the integrated environmental assessment presented in this Final Basic Assessment Report.

Specialist investigations confirmed that the proposed development can proceed, subject to the implementation of the recommended mitigation measures. The development has been refined to minimise environmental impacts through:

- reduction of the dwelling footprint from earlier alternatives to approximately 1 000 m²;
- limitation of disturbance to the authorised development footprint;
- implementation of search-and-rescue and rehabilitation measures for indigenous vegetation;
- retention of surrounding natural vegetation wherever practicable;
- implementation of stormwater management, erosion control and pollution prevention measures;
- adoption of a low-profile architectural design using earth-toned, non-reflective materials; and
- implementation of the Environmental Management Programme (EMPr) and all applicable specialist recommendations.

Following implementation of the proposed mitigation measures, the majority of identified environmental impacts are expected to be of Low Negative significance. Positive socio-economic impacts associated with temporary construction employment and limited permanent employment during the operational phase are also anticipated.

Alternative 1 would result in a larger development footprint and greater vegetation clearance than the preferred alternative. Alternative 2 would introduce a second development node within the northern portion of the property, increasing habitat fragmentation and resulting in direct impacts on Critically Endangered Knysna Sand Fynbos. Alternative 3 offers several advantages, including a substantially shorter access route, reduced overall development footprint, lower landscape fragmentation and reduced fire risk. The Specialist Plant Species and Terrestrial Biodiversity Report identified Alternative 3 as the preferred biodiversity option. These findings were considered together with the engineering, visual, geotechnical, planning and other environmental considerations during the integrated assessment of alternatives undertaken for this Final Basic Assessment Report. The No-Go Alternative would avoid the environmental impacts associated with the proposed development but would not meet the purpose and need of the development or enable the Applicant to exercise the existing residential development rights associated with the property.

Based on the findings of the Basic Assessment, specialist studies, engineering investigations, public participation process and integrated environmental assessment, the preferred development represents a substantially refined proposal that incorporates the outcomes of the iterative assessment process and balances environmental, technical, planning and socio-economic considerations. Subject to the implementation of the Environmental Management Programme (EMPr), specialist recommendations and any conditions imposed by the Competent Authority, the proposed development is considered suitable for consideration for Environmental Authorisation.

Alternative 1

The Main Dwelling House

The proposed development comprises the construction of a single 3 000 m² main dwelling within the south-western portion of Portion 76 of Farm Uitzicht No. 216. The dwelling would comprise:

- Six bedrooms;
- Open-plan living area incorporating the kitchen, lounge, dining area, bar, scullery, bathrooms and wine cellar;
- Covered and open entertainment areas;
- Open deck and swimming pool; and
- Associated residential services and infrastructure.
- Internal Access Road

An internal access road of approximately 830 m in length would provide access to the dwelling. The road surface would be approximately 2.5 m wide, with a temporary construction disturbance corridor varying between approximately 4 m and 5.5 m where required for construction activities.

Potential Environmental Impacts

- The principal environmental impacts associated with Alternative 1 include:
- Increased loss of indigenous vegetation due to the larger development footprint;
- Greater impacts on biodiversity and ecological processes within the mapped Critical Biodiversity Area (CBA);
- Increased soil disturbance, erosion potential and alteration of local stormwater runoff associated with the larger dwelling platform and construction of the internal access road;
- Increased demand for construction materials and associated construction-related impacts;
- Temporary dust, noise and visual impacts during the construction phase;
- Generation of construction and domestic waste;
- Potential impacts on groundwater and surface water resulting from inappropriate stormwater or wastewater management;
- Temporary disturbance to terrestrial fauna during construction;
- Greater permanent visual impacts associated with the larger dwelling and associated infrastructure; and
- Positive socio-economic impacts through temporary employment during construction and limited long-term employment associated with the operation and maintenance of the property.

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	Assessment
Potential impacts on geographical and physical aspects:	Surface water runoff, groundwater, soils and air quality.
Nature of impact:	Construction of the proposed 3 000 m ² main dwelling, associated internal access road and supporting infrastructure would result in a substantially larger area of soil disturbance than the Preferred Alternative. The larger building platform would increase the extent of excavation, soil compaction, vegetation clearance and exposure of bare soils to erosion. There is an increased potential for contamination of soils,

	groundwater and stormwater through accidental spills of fuels, oils, cement and other hazardous materials during construction. Greater earthworks would also result in increased dust generation and construction-related emissions.
Extent and duration of impact:	Localised to the development footprint during construction, with permanent soil disturbance beneath the completed infrastructure.
Probability of occurrence:	Probable.
Degree to which the impact can be mitigated:	High.
Degree to which the impact may cause irreplaceable loss of resources:	Partial irreplaceable loss.
Cumulative impact prior to mitigation:	Increased soil disturbance, greater stormwater runoff, increased erosion potential and greater risk of groundwater contamination compared to the Preferred Alternative.
Significance rating prior to mitigation	Medium (Negative)
Proposed mitigation:	Implement all recommendations contained in the Geotechnical Report and EMPr, including limiting vegetation clearance to the approved footprint, implementing erosion control measures, protecting topsoil, maintaining natural drainage, implementing dust suppression, storing hazardous materials within bunded areas, using drip trays and spill kits, rehabilitating disturbed areas and monitoring compliance through an Environmental Control Officer (ECO).
Cumulative impact post mitigation:	Residual impacts remain localised but are greater than those associated with the Preferred Alternative due to the larger development footprint.
Significance rating after mitigation	Low (Negative)

Aspect	Assessment
Potential impacts on biological aspects:	Habitat and biodiversity loss.
Nature of impact:	Alternative 1 would result in a substantially larger area of indigenous vegetation being permanently transformed compared to the Preferred Alternative. Although located within the same south-western development area comprising Goukamma Dune Thicket (Least Concern), the increased development footprint would result in greater habitat loss, increased edge effects and greater fragmentation within the mapped Critical Biodiversity Area (CBA).
Extent and duration of impact:	Localised and permanent.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Low.
Degree to which the impact may cause irreplaceable loss of resources:	Medium.
Cumulative impact prior to mitigation:	Greater cumulative loss of indigenous vegetation and ecological functioning than the Preferred Alternative.
Significance rating prior to mitigation	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Implement all botanical specialist recommendations, undertake search-and-rescue of indigenous plants, establish an on-site nursery, rehabilitate disturbed areas using indigenous species, remove alien invasive plants, appoint an ECO, and restrict all disturbance to the approved development footprint.

Cumulative impact post mitigation:	Residual biodiversity impacts remain greater than the Preferred Alternative because of the larger permanent development footprint.
Significance rating after mitigation	Low (Negative)

Aspect	Assessment
Potential impacts on socio-economic aspects:	Socio-economic impacts.
Nature of impact:	Construction of the larger dwelling would generate additional temporary employment opportunities and greater demand for local goods and services during construction. The operational phase would provide limited permanent employment associated with maintenance of the property.
Extent and duration of impact:	Local during construction and operation.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Positive impact.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Positive contribution to the local economy through employment and procurement of local services.
Significance rating prior to mitigation	High (Positive)
Degree to which the impact can be enhanced:	High.
Proposed enhancement:	Employ local labour where feasible, utilise local contractors and suppliers, provide training opportunities and comply with labour legislation.
Cumulative impact post mitigation:	Continued positive contribution to the local economy.
Significance rating after mitigation	High (Positive)

Aspect	Assessment
Potential visual impacts:	Visual and aesthetic impacts.
Nature of impact:	The substantially larger dwelling would be more visually prominent within the landscape despite natural screening. The larger roof area, building mass and associated infrastructure would result in greater alteration of the natural landscape than the Preferred Alternative.
Extent and duration of impact:	Localised and permanent.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Low.
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Cumulative impact prior to mitigation:	Greater permanent alteration of the landscape character compared to the Preferred Alternative.
Significance rating prior to mitigation	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Use low-profile architectural design, non-reflective materials, indigenous landscaping, downward-facing lighting and retain existing vegetation wherever possible.
Cumulative impact post mitigation:	Visual impacts remain greater than the Preferred Alternative because of the increased building mass.
Significance rating after mitigation	Low (Negative)

Aspect	Assessment
Potential noise impacts:	Construction noise.
Nature of impact:	Construction of the larger dwelling would require longer construction periods, increased machinery usage and greater vehicle movements, resulting in increased temporary noise levels.
Extent and duration of impact:	Local during construction.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Increased temporary construction noise compared to the Preferred Alternative.
Significance rating prior to mitigation	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Restrict construction to daytime hours, maintain machinery, minimise idling and implement good construction practices.
Cumulative impact post mitigation:	Temporary and localised.
Significance rating after mitigation	Low (Negative)

- (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

Aspect	Assessment
Potential impacts on geographical and physical aspects:	Surface water runoff, groundwater, soils and stormwater management.
Nature of impact:	During operation, the larger dwelling and associated impermeable surfaces would generate a greater volume of stormwater runoff than the Preferred Alternative. Potential impacts include localised soil erosion, contamination of groundwater through failure of the on-site wastewater system, accidental spills, and increased maintenance requirements. The larger developed footprint would reduce infiltration when compared to the Preferred Alternative.
Extent and duration of impact:	Localised to the development footprint for the operational life of the development.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	Medium.
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Cumulative impact prior to mitigation:	Increased stormwater runoff and greater potential for soil erosion and groundwater contamination compared to the Preferred Alternative.
Significance rating prior to mitigation	Medium (Negative)
Degree to which the impact can be mitigated:	High.

Proposed mitigation:	Maintain stormwater infrastructure, inspect wastewater systems regularly, maintain rainwater harvesting systems, prevent pollution, rehabilitate eroded areas and implement all EMP requirements.
Cumulative impact post mitigation:	Localised impacts remain but are effectively managed.
Significance rating after mitigation	Low (Negative)

Aspect	Assessment
Potential impacts on biological aspects:	Habitat and biodiversity.
Nature of impact:	The larger permanent footprint would result in greater habitat transformation and fragmentation than the Preferred Alternative. Although located within the same south-western development area comprising Goukamma Dune Thicket (Least Concern), the larger dwelling would permanently transform a greater area of indigenous vegetation and reduce ecological functioning when compared to the Preferred Alternative.
Extent and duration of impact:	Localised and permanent.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	Low.
Degree to which the impact may cause irreplaceable loss of resources:	Medium.
Cumulative impact prior to mitigation:	Increased habitat fragmentation and greater long-term disturbance of indigenous vegetation compared with the Preferred Alternative.
Significance rating prior to mitigation	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Retain indigenous vegetation outside the development footprint, implement alien invasive control, rehabilitate disturbed areas, implement all botanical recommendations and prevent additional vegetation clearing.
Cumulative impact post mitigation:	Residual impacts remain greater than the Preferred Alternative due to the larger permanent footprint.
Significance rating after mitigation	Low (Negative)

Aspect	Assessment
Potential impacts on socio-economic aspects:	Socio-economic impacts.
Nature of impact:	The larger dwelling would provide slightly greater long-term employment opportunities associated with maintenance, landscaping and property management, together with increased procurement of local goods and services.
Extent and duration of impact:	Local for the operational life of the development.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Positive impact.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Positive contribution to the local economy through ongoing employment and maintenance activities.
Significance rating prior to mitigation	Medium (Positive)
Degree to which the impact can be enhanced:	High.
Proposed enhancement:	Continue utilising local suppliers and employ local labour where practical.
Cumulative impact post mitigation:	Continued positive socio-economic contribution.
Significance rating after mitigation	Medium (Positive)

Aspect	Assessment
Potential impacts on cultural-historical aspects:	Heritage resources.
Nature of impact:	No significant operational impacts on heritage resources are anticipated. The larger dwelling would not directly affect identified heritage resources but would result in a greater permanent alteration of the cultural landscape than the Preferred Alternative.
Extent and duration of impact:	Localised and permanent.
Probability of occurrence:	Improbable.
Degree to which the impact can be reversed:	Low.
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Cumulative impact prior to mitigation:	Slightly greater alteration of landscape character than the Preferred Alternative.
Significance rating prior to mitigation	Low (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Maintain indigenous landscaping, implement heritage recommendations and comply with the NHRA should future excavations occur.
Cumulative impact post mitigation:	No significant cumulative heritage impacts anticipated.
Significance rating after mitigation	Low (Negative)

Aspect	Assessment
Potential occupational health and safety impacts:	Occupational health and safety.
Nature of impact:	Routine operation and maintenance of the larger dwelling present typical residential safety risks associated with electrical systems, fire, maintenance equipment and swimming pool use.
Extent and duration of impact:	Localised and permanent.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Low operational safety risks.
Significance rating prior to mitigation	Low (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Maintain fire protection systems, electrical installations, emergency procedures and comply with applicable SANS standards.
Cumulative impact post mitigation:	Low residual safety risks.
Significance rating after mitigation	Low (Negative)

Aspect	Assessment
Potential waste management impacts:	Waste generation and management.
Nature of impact:	The larger dwelling would generate greater quantities of domestic waste than the Preferred Alternative, although waste volumes would remain consistent with residential use. Inappropriate waste management could result in pollution of soil and groundwater.
Extent and duration of impact:	Localised throughout operation.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.

Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Increased domestic waste generation compared with the Preferred Alternative.
Significance rating prior to mitigation	Low (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Separate recyclable waste, provide covered waste containers, dispose of waste through authorised service providers, prevent littering and implement good housekeeping practices.
Cumulative impact post mitigation:	No significant cumulative impacts anticipated.
Significance rating after mitigation	Low (Negative)

Alternative 2

Main Dwelling and Farm Manager's House

The proposed development comprises:

- The construction of one 3 000 m² main dwelling within the south-western portion of Portion 76 of Farm Uitzicht No. 216;
- The construction of one 1 200 m² farm manager's house within the north-western portion of the property; and
- Associated residential services and infrastructure.

Internal Access Road

An internal access road of approximately 830 m in length would provide access to the proposed main dwelling within the south-western portion of the property. The road surface would be approximately 2.5 m wide, with a temporary construction disturbance corridor varying between approximately 4 m and 5.5 m where required for construction activities.

Potential Environmental Impacts

- The principal environmental impacts associated with Alternative 2 include:
- Increased loss of indigenous vegetation resulting from the creation of two separate development nodes;
- Direct impacts on Critically Endangered Knysna Sand Fynbos associated with the proposed farm manager's house in the northern portion of the property;
- Increased habitat fragmentation and disruption of ecological processes within the mapped Critical Biodiversity Area (CBA);
- Increased soil disturbance, erosion potential and alteration of local stormwater runoff associated with the construction of two building platforms and the internal access road;
- Increased potential for groundwater and surface water contamination resulting from construction activities and operation of two residential units;
- Increased visual impacts associated with two permanent residential structures within the landscape;
- Increased dust, noise and traffic-related impacts during the construction phase;
- Increased generation of construction and domestic waste;
- Potential disturbance to terrestrial fauna and Species of Conservation Concern during construction and operation; and

- Positive socio-economic impacts through temporary employment during construction and limited long-term employment associated with the operation and maintenance of the two residential units.

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	Assessment
Potential impacts on geographical and physical aspects:	Surface water runoff, groundwater, soils and air quality.
Nature of impact:	Construction of the proposed 3 000 m ² main dwelling, 1 200 m ² farm manager's dwelling, associated internal access road and supporting infrastructure would result in extensive earthworks, vegetation clearance and soil disturbance across two separate development areas. The larger combined footprint would increase the potential for soil compaction, erosion, sedimentation, groundwater contamination and stormwater pollution. Greater quantities of construction materials, machinery movements and excavation activities would also increase dust generation and exhaust emissions.
Extent and duration of impact:	Localised to the development footprint during the construction phase, with permanent disturbance beneath the completed infrastructure.
Probability of occurrence:	Probable.
Degree to which the impact can be mitigated:	High.
Degree to which the impact may cause irreplaceable loss of resources:	Medium.
Cumulative impact prior to mitigation:	Increased soil disturbance, stormwater runoff, erosion potential, groundwater contamination and dust generation resulting from the larger development footprint and construction of two separate development nodes.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium-High (Negative)
Degree to which the impact can be mitigated:	Although earthworks cannot be avoided, the impacts can be substantially reduced through implementation of appropriate engineering and environmental management measures.
Proposed mitigation:	• Implement all recommendations contained in the Geotechnical Report and EMPr. • Restrict vegetation clearance to the approved development footprints. • Follow natural contours during road construction to minimise cut-and-fill. • Protect topsoil and stockpile separately for rehabilitation. • Implement erosion and sediment control measures. • Install rainwater harvesting infrastructure and maintain natural drainage patterns. • Store fuels, oils, cement and hazardous substances on bunded, impermeable surfaces. • Use drip trays and spill kits at all times. • No servicing of construction vehicles on site unless in an emergency. • Dust suppression measures shall be implemented during dry and windy conditions. • Construction vehicles transporting loose material shall be covered. • Disturbed areas shall be rehabilitated progressively using indigenous vegetation. • An Environmental Control Officer (ECO) shall monitor compliance throughout construction.

Alternative comparison:	Alternative 2 results in substantially greater disturbance than the Preferred Alternative because it introduces two development platforms, additional infrastructure and a significantly larger construction footprint. The Preferred Alternative therefore remains environmentally preferable.
Cumulative impact post mitigation:	Residual impacts remain localised but are greater than those associated with the Preferred Alternative because of the larger permanent footprint and increased disturbance area.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Negative)

Aspect	Assessment
Potential impacts on biological aspects:	Habitat and biodiversity loss.
Nature of impact:	Construction of the proposed 3 000 m ² main dwelling, 1 200 m ² farm manager's dwelling, associated internal access road and supporting infrastructure would result in substantial clearing of indigenous vegetation and increased habitat fragmentation across two separate development nodes. The proposed farm manager's dwelling in the north-western portion of the property would directly impact Critically Endangered Knysna Sand Fynbos, while the larger southern development footprint would further reduce areas of Goukamma Dune Thicket. The introduction of a second development node would fragment ecological corridors, reduce habitat connectivity and increase disturbance to indigenous flora and fauna within the Critical Biodiversity Area (CBA). The loss of Critically Endangered Knysna Sand Fynbos is considered irreplaceable and irreversible.
Extent and duration of impact:	Localised to the authorised development footprint but permanent. Construction-related disturbance would be temporary; however, habitat transformation would remain for the life of the development.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Low. Permanent loss of indigenous vegetation cannot be fully reversed. Rehabilitation is limited to temporarily disturbed areas outside the permanent footprint.
Degree to which the impact may cause irreplaceable loss of resources:	High. The proposed farm manager's dwelling would directly affect Critically Endangered Knysna Sand Fynbos, resulting in permanent loss of an irreplaceable vegetation type.
Cumulative impact prior to mitigation:	Without mitigation, Alternative 2 would result in increased habitat fragmentation, loss of indigenous vegetation, disruption of ecological corridors, permanent transformation of portions of the Critical Biodiversity Area and direct impacts on Critically Endangered Knysna Sand Fynbos.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	High (Negative)
Degree to which the impact can be mitigated:	Medium. Although mitigation can reduce construction-related disturbance, it cannot avoid the permanent loss of Critically Endangered Knysna Sand Fynbos associated with the northern development node.
Proposed mitigation:	• Restrict all disturbance to the approved development footprint. • Implement all recommendations contained in the Botanical Specialist Report, Terrestrial Fauna Specialist Report and EMPr. • Undertake a search-and-rescue programme for suitable indigenous plant species prior to vegetation clearance. • Establish

	and maintain an on-site indigenous plant nursery for rehabilitation purposes. • Remove and control alien invasive plant species throughout construction. • Clearly demarcate no-go areas and prevent unnecessary disturbance outside the approved footprint. • Rehabilitate disturbed areas using locally indigenous vegetation immediately following construction. • Appoint an Environmental Control Officer (ECO) to monitor compliance with all specialist recommendations. • Prevent unnecessary fragmentation of remaining natural habitat and ecological corridors.
Alternative comparison:	Alternative 2 is significantly less favourable than the Preferred Alternative because it introduces a second development node within the environmentally sensitive northern portion of the property, resulting in direct impacts on Critically Endangered Knysna Sand Fynbos, increased habitat fragmentation and greater biodiversity loss. The Preferred Alternative avoids these impacts by limiting development to a single, reduced footprint within the south-western portion of the property.
Cumulative impact post mitigation:	Although mitigation will reduce construction-related disturbance, Alternative 2 will continue to result in permanent habitat loss, fragmentation and direct impacts on Critically Endangered Knysna Sand Fynbos. Residual impacts therefore remain substantially greater than those associated with the Preferred Alternative.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Medium-High (Negative)

Aspect	Assessment
Potential impacts on socio-economic aspects:	Socio-economic impacts.
Nature of impact:	Construction of the proposed 3 000 m ² main dwelling, 1 200 m ² farm manager's dwelling, associated internal access road and supporting infrastructure would result in positive socio-economic impacts through the creation of temporary employment opportunities for contractors, subcontractors and local labour during the construction phase. The larger development would require a longer construction period and greater demand for construction materials, goods and services than the Preferred Alternative, thereby providing increased economic benefits to the local economy. However, these additional socio-economic benefits do not outweigh the significantly greater environmental impacts associated with this alternative.
Extent and duration of impact:	Local to the Knysna Municipal area during the construction phase. Temporary employment and associated economic benefits would continue for the duration of construction.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Positive impact. The employment opportunities are temporary, although skills transfer may provide longer-term benefits.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Temporary employment opportunities, increased procurement of local goods and services, and stimulation of the local economy through construction-related expenditure.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	High (Positive)

Degree to which the impact can be enhanced:	High. The positive impacts can be enhanced through the employment of local labour, appointment of local contractors and suppliers, and provision of training opportunities where feasible.
Proposed enhancement measures:	• Employ suitably qualified local labour where practical. • Provide employment opportunities to previously disadvantaged individuals where feasible. • Utilise local contractors, suppliers and service providers where practical. • Provide on-site training and skills transfer opportunities where appropriate. • Ensure compliance with all applicable labour legislation and fair employment practices. • Maintain a safe working environment in accordance with the Occupational Health and Safety Act.
Alternative comparison:	Alternative 2 would generate slightly greater short-term economic benefits than the Preferred Alternative due to the larger scale of construction. However, these benefits are temporary and do not outweigh the significantly greater biodiversity, visual and environmental impacts associated with the larger development footprint and second development node. The Preferred Alternative therefore remains the most sustainable option.
Cumulative impact post enhancement:	Continued positive contribution to the local economy through temporary employment, procurement of local goods and services, and skills development during construction. No adverse cumulative socio-economic impacts are anticipated.
Significance rating of impact after enhancement (Low, Medium, Medium-High, High or Very High):	High (Positive)

Aspect	Assessment
Potential noise impacts:	Noise disturbance.
Nature of impact:	Construction of two dwellings and associated infrastructure would generate higher levels of temporary construction noise than the Preferred Alternative due to increased machinery operation, vehicle movements, excavation and longer construction duration.
Extent and duration of impact:	Local during construction.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Increased temporary construction noise associated with larger construction activities and longer construction period.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Restrict construction activities to normal daytime working hours. • Maintain construction equipment in good working order. • Minimise unnecessary idling of machinery. • Inform neighbouring landowners of unusually noisy activities where appropriate. • Implement good construction practices to minimise noise generation.
Alternative comparison:	Construction noise would be greater than the Preferred Alternative due to the increased scale and duration of construction activities.
Cumulative impact post mitigation:	Construction noise would remain temporary and localised.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impacts on cultural-historical aspects:	Heritage resources.
Nature of impact:	Heritage resources may potentially be encountered during excavation associated with both development nodes. Although no significant archaeological or cultural heritage resources have been identified within the proposed development footprint, the larger disturbance area increases the likelihood of accidental discovery during earthworks.
Extent and duration of impact:	Localised during construction.
Probability of occurrence:	Improbable.
Degree to which the impact can be reversed:	Low. Damage to heritage resources would be irreversible should they be encountered.
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Cumulative impact prior to mitigation:	Slightly increased potential for accidental disturbance due to the larger disturbance footprint.
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:	High.
Proposed mitigation:	• Implement all recommendations contained in the Heritage Impact Statement. • Include the Fossil Finds Procedure within the EMP. • Stop all work immediately should archaeological material, fossils or human remains be discovered. • Notify Heritage Western Cape before any further disturbance occurs. • Conduct heritage awareness training for construction personnel.
Alternative comparison:	Alternative 2 presents a slightly greater heritage risk due to the larger development footprint but remains manageable through implementation of the specialist recommendations.
Cumulative impact post mitigation:	No significant cumulative heritage impacts anticipated.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential occupational health and safety impacts:	Occupational health and safety.
Nature of impact:	Construction of two dwellings and associated infrastructure increases the exposure of workers to hazards associated with excavation, heavy machinery, construction equipment, dust, electrical installations and manual handling. The larger construction footprint and longer construction programme increase the overall health and safety risks.
Extent and duration of impact:	Construction site during construction.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Increased occupational risks associated with a larger construction workforce and longer construction programme.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Comply with the Occupational Health and Safety Act. • Provide appropriate PPE. • Maintain first aid facilities. • Conduct regular safety training. • Maintain fire-fighting equipment. • Implement

	emergency response procedures. • Comply with applicable SANS standards.
Alternative comparison:	Health and safety risks are greater than the Preferred Alternative because of the larger construction programme but remain manageable through implementation of appropriate safety procedures.
Cumulative impact post mitigation:	Residual occupational risks are expected to remain low.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential waste management impacts:	Waste generation and management.
Nature of impact:	Construction of two dwellings would generate larger quantities of general construction waste, packaging materials, excavated material and limited hazardous waste than the Preferred Alternative. Inappropriate waste management could result in pollution of soils, groundwater and surrounding natural areas.
Extent and duration of impact:	Local during construction.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Greater waste generation and increased risk of pollution compared to the Preferred Alternative.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Separate recyclable and general waste. • Provide suitable covered waste containers. • Remove waste regularly using authorised waste contractors. • Dispose of hazardous waste at licensed facilities. • Maintain waste disposal records. • Implement good housekeeping throughout construction. • Include waste management within environmental awareness training.
Alternative comparison:	Alternative 2 generates substantially more construction waste than the Preferred Alternative due to its larger development footprint and second dwelling.
Cumulative impact post mitigation:	Waste impacts would be effectively managed through implementation of the EMP but remain greater than those associated with the Preferred Alternative.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

- (a) 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

Aspect	Assessment
Potential impacts on geographical and physical aspects:	Surface water runoff, groundwater, soils and stormwater management.

Nature of impact:	During operation, the larger development footprint, comprising a 3 000 m ² main dwelling and a 1 200 m ² farm manager's dwelling, would increase the extent of impermeable surfaces, resulting in greater stormwater runoff compared to the Preferred Alternative. The operation of two residential units also increases the potential for groundwater contamination should the on-site wastewater system fail or hazardous substances be improperly managed. Long-term soil disturbance associated with landscaping and maintenance activities would also be greater.
Extent and duration of impact:	Localised to the development footprint for the operational life of the development.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	Medium.
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Cumulative impact prior to mitigation:	Greater stormwater runoff, increased impermeable surfaces and higher potential for groundwater contamination compared to the Preferred Alternative.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Maintain all stormwater infrastructure. • Regularly inspect and maintain wastewater infrastructure. • Maintain rainwater harvesting systems. • Prevent pollution from fuels, oils and chemicals. • Rehabilitate eroded areas where necessary. • Implement all EMP requirements throughout the operation.
Cumulative impact post mitigation:	Localised impacts remain but are effectively managed through the implementation of mitigation measures.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impacts on biological aspects:	Habitat and biodiversity.
Nature of impact:	The operation of two residential development nodes would result in greater long-term habitat fragmentation, increased human activity and greater disturbance to indigenous fauna and flora than the Preferred Alternative. The northern farm manager's dwelling would remain within an area supporting Critically Endangered Knysna Sand Fynbos, resulting in permanent loss of habitat and reduced ecological connectivity within the Critical Biodiversity Area.
Extent and duration of impact:	Localised and permanent.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Low.
Degree to which the impact may cause irreplaceable loss of resources:	High.
Cumulative impact prior to mitigation:	Permanent habitat fragmentation, disturbance of ecological corridors and loss of Critically Endangered Knysna Sand Fynbos.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	High (Negative)
Degree to which the impact can be mitigated:	Medium.
Proposed mitigation:	• Retain all indigenous vegetation outside the approved footprint. • Implement long-term alien invasive species control. • Prevent any additional vegetation clearance. • Maintain ecological

	corridors wherever possible. • Continue implementing all botanical specialist recommendations and EMPr requirements. • Restrict domestic activities to the approved development areas.
Cumulative impact post mitigation:	Residual biodiversity impacts remain significant because the permanent loss of Critically Endangered Knysna Sand Fynbos cannot be fully mitigated.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Medium-High (Negative)

Aspect	Assessment
Potential impacts on socio-economic aspects:	Socio-economic impacts.
Nature of impact:	Operation of two residential dwellings would provide slightly greater long-term employment opportunities associated with maintenance, landscaping and property management than the Preferred Alternative. Increased expenditure on local goods and services would also contribute positively to the local economy.
Extent and duration of impact:	Local for the operational life of the development.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Positive impact.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Positive long-term contribution to the local economy.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Positive)
Degree to which the impact can be enhanced:	High.
Proposed enhancement:	Continue employing local service providers and contractors where practical.
Cumulative impact post mitigation:	Continued positive socio-economic contribution.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Positive)

Aspect	Assessment
Potential noise impacts:	Noise disturbance.
Nature of impact:	Operation of two residential dwellings would result in slightly higher levels of domestic noise, vehicle movements and maintenance activities than the Preferred Alternative. However, noise levels would remain compatible with the surrounding low-density residential environment.
Extent and duration of impact:	Localised throughout the operation.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Slight increase in ambient residential noise levels.
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:	High.
Proposed mitigation:	• Restrict maintenance activities to daytime hours. • Maintain equipment in good working order. • Avoid unnecessary noise generation.
Cumulative impact post mitigation:	No significant cumulative noise impacts anticipated.

Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)
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Aspect	Assessment
Potential impacts on cultural-historical aspects:	Heritage resources.
Nature of impact:	No significant operational impacts on identified heritage resources are anticipated. However, the larger permanent development footprint and second dwelling would result in greater alteration of the cultural landscape than the Preferred Alternative.
Extent and duration of impact:	Localised and permanent.
Probability of occurrence:	Improbable.
Degree to which the impact can be reversed:	Low.
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Cumulative impact prior to mitigation:	Slightly greater long-term alteration of landscape character.
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:	High.
Proposed mitigation:	• Maintain indigenous landscaping. • Continue implementing the recommendations of the Heritage Impact Statement. • Comply with the National Heritage Resources Act should future excavation be required.
Cumulative impact post mitigation:	No significant cumulative heritage impacts anticipated.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential occupational health and safety impacts:	Occupational health and safety.
Nature of impact:	Operation of two residential dwellings increases the extent of routine maintenance activities, electrical installations, fire risks and use of domestic infrastructure compared to the Preferred Alternative.
Extent and duration of impact:	Localised throughout operation.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Low operational health and safety risks.
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:	High.
Proposed mitigation:	• Maintain electrical and fire protection systems. • Maintain emergency procedures. • Comply with applicable SANS standards. • Maintain first aid equipment and emergency contact information.
Cumulative impact post mitigation:	Residual risks remain low.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential waste management impacts:	Waste generation and management.
Nature of impact:	Two residential dwellings would generate greater volumes of domestic waste and recyclables than the Preferred Alternative. Inappropriate waste management could result in pollution of soils, groundwater and surrounding natural areas.
Extent and duration of impact:	Localised throughout the operational life of the development.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Increased domestic waste generation compared to the Preferred Alternative.
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:	High.
Proposed mitigation:	• Separate recyclable materials from general waste. • Store waste in covered containers. • Dispose of waste through authorised service providers. • Dispose of hazardous household waste at approved facilities. • Maintain good housekeeping throughout operation.
Cumulative impact post mitigation:	No significant cumulative waste management impacts anticipated following implementation of mitigation measures.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Alternative 3

Main Dwelling

The proposed development comprises the construction of a single 3 000 m² main dwelling within the northern portion of Portion 76 of Farm Uitzicht No. 216, adjacent to the existing Bushy Way/Kerk Laan access route. The dwelling would comprise associated residential services and infrastructure.

Access

Access to the proposed dwelling would be provided via a short internal access track connecting directly to the existing Bushy Way/Kerk Laan public access route. The significantly shorter access route would reduce the extent of disturbance associated with road construction when compared with the southern development alternatives.

Potential Environmental Impacts

- The principal environmental impacts associated with Alternative 3 include:
- Direct impacts on Critically Endangered Knysna Sand Fynbos within the proposed development footprint;
- Permanent loss of indigenous vegetation within the authorised development footprint;
- Localised impacts on biodiversity and ecological processes within the mapped Critical Biodiversity Area (CBA);
- Soil disturbance, erosion and alteration of local stormwater runoff associated with construction of the dwelling platform and short internal access track;
- Temporary dust, noise and visual impacts during construction;
- Generation of construction and domestic waste;
- Potential impacts on groundwater and surface water resulting from inappropriate stormwater or

wastewater management;

- Temporary disturbance to terrestrial fauna during construction;
- Permanent visual changes associated with the completed dwelling and associated infrastructure; and
- Positive socio-economic impacts through temporary employment during construction and limited long-term employment associated with the operation and maintenance of the property.

The Specialist Plant Species and Terrestrial Biodiversity Report identified Alternative 3 as the preferred biodiversity option because it would result in the smallest overall project area of influence, reduced landscape fragmentation, reduced fire risk and less than one per cent transformation of the property. These findings were considered together with the engineering, geotechnical, visual, planning and other specialist investigations as part of the integrated assessment undertaken in this Final Basic Assessment Report.

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	Assessment
Potential impacts on geographical and physical aspects:	Surface water runoff, groundwater, soils and air quality.
Nature of impact:	Construction of the proposed 3 000 m ² main dwelling and associated infrastructure within the northern portion of the property would require vegetation clearance, excavation, earthworks and site levelling within an environmentally sensitive area. Although the internal access track would be shorter than that required for the southern alternatives, construction activities would still result in soil compaction, disturbance of natural drainage patterns, increased stormwater runoff, potential groundwater contamination from fuels, oils and cement, and temporary dust generation.
Extent and duration of impact:	Localised to the northern development footprint during construction, with permanent disturbance beneath completed infrastructure.
Probability of occurrence:	Probable.
Degree to which the impact can be mitigated:	High.
Degree to which the impact may cause irreplaceable loss of resources:	Medium.
Cumulative impact prior to mitigation:	Soil disturbance, stormwater runoff, erosion and potential groundwater contamination associated with construction activities within a sensitive natural environment.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Negative)
Degree to which the impact can be mitigated:	Although construction impacts can be reduced through engineering controls and implementation of the EMPr, permanent disturbance beneath the development footprint cannot be avoided.
Proposed mitigation:	• Implement all recommendations contained in the Geotechnical Report and EMPr. • Restrict all disturbance to the approved construction footprint. • Protect and stockpile topsoil for rehabilitation. • Implement erosion and stormwater management measures. • Store hazardous materials on bunded, impermeable surfaces. • Maintain spill kits on site and prohibit servicing of vehicles outside designated areas. •

	Implement dust suppression during dry and windy conditions. • Rehabilitate disturbed areas immediately following construction. • Appoint an Environmental Control Officer (ECO) to monitor compliance throughout construction.
Alternative comparison:	Alternative 3 benefits from a substantially shorter internal access track, resulting in reduced road-related disturbance, reduced earthworks and lower potential for erosion associated with road construction. However, the proposed dwelling would be located within an area supporting Critically Endangered Knysna Sand Fynbos. The Specialist Plant Species and Terrestrial Biodiversity Report identified this alternative as the preferred biodiversity option due to the reduced overall project area of influence, lower landscape fragmentation and reduced fire risk. These findings were considered together with the engineering, geotechnical, visual, planning and other environmental considerations during the integrated assessment of alternatives presented in this Final Basic Assessment Report.
Cumulative impact post mitigation:	Residual impacts remain localised but permanent beneath the completed development footprint.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impacts on biological aspects:	Habitat and biodiversity loss.
Nature of impact:	Construction of the proposed 3 000 m ² main dwelling, associated access track and supporting infrastructure within the northern portion of the property would result in the direct loss of indigenous vegetation within an area mapped as Critically Endangered Knysna Sand Fynbos and would permanently transform part of the Critical Biodiversity Area (CBA). The Specialist Plant Species and Terrestrial Biodiversity Report concluded that, despite the presence of Critically Endangered vegetation, Alternative 3 represents the preferred biodiversity option because it would result in the smallest overall project area of influence, reduced landscape fragmentation, reduced fire risk and less than one per cent transformation of the property. The assessment further concluded that residual biodiversity impacts could be reduced to Minor or Negligible through the implementation of the recommended mitigation measures. These findings were considered together with the engineering, geotechnical, visual, planning and other specialist investigations during the integrated assessment of alternatives undertaken for this Final Basic Assessment Report.
Extent and duration of impact:	Localised to the development footprint but permanent.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Very Low. Permanent habitat loss cannot be reversed.
Degree to which the impact may cause irreplaceable loss of resources:	Medium. The proposed development would result in the permanent transformation of indigenous vegetation within Critically Endangered Knysna Sand Fynbos. However, the Botanical Specialist concluded that the overall project area of influence would be substantially smaller than the southern alternatives and that residual impacts could be reduced

	through implementation of the recommended mitigation measures.
Cumulative impact prior to mitigation:	Permanent loss of Critically Endangered Knysna Sand Fynbos, fragmentation of ecological corridors, reduction in habitat connectivity and degradation of biodiversity within the CBA.
Significance rating of impact prior to mitigation	Very High (Negative)
Degree to which the impact can be mitigated:	Medium to High. Although permanent vegetation loss cannot be avoided within the development footprint, the Botanical Specialist concluded that the residual biodiversity impacts can be substantially reduced through implementation of the recommended avoidance, search-and-rescue, rehabilitation and ecological management measures.
Proposed mitigation:	• Restrict disturbance to the approved footprint. • Implement all Botanical Specialist recommendations. • Undertake search-and-rescue of suitable plant species. • Rehabilitate temporarily disturbed areas using indigenous vegetation. • Remove alien invasive species. • Appoint an ECO. • Protect surrounding vegetation through fencing and demarcation. Despite these measures, the permanent loss of Critically Endangered Knysna Sand Fynbos remains unavoidable.
Alternative comparison:	Alternative 3 provides several biodiversity and engineering advantages, including a substantially shorter access route, reduced overall project area of influence, lower landscape fragmentation and reduced fire risk. The Specialist Plant Species and Terrestrial Biodiversity Report identified this as the preferred biodiversity alternative. These findings were considered together with the engineering, visual, geotechnical, planning and other environmental considerations during the integrated assessment of alternatives presented in this Final Basic Assessment Report.
Cumulative impact post mitigation:	Following implementation of the recommended mitigation measures, residual biodiversity impacts would be substantially reduced. The Botanical Specialist concluded that the residual impacts associated with Alternative 3 could be reduced to Minor or Negligible significance and that the overall project area of influence would be less than one per cent of the property.
Significance rating of impact after mitigation	Low (Negative)

Aspect	Assessment
Potential impacts on socio-economic aspects:	Socio-economic impacts.
Nature of impact:	Construction of the proposed dwelling would generate temporary employment opportunities and demand for local goods and services. Although positive, these benefits are similar to Alternative 1 and are substantially outweighed by the environmental impacts associated with developing within the northern sensitive area.
Extent and duration of impact:	Local during construction.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Positive impact.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Positive economic contribution through employment and procurement of local services.

Significance rating of impact prior to mitigation	High (Positive)
Degree to which the impact can be enhanced:	High.
Proposed enhancement:	Employ local labour, utilise local suppliers where practical, provide skills transfer and comply with labour legislation.
Alternative comparison:	Alternative 3 would generate socio-economic benefits comparable to Alternative 1. In addition, the shorter access route would reduce construction-related disturbance. The overall suitability of this alternative was considered as part of the integrated environmental assessment together with the biodiversity, engineering, visual, planning and geotechnical findings presented in this Final Basic Assessment Report.
Cumulative impact post mitigation:	Continued positive contribution to the local economy during construction.
Significance rating of impact after mitigation	High (Positive)

Aspect	Assessment
Potential visual impacts:	Visual and landscape character.
Nature of impact:	The proposed dwelling within the northern portion of the property would introduce a prominent built form into an area that currently remains largely natural. Although located adjacent to the existing access route, the development would permanently alter the natural landscape and reduce the visual integrity of the northern portion of the property.
Extent and duration of impact:	Localised and permanent.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Low.
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Cumulative impact prior to mitigation:	Permanent alteration of landscape character and reduced visual quality.
Significance rating of impact prior to mitigation	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Utilise low-profile architecture. • Use earth-toned, non-reflective finishes. • Retain existing indigenous vegetation wherever possible. • Implement indigenous landscaping. • Minimise external lighting. • Rehabilitate disturbed areas.
Alternative comparison:	Alternative 3 benefits from direct access via the existing Bushy Way/Kerk Laan access route, reducing the extent of new road construction. The visual implications of the northern location were considered together with the engineering, biodiversity and planning assessments during the integrated assessment of alternatives.
Cumulative impact post mitigation:	Visual impacts reduced but remain greater than the Preferred Alternative.
Significance rating of impact after mitigation	Low (Negative)

Aspect	Assessment
Potential noise impacts:	Noise disturbance.
Nature of impact:	Construction activities would generate temporary noise associated with excavation, machinery and construction vehicles. Although the shorter access road reduces road construction noise, the overall construction programme remains comparable to Alternative 1.
Extent and duration of impact:	Local during construction.

Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Temporary increase in construction-related noise.
Significance rating of impact prior to mitigation	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Restrict construction to daylight hours, maintain equipment, minimise idling and implement good construction practices.
Alternative comparison:	Noise impacts are comparable to Alternative 1, although the shorter internal access track would reduce the duration of road construction activities.
Cumulative impact post mitigation:	Temporary and localised.
Significance rating of impact after mitigation	Low (Negative)

Aspect	Assessment
Potential impacts on cultural-historical aspects:	Heritage resources.
Nature of impact:	Although no significant heritage resources have been identified within the proposed footprint, excavation activities always carry a small risk of exposing previously unknown archaeological or palaeontological material.
Extent and duration of impact:	Localised during construction.
Probability of occurrence:	Improbable.
Degree to which the impact can be reversed:	Low.
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Cumulative impact prior to mitigation:	Low likelihood of accidental disturbance.
Significance rating of impact prior to mitigation	Low (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Implement all Heritage Specialist recommendations, apply the Fossil Finds Procedure, stop work if heritage resources are encountered and notify Heritage Western Cape.
Alternative comparison:	Heritage impacts are comparable to the Preferred Alternative.
Cumulative impact post mitigation:	No significant cumulative heritage impacts are anticipated.
Significance rating of impact after mitigation	Low (Negative)

Aspect	Assessment
Potential occupational health and safety impacts:	Occupational health and safety.
Nature of impact:	Construction activities would expose workers to hazards associated with excavation, heavy machinery, electrical installations and manual handling.
Extent and duration of impact:	Construction site during construction.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Temporary occupational risks.
Significance rating of impact prior to mitigation	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Comply with the Occupational Health and Safety Act, provide PPE, maintain emergency procedures, first aid equipment and regular safety training.
Alternative comparison:	Comparable to Alternative 1.
Cumulative impact post mitigation:	Low residual occupational risks.

Significance rating of impact after mitigation	Low (Negative)
Aspect	Assessment
Potential waste management impacts:	Waste generation and management.
Nature of impact:	Construction would generate general construction waste, packaging, spoil material and limited hazardous waste. Improper management could result in pollution of soils and surrounding natural areas.
Extent and duration of impact:	Local during construction.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Temporary increase in waste generation during construction.
Significance rating of impact prior to mitigation	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Separate recyclable waste, use covered waste containers, dispose of waste at authorised facilities, maintain good housekeeping and implement the EMPr waste management measures.
Alternative comparison:	Waste generation would be comparable to Alternative 1, although the shorter access track would slightly reduce construction-related waste associated with road construction.
Cumulative impact post mitigation:	Waste impacts remain localised and manageable.
Significance rating of impact after mitigation	Low (Negative)

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

Aspect	Assessment
Potential impacts on geographical and physical aspects:	Surface water runoff, groundwater, soils and stormwater management.
Nature of impact:	During operation, the proposed 3 000 m ² dwelling and associated infrastructure would permanently alter natural drainage patterns, increase impermeable surfaces and reduce infiltration within the northern portion of the property. Although the shorter access track would reduce the area of road disturbance compared to the southern alternatives, the permanent operational footprint would still increase stormwater runoff and the potential for groundwater contamination associated with the on-site wastewater system.
Extent and duration of impact:	Localised to the development footprint for the operational life of the development.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	Medium.
Degree to which the impact may cause irreplaceable loss of resources:	Low.

Cumulative impact prior to mitigation:	Increased impermeable surfaces, altered drainage patterns and potential groundwater contamination associated with long-term occupation.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Negative)
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Maintain all stormwater management infrastructure. • Regularly inspect and maintain the wastewater system. • Maintain rainwater harvesting infrastructure. • Prevent pollution from fuels, chemicals and household waste. • Implement all EMP requirements throughout operation.
Alternative comparison:	Alternative 3 benefits from a substantially shorter internal access track, reducing road-related disturbance, earthworks and the potential for erosion associated with road construction. The Specialist Plant Species and Terrestrial Biodiversity Report identified this alternative as the preferred biodiversity option due to its reduced overall project area of influence, lower landscape fragmentation and reduced fire risk. These findings were considered together with the engineering, geotechnical, visual, planning and other environmental considerations during the integrated assessment of alternatives presented in this Final Basic Assessment Report.
Cumulative impact post mitigation:	Localised impacts remain but are effectively managed.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impacts on biological aspects:	Habitat and biodiversity.
Nature of impact:	Operation of the proposed dwelling within the northern portion of the property would result in the permanent occupation of an area supporting Critically Endangered Knysna Sand Fynbos, together with increased human activity and long-term disturbance to ecological processes within the Critical Biodiversity Area. The Specialist Plant Species and Terrestrial Biodiversity Report concluded that Alternative 3 represents the preferred biodiversity option because it would result in the smallest overall project area of influence, reduced landscape fragmentation, reduced fire risk and less than one per cent transformation of the property. The assessment further concluded that residual biodiversity impacts could be reduced through implementation of the recommended mitigation measures. These findings were considered together with the engineering, visual, geotechnical, planning and other specialist investigations during the integrated environmental assessment.
Extent and duration of impact:	Localised but permanent for the operational life of the development.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Very Low.
Degree to which the impact may cause irreplaceable loss of resources:	Medium. Permanent transformation of indigenous vegetation would occur within the development footprint. However, the Botanical Specialist concluded that the overall project area of influence would be substantially smaller than the southern alternatives and that residual impacts could be reduced through implementation of the recommended mitigation measures.

Cumulative impact prior to mitigation:	Permanent fragmentation of ecological corridors, continued loss of habitat and degradation of biodiversity within the Critical Biodiversity Area.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Very High (Negative)
Degree to which the impact can be mitigated:	Medium to High. Permanent habitat transformation within the development footprint cannot be avoided. However, implementation of the Botanical Specialist's recommendations, search-and-rescue measures, rehabilitation and long-term ecological management would substantially reduce residual impacts.
Proposed mitigation:	• Retain all remaining indigenous vegetation outside the approved footprint. • Implement long-term alien invasive species control. • Maintain ecological corridors wherever possible. • Prevent any further vegetation clearing. • Continue implementing all Botanical Specialist recommendations and the EMP. • Restrict all domestic activities to the approved development footprint.
Alternative comparison:	Alternative 3 offers several biodiversity and engineering advantages, including a substantially shorter access route, reduced overall project area of influence, lower landscape fragmentation and reduced fire risk. The Specialist Plant Species and Terrestrial Biodiversity Report identified this as the preferred biodiversity alternative. These findings were considered together with the engineering, visual, geotechnical, planning and other environmental considerations during the integrated assessment of alternatives presented in this Final Basic Assessment Report.
Cumulative impact post mitigation:	Following implementation of the recommended mitigation measures, residual biodiversity impacts would be substantially reduced. The Botanical Specialist concluded that the residual impacts associated with Alternative 3 could be reduced through implementation of the recommended mitigation measures while maintaining the smallest overall project area of influence.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impacts on socio-economic aspects:	Socio-economic impacts.
Nature of impact:	Operation of the dwelling would provide limited long-term employment associated with property maintenance and landscaping and would contribute to local expenditure on goods and services. These benefits are comparable to Alternative 1 but do not outweigh the significant biodiversity impacts associated with the northern location.
Extent and duration of impact:	Local for the operational life of the development.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	Positive impact.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Positive contribution to the local economy through ongoing maintenance and service provision.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Positive)
Degree to which the impact can be enhanced:	High.

Proposed enhancement:	Employ local contractors and service providers wherever practical and continue supporting local economic activity.
Alternative comparison:	The socio-economic benefits are broadly comparable to those associated with Alternative 1 and the Preferred Alternative. The shorter access route would also reduce the extent of construction-related disturbance. The overall suitability of this alternative was considered as part of the integrated environmental assessment together with the biodiversity, engineering, planning, visual and geotechnical findings.
Cumulative impact post mitigation:	Continued positive local economic contribution.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Medium (Positive)

Aspect	Assessment
Potential noise impacts:	Noise disturbance.
Nature of impact:	Operational noise would be limited to normal residential activities, vehicle movements and routine maintenance. Noise levels would remain compatible with surrounding land uses.
Extent and duration of impact:	Localised for the operational life of the development.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Minor increase in residential noise levels.
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:	High.
Proposed mitigation:	Restrict maintenance activities to daytime hours, maintain equipment and avoid unnecessary noise generation.
Alternative comparison:	Operational noise impacts are comparable to Alternative 1 and the Preferred Alternative.
Cumulative impact post mitigation:	No significant cumulative noise impacts are anticipated.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential impacts on cultural-historical aspects:	Heritage resources.
Nature of impact:	No significant operational impacts on identified heritage resources are anticipated. The completed development would, however, result in a greater permanent alteration of the natural landscape than the Preferred Alternative.
Extent and duration of impact:	Localised and permanent.
Probability of occurrence:	Improbable.
Degree to which the impact can be reversed:	Low.
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Cumulative impact prior to mitigation:	Slight long-term alteration of landscape character.
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:	High.
Proposed mitigation:	Maintain indigenous landscaping and continue implementing the recommendations of the Heritage Impact Statement.

Alternative comparison:	Heritage impacts are comparable to Alternative 1 and the Preferred Alternative.
Cumulative impact post mitigation:	No significant cumulative heritage impacts anticipated.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential occupational health and safety impacts:	Occupational health and safety.
Nature of impact:	Routine operation and maintenance of the dwelling present normal residential safety risks associated with electrical systems, fire, maintenance activities and domestic infrastructure.
Extent and duration of impact:	Localised for the operational life of the development.
Probability of occurrence:	Unlikely.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Low operational health and safety risks.
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:	High.
Proposed mitigation:	Maintain electrical installations, fire protection systems and emergency procedures in accordance with applicable standards and the EMPr.
Alternative comparison:	Comparable to the Preferred Alternative and Alternative 1.
Cumulative impact post mitigation:	Residual operational risks remain low.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)

Aspect	Assessment
Potential waste management impacts:	Waste generation and management.
Nature of impact:	The dwelling would generate normal domestic waste, recyclable materials and limited hazardous household waste. Poor waste management could result in pollution of soils, groundwater and surrounding natural areas.
Extent and duration of impact:	Localised throughout the operational life of the development.
Probability of occurrence:	Probable.
Degree to which the impact can be reversed:	High.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Minor increase in domestic waste generation.
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:	High.
Proposed mitigation:	Separate recyclable waste, provide covered waste containers, dispose of waste through authorised service providers and maintain good housekeeping throughout operation.
Alternative comparison:	Waste generation would be comparable to Alternative 1 and the Preferred Alternative. The shorter access route would marginally reduce road maintenance requirements; however, appropriate waste management remains essential due to the environmental sensitivity of the surrounding area.
Cumulative impact post mitigation:	No significant cumulative waste management impacts are anticipated following implementation of mitigation measures.

Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	Low (Negative)
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The No-Go Alternative

The No-Go Alternative entails that no residential development is undertaken on Portion 76 of Farm Uitzicht No. 216. The property would remain in its current undeveloped state, with no construction of the proposed main dwelling, internal access road or associated infrastructure.

Under this alternative, the applicant would not be able to exercise the primary residential land use rights associated with the property. Consequently, the potential socio-economic benefits associated with the proposed development, including temporary construction employment, local economic expenditure and limited long-term operational employment, would not be realised.

The existing natural environment, including indigenous vegetation, ecological corridors, landscape character and biodiversity, would remain unchanged.

Environmental Impacts

- No vegetation clearance or habitat transformation.
- No direct impacts on the Critical Biodiversity Area (CBA).
- No loss of Critically Endangered Knysna Sand Fynbos.
- No construction-related stormwater runoff, soil erosion or pollution.
- No construction noise, dust generation or traffic impacts.
- No visual intrusion associated with residential development.
- No socio-economic benefits associated with construction or operation.
- The existing ecological functioning, biodiversity and landscape character of the property would be maintained.

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	Assessment
Potential impacts on geographical and physical aspects:	Surface water runoff, groundwater, soils and air quality.
Nature of impact:	Under the No-Go Alternative, no construction activities would take place. Consequently, there would be no earthworks, vegetation clearance, soil compaction, stormwater runoff associated with construction, groundwater contamination, dust generation or air quality impacts. Existing landforms, soils and drainage patterns would remain unchanged.
Extent and duration of impact:	No impact.
Probability of occurrence:	None.
Degree to which the impact can be mitigated:	Not applicable.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	No cumulative impacts anticipated.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High):	No Impact
Degree to which the impact can be mitigated:	Not applicable.
Proposed mitigation:	No mitigation required.

Cumulative impact post mitigation:	No impact.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High or Very High):	No Impact

Aspect	Assessment
Potential impacts on biological aspects:	Habitat and biodiversity.
Nature of impact:	No vegetation would be cleared and no construction would occur. Indigenous vegetation, ecological corridors, the Critical Biodiversity Area (CBA), Goukamma Dune Thicket and Critically Endangered Knysna Sand Fynbos would remain undisturbed. Existing ecological processes and biodiversity would be maintained.
Extent and duration of impact:	No impact.
Probability of occurrence:	None.
Degree to which the impact can be reversed:	Not applicable.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	No cumulative biodiversity impacts.
Significance rating of impact prior to mitigation:	No Impact
Degree to which the impact can be mitigated:	Not applicable.
Proposed mitigation:	No mitigation required.
Cumulative impact post mitigation:	No impact.
Significance rating of impact after mitigation:	No Impact

Aspect	Assessment
Potential impacts on socio-economic aspects:	Socio-economic impacts.
Nature of impact:	No construction would occur and, therefore, no temporary employment opportunities, procurement of local goods and services or associated economic benefits would be realised. The applicant would also be unable to exercise the residential development rights associated with the property.
Extent and duration of impact:	Local.
Probability of occurrence:	Definite.
Degree to which the impact can be reversed:	The loss of temporary economic opportunities would remain unless development proceeds in future.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	Loss of temporary employment opportunities and associated local economic benefits.
Significance rating of impact prior to mitigation:	Medium (Negative)
Degree to which the impact can be mitigated:	None while the No-Go Alternative remains in place.
Proposed mitigation:	No mitigation applicable.
Cumulative impact post mitigation:	Temporary socio-economic benefits remain unrealised.
Significance rating of impact after mitigation:	Medium (Negative)

Aspect	Assessment
Potential visual impacts:	Visual and landscape character.
Nature of impact:	No construction activities or built structures would be introduced. The existing natural landscape, vegetation and scenic character of the property would remain unchanged.
Extent and duration of impact:	No impact.
Probability of occurrence:	None.
Degree to which the impact can be reversed:	Not applicable.

Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	No cumulative visual impacts.
Significance rating of impact prior to mitigation:	No Impact
Degree to which the impact can be mitigated:	Not applicable.
Proposed mitigation:	No mitigation required.
Cumulative impact post mitigation:	No impact.
Significance rating of impact after mitigation:	No Impact

Aspect	Assessment
Potential impacts on cultural-historical aspects:	Heritage resources.
Nature of impact:	No ground disturbance would occur and, therefore, no impacts on archaeological, palaeontological or cultural heritage resources would be expected. Existing heritage resources would remain intact.
Extent and duration of impact:	No impact.
Probability of occurrence:	None.
Degree to which the impact can be reversed:	Not applicable.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	No cumulative heritage impacts.
Significance rating of impact prior to mitigation:	No Impact
Degree to which the impact can be mitigated:	Not applicable.
Proposed mitigation:	No mitigation required.
Cumulative impact post mitigation:	No impact.
Significance rating of impact after mitigation:	No Impact

Aspect	Assessment
Potential occupational health and safety impacts:	Occupational health and safety.
Nature of impact:	No construction activities would take place and, therefore, there would be no construction-related occupational health and safety risks.
Extent and duration of impact:	No impact.
Probability of occurrence:	None.
Degree to which the impact can be reversed:	Not applicable.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	No cumulative occupational health and safety impacts.
Significance rating of impact prior to mitigation:	No Impact
Degree to which the impact can be mitigated:	Not applicable.
Proposed mitigation:	No mitigation required.
Cumulative impact post mitigation:	No impact.
Significance rating of impact after mitigation:	No Impact

Aspect	Assessment
Potential waste management impacts:	Waste generation and management.
Nature of impact:	No construction activities would occur and, therefore, no construction waste, hazardous waste or spoil material would be generated.
Extent and duration of impact:	No impact.
Probability of occurrence:	None.
Degree to which the impact can be reversed:	Not applicable.

Degree to which the impact may cause irreplaceable loss of resources:	None.
Cumulative impact prior to mitigation:	No cumulative waste impacts.
Significance rating of impact prior to mitigation:	No Impact
Degree to which the impact can be mitigated:	Not applicable.
Proposed mitigation:	No mitigation required.
Cumulative impact post mitigation:	No impact.
Significance rating of impact after mitigation:	No Impact

Section I

1. Conclusion and Recommendations

- Based on the findings of the specialist studies and the alternatives analysis, the preferred alternative is the siting of one main dwelling in the south-western portion of Portion 76. This location avoids the transformation of Critically Endangered Knysna Sand Fynbos, limits visual exposure, and aligns with the less sensitive Goukamma Dune Thicket vegetation type.
- Alternative 2 (farm manager's house included) was rejected as it expands the footprint unnecessarily and infringes on sensitive areas.
- Alternative 3 (northern location, as per SANParks' suggestion) was found to be not viable due to the permanent and irreplaceable loss of Critically Endangered vegetation, contravening national legislation (NEM: BA, 2022 list) and WCBSP objectives.
- The No-Go Alternative does not meet the landowner's basic residential needs and does not provide a reasonable and balanced outcome.
- Accordingly, the south-western siting is recommended as the only defensible option."

2. Recommended Mitigation and Conditions of Authorisation

Cross-cutting management (applies to all phases)

- An independent Environmental Control Officer (ECO) shall be appointed prior to commencement of any site clearing or construction activities to monitor compliance with the Environmental Management Programme (EMPr), specialist recommendations, and conditions of Environmental Authorisation. The ECO shall utilise relevant monitoring checklists where provided and submit compliance reports to the Applicant and Competent Authority at agreed intervals.
- The mitigation hierarchy must be strictly applied throughout the project lifecycle, prioritising avoidance and minimisation of impacts through site selection, layout refinement, and construction methods. Rehabilitation measures shall be implemented for all temporary disturbance areas, and offsets shall only be considered where residual impacts cannot be adequately mitigated.
- The Environmental Assessment Practitioner (EAP), based on the integrated assessment of environmental sensitivities, specialist input, and comments received during the Public Participation Process, is of the opinion that the northern portion of the property, adjacent to Kerk Laan, represents the most suitable and preferred development location.

This position is strongly motivated by the significant environmental and practical risks associated with development in the southern portion of the property. In particular, the construction of a long internal access road through the southern portion would introduce substantial risks, including:

- increased erosion potential due to steep slopes,
- disturbance of sensitive dune systems,
- long-term instability associated with dynamic coastal processes,
- limited accessibility for emergency and fire management, and
- heightened visual exposure within a sensitive coastal landscape.

Recommended Development Location (Northern Portion)

The EAP therefore recommends that the proposed development be located within the northern portion of the property, adjacent to Kerk Laan. This alternative is considered the most environmentally responsible and lowest-risk option and is aligned with both specialist findings and key concerns raised during the public participation process.

It is acknowledged that development within the northern portion may require a relaxation of the applicable building line in terms of the relevant municipal planning framework and zoning scheme. Should this alternative be pursued, the necessary land use planning approvals will be obtained from the competent authority prior to construction.

Pre-construction

- Timing window: No construction between 01 June and 30 November (faunal sensitivity).
- Demarcation: Peg and fence the exact disturbance footprint with a 2 m maximum disturbance envelope; install shade-cloth “no-go” fencing and signage.
- Search-and-rescue (flora & SCC): Botanical specialist to sweep the demarcated footprint for SCC, including butterfly host plants; establish an on-site nursery to hold translocated material for later rehabilitation.
- Fauna pre-clearance: Before each phase starts, a fauna specialist must walk the footprint and confirm that low-mobility fauna/SCC have been removed.
- Phasing plan: Build in discrete phases with active and off-limits zones communicated to all staff.
- Alien invasive plan: Prepare and implement an Alien & Invasive Plant Management Plan in line with NEM:BA/CARA.

Construction phase

Site works, earthworks & foundations

- Platforming & slopes: Significant earthworks expected on ~1:5 slopes; bench fills, compact at optimum moisture; support cut/fill edges with engineer-designed retaining walls; avoid developing on >1:4 slopes (or consider piles).
- Excavation safety: Unstable sandy sidewalls >30°—batter or shore excavations; excavations ≤3 m is “Soft” per SABS 1200D.
- Foundations: Lightly reinforced strip/pad footings at ~0.6 m on compacted sand/controlled fill, with DCP acceptance ≤20 mm/blow to ≥1 m below invert; fill below slabs to 100% Mod AASHTO.

Roads & stormwater

- Road alignment: Follow natural contours and avoid drainage lines; where box cuts are needed, retain them.
- Subgrade improvement: In-situ subgrade varies G7–G9; import at least one G7 layer under the standard layer works for lightly-trafficked internal roads/parking.

- Drainage: Highly permeable sands; no subsoil drains along roads, but weeps/subsoil drains behind retaining walls; manage outlets to prevent erosion/sedimentation.
- Rainwater harvesting: Fit roof tanks; consider open-cell pavers at downpipes/overflow and on light-duty parking to reduce runoff and erosion.

Erosion, dust & materials handling

- Stockpiles: Place away from drainage lines; cover/wet/bundle fine materials to prevent wind erosion.
- Dust control: Wet exposed soils (water cart on windy days); cover loose loads; keep access clean.
- Topsoil: Strip, store carefully for later rehabilitation.
- Cement & hydrocarbons: No mixing on bare ground; create lined, bunded mixing/cleaning areas; bund all fuel/oil/chemicals; keep spill-kit/absorbents and dispose contaminated material at a licensed facility.
- Vehicles & plant: Daily leak checks; keep equipment well-maintained to minimise emissions.

Biodiversity & fauna

- Habitat protection: Keep all work inside the demarcated footprint; avoid blanket clearing; rehabilitate disturbed areas in parallel with construction.
- Fauna welfare & housekeeping:
 - Provide and maintain adequate ablutions (min. 1:10–15 staff), serviced regularly.
 - Secure waste in lidded bins; remove food waste daily; no littering/burning.
 - Store small/portable items to avoid baboon interference; cover/bundle stockpiles.
 - Daylight-only working hours to reduce lighting disturbance.
- Alien clearing & fire risk: Implement alien eradication; prepare a Fire Management Plan, use non-flammable materials and plant fire-resistant indigenous hedges around the dwelling.

Visual & heritage safeguards

- Visual: Use earthy colours, down-lighting, and screen construction areas; keep good housekeeping to reduce visual clutter. (Matches the BA's visual mitigation.)
- Fossil/archaeological chance finds: Include a Fossil Finds Procedure (FFP) in the EMP; stop-work and notify specialists if finds occur.

Stormwater, groundwater & services

- Hydrology context: No mapped rivers/wetlands on the property or within the NWA-regulated areas; however, rainfall intensity is very high, and soils are highly erodible, so stormwater and erosion control are critical.
- Stormwater approach: Encourage infiltration on site; use rainwater tanks and permeable surfaces; direct runoff to stable outlets to prevent gully/sedimentation.
- Water supply: Largely off-grid via rainwater harvesting (± 421 kL/yr from ~ 842 m² roof area) plus boreholes with on-site storage (~ 110 kL). Test borehole water and filter potable supplies.

- Sewage: No bulk sewer—use septic tanks with soakaways as accepted by Knysna Municipality; site/construct to avoid seepage and protect groundwater.

Operations phase (key ongoing measures)

- Alien management & rehabilitation: Continue invasive control and maintain indigenous, locally appropriate landscaping (or rehabilitate fully without gardens in sensitive areas).
- Waste, lighting & noise: Keep strict waste discipline; avoid insect zappers and broad insecticide use; use down-lighting to limit faunal disturbance.
- Fire readiness: Keep emergency supplies accessible; maintain rainwater storage for firefighting support; join local FPA.