



SITE SENSITIVITY VERIFICATION REPORT

The Proposed Construction of a Residential Dwelling on Erf 8 Konkiebaai (Portion 53 of 626 Eersterivier), Kou-Kamma Municipality, Eastern Cape



Compiled by Janet Ebersohn of Eco Route Environmental Consultancy
Bsc. Honours Environmental Management
EAPASA reg no.: 2019/1286

(1) Introduction and Terms of Reference

As required to compliment a Basic Assessment application the national web-based screening tool was used to generate an environmental screening report. 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 not be required or conducted for the proposed development application.

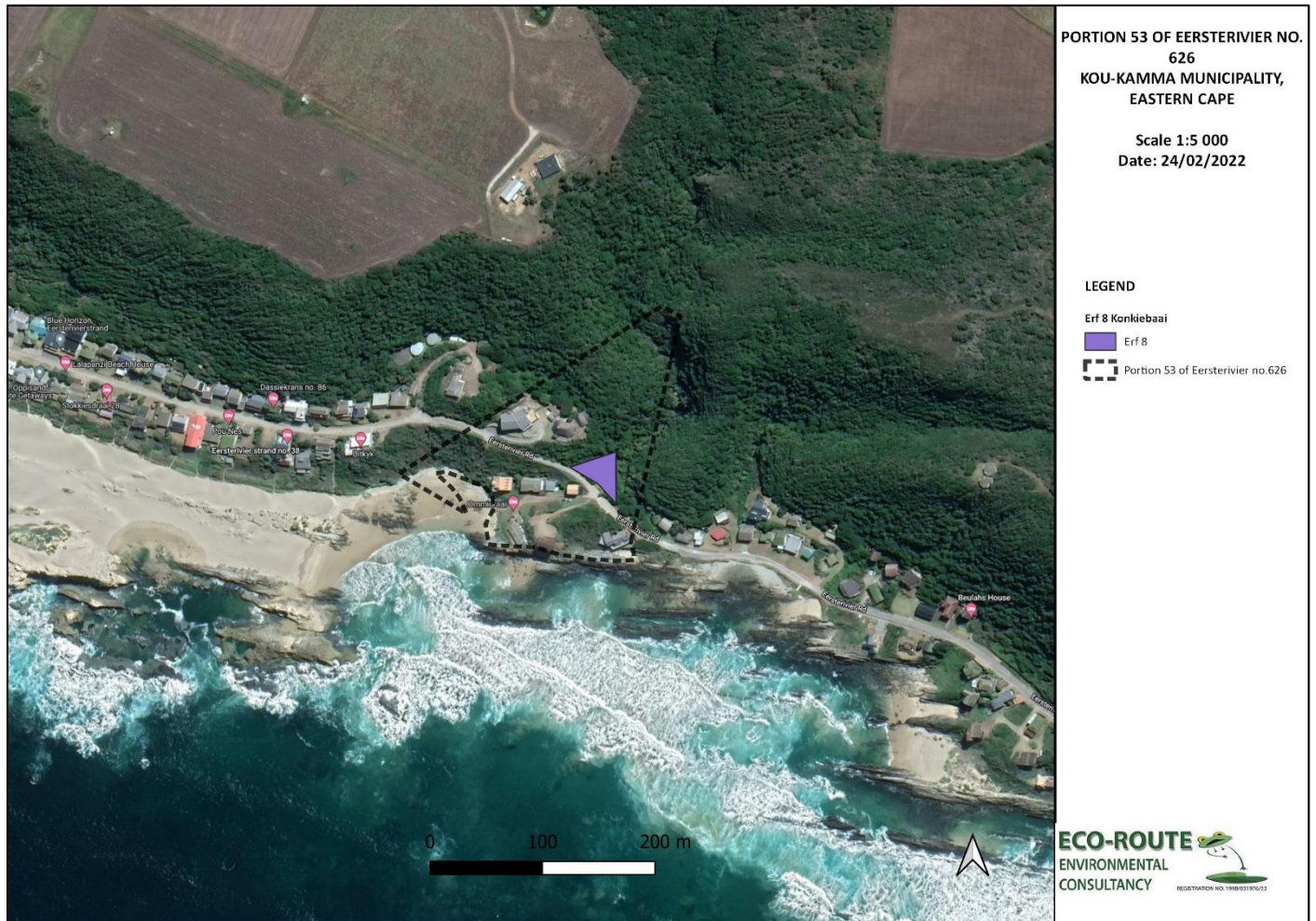


Figure 1: Location of Erf 8 Konkiebaai (Portion 53 of 626 Eersterivier), Kou-Kamma Municipality, Eastern Cape.

(2) The proposed development at the property

Eco Route Environmental Consultancy were appointed by the applicants, Mr Christo Horn, as the independent Environmental Assessment Practitioner to conduct a Basic Assessment application process for the proposed development of Erf 8 Konkiebaai (Portion 53 of 626 Eersterivier). A preliminary on-site inspection was conducted by Eco Route on 14 October 2021.



The application is for the proposed construction of a residential dwelling on the undeveloped Erf 8 Konkiebaai (Portion 53 of Eersterivier 626), Kou-Kamma Municipality, Sarah Baartman Region, Eastern Cape. The area of the property measures 838m² and is located in a rural coastal landscape. The proposed development on Erf 8 entails a single double-storey (lower ground and ground floor) residential dwelling and associated decking, covering a combined area of approximately 360 m² (43% of the site). The dwelling will be constructed on stilts and will therefore allow for some vegetation to re-establish beneath the structure once construction is completed. To the north Erf 8 borders on a steep coastal slope and a steep-sided ravine through which a freshwater stream runs to the east. The perennial stream habitat occurs approximately 20 m east and downslope of Erf 8 at the base of a small ravine. The banks of the stream support forest vegetation.

The property occurs within 100m inland from the high-water mark of the sea and thus falls within the Coastal Protection Zone. The site area is within an Ecological Support Area (Figure 2). Ecological Support Areas are not essential for meeting biodiversity targets but play an important role in supporting the ecological functioning of Critical Biodiversity Areas and/or in delivering ecosystem services. The site is not within a Threatened Ecosystem

(3) Environmental screening results and assessment outcomes:

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: Any activities within or close to a watercourse.

(4) Relevant Development Incentives, Restrictions, Exclusions or Prohibitions:

The proposed site is within a South African Conservation Area (SACAD).

(5) 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 1: 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

(6) 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 2: Identified specialist assessments for Transformation of Land Screening Tool Report.

No:	Specialist Assessment	Assessment Protocol
1.	Terrestrial Biodiversity Impact Assessment	Impact Assessment
2.	Plant Species Assessment	Impact Assessment
3.	Aquatic Biodiversity Impact Assessment	Impact Assessment

(7) Results of the verification of the environmental sensitivity and specialist assessments identified of the proposed area:

(7)(1) Relative Agricultural Theme Sensitivity

The screening report indicates that the receiving environment has a **Low** Relative Agricultural Sensitivity.

The property is currently undeveloped and 838m² in area. The property is in a built-up coastal area with surrounding residential dwellings. The topography of the site is also not ideal for agricultural activities. The property is not suitable for agricultural activities due to these factors.



Recommendations:

The size of the property is small, and the development will not affect the agricultural potential of the surrounding land or affect agricultural activities. An agricultural assessment / compliance statement is **disputed**.

(7)(2) Relative Animal Species Theme Sensitivity

The screening reports indicate that the receiving environment has a medium Relative Animal Species Sensitivity and indicated the following features for the theme below.

Table 3: Animal Sensitivity Features.

Sensitivity	Feature(s)
Medium	Invertebrate-Aneuryphymus montanus
Medium	Invertebrate-Forest invertebrate

The Yellow-winged agile grasshopper prefers south facing cool slopes and is associated with fynbos vegetation (Hochkirch, Bazelet & Danielczak, 2018). The property is not a rocky foothill or fynbos vegetation, habitat associated with the yellow-winged agile grasshopper are not found on the property. The property hosts intact portions of St Francis Dune Thicket and Southern Afrotemperate Forest, both of which are non-threatened ecosystem types. The forest habitat will remain undisturbed by the development.

Recommendations:

The property is small, and only 43% of the property will be disturbed. The small footprint will not have a significant impact on natural habitat. It is unlikely that the Yellow-winged agile grasshopper will be impacted as its habitat is not found on the site. An animal species assessment / compliance statement is therefore **disputed**.

(7)(3) Relative Aquatic Biodiversity Theme Sensitivity

The screening reports indicate that the receiving environment has a **Very High** Aquatic Biodiversity Sensitivity, based on the strategic water source area feature.

Perennial stream habitat occurs approximately 20 m east and downslope of Erf 8 at the base of a small ravine. The banks of the stream support forest vegetation, with species like *Ficus sur*, *Rapanea melanophloeos* and *Tarchonanthus littoralis* being common in the canopy. In more open areas, the stream bank is dominated by the reed *Phragmites australis* and the shrublet *Persicaria decipiens*, as well as grasses like *Ehrharta erecta*, *Panicum deustum* and *Stenotaphrum secundatum*. Shaded sandstone outcrops that occur along the stream provide habitat to the threatened, regional endemic Sensitive species 308. While the upper reaches of this stream (i.e., northeast of Erf 8) remain intact, the lower reaches (i.e., east and southeast of Erf 8) have been modified through some infilling and the placement of rip-rap along the stream banks (Figure 2). Due to the topography of the site,



only the western portion of the property will be developed, and no watercourses are present within this portion of the property.



Figure 2: condition of the lower reaches of the perennial stream adjacent to Erf 8 Konkiebaai.

The proposed residence on Erf 8, Konkiebaai is located adjacent to a perennial stream with a PES rated as B (Largely Natural) and a High EIS. Vulnerable plant and bird species were observed during the site visit increasing the ecological value of the stream. The site sensitivity in terms of aquatic biodiversity was confirmed as Very High. The recommended buffer zone is 15 m from the stream



channel, which approximately aligns with the proposed footprint of the dwelling. Therefore the dwelling is located outside of the buffer and the proposed layout is supported.

Recommendations:

An Aquatic Biodiversity Impact Assessment was conducted by Dr. Jackie Dabrowski of Confluent Aquatic Consulting & Research in November 2022. The specialist concluded that the site sensitivity in terms of aquatic biodiversity was Very High. The proposed residence on Erf 8, Konkiebaai is located adjacent to a perennial stream with a PES rated as B (Largely Natural) and a High EIS. Vulnerable plant and bird species were observed during the site visit increasing the ecological value of the stream. The recommended buffer zone is 15 m from the stream channel, which approximately aligns with the proposed footprint of the dwelling. Therefore, the dwelling is located outside of the buffer and the proposed layout is supported. It is therefore recommended that the sensitivity remain **Very High** and all mitigation measures provided in the aquatic report should be fully implemented to ensure preservation of the ecological infrastructure on site.

(7)(4) Relative Archaeological & Cultural Heritage Theme Sensitivity:

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



Figure 3: Map of Relative Heritage Theme Sensitivity as per the Screening Tool Reports.



Recommendations:

The EAP confirms that the Archaeological & Cultural Heritage Sensitivity of the proposed development property is low, and no further assessments will be required in the EIA process. The Eastern Cape Provincial Heritage Resources Authority have been included in the I&AP register. Comments will be included in the BAR.

(7)(5) Civil Aviation Theme Sensitivity

The screening reports indicate that the receiving environment has a **High** Sensitivity for this theme as the proposed development property is within 8km of a civil aviation aerodrome.

Recommendations:

The development will not have any impact on civil aviation as it is a residential dwelling. The South African Civil Aviation Authority will be included in the I&AP Register. Comments will be included in the BAR. A specialist assessment is therefore **disputed**.

(7)(6) Defence Theme Sensitivity

The screening reports indicate that the receiving environment has a **Low** Sensitivity for this theme. As no specific protocol exists for this theme, the General Requirements Protocol is assigned to this sensitivity.

Recommendations:

The EAP confirms that the Defence Sensitivity of the proposed development property is low and no further assessments will be required in the EIA process.

(7)(7) Palaeontology Theme Sensitivity

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

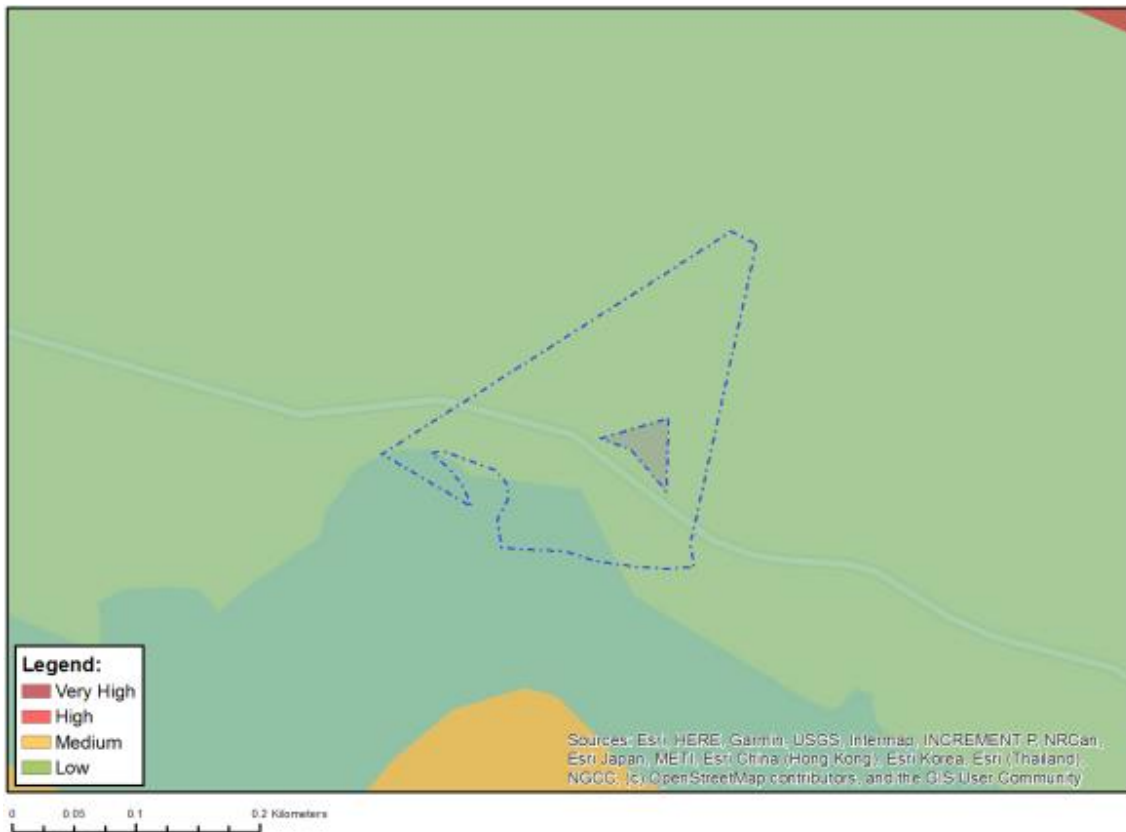


Figure 4: Map of Relative Palaeontology Theme Sensitivity as per the Screening Tool Reports.

Recommendations:

The EAP confirms that the Palaeontology Sensitivity of the proposed development property is low and no further assessments will be required in the EIA process. The Eastern Cape Provincial Heritage Resources Authority have been included in the I&AP register. Comments will be included in the BAR.

(7)(8) Relative Plant Species Theme Sensitivity

The screening reports indicate that the receiving environment has a **Medium** Relative Plant Species Sensitivity and indicated the following features for the theme in Table 5 below.

**Table 5: Plant Species Sensitivity Features:**

Sensitivity	Feature(s)
Medium	<i>Indigofera hispida</i>
Medium	Sensitive species 308
Medium	Sensitive species 419
Medium	<i>Erica glandulosa</i> subsp. <i>fourcadei</i>
Medium	Sensitive species 588
Medium	Sensitive species 657
Medium	<i>Marsilea schelpeana</i>
Medium	<i>Felicia westae</i>
Medium	<i>Osteospermum pterigoideum</i>
Medium	Sensitive species 448
Medium	Sensitive species 654
Medium	Sensitive species 763
Medium	<i>Pterygodium cleistogamum</i>

A Terrestrial Biodiversity and Plant Specialist Assessment was undertaken by Dr B. Adriaan Grobler in August 2022.

According to the specialist study, the most significant impacts relate to the direct and cumulative loss of coastal thicket (St Francis Dune Thicket) vegetation and its associated SCC (*Erica glandulosa* subsp. *fourcadei*) during the construction phase. In general, the proposed development is likely to have low to moderate potential to negatively impact on the terrestrial biodiversity and plant SCC in the study area as most potential impacts were evaluated to be of Low and Medium significance following the implementation of appropriate mitigation measures.

Recommendations:

The specialist concluded that the development project may be approved, but only if mitigations are stringently implemented and this is verified by an appointed Environmental Control Officer or similarly qualified person. It is therefore recommended that the sensitivity be **Low** and no further studies are required.

(7)(9) Relative Terrestrial Biodiversity Theme Sensitivity.

The screening reports indicate that the receiving environment has a **Low** Terrestrial Biodiversity Sensitivity.

The site is not within a Critical Biodiversity Area but the land immediately northwest of the site is categorized as a CBA, and a major portion of Erf 8 is identified as an ESA. According to the GRBSP, this portion of land is an important supporting area for maintaining hydrological processes, and the management objective for this ESA is to maintain its ecological processes.



Eco Route

ENVIRONMENTAL CONSULTANCY

REGISTRATION NO. 1998/031976/23

DR. COLLEEN EBERSOHN

PhD Univ. Pretoria

Cell: 072 222 6013

e-mail: colleen@ecoroute.co.za

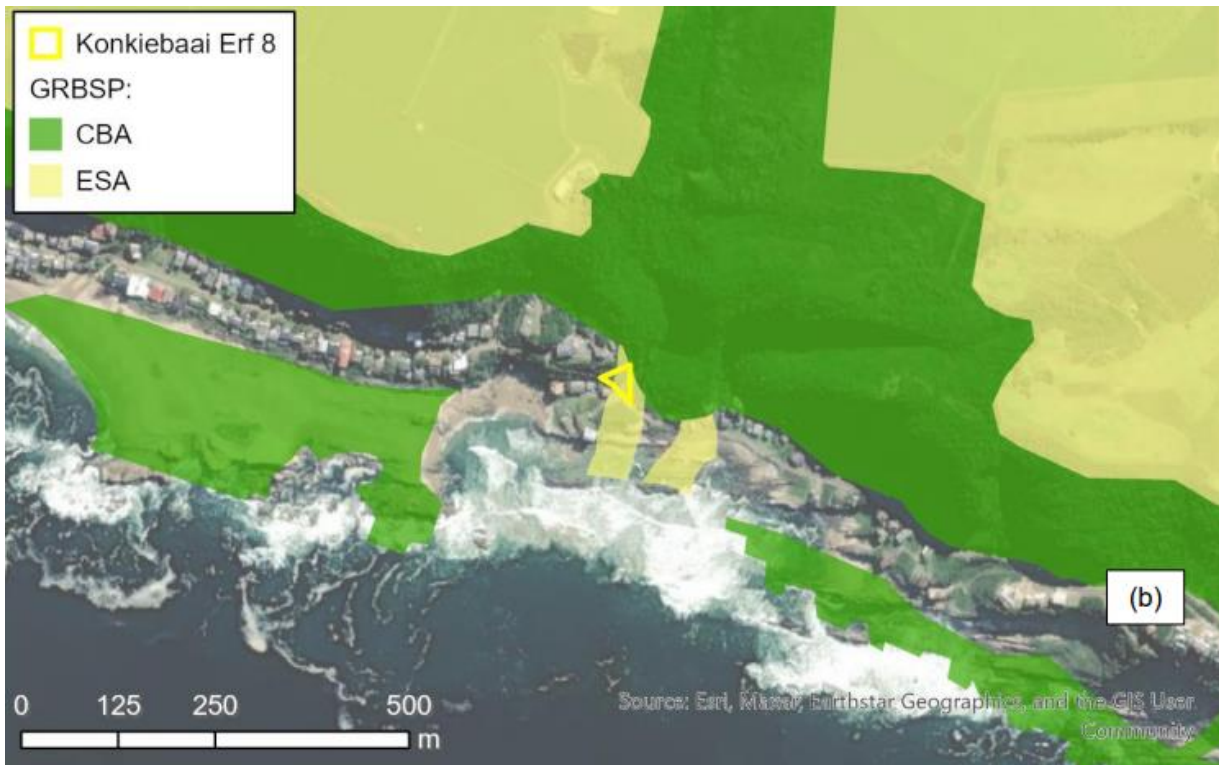
MS. JANET EBERSOHN

Bsc. Hons. Environmental Management

Cell: 082 557 7122

Tell: 044 343 2232

e-mail: janet@ecoroute.co.za



A Terrestrial Biodiversity and Plant Specialist Assessment was undertaken by Dr B. Adriaan Grobler in August 2022.

Recommendations:

The EAP confirms that the Terrestrial Biodiversity Sensitivity of the proposed development property is **Low** and no further assessments will be required.