



## **SITE SENSITIVITY VERIFICATION REPORT**

For

**PROPOSED RESIDENTIAL HOUSING DEVELOPMENT ON ERF  
2924, WELBEDAGHT KNYSNA, WESTERN CAPE.**



**PREPARED FOR:**

**Charl van Niekerk**

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**DEPARTMENT OF FORESTRY,  
FISHERIES, AND THE  
ENVIRONMENT REF:**

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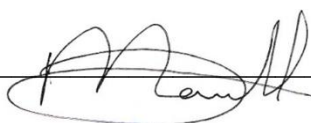
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## STATEMENT OF INDEPENDENCE

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

EAP SIGNATURE: \_\_\_\_\_



## 1. INTRODUCTION

**Eco Route Environmental Consultancy** has been appointed by **Charl van Niekerk** to ensure compliance with regulations contained in the National Environmental Management Act (NEMA Act No. 107 of 1998) and the Environmental Impact Assessment Regulations (2014), as amended, for the proposed construction of a primary dwelling on Erf 2924, Welbedacht, Knysna (hereafter referred to as "the property").

The property is situated north of the N2 Highway towards Knysna, covering approximately 2.4 hectares. Access is gained via Cherry Lane off Welbedacht Lane. It has been identified as having a sensitive biodiversity status. This report will include environmental considerations that justify the site's sensitivity, as well as evaluations and considerations indicated by the online screening report.



Figure 1: Locality plan of Erf 2924, Welbedacht, Knysna

## 2. PROPOSED PROPERTY DEVELOPMENT

During this process, the development relates to the proposed development for a primary dwelling on Erf 2924, Welbedacht, Knysna. It is in alignment with the National Environmental Management Act (NEMA) (Act No. 107 of 1998), and associated regulations. The following activities as per the National Environmental Management Act (Act No. 107 of 1998), Regulations Listing Notice 1 (Government Notice No. 983) and Listing Notice 3 (Government Notice No. 985) require environmental authorisation from the Department of Forestry, Fisheries and the Environment (DFFE), prior to commencement.

- Listing Notice 1; Activity 19A
- Listing Notice 3; Activity 12

### **Summary of the receiving environment:**

The entire property was originally classified as containing Endangered (EN) Garden Route Shale Fynbos and was revised to still include such vegetation. However, botanical specialists from

Capensis have ground-truthed the persisting vegetation and found that fynbos does not cover the entire property. Fynbos is present on the upper ridge, northern slope, and southwest-facing cliffs, while the southern part of the property includes Southern Cape Afrotemperate Forest. The fynbos species found on the site include typical fynbos and some thicket species often found along forest margins or in fire-safe areas. Some of these thicket species are resprouting and hardy, possibly becoming more dominant due to Invasive Alien Plants (IAPs). No species of conservation concern (SCC) were identified in this habitat. The ecological functioning is moderately altered, with plant species diversity affected by IAPs, impacting the habitat available for other biota.

Subterranean tunnels typical of the Golden Mole SCC were found on the hilltop areas of the property during the site visit. While it was not possible to identify the species present based on the tunnels alone, the habitat suggests the more likely occurrence of the Fynbos Golden Mole (*A. corriae*) rather than Duthie's Golden Mole (*C. duthieae*, Vulnerable), which is typically associated with more forested habitats. However, the DFFE Environmental Screening Tool Report predicted suitable habitat for Duthie's Golden Mole on the property, so a precautionary approach is followed for this SCC as well. Mole tunnels were found in all vegetation habitats in the hilltop and northern sections of the property, regardless of the level of alien plant invasion. One mole tunnel was also observed crossing beneath the fence of the northwestern neighbouring property, indicating their movement across the entire hilltop landscape.

Specialists confirmed that the proposed development was indicated to occur within CBA 1, but further stated that this classification is questionable as the sites are not intact. It would be more accurate to classify the property as CBA 2 or ESA 2 due to its poor condition.

The site was considered suitable for the proposed development, but there were some moderate geotechnical constraints, including moderate to steep slopes and loose sandy soil, which require consideration by the structural engineer.

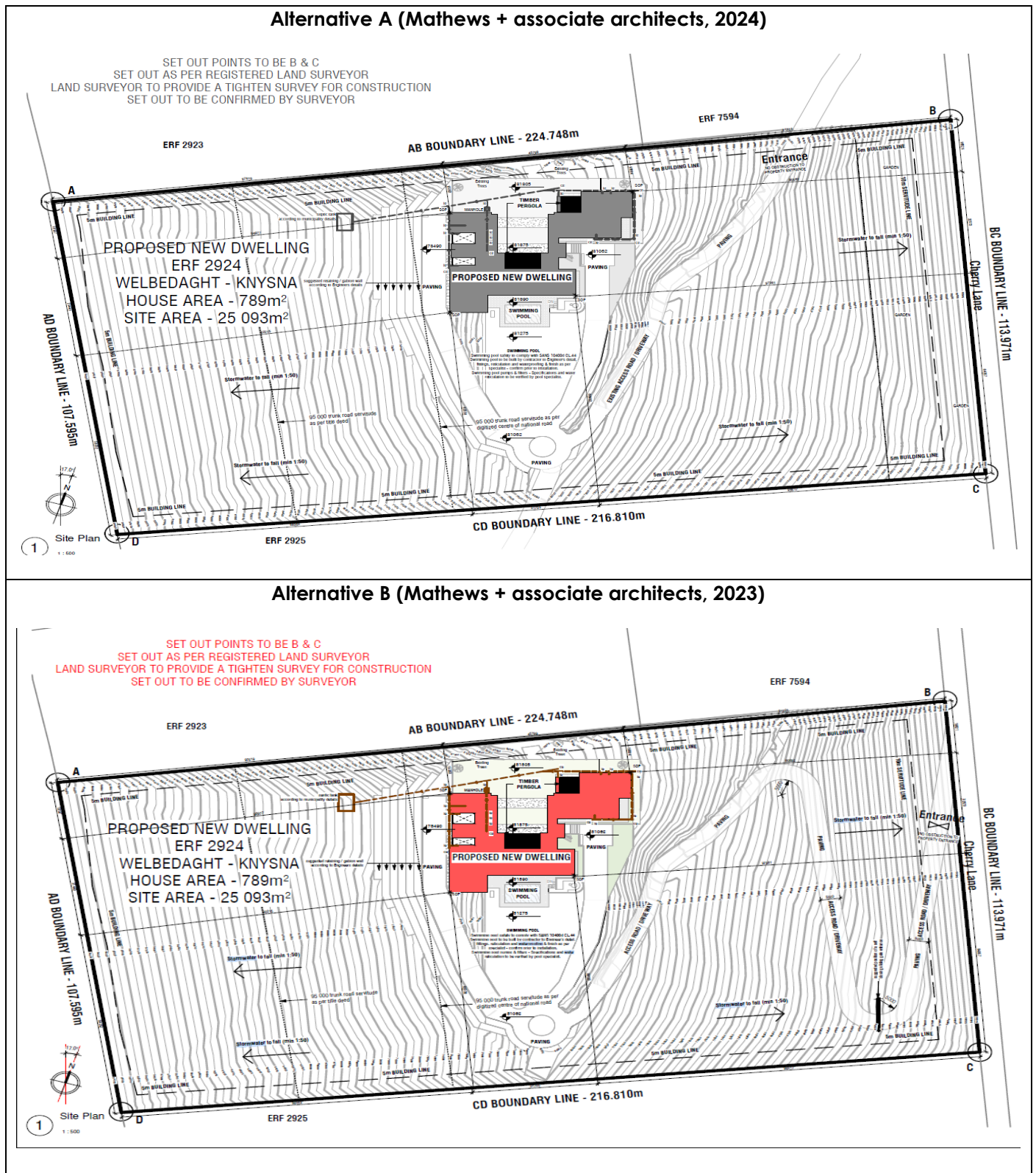
The property is buffered by the N2 highway and a steep cliff, providing a significant barrier against direct flooding and tidal surges from the Knysna Estuary. The elevation of the property further reduces its vulnerability to the effects of sea level rise and storm surges. Consequently, while the Knysna Estuary may experience changes in its ecological dynamics due to climate change, the elevated position and natural buffers of the property ensure it remains minimally impacted by these environmental changes, making it a viable option for development with minimal risk.

A Notice of Intent to Develop (NID) under Section 38(1) and (8) of the NHR Act will be submitted to Heritage Western Cape. Heritage Western Cape will determine whether the proposed development might have an impact on heritage resources. Comments will be included in the final Basic Assessment Report.

### **Summary of project scope:**

Two alternatives were considered, whereby the preferred alternative refrains from a meandering access road. This road will provide access to residents from Erf 7594, Erf 2924 (this development proposal), and Erf 2925 (family of the proponent).

Table 1: Comparisons between the two alternatives -



Ultimately it will not be possible to move the location of the primary dwelling (Sectio E), however, based on the recommendations from specialist the footprint was reduced by limiting the construction of a meandering access road.

**Impact of proposed development:**

The following table will serve as a summary of the impacts of proposed development during the construction phase of alternative A.

Table 2: Summary of impacts of proposed development associated with alternative A - proposed development

Impact	Without Mitigation	With Mitigation
	Significance of Impact	Significance of Impact
Loss of terrestrial biodiversity	<b>Low – negative (-)</b>	<b>Negligible – negative (-)</b>
Loss of species of conservation concern	<b>Low – negative (-)</b>	<b>Negligible – positive (+)</b>
Disturbance / loss of faunal habitat	<b>Medium – negative (-)</b>	<b>Low – negative (-)</b>
Fatality to faunal species	<b>Low – negative (-)</b>	<b>Negligible – negative (-)</b>
Disturbance / removal of topsoil and subsoil	<b>Medium - negative (-)</b>	<b>Low – negative (-)</b>
Stormwater runoff and erosion	<b>Low- negative</b>	<b>Negligible – negative (-)</b>
Waste Pollution	<b>Low- negative (-)</b>	<b>Negligible – negative (-)</b>
Construction Vehicles Pollution	<b>Low- negative (-)</b>	<b>Negligible – negative (-)</b>
Noise Pollution	<b>Low- negative (-)</b>	<b>Negligible – negative (-)</b>
Visual Impact	<b>Low – negative (-)</b>	<b>Negligible – negative (-)</b>
Employment	<b>Low – negative (-)</b>	<b>Negligible – positive (+)</b>

The DFFE Environmental Screening Tool Report indicates certain recommended specialist assessments to be done regarding selected classifications (Transformation of land | Indigenous vegetation) and (Infrastructure / Localised infrastructure / Infrastructure in the Sea-Estuary-Littoral Active Zone-Development Setback\_100M Inland or coastal public property) with respect to the correlating listed activities.

Site sensitivity verification was done to explain why Terrestrial Biodiversity Impact Assessments, Plant Species Compliance Statement, Aquatic Compliance Statement, Animal Species Assessment, and a Geotechnical Report should be provided. Each report mentions certain mitigation measures to mitigate the impact of certain activities throughout the construction and operational phase.

### **Summary of Terrestrial Biodiversity Impact mitigations:**

- The vegetation from the fynbos habitat that is not developed must be rehabilitated to a state where it is at least partially representative of the original fynbos ecosystem and supports ecological functioning to a moderate or high level.
- The rehabilitation must be undertaken in a phased approach, according to a rehabilitation plan and undertaken by a qualified botanist or restoration ecologist.
- The initial step will require the removal and control of all IAPs on the property and erosion control if necessary. Passive rehabilitation on the parts of the site where no earthworks have taken place can be allowed for one winter season following the removal of IAPs. Thereafter the site must be assessed by the restoration contractor to determine the level of active rehabilitation input. Active rehabilitation will be required for areas where topsoil has been removed.
- Follow-up clearing of all exotic and listed IAPs is required every 6 months for the first three years, and annually thereafter to ensure that the IAPs do not dominate the fynbos.

#### Best practise mitigation

- Mark off the areas that are not going to be developed prior to undertaking any works and ensure that no unnecessary loss of adjacent vegetation occurs.
- Sites for building material stocks, vehicles, toilets etc must be clearly marked and restricted to the building footprint, exiting roads or existing disturbed areas.

### **Summary of Aquatic Biodiversity Impact mitigations**

- Implement measures to control erosion, with particular focus on the southwestern cliffs.
- Adhere to the principles for best management practice of stormwater management.
- Strategically place rainwater harvesting tanks.
- Use swales and detention ponds to manage stormwater runoff.

### **Summary of Animal Species Impact mitigations**

- Phased Construction: Conduct construction in phases, confining activities to one area at a time. Communicate the construction phase plan to all staff.
- Pre-Construction Checks: Before earthworks, an ECO should walk through the demarcated footprint to check for and remove animals with limited mobility.
- Erosion Control Measures: Implement erosion control measures downslope where vegetation will be cleared.
- Topsoil Management: Treat and store topsoil removed during construction for future rehabilitation purposes.
- Staff Orientation: Regularly conduct staff orientation and information sessions.
- Vehicle Checks: Check construction vehicles daily for leaks and faults.
- Waste Management: Implement proper waste management, storage, and disposal to minimize pollution.
- Ablution Facilities: Provide, clean, and maintain adequate ablution facilities on-site.
- Pollution Prevention: Manage activities involving concrete, cement, plastering, and painting to prevent contamination of the environment.

- Material Storage: Cover stockpiles of building materials and soils with geotextiles or plastic coverings when not in use, and store small items and building materials in containers or designated areas to prevent animal interference.
- Food Waste Disposal: Dispose of food waste in designated bins and remove it from the site daily.
- Construction Hours: Restrict construction to daylight hours to ensure adequate monitoring for fauna and to prevent the use of artificial lighting.
- Speed Limits: Implement and enforce speed limits on all roads, with signs to warn drivers of wildlife.

Site Cleanup: Regularly clear the site of waste material, rubble, and debris during and at the conclusion of the construction phase.

### 3. ENVIRONMENTAL CONSIDERATIONS

According to the SANBI red list of threatened ecosystems status, this property was originally mapped to include **Garden Route Shale Fynbos**, which has a threat status of **Endangered (EN)**.



Figure 2: SANBI Original Ecosystem Status indicating Garden Route Shale Fynbos

The ecosystem was reviewed to still include **Garden Route Shale Fynbos**, which has retained its status, being of Endangered (EN).





Figure 3: SANBI Remaining Ecosystem Status indicating Garden Route Shale Fynbos

The Western Cape Biodiversity Spatial Plan (WC BSP) designates the property as situated within a Critical Biodiversity Area (CBA:1 – To maintain), encompassing both terrestrial and aquatic ecosystems. Additionally, a significant portion falls within the protected area of the Garden Route National Park. However, the proposed development will not fall within the protected area.

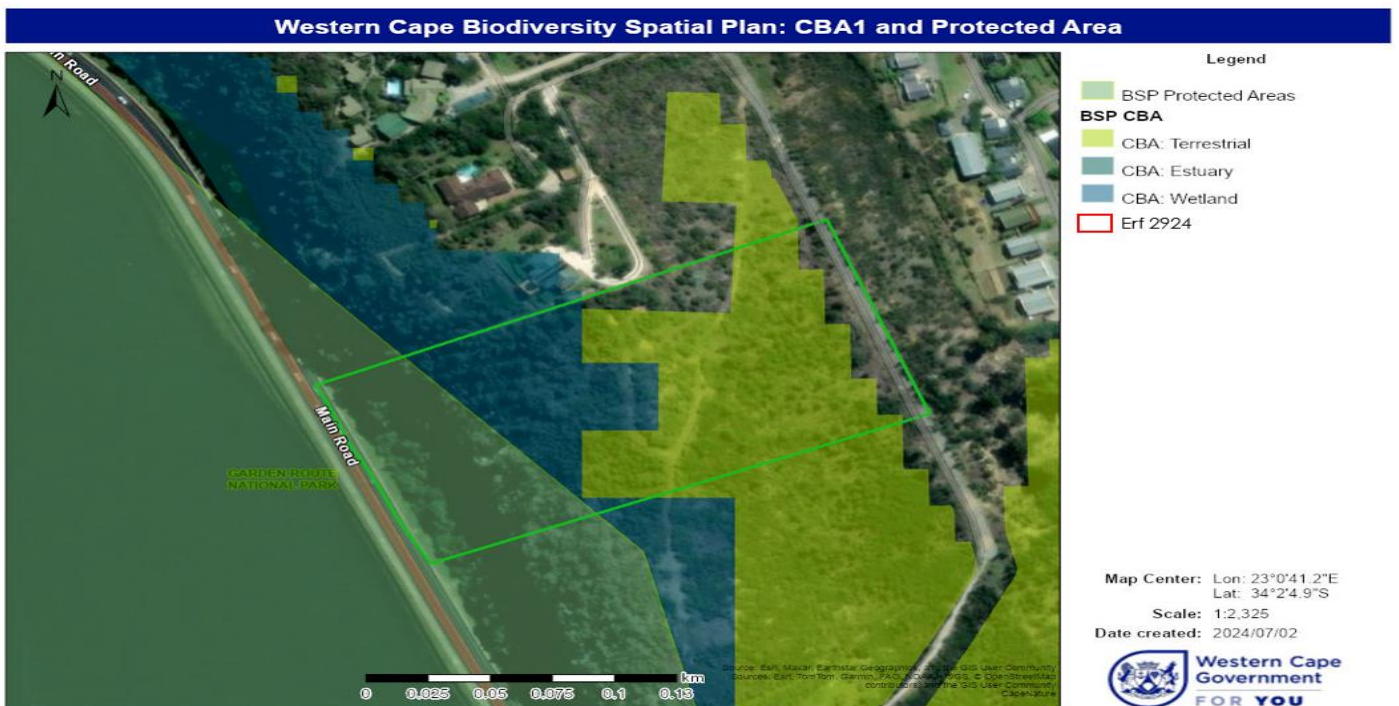


Figure 4: Western Cape Biodiversity Spatial Plan: CBA1 and Protected Area for Erf 2924

The Knysna Estuary has been taken into environmental consideration, as some of the proposed infilling will occur within 100 meters of the estuary.

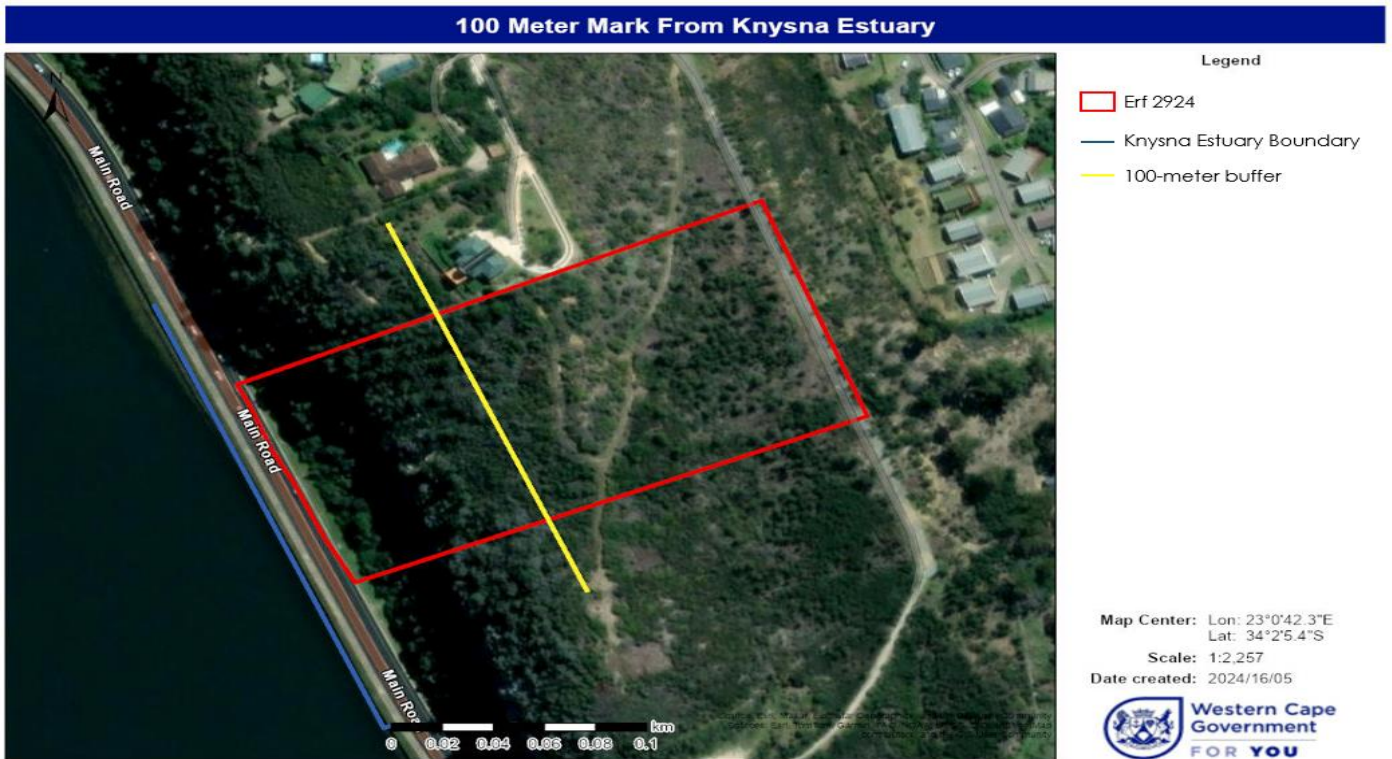


Figure 5: 100-meter Buffer from the Knysna Estuary

By reviewing the proposed activities and environmental considerations, environmental authorisation is required as stated in the listed activities in terms of Environmental Impact Assessment Regulations Listing Notices 1 and 3 (R 327 & R 324). This involves compliance with Regulations pertaining to an Environmental Management Framework (R 547) as published in the Government Gazette GN No. 33306 of December 2014 and amended in April 2017.

**Listing Notice 1:**

Activity No.	Activity	Note
19A	The <b>infilling or depositing</b> of any material of more than <b>5 cubic metres into</b> , or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from— (i) the seashore; (ii) the littoral active zone, an estuary or a <b>distance of 100 metres inland</b> of the high-water mark of the sea or an <b>estuary</b> , whichever distance is the greater; or (iii) the sea; — but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback;	The proposed infilling of more than 5m <sup>3</sup> is anticipated to occur in the western section of the development, falling within 100 metres of the Knysna Estuary.  <b>Applicable</b>

	<p>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</p> <p>(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</p> <p>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</p> <p>where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.</p>	
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**Listing Notice 3:**

12	<p>The <b>clearance</b> of an area of <b>300 square metres</b> or more of <b>indigenous vegetation</b>.</p> <p>Western Cape:</p> <p>i) Within any <b>critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA</b> 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;</p>	<p>The proposed activities will require the removal of more than 300 m<sup>2</sup> <b>endangered</b> Garden Route Shale Fynbos.</p> <p><b>Applicable</b></p>
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**4. ENVIRONMENTAL SCREENING RESULTS AND ASSESSMENT OUTCOMES**

A national web-based screening tool was generated to review the environmental sensitivities. The screening report lists a variety of specialist studies to be undertaken based on the data informants of the tool at the study area. This site sensitivity verification report, following ground-truthing of the site, motivates why certain specialist studies will / and will not be required or conducted for the proposed development application.

The following sections contain a summary of any development incentives, restrictions, exclusions, or prohibitions that apply to the proposed development footprint as well as the most environmental sensitive features on the footprint based on the footprint sensitivity screening results for the application classifications that were selected. The application classifications selected for the screening reports are *Transformation of land* | *Indigenous vegetation*.

**4.1. Relevant Development Incentives, Restrictions, Exclusions or Prohibitions**

The proposed site is within a South African Conservation Area (SACAD), as well as South African Protected Area (SAPAD).

#### 4.2. Proposed Development Area Environmental Sensitivity:

The following summary of the development site environmental sensitivities is identified by the Screening Tool Reports. Only the highest environmental sensitivity is indicated. The environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Table 3: Identified Environmental Sensitivities.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture			X	
Animal Species		X		
Aquatic Biodiversity	X			
Archaeological & Cultural Heritage	X			
Civil Aviation			X	
Defence				X
Palaeontology	X			
Plant Species			X	
Terrestrial Biodiversity	X			

#### 4.3. Identified Specialist assessments

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

Table 4: Combined identified specialist assessments for (Transformation of land | Indigenous vegetation) as well as (Infrastructure / Localised infrastructure / Infrastructure in the Sea-Estuary-Littoral Active Zone-Development Setback\_100M Inland or coastal public property).

No:	Specialist Assessment	Assessment Protocol
1	Landscape/Visual Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
2	Archaeological and Cultural Heritage Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
3	Palaeontology Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
4	Terrestrial Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf</a>

5	Aquatic Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf</a>
6	Marine Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
7	Avian Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Avifauna_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Avifauna_Assessment_Protocols.pdf</a>
8	Geotechnical Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
9	Socio-Economic Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
10	Plant Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf</a>
11	Animal Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf</a>

## 5. SITE SENSITIVITY VERIFICATION

### 1. Landscape/Visual

#### **DISPUTED.**

The site is positioned atop a hill, flanked by the N2 road leading towards Knysna on the west and Cherry Lane on the east. Surrounding properties feature houses of comparable size, which are not visible from either adjacent road. Steep terrain along the N2 side and dense vegetation on the opposite side obscure sightlines, ensuring the proposed development remains in context with its surroundings. The proposed development will be visible from Erf 2923 (the direct neighbour to the north). However, it remains the primary right of the owner to develop a primary dwelling on this property. Given that the character of the area will not be influenced, the need for an external visual assessment is disputed.

### 2. Archaeological & Cultural Heritage

The screening report indicates that the receiving environment has a **VERY HIGH** Relative Archaeological & Cultural Heritage Sensitivity.

A Notice of Intent to Develop (NID) under *Section 38(1)* and (8) of the NHR Act will be submitted to Heritage Western Cape. It will be determined by Heritage Western Cape whether the proposed residential development on Erf 2924, Knysna, will impact heritage resources. The need for and external Archaeological & Cultural Heritage assessment will be determined upon submission of the NID.

### 3. Palaeontology

The screening report indicates that the receiving environment has a **VERY HIGH** Palaeontology Sensitivity.

A Notice of Intent to Develop (NID) under Section 38(1) and (8) of the NHR Act will be submitted to Heritage Western Cape. It will be determined by Heritage Western Cape whether the proposed residential development on Erf 2924, Knysna, will impact heritage resources. The need for and external Archaeological & Cultural Heritage assessment will be determined upon submission of the NID.

#### 4. Terrestrial Biodiversity and Plant Species

##### Commenced (March 2024)

The generated screening report indicated that the terrestrial biodiversity of Erf 2924 has a high sensitivity rating, and that plant species has a medium sensitivity rating. Therefore, Eco Route Environmental Consultants appointed Greg Nicolson and Adam Labuschagne from Capensis Ecological Consulting (Pty) Ltd to provide specialist terrestrial biodiversity impact assessment and plant species compliance statement services for the proposed development on Erf 2924.

It was determined that the area contains different habitat areas. These areas were identified as degraded fynbos, degraded to highly degraded fynbos, semi-intact forest, and transformed land.



Figure 6: Identified habitats according to the specialist input (Capensis, 2024)

According to the VEGMAP, the study area contains only the Endangered Garden Route Shale Fynbos, however, it also supports one Least Concern ecosystem, namely Southern Afrotemperate Forest. According to the Vegetation Map for the Garden Route the site only supports Groenvlei Coastal Forest, an Endangered ecosystem, however, it also supports Knysna Enon Fynbos, a Vulnerable Ecosystem. The mapping of both resources is not completely accurate for the site, however, the threat status of both resources suggest that any remaining natural fynbos habitat is threatened and sensitive.

The WCBS 2017 assigns parts of the site as Protected Area and CBA 1. The proposed developments occur within CBA 1 sites on Erf 2924. This classification is questionable as the site is not intact. A classification of CBA 2 would have been more appropriate. The part of the site that has been classified as a Protected Area (and NPAES focus area) will not be impacted.

The areas proposed for development are not intact (Degraded, or Degraded to Highly degraded) and only partially representative of the original fynbos ecosystem in some parts of the site. The sensitivity of the Degraded habitat is Medium and the rest of Degraded to Highly degraded to habitat is rated as Low sensitivity. The high sensitivity Forest habitat that contains one protected tree species, the white milkwood *Sideroxylon inerme* will not be impacted.

The proposed development will result in the permanent loss of habitat which is currently Degraded to Highly degraded. The mitigation of rehabilitation will result in the remaining habitat on the site improving in condition. This will improve the overall ecological functioning of the Erf 2924 by ensuring that the dominant vegetation is locally occurring indigenous vegetation. This will allow for better habitat for faunal species, improving plant animal interactions such as pollination. The connectivity between the upper and lower elevations on the site will allow for better faunal movement between the site and surrounding areas. The occurrence of fires which are an important ecological driver for fynbos ecosystems may be reduced by increasing density of urban developments. Fire suppression will be practised in the urban environment, however, as evident in 2017 fires may still occur in the urban environment.

The proposed developments will have a Low negative cumulative impact, and no change to the ecosystem threat status will occur as a result of the proposed development. This is seen as acceptable in the context of the areas that will remain undeveloped and rehabilitated on the subject properties. The application is thus supported from a Terrestrial Biodiversity perspective, provided that the mitigation measures are adhered to (Nicolson and Labuschagne, 2024).

**No plants listed as Species of Conservation Concern (SCC) have been identified** at the site or within close proximity to the Study area and therefore a **Plant Species Compliance Statement** is included in as Appendix B.

In summary of the plant species compliance statement –

The impact on SCC of the proposed development is rated as Very Low negative and no SCC are likely to be impacted (Nicolson and Labuschagne, 2024).

## 5. Aquatic Biodiversity

### Commenced (April 2024)

The generated screening report indicated that the aquatic biodiversity of Erf 2924 has a very high sensitivity rating. Therefore, Confluent Environmental Pty (Ltd) has been engaged by Eco Route to provide aquatic specialist inputs for proposed residential developments on Erf 2924.

In summary of the aquatic Biodiversity Site Sensitivity Verification and Compliance Statement –

While challenges exist due to the site's proximity to vertical cliffs above the estuary, following the recommended management strategies in the report can reduce the risk to aquatic biodiversity and water resources. By implementing the proposed measures, the sensitivity of aquatic biodiversity on the property can be regarded as **low**, ensuring sustainable development within the Knysna region while preserving the integrity of the local ecosystem. The assessment therefore serves as a **Compliance Statement** that Aquatic Biodiversity at all three erven is rated as Low in contrast to the Screening Tool.

## 6. Marine

### **DISPUTED.**

The N2 buffers the proposed development from the Knysna Estuary. Whereby no impact from the proposed development will reach the Knysna Estuary. Additional mitigation measures to protect the steep slopes down towards the N2 have been proposed. A marina impact assessment is **DISPUTED.**

## 7. Avian

### **DISPUTED.**

Seven bird counts were conducted across the properties, in addition to opportunistic sightings noted throughout the meander and searching for nests/roosting sites in suspected habitat. A total of 10 bird species were identified during the site visit where no SCC were encountered. Therefore an avian impact assessment is **DISPUTED.**

## 8. Geotechnical

A geotechnical assessment was done by Outeniqua Geotechnical Services (May 2022) to identify potential challenges and mitigate risks before they escalate, ultimately saving time and resources. The following information was brought forward during their assessment of the property –

### **Site description:**

The general terrain of the area was characterised by gentle to moderate slopes along the crest of the hill, becoming steep to the northeast and southwest. The site was accessible via an existing gravel track leading off the main estate road and entering the site on the northern boundary. The natural vegetation consisted of thick fynbos bush and alien saplings. The surface conditions were found to be dry and there were no signs of any significant surface drainage issues, such as springs or marshes, or any major stability problems.

### **Geology & Soil profile:**

The site was underlain by aeolian (windblown) deposits, known as the Knysna coversands, which were deposited between the Miocene and early Pleistocene epochs (circa 2-20Ma). The coversands consisted of silty fine-grained sands with significant but sporadic alteration of silt particles to clay and the formation of sporadic laterite lenses. The coversands were known to be highly variable in terms of texture and consistency. The coversands were known to be underlain by siltstone, sandstone and conglomerate of the Enon Formation, which occurred at a depth of several meters below the site.



The soil profile exposed in test pits on the site consisted of the following general horizons:

- 0-700mm (ave): Moist, dark reddish brown, loose, silty fine sand with roots (topsoil)
- 700-2800mm: moist, light reddish brown-dark yellow orange, medium to dense, silty fine sand, or clayey fine sand, aeolian coversands

The sandstone and conglomerate of the underlying Enon Formation was not encountered in the test pits and are not expected for 3-5 meters below surface. No groundwater seepage was encountered in any of the test pits at the time of the investigation, but seepage was expected during or after wet weather periods throughout the profile.

The clay content and PI of the clayey coversands was typically quite variable, but generally not considered expansive. One sample of clayey silty sand was taken from TP1 for Foundation Indicator tests to determine grading and Atterberg limits. The results of the tests indicated that the soil was dominated by fine sand with 100% passing 0.425mm sieve and 24% passing 0.075mm sieve (clay/silt). Plasticity index is slightly plastic. The soil was classified as SM according to the UCS (silty sand with low plasticity, plotting above the A-line). Negligible heave was expected from this or any other soil horizons.

DCP tests and visual observations indicated loose consistency in the upper 0.7m of the profile, improving to medium dense or dense (variable) below that depth. The tests indicated that the soil required compaction/densification to achieve adequate safe bearing capacity, even for light structures. A high risk of differential settlement if foundations was apparent if foundations were not suitably well prepared and compacted during construction.

### **Conclusions:**

The site was considered suitable for the proposed development but there were some moderate geotechnical constraints, including moderate to steep slopes and loose sandy soil which require consideration by the structural engineer.

## **9. Socio Economic**

### **DISPUTED.**

The site is located in the Welbedaght neighbourhood, primarily residential with various tourist accommodations and a few amenities like restaurants and coffee shops. Given the existing socio-economic landscape, the proposed development is unlikely to alter the neighbourhood's socio-economic dynamics, thus a socio-economic study is **DISPUTED.**

## **10. Animal**

### **Commence (May 2024)**

According to the specialist **Animal Species impact assessment** the natural faunal habitat has been degraded by the infestation of alien invasive plant species since the Knysna veld fire 2017. However, three fauna SCC were likely to occur on all three properties (Golden Moles and a Butterfly), and a medium SEI rating was applied to all. As per the guidelines for

developing in medium SEI areas, minimizing footprints and restoring natural habitat should be a priority.

After receiving this recommendation the applicant decided to revise the site development plan and provide access to all the properties with one access road, thereby minimizing the footprint.

Provided the mitigation measures are adhered to, the proposed developments are considered favourable by the specialist in terms of fauna. By mitigating the current negative impacts caused by the high levels of alien plant invasions on the properties, the habitat quality will be improved (ultimately increasing indigenous biodiversity) and fire-risk will be minimized on the erven and the greater surrounding areas.