

15/03/2023

BASIC ASSESSMENT REPORT

(For official use only)

File Reference Number:

NEAS Number:

Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014 as amended, promulgated in terms of the National Environmental Management Act, 1998(Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 as amended and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for. This report is current as of **1 OCTOBER 2022**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority **unless indicated otherwise by the Department**.
7. No faxed or e-mailed reports will be accepted **unless indicated otherwise by the Department**.
8. The report must be compiled by an independent environmental assessment practitioner (EAP). The EAP must satisfy conditions 11 below.
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

11.1 The Environmental Assessment Practitioner (EAP) must be registered in terms of S24H Regulations with the Registration Authority EAPASA as from 8 August 2022.

11.2. S24H (14) states that “only a person registered as an Environmental Assessment practitioner may perform tasks in connection with an application for an environmental authorisation contemplated in

(a) Chapter 5 of the Act read with the Environmental Impact Assessment Regulations.

(b) Section 24G of the Act

(c) Chapter 5 of the National Environmental Management Waste Act 2008 (Act No 59 of 2008) read with the Environmental Impact Assessment Regulations

11.3. Tasks in regulation 14 may only be conducted by an EAP that is registered

11.4. Regulations 20 of S24H indicates the offences and penalties as indicated below:

“20. Offences and penalties

(1) A person is guilty of an offence if that person-

(a) contravenes regulation 14 of the Regulations; or

(b) pretends to be a registered environmental assessment practitioner or registered candidate environmental assessment practitioner.

(2) A person convicted of an offence in terms of subregulation (1) is liable to the penalties contemplated in section 49B(3) of the Act.”
Section 49B(3) of the Act states:

“A person convicted of an offence in terms of section 49A(1)(h), (l), (m), (n), (o) or (p) is liable to a fine or to imprisonment for a period not exceeding one year, or to both a fine and such imprisonment.”

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES

NO ✓

If YES, please complete form XX for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail

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.

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.



Figure 1: location of Erf 8 Konkiebaai within Portion 53 of Eersterivier 626.

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 - 1300 m.a.m.s.l.

Rainfall at the site can fall year-round although minor peaks occur in spring and autumn. The mean annual rainfall relatively high (936 mm) and is mapped at a high intensity, which increases the risk of erosion in the area. The inherent erosion potential of soils is indicated as high.

The property occurs within 100m inland from the high-water mark of the sea and thus falls within the Coastal Protection Zone.

Table 1: Extracts as per the National Environmental Management: Integrated Coastal Management Act, 24 of 2008.

The coastal protection zone consists of:

- Sensitive coastal areas, as defined by the Environment Conservation Act (Act No. 73 of 1989, section 21 [1]);
- Any part of the littoral active zone that is not coastal public property;
- Any coastal protected area, or part of such an area, which is not coastal public property;
- Any **rural land unit** that is situated within one kilometre (1000 metres) of the HWM which is zoned as agricultural or undetermined;
- Any **urban land unit** that is situated completely or partly within 100 metres of the HWM;
- Any coastal wetland, lake, lagoon or dam which is situated completely or partially within a land unit situated within 1000 metres of the HWM that was zoned for agricultural or undetermined use, or is within 100 metres of the HWM in urban areas
- Any part of the seashore which is not coastal public property (including all privately owned land below the HWM);
- Any Admiralty Reserve which is not coastal public property; and
- Any land that would be inundated (submerged or covered) by a 1:50 year flood or storm event (this includes flooding caused by both rain storms and rough seas).

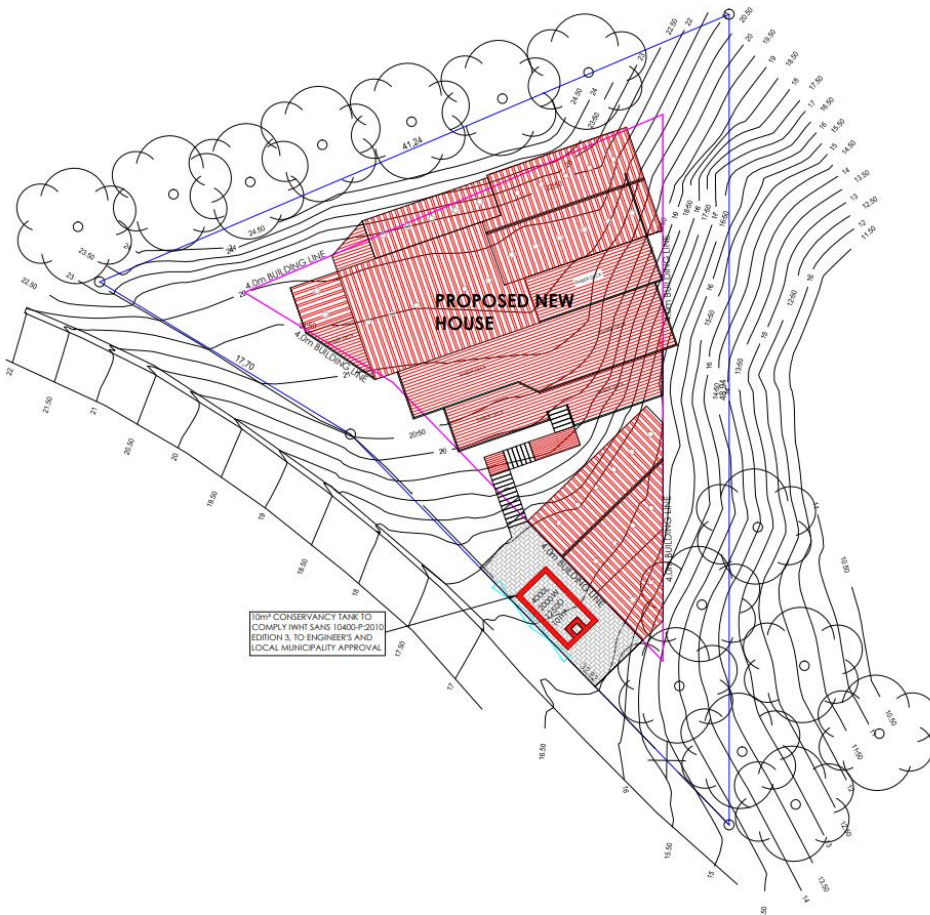
Proposed Development:

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. Dimensioned architectural building plans are included in Appendix C.

Timber Frame lightweight construction including raised timber floor structures on timber columns are specified in order to ensure minimum impact created by the footprint. The garage and relevant floor structure is a separate from the main dwelling and the only portion of the building to be constructed on a concrete slab. The garage outbuilding slab is positioned on the most level portion of the property and it avoids steep portions towards the stream as well as the embankment which on the northern side of the garages. The natural contours on the property presents various challenges with regards to the design and relevant environmental impact but the fact that the main dwelling "floats" above the natural contours on timber columns ensures a well-considered and sensitive approach. The volume to be excavated by hand as well as a mini excavator will amount to approximately 300m³ of which approximately 90m³ will remain on site as fill under the southern part of the garage slab. The rest will be carted away and dumped at a Municipal Approved Landfill site. All excavation work and the footprint of the garage was identified in a Biodiversity report prepared by Adriaan Grobler to be in an area referred to as SEI - VERY LOW.

The footprint for the rest of the structure are in the area identified as SEI - MEDIUM and as previously noted constructed on a raised timber base floor structure which will ensure that the footprint "floats"

above undisturbed natural ground levels. The design ensures that areas identified in the Terrestrial Biodiversity Report as SEI-HIGH and SEI-VERY HIGH are not affected by the proposed design.



 T.N.	
PROJECT	
ERF 8 KONKIEBAAI	
DRAWING TITLE	
CONTOUR PLAN OF ERF 8 KONKIEBAAI IN THE KOOBAMA MUNICIPALITY AND KONKOMERIE DISTRICT OF KWAZULU-NATAL	
CLIENT	
MR & MRS C.HORN	
DRAWN BY	
MAARSCHALK & PARTNERS INC. P.O. BOX 1000 1000 KROONBURG Tel: 031 204 1111 Fax: 031 204 1112 E: info@maarschalk.co.za www.maarschalk.co.za	
SCALE: 1:200	
PLAN NO: M008A	DATE: FEB. 2002

Figure 2: Layout Plan for proposed new house on Erf 8 Konkiebaai.

Access:

There is existing access to the site via Eersterivier Road.

Associated services:

Rainwater will be the main source of water used on this property. However, the proponent will still make use of municipal water. Electricity will be provided by the Eskom.

Sewage Treatment:

All effluent generated by the household will be collected in a conservancy tank. The proposed size of conservancy tank is 10.0m³ and placed as far away from watercourses. This position is between the house and main road in an area identified as SEI – VERY LOW as per the Terrestrial Biodiversity Report. This area will allow for ease of emptying and in the unlikely event of spillage and/or leakage will be easy to control and rectify as a result of it being built into a levelled paved driveway with minimal runoff. Design and construction of the tank will be in accordance with SANS 10400-P:2010 Edition 3 and to the approval of the appointed Engineer and Local Authority.

Biodiversity and Conservation:

The Eastern Cape Biodiversity Conservation Plan (ECBCP) is responsible for mapping areas that are priorities for conservation in the province, as well as assigning land use categories to the existing land depending on the state that it is in (Berliner et al. 2007). Critical Biodiversity Areas (CBAs) are defined by Berliner et al. (2007) as: "CBAs are terrestrial and aquatic features in the landscape that are critical for conserving biodiversity and maintaining ecosystem functioning". These areas are classified as natural to near-natural landscapes. In addition to the CBA's the ECBCP also defines Other Natural Areas (ONA) as well as Transformed Areas.

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 (Figure 3)

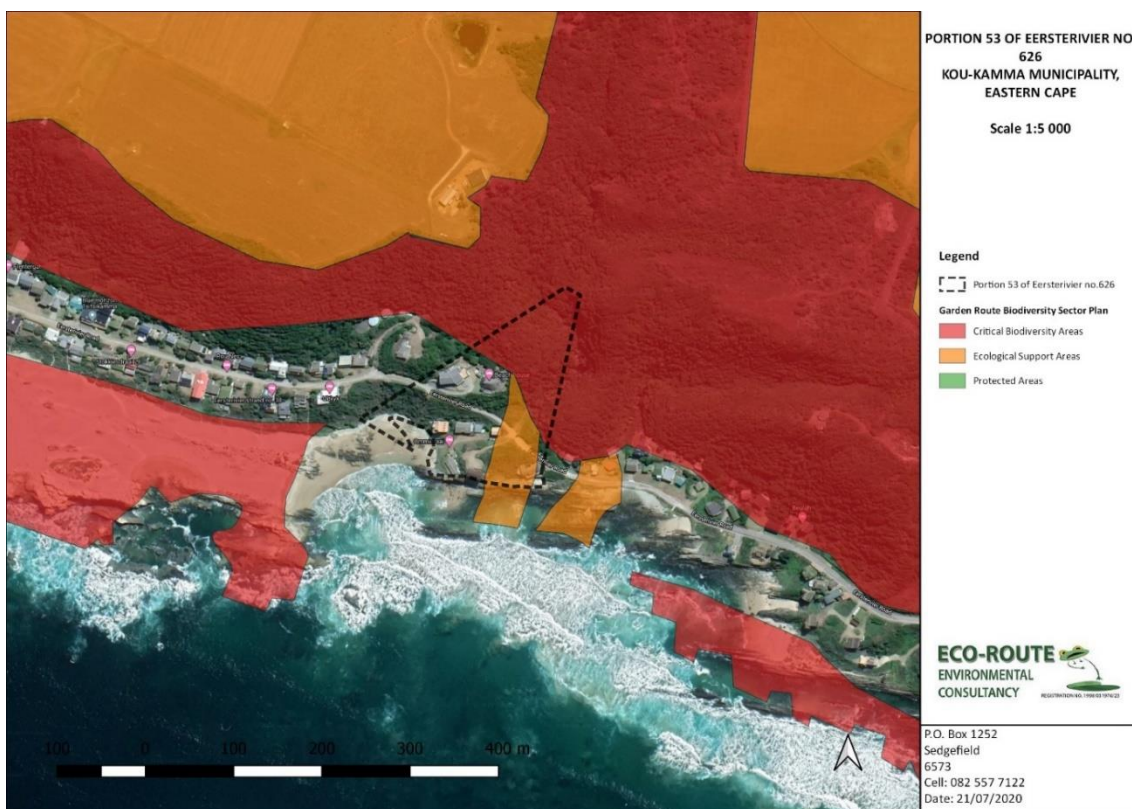


Figure 3: Critical Biodiversity Area for the proposed site according to the Garden Route Biodiversity Sector Plan.

According to the Eastern Cape Biodiversity Conservation Plan (ECBCP) the watercourse adjacent to Erf 8 is classified as a Critical Biodiversity Area 1 (figure 3). The management objective for this category is:

"Maintain in a natural state (or near-natural state if this is the current condition of the site) that secures the retention of biodiversity pattern and ecological processes: For areas classified as CBA1, the following objectives must apply:

- Ecosystem and species must remain intact and undisturbed;

- Since these areas demonstrate high irreplaceability, if disturbed or lost, biodiversity targets will not be met;
- Important: these biodiversity features are at, or beyond, their limits of acceptable change.

If land use activities are unavoidable in these areas, and depending on expert opinion of the condition of the site, a Biodiversity Offset must be designed and implemented."



Figure 4: Ecosystem Threat Status.

Vegetation

VEGMAP (SANBI, 2006–2018, 2018) identifies two vegetation types in the study area, namely FFs 20 Tsitsikamma Sandstone Fynbos and FOz 1 Southern Afrotropical Forest (Figure 5). Tsitsikamma Sandstone Fynbos occurs along the Tsitsikamma Mountains, from Uniondale to Cape St Francis, north of the Keurbooms River and south of the Langkloof (Rebelo et al., 2006). This vegetation type is a medium-dense, tall proteoid shrubland over a dense, moderately tall ericoid shrubland. It comprises mainly proteoid, restioid and ericoid fynbos, with fynbos–thicket occurring in wetter areas. Dominant species include the tall shrubs *Cliffortia serpyllifolia*, *Leucadendron conicum* and *Leucadendron eucalyptifolium*, the low shrubs *Erica discolor*, *Erica sparsa* and *Ursinia scarisosa* subsp. *scarisosa*, and the graminoids *Restio triticeus* and *Tetraria capillacea* (Rebelo et al., 2006) ¹.

¹ Terrestrial Biodiversity and Plant Species Assessment: Proposed construction of a residential dwelling on Erf 8 Konkiebaai (Portion 53 of Eersterivier 626), Kou-Kamma Municipality, Eastern Cape, by Dr B. Adriaan Grobler & Mr Roy de Kock dated 20 September 2022.

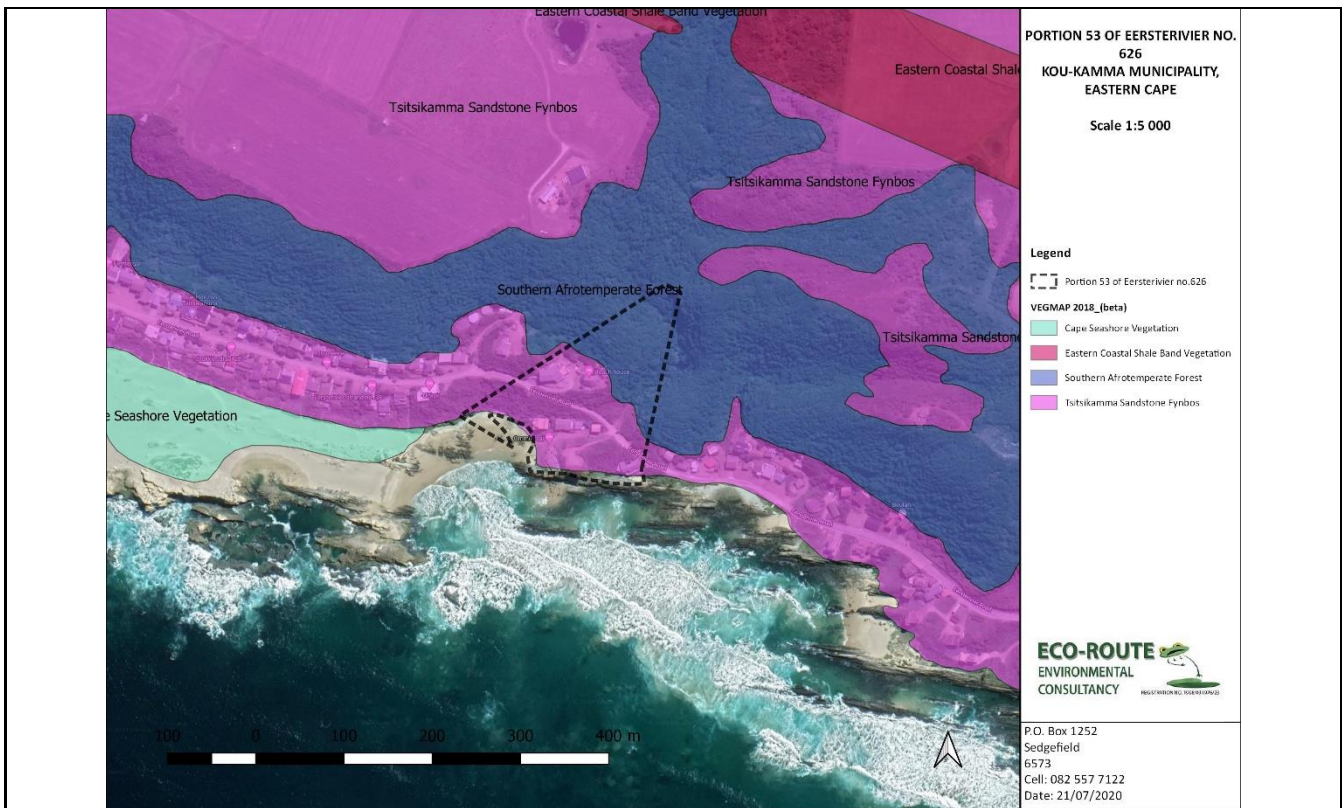


Figure 5: Vegetation Map of Kou-Kamma Municipal area.

Freshwater Systems:

The site falls within quaternary catchment K80D. The stream immediately east of the property is mapped as an unnamed non-perennial stream arising in the coastal plain which has largely been transformed for dairy pastures (Figure 6). The Eerste Rivier is the closest named river which flows into the sea approximately 2 km to the east. No mapped wetlands appear in association with the watercourse according to the National Wetland Map (V5), but wetlands do not appear to be well mapped in the area. Several significant wetland areas were observed en route to the site and do not appear on the NWM5. Each of the tributaries flowing into the unnamed stream have been impounded for irrigation of pasture in the stream's catchment (Aquatic Biodiversity Impact Assessment by Dr. J. Dabrowski).

According to SANBI Vegmap (2018) the mapped vegetation type in the immediate vicinity of Erf 8 is Tsitsikamma Sandstone Fynbos and upstream in the stream is a transition to Southern Afrotemperate Forest. A detailed assessment of vegetation at the site, including vegetation associated with the stream is provided in the botanical specialist report for the site (Dr. A. Grobler, 2022).



Figure 6: Location of the property in relation to mapped freshwater features in quaternary catchment

The Ecological Importance and Sensitivity of the stream was determined to be 'High'. The importance was increased by the presence of the Knysna Warbler and various plant species of conservation concern, some of which are present along the stream (See botanical study Appendix D). The stream forms an important green corridor through an increasingly fragmented landscape due to farming and coastal development. The sensitivity was elevated by the presence of strictly aquatic amphibians such as the Cape River Frog (*Amietia fuscigula*) and the African Clawed Frog (*Xenopus laevis*). These frogs are dependent on permanent water for various stages of their life cycle.

Legislation:

Listed Activities in terms of NEMA EIA Regulations, 2014 as amended are triggered by the proposed development	
Listed activity.	Description of project activity that triggers listed activity.
<p>GN R.327 12(ii)(c): The development of—</p> <p>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</p> <p>where such development occurs—</p> <p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.</p>	<p>The footprint of the dwelling is more than 100 square meters and within 32 meters of a stream.</p>

<p>GN R.327 19A(ii): The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from—</p> <p>(ii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater;</p>	<p>The property occurs within 100m inland from the high-water mark of the sea and thus falls within the Coastal Protection Zone.</p> <p>The construction will require the excavation of more than 5 cubic meters.</p>	
<p>GN R.324 12(iii): The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>a. Eastern Cape</p> <p>(iii) Within the littoral active zone or 100 metres inland from the high water mark of the sea, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;</p>	<p>The property occurs within 100m inland from the high-water mark of the sea and thus falls within the Coastal Protection Zone.</p> <p>The construction activities will require the removal of more than 300 square meters of vegetation.</p>	

2. FEASIBLE AND REASONABLE ALTERNATIVES

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

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Alternatives

According to the Protocols for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (Government Gazette 43110 20 March 2020) and Plant Species (Government Gazette 43855 of 30 October 2020), an alternative development footprint should be identified within the site which would be of a "low" sensitivity as identified by the screening tool and verified through the site sensitivity verification. However, given the narrow, linear layout of areas with "very low" sensitivity on the preferred site, this was impractical. The need for this was furthermore diminished by the fact that the preferred layout is restricted to areas of "very low" and "medium" sensitivity. The alternative layout assessed was therefore proposed as a practicable alternative to the proposed development (figure 7)².

The three plant Species of Conservation Concern (SCC) recorded on site by the Terrestrial Biodiversity and Plant Species specialist did not fall within the development footprint for the Preferred layout alternative. The Alternative layout footprint impacts slightly on the buffer for *Erica glandulosa* subsp. *fourcadei*, which occurs directly next to the road, but the preferred footprint layout avoids the buffer area. Both other threatened species (*Dioscorea sylvatica* and *Tulbaghia maritima*) occur in the forest and fall outside of the proposed footprint. Most of the protected species also fall outside of the preferred layout footprint. A search-and-rescue operation is not considered necessary as these protected species are very common and widespread, according to the specialist, however it was recommended that a permits be obtained for their possible destruction. These species can be used in landscaping if it is possible to transplant them.

The Preferred layout (Appendix C) takes into consideration the sensitivities of the site and layout of the environment including natural slopes, vegetation and watercourses. The sensitivities regarding the aquatic environment in general has been addressed in the Freshwater Assessment report (Appendix G). The distance of 15m was determined in the buffer model as the operational phase buffer zone, as per the Freshwater Assessment³. This was taken into consideration when determining the house footprint. The position of the house is such that it avoids SCC as far as possible while remaining outside of the 15m riparian buffer zone.

² The following section was extracted from the Terrestrial Biodiversity and Plant Species Assessment Report (version 1.0) by specialist Dr B. Adriaan Grobler, 20 September 2022.

³ Aquatic Impact Assessment Report for the development by specialist Dr J. Dabrowski, November 2022.

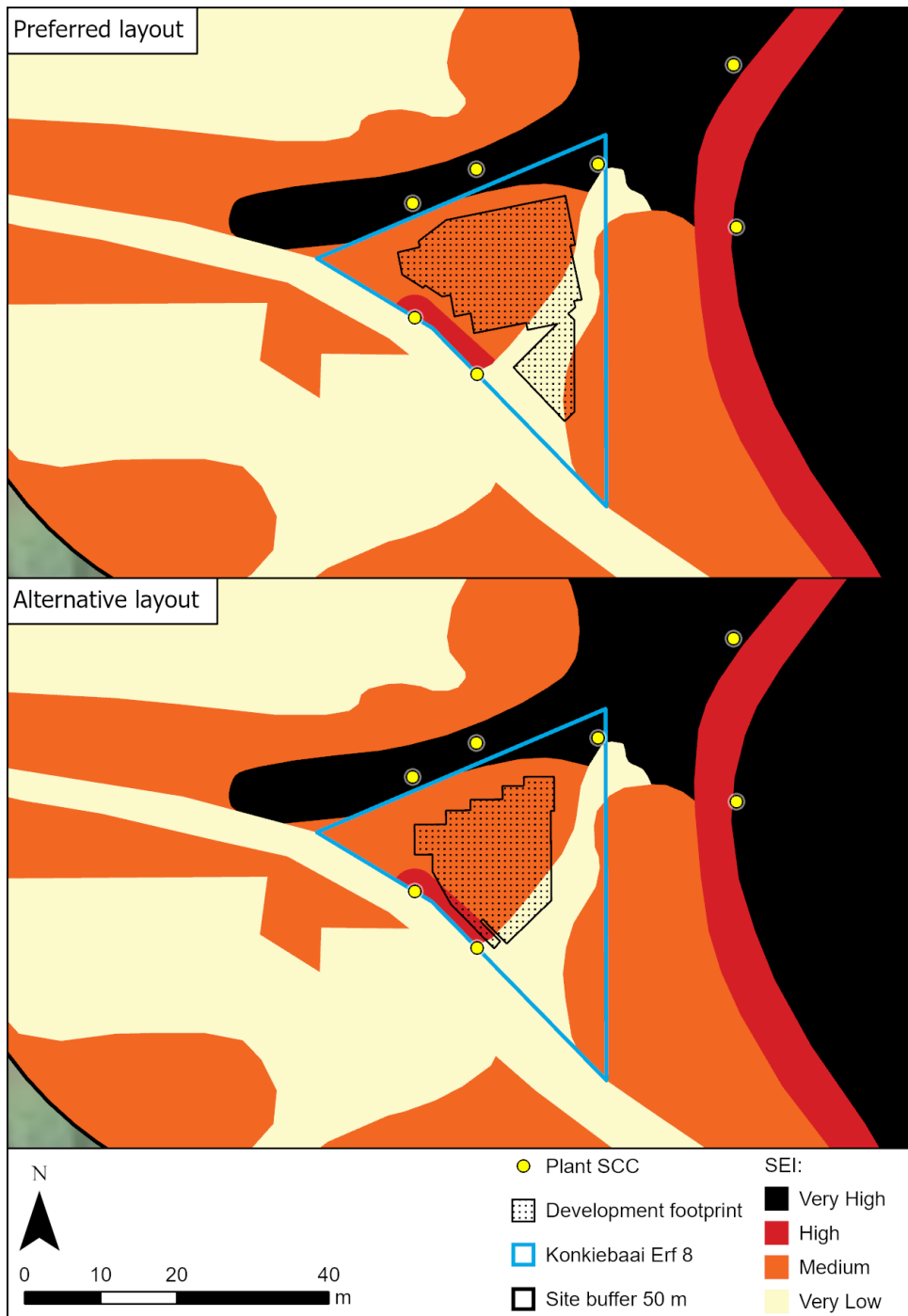


Figure 7: Site Ecological Importance (SEI) of plant habitats on Erf 8 Konkiebaai with the proposed development footprint of the preferred (top) and an alternative layout (bottom) superimposed.

As there is only one property and one activity being assessed, technology was also identified as an alternative to be included in this assessment.

Preferred Alternative:

- Layout alternative**
- Impacts on areas with “very low” and “medium” sensitivity.
 - Lower impact on terrestrial biodiversity and plant species on site.
 - Identified Species of Conservation Concern are located outside of the development footprint.
 - Slightly larger footprint of 360m².
- Technology alternatives:**
- The dwelling will make use of both municipal provided electricity and solar panel generated energy.
 - The dwelling will make use of rainwater tanks, as well as being connected to municipal water infrastructure.
 - Power saving technology such as LED lighting.

Second Alternative:

- Layout Alternative**
- Impacts on areas with “very low”, “medium” and “high” sensitivity.
 - Potential loss of Species of Conservation Concern within the development footprint.
 - Slightly smaller footprint of 262m².
- Technology alternatives:**
- The dwelling will only make use of municipal provided electricity.
 - The dwelling will only make use of municipal provided water.
 - No eco-friendly considerations form part of this alternative.

No-go Alternative:

The no-go alternative assumes that the dwelling will not be constructed as proposed, and the status quo will remain in place. If the proposed dwelling is not developed the following will occur:

1. The site will remain as is and continue to support what remaining fauna and flora that make use of the area.
2. There will be no potential impacts on the stream system.
3. The potential for job creation and skills development will be lost.
4. The Applicant cannot carry out their legal right to develop on the Erf zoned for residential use.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites if applicable.

Alternative:

Alternative S1⁴ (preferred or only site alternative)

Alternative S2 (if any)

Alternative S3 (if any)

Latitude (S):

Longitude (E):

°34	4' 18.50	°24	13' 23.73
°34	4' 18.50	°24	13' 23.73
°	'	°	'

In the case of linear activities:

Alternative:

~~Alternative S1 (preferred or only route alternative)~~

~~• Starting point of the activity~~

~~• Middle point of the activity~~

~~• End point of the activity~~

~~Alternative S2 (if any)~~

~~• Starting point of the activity~~

~~• Middle point of the activity~~

~~• End point of the activity~~

~~Alternative S3 (if any)~~

~~• Starting point of the activity~~

~~• Middle point of the activity~~

~~• End point of the activity~~

Latitude (S):

Longitude (E):

°	'	°	'
°	'	°	'
°	'	°	'

°	'	°	'
°	'	°	'
°	'	°	'

°	'	°	'
°	'	°	'
°	'	°	'

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:

Alternative A1⁵ (preferred activity alternative)

Alternative A2 (if any)

Size of the activity:

360m ²
262m ²

⁴ "Alternative S.." refer to site alternatives.

⁵ "Alternative A.." refer to activity, process, technology or other alternatives.

Alternative A3 (if any)

N/A

or, for linear activities:

Alternative:

Length of the activity:

Alternative A1 (preferred activity alternative)

m

Alternative A2 (if any)

m

Alternative A3 (if any)

m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative: THERE IS ONLY ONE SITE

Size of the site/servitude:

Alternative A1 (preferred activity alternative)

838m²

Alternative A2 (if any)

N/A

Alternative A3 (if any)

N/A

5. SITE ACCESS

Does ready access to the site exist?

YES ✓	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

6. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):

- rivers;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or invested with alien species);

6.9 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and

6.10 the positions from where photographs of the site were taken.

7. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

R6 000 000

What is the expected yearly income that will be generated by or as a result of the activity?

N/A

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 phase of the activity?

10

What is the expected value of the employment opportunities during the development phase?

R1 200 000

What percentage of this will accrue to previously disadvantaged individuals?

66%

How many permanent new employment opportunities will be created during the operational phase of the activity?	N/A
What is the expected current value of the employment opportunities during the first 10 years?	N/A
What percentage of this will accrue to previously disadvantaged individuals?	N/A

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

- The activity is permitted in terms of the property's existing land use rights.
 - Temporary employment opportunities will arise during the construction of the project.
 - Materials for the development will be locally sourced as much as possible.
 - Technology alternatives to be incorporated into the design of the proposed activity are eco-friendly and ensure environmental sustainability.
 - The activity will be in line with the following:
 - Urban edge / Edge of Built environment for the area.
 - Kou-Kamma Municipality Integrated Development Plan (IDP).
 - Approved Structure Plan of the Municipality.
 - Necessary services with adequate capacity are currently available.
 - Location factors favour this land use.
- The design of the dwelling is in line with the surrounding architectural forms. The aesthetics or "sense of place" will remain as is.

Indicate any benefits that the activity will have for society in general:

Environmentally sustainable technology to be incorporated into the proposed activity will ensure that the activity will not add much to the already strained sectors of water supply and electricity supply. It is envisioned that the basic needs required to run the household will all make use of 'green' technology in the near future.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

The proposed activity will create temporary employment opportunities and skills development for the local community during the construction phase.

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

LEGISLATION	ADMINISTERING AUTHORITY	TYPE Permit/ license/ authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval)	DATE (if already obtained):
CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA. (ACT 108 OF 1996)	All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.	Relevant Consideration	N/A
ENVIRONMENTAL CONSERVATION ACT (ACT 73 OF 1989)	Department of Economic Development, Environmental Affairs & Tourism	Relevant Consideration	N/A
NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998)	Department of Economic Development, Environmental Affairs & Tourism	Authorization	In process
NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT 62 OF 2008)	Department of Economic Development, Environmental Affairs & Tourism	Authorization	In Process
NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT (ACT NO 10 OF 2004)	Department of Economic Development, Environmental Affairs & Tourism	Relevant Consideration	N/A
NATIONAL ENVIRONMENTAL MANAGEMENT: INTEGRATED COASTAL MANAGEMENT ACT (ACT NO 24 OF 2008)	Department of Economic Development, Environmental Affairs & Tourism	Comment/ Relevant Consideration	N/A
NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS ACT (ACT 57 OF 2003)	Department of Economic Development, Environmental Affairs & Tourism, Department of Agriculture, Forestry and Fisheries	Relevant Consideration	N/A
NATIONAL WATER ACT (ACT 36 OF 1998)	Department of Water and Sanitation	Relevant Consideration	N/A
	Department of Water and Sanitation	Relevant Consideration	N/A

WATER SERVICES ACT (ACT 108 OF 1997)			
SEA SHORE ACT (ACT 21 OF 1935)	Department of Economic Development, Environmental Affairs & Tourism	Relevant Consideration	N/A
CONSERVATION OF AGRICULTURAL RESOURCES ACT (ACT 43 OF 1983)	Department of Agriculture, Forestry and Fisheries	Relevant Consideration	N/A
NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)	Eastern Cape Provincial Heritage Resources Authority	Comment/ Relevant Consideration	N/A

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES ✓	NO
-------	----

If yes, what estimated quantity will be produced per month? An estimate could not be made as a contractor has not been appointed at this stage. However, the quantity is expected to be low due to the development being a residential dwelling on undeveloped land.

unknown

How will the construction solid waste be disposed of (describe)?

Construction solid waste will be separated according to the waste hierarchy and be either re-used or recycled. Solid waste that cannot be reused or recycled will be disposed of at an appropriate site.
--

Where will the construction solid waste be disposed of (describe)?

Construction solid waste will be transported to the nearest registered landfill site.

Will the activity produce solid waste during its operational phase?

YES	NO ✓
-----	------

If yes, what estimated quantity will be produced per month?

N/A

How will the solid waste be disposed of (describe)?

N/A

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

YES	NO ✓
-----	------

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO ✓
-----	------

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES	NO ✓
-----	------

If yes, what estimated quantity will be produced per month?

N/A

Will the activity produce any effluent that will be treated and/or disposed of on site?

Yes	NO ✓
-----	------

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	NO ✓
-----	------

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

None

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO ✓
YES	NO

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

N/A

11(d) Generation of noise

Will the activity generate noise?

YES ✓	NO
YES	NO ✓

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

Noise associated with the construction phase of the development. Construction work will only be permitted during weekdays from 8:00 am to 5:00 pm.

12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

municipal ✓	water board	groundwater	river, stream, dam or lake	Other ✓ rainwater harvesting	the activity will not use water
-------------	------------------------	------------------------	---------------------------------------	---------------------------------	--

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

N/A	
YES	NO ✓

Does the activity require a water use permit from the Department of Water Affairs?

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

The use of energy saving light bulbs (LED) and natural light will contribute to energy saving.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Solar panels will be incorporated into the design of the activity.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g.

1

):

2. Paragraphs 1 - 6 below must be completed for each alternative.

There is only one site alternative.

3. Has a specialist been consulted to assist with the completion of this section?

YES	NO ✓
-----	------

If YES, please complete form XX for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50—1:20	1:20—1:15	1:15—1:10	1:10—1:7,5	1:7,5—1:5	Steeper than 1:5
------	-----------	-----------	-----------	------------	-----------	------------------

Alternative S2 (if any):

Flat	1:50—1:20	1:20—1:15	1:15—1:10	1:10—1:7,5	1:7,5—1:5	Steeper than 1:5
------	-----------	-----------	-----------	------------	-----------	------------------



2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 ~~Ridgeline~~

2.2 ~~Plateau~~

2.3 ~~Side slope of hill/mountain~~

2.4 ~~Closed valley~~

2.5 ~~Open valley~~

2.6 ~~Plain~~

2.7 ~~Undulating plain / low hills~~

2.8 ~~Dune~~

2.9 ~~Seafrent~~

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	YES	NO ✓	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO ✓	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO ✓	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO ✓	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO ✓	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO ✓	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO ✓	YES	NO	YES	NO
An area sensitive to erosion	YES	NO ✓	YES	NO	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

- ~~4.1 Natural veld – good condition~~^E
- ~~4.2 Natural veld – scattered aliens~~^E
- ~~4.3 Natural veld with heavy alien infestation~~^E
- ~~4.4 Veld dominated by alien species~~^E
- 4.5 Gardens

- 4.6 Sport field
- 4.7 Cultivated land
- 4.8 Paved surface
- 4.9 Building or other structure
- 4.10 Bare soil

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld — good condition^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation^E	Veld dominated by alien species^E	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

The following section was extracted from the Terrestrial Biodiversity and Plant Species Assessment Report (version 1.0) by specialist Dr B. Adriaan Grobler, 20 September 2022.

Four plant habitats (vegetation communities) were identified on and around Erf 8 Konkiebaai during the field survey, namely: coastal thicket; forest; perennial stream; and lawn (figure 8). Of these habitats, only coastal thicket, forest and lawn occur on Erf 8, while the perennial stream is located about 20 m to the east of the property. Brief descriptions of each of these habitats follow below. No patches of Tsitsikamma Sandstone Fynbos were identified on site: this mapping in the VEGMAP is erroneous as the underlying sandstone geology along the narrow coastal margin is mantled by calcareous sands of marine origin (i.e., dune sand), and the most analogous vegetation type for non-forest vegetation is AT 57 St Francis Dune Thicket, a non-threatened ecosystem type (Skowno and Monyeke, 2021). The forest vegetation on site is consistent with the description of Southern Afrotemperate Forest.

Coastal thicket dominates the narrow coastal strip between the shoreline and the steep seaward slopes in the local landscape (Plate 1 a). It is dominated by typical dune-thicket shrubs, such as *Maytenus procumbens*, *Osteospermum moniliferum*, *Salvia aurea*, *Searsia glauca* and *Searsia crenata*, while certain foredune shrubs like *Passerina rigida* and dune-fynbos shrubs like *Metalsia muricata* and *Phyllica littoralis* are also common. Other shrubs that occur in this habitat include *Cussonia thursiflora*, *Euclea racemosa*, *Helichrysum cymosum*, *Helichrysum odoratissimum*, *Helichrysum petiolare*, *Helichrysum teretifolium*, *Hypoestes aristata*, *Maytenus procumbes*, *Pelargonium capitatum*, *Searsia laevigata* and *Senecio angulatus*. The regional endemic and threatened (Vulnerable) shrub *Erica glandulosa* subsp. *fourcadei* is locally restricted to this habitat. The ground layer of the coastal thicket comprises the sedges *Ficinia lateralis* and *Ficinia ramosissima*, the grasses *Melica racemosa*, *Panicum deustum* and *Stenotaphrum secundatum*, the succulents *Carpobrotus deliciosus*, *Crassula campestris* and *Gasteria acinacifolia*, and the geophytes *Bonatea speciose*, *Chasmanthe aethiopica* and *Colchicum eucomoides*. Lianas and vines are also common, for example *Asparagus aethiopicus*, *Cissampelos capensis*, *Rhoicissus tridentata*, *Rhynchosia caribea* and *Solanum africanum*.

Forest occurs along the steep seaward slopes and along sheltered ravines in the local landscape (Plate 1 b). The canopy height ranges from about 4–8 m, depending on levels of wind exposure, and is formed by vertical-growing, single-stemmed trees, especially *Cassine peragua*, *Pterocelastrus tricuspidatus* and *Sideroxylon inerme*. Other canopy-forming trees found in this habitat include *Chionanthus foveolatus*, *Elaeodendron croceum*, *Mystroxydon aethiopicum* and *Rapanea melanophloeos*. The shrub layer comprises species like *Acokanthera oppositifolia*, *Allophylus decipiens*, *Carissa bispinosa*, *Clausena anisata*, *Dovyalis rhamnoides*, *Gymnosporia nemorosa* and *Lachnostylis hirta*. The ground layer is dominated by low-growing shrubs like *Acalypha capensis* and *Hypoestes forskoolii*, but also includes the geophytes *Chlorophytum comosum* and *Oxalis incarnata*, and herbs like *Chaenostoma cordatum* and *Didymodoxa capensis*. *Dioscorea sylvatica*, a threatened (Vulnerable) and protected vine, occurs along the edge of the forest.

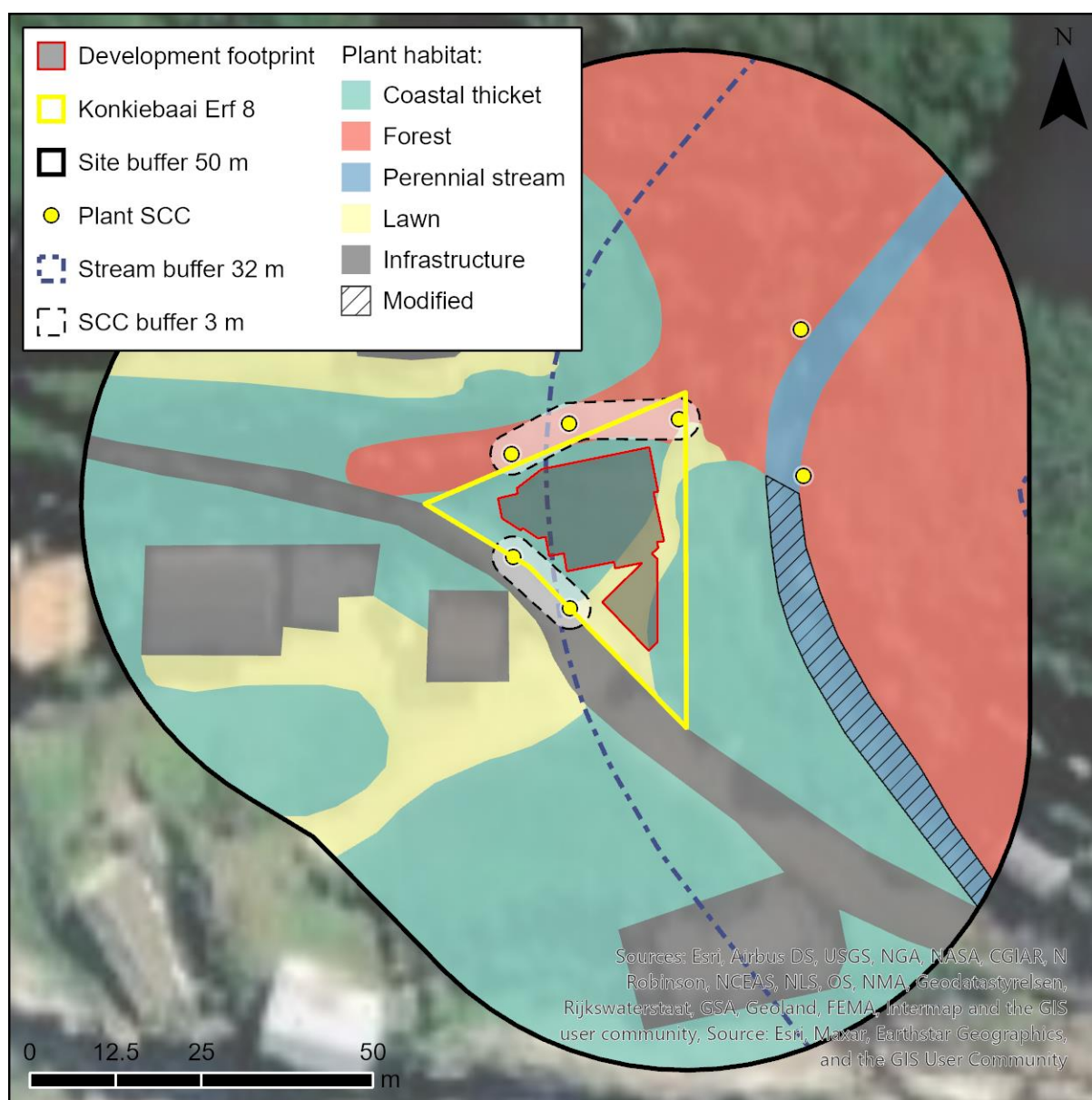


Figure 8: Local-scale vegetation patterns and distribution of plant species of conservation concern (SCC) around Erf 8 Konkiebaai at Eersterivier.

Perennial stream habitat occurs approximately 20 m east and downslope of Erf 8 at the base of a small ravine (Plate 1 c). The banks of the stream support forest vegetation (as described above), 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.

Lawn maintained by mowing comprises mostly indigenous grass species like *Cynodon dactylon* and *Stenotaphrum secundatum*, while the exotic weed *Plantago lanceolata* is common (Plate 1 d).

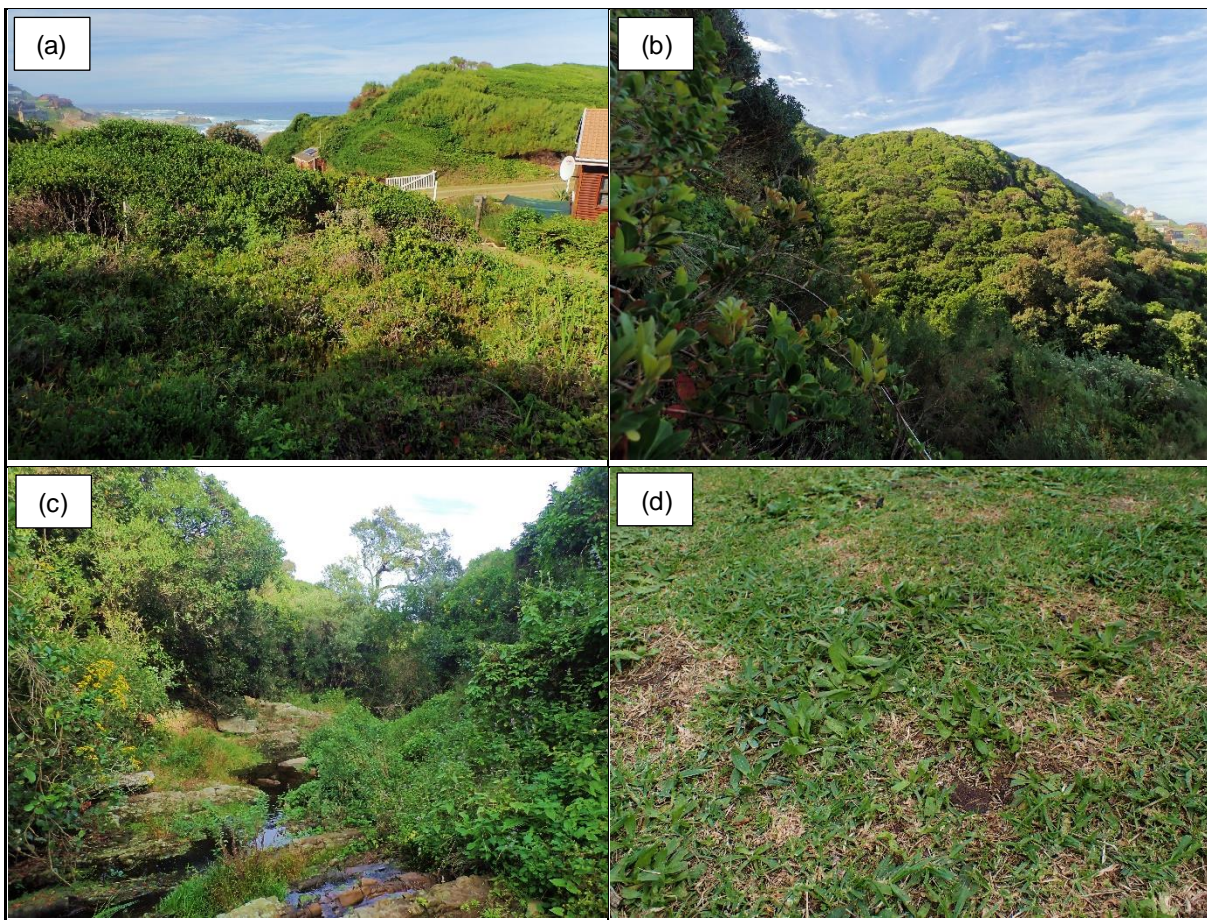


Plate 1: Plant habitats that occur on and around Erf 8 Konkiebaai at Eersterivier: (a) Coastal thicket; (b) Forest; (c) Perennial stream; (d) Lawn.

A total of 14 Species of Conservation Concern (SCC) were identified as potentially occurring in the study area. Of these, three SCC (*Erica glandulosa* subsp. *fourcadei*, *Dioscorea sylvatica*, Sensitive species 308) were confirmed to occur on site during the field survey, and all are classified as Vulnerable (Plate 2). *Erica glandulosa* subsp. *fourcadei* is associated with the coastal thicket habitat, *Dioscorea sylvatica* with the forest, and Sensitive species 308 with the perennial stream habitat. The remaining 11 SCC have a Low likelihood of occurring on site as no or very limited suitable habitat occurs there for some species and as none of them were detected despite substantial survey effort.




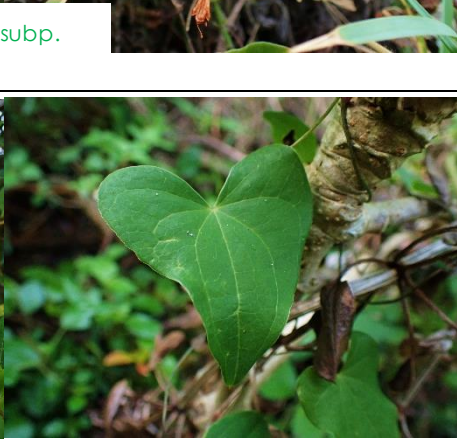
		<p>Conservation status: Vulnerable B1ab(ii,iii,iv,v)</p> <p>Distribution: Endemic to coastal sands of the southeastern Cape Floristic Region (Mossel Bay to Cape St Francis).</p> <p>On-site population: 3 individuals in healthy state.</p>
		<p>Conservation status: Vulnerable A2cd</p> <p>Distribution: Plettenberg Bay to tropical Africa.</p> <p>On-site population: 5 individuals in healthy state.</p>

Plate 2: Plant species of conservation concern (SCC) recorded during the field survey of Erf 8 Konkiebaai: (a) VU *Erica glandulosa* subsp. *fourcadei*; (b) VU *Dioscorea sylvatica*. Conservation status is from the Red List of South African Plants v. 2020 (SANBI, 2012–2020) (<http://redlist.sanbi.org>). Note that Sensitive species 308 is not included.

Eight protected species listed in terms of national and provincial legislation were recorded on Erf 8 Konkiebaai (Table 2). These were *Bonatea speciosa*, *Carpobrotus deliciosus*, *Chasmanthe aethiopica*, *Cynanchum obtusifolium*, *Dioscorea sylvatica*, *Erica glandulosa* subsp. *fourcadei*, and *Mesembryanthemum aitonis*, all protected under Schedule 3 of the Cape Environmental and Nature Conservation Ordinance (1974), and *Sideroxylon inerme*, protected under the National Forest Act (1998). All these species occurred at low abundances on site.

Table 2: Protected plant species, listed in terms of the Cape Environmental and Nature Conservation Ordinance (1974) (ENCO) and National Forests Act (1998) (NFA), that were recorded on Erf 8 Konkiebaai.

Species	Common name	Protected category	Abundance
<i>Bonatea speciosa</i>	Green woodorchid	ENCO Schedule 3	Low
<i>Carpobrotus deliciosus</i>	Suurvy	ENCO Schedule 3	Low
<i>Chasmanthe aethiopica</i>	Cobra lily	ENCO Schedule 3	Low
<i>Cynanchum obtusifolium</i>	Melktou	ENCO Schedule 3	Low
<i>Dioscorea sylvatica</i>	Forest Elephant's Foot	ENCO Schedule 3	Low
<i>Erica glandulosa</i> subsp. <i>fourcadei</i>	Fourcade's glandular heath	ENCO Schedule 3	Low
<i>Mesembryanthemum aitonis</i>	Brakslaai	ENCO Schedule 3	Low
<i>Sideroxylon inerme</i> subsp. <i>inerme</i>	White milkwood	NFA	Low

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

- 5.1 Natural area
- 5.2 Low density residential
- 5.3 Medium density residential
- 5.4 High density residential
- 5.5 Informal residential
- 5.6 Retail commercial & warehousing
- 5.7 Light industrial
- 5.8 Medium industrial-^{AN}
- 5.9 Heavy industrial-^{AN}
- 5.10 Power station
- 5.11 Office/consulting room
- 5.12 Military or police base/station/compound
- 5.13 Spoil heap or slimes dam^A
- 5.14 Quarry, sand or borrow pit
- 5.15 Dam or reservoir
- 5.16 Hospital/medical centre
- 5.17 School
- 5.18 Tertiary education facility
- 5.19 Church
- 5.20 Old age home
- 5.21 Sewage treatment plant^A
- 5.22 Train station or shunting yard-^N
- 5.23 Railway line-^N
- 5.24 Major road (4 lanes or more)-^N
- 5.25 Airport-^N
- 5.26 Harbour
- 5.27 Sport facilities
- 5.28 Golf course
- 5.29 Polo fields
- 5.30 Filling station-^H
- 5.31 Landfill or waste treatment site
- 5.32 Plantation
- 5.33 Agriculture
- 5.34 River, stream or wetland - A perennial stream occurs about 20 m downslope of the site.
- 5.35 Nature conservation area - Oubos-Grootrivier Nature Reserve (1.1 km west-northwest) and the Tsitsikamma Section of the Garden Route National Park (3 km west-northwest).
- 5.36 Mountain, koppie or ridge
- 5.37 Museum
- 5.38 Historical building
- 5.39 Protected Area - Oubos-Grootrivier Nature Reserve and the Tsitsikamma Section of the Garden Route National Park.
- 5.40 Graveyard
- 5.41 Archaeological site
- 5.42 Other land uses (describe)

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity.
N/A

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity.
If YES, specify and explain: N/A

If YES, specify:

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.
If YES, specify and explain: N/A

If YES, specify:

6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including	YES	NO✓
Archaeological or palaeontological sites, on or close (within 20m) to the site?	Uncertain	
If YES, explain:	N/A	
If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.		
Briefly explain the findings of the specialist:	N/A	
Will any building or structure older than 60 years be affected in any way?	YES	NO✓
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO✓
If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.		

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the competent authority;

- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (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 the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later

stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least 30 (thirty) calendar days before the submission of the application.

List of authorities informed:

STATE DEPARTMENTS			
Name	Contact Person	Postal Address	Email
Eastern Cape Department of Economic Development, Environmental Affairs and Tourism	Andries Struwig	Private Bag X5001, Greenacres, Port Elizabeth, 6057	Andries.Struwig@dedea.gov.za
Department of Environmental Affairs: Oceans and Coasts	Tabisile Mhlana	Private Bag X4390, Cape Town, 8000	tmhlana@dfpe.gov.za OCEIA@dfpe.gov.za
Eastern Cape Department of Agriculture, Forestry and Fisheries	Babalwa Layini		Blayini@dfpe.gov.za / zmtotywa@dfpe.gov.za
Department of Water and Sanitation Eastern Cape	Ncamile Dweni	140 Govan Mbeki Ave, 7 th Floor Starport Building Port Elizabeth, 6000	DweniN@dws.gov.za

ORGANS OF STATE			
Name	Contact Person	Postal Address	Email
Eastern Cape Parks and Tourism Agency		17-25 Oxford Street, East London CBD, 5201	info@ecpta.co.za
Eastern Cape Provincial Heritage Resources Authority	Sello Mokhanya	Comer Scholl and Amalinda Drive, East London, 5247	smokhanya@ecphra.org.za
MUNICIPALITIES			
Name	Contact Person	Postal Address	Email
Sarah Baartman District Municipality: Municipal Manager	Ted Pillay	PO Box 318, Port Elizabeth, 6000	ted@sbdm.co.za
Kou Kamma Municipality: Municipal Manager	Mr. Pumelelo Maxwell Kate	Private Bag X011 Kareedouw 6400	katepm@koukamma.gov.za
Kou Kamma Municipality: Town Planning		Private Bag X011 Kareedouw 6400	maatje@route2.co.za
Kou Kamma Municipality: Ward 5 Councillor	Olwethu Williams	Private Bag X011 Kareedouw 6400	williamsolwethu@gmail.com

List of authorities from whom comments have been received:

- | |
|--|
| <ol style="list-style-type: none"> 1. The Department of Forestry, Fisheries, and the Environment (DFFE) Oceans & Coasts (O&C) Branch - (22 June 2022) |
|--|

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the competent authority.

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application at least 30 (thirty) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES ✓	NO
-------	----

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

See Comment and Response Report Attached as Appendix E.

COMMENT RECEIVED FROM	ISSUE	RESPONSE
COMMENTS RECEIVED IN RESPONSE TO ADVERTISEMENTS, SIGNBOARDS AND/OR DISTRIBUTION OF THE BACKGROUND INFORMATION DOCUMENT		
<p>The Department of Forestry, Fisheries, and the Environment (DFFE) Oceans & Coasts (O&C) Branch 22 June 2022</p>	<ol style="list-style-type: none"> 1. It was noted as part of the site inspection that was conducted that Erf 8, Konkiebaai is irregular with gentle access from the street level, but then sloping steeply downwards (northwards from the street). As such, significant earthworks are anticipated to clear, level, and compact the site surface in preparation for construction. For the development on this site to be viable, this Branch recommends that the applicant explores the option of incorporating wooden stilts as the preferred design for the proposed residential dwelling. Stilt houses date to prehistoric times. They are well suited to coastal regions and subtropical climates as they can protect the structure against floods, maximize views and allow homeowners to build on rocky, steep, or unstable land. They also keep out animals and vermin, provide ventilation under the house and minimize a house's footprint. This Branch will provide further input into the preferred alternative in terms of design, technology, and layout as part of the subsequent public participation process when more information is available. 2. In terms of the specialist studies to be conducted, this Branch recommends for a Biodiversity Assessment be undertaken to identify the types of fauna and flora available on the property and confirm whether any indigenous or alien species need to be maintained and/or protected, including, advising on any applicable permits which need to be applied for. 3. The EAP stated that the applicant is exploring a solid building design for the more stable portions of the site, adjacent to the street and parking area. A Geotechnical Assessment/Geotechnical Soil Test Report may be required to understand the physical characteristics of the soil to inform the construction method that should be applied to clear, level, and compact the site surface. 4. Further information relating to stormwater and stormwater management system should be 	<p>The dwelling will be constructed on stilts as recommended.</p> <p>A Biodiversity Assessment was undertaken and attached as Appendix D.</p> <p>Noted. This will be addressed if a solid building design is followed for this section of the site.</p> <p>Noted, this will be adhered to. Stormwater management will be</p>

	<p>included in the subsequent report. If the applicant intends to utilise municipal services such as electricity connections, water services, stormwater connections, building plan approvals, etc., all relevant environmental processes need to be adhered to and relevant permits obtained before commencement with any/all construction-related activities. The applicant should strive to ensure sustainable development and that all building-related activities, leveling, landscaping, and construction are in line with all relevant environmental laws and legislation to avoid hindrance.</p> <p>5. The Basic Assessment Report or EMP should clearly articulate how waste material will be managed during and post-construction to avoid any pollution entering the marine and coastal environment.</p> <p>6. This Branch further requests to be registered as an I&AP.</p>	<p>addressed in the final design/layout.</p> <p>Noted, this will be addressed.</p> <p>This Branch has been added to the I&AP Register</p>
<p>Anru Pretorius 17/08/2022</p>	<p>I am a shareholder in Eersterivier and come here for 57 years. I would like to see the proposed development on this site. We have others that use the river below for access to the sea and our access gate is close by.</p>	<p>Noted, Ms Pretorius has been included in I&AP Register for distribution of the DBAR.</p>

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014 as amended, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

See Appendix E for comments and response report.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report):

See Appendix E for comments and response report.

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

Assessment Criteria:

- NEMA Act 107 of 1998
- NEMA: EIA Regulations 2014 as amended

The criteria are also based on the EIA Regulations, published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act No. 73 of 1989.

These criteria include:

Nature of the impact

This is an estimation of the type of effect the construction, operation and maintenance of a development would have on the affected environment. This description should include what is to be affected and how.

Extent of the impact

Describe whether the impact will be: local extending only as far as the development site area; or limited to the site and its immediate surroundings; or will have an impact on the region or will have an impact on a national scale or across international borders.

Duration of the impact

The specialist should indicate whether the lifespan of the impact would be short term (0-5 years), medium term (5-15 years), long term (16-30 years) or permanent.

Intensity

The specialist should establish whether the impact is destructive or benign and should be qualified as low, medium or high. The specialist study must attempt to quantify the magnitude of the impacts and outline the rationale used.

Probability of occurrence

The specialist should describe the probability of the impact actually occurring and should be described as improbable/unlikely (low likelihood), probable (distinct possibility), highly probable (most likely) or definite (impact will occur regardless of any prevention measures).

Reversibility

- Completely reversible – the impact can be reversed with the implementation of minor mitigation measures.
- Partly reversible – the impact is reversible but more intense mitigation measures are required
- Barely reversible – the impact is unlikely to be reversed even with intense mitigation measures
- Irreversible – the impact is irreversible, and no mitigation measures exist

Irreplaceable loss of resources

Describes the degree to which resources will be irreplaceably lost due to the proposed activity. It can be no loss of resources, marginal loss, significant loss or complete loss of resources.

Cumulative effect

An effect which in itself may not be significant but may become significant if added to other existing or potential impacts that may result from activities associated with the proposed development. The cumulative effect can be:

- Negligible – the impact would result in negligible to no cumulative effect
- Low – the impact would result in insignificant cumulative effects
- Medium – the impact would result in minor cumulative effects
- High – the impact would result in significant cumulative effects

Significance

Significance of impacts are determined through a synthesis of the assessment criteria and is described as –

- Low negative– where it would have negligible effects and would require little or no mitigation
- Low positive – the impact will have minor positive effects

- Medium negative – the impact will have moderate negative effects and will require moderate mitigation
- Medium positive – the impact will have moderate positive effects
- High negative – the impact will have significant effects and will require significant mitigation measures to achieve an accepted level of impact
- High positive – the impact will have significant positive effects
- Very high negative – the impact will have highly significant effects and are unlikely to be able to be mitigated adequately
- High positive – the impact will have highly significant positive effects.

Alternative (preferred alternative)



PHASE	NATURE OF IMPACT	EXTENT	DURATION	INTENSITY	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS OF RESOURCES	CUMULATIVE EFFECT	SIGNIFICANCE
construction	Loss of indigenous species and species diversity including protected/threatened species due to vegetation clearing.	Limited to the site	Permanent	High	Definite	Irreversible	Partially replaceable	High Negative	High Negative -
construction	Loss of indigenous species and SCC habitat due to vegetation clearing.	Limited to the site	Permanent	High	Definite	Irreversible	Partially replaceable	Medium Negative	High Negative -
construction	Impact on indigenous vegetation and SCC due to increased soil erosion	Limited to the site	Long term	Medium	Probable	Partially reversible	Partially replaceable	Medium Negative	Medium negative – the impact will have moderate negative effects and will require moderate mitigation
construction	Impact on indigenous vegetation and SCC due to increased upslope soil erosion.	Limited to the site	Long term	Medium	Probable	Partially reversible	Partially replaceable	High Negative	High Negative
construction	Impact on indigenous vegetation and SCC habitat by the establishment of an ecologically inappropriate fire regime.	Local	Medium-term (10–15 years)	High	Low	Partially reversible	Partially replaceable	Medium Negative	Medium negative – the impact will have moderate negative effects and

									will require moderate mitigation
construction	Spread of Alien Invasive species and affect on indigenous vegetation and SCC habitat.	Limited to the site	Long term	High	Probable	Partially reversible	Partially replaceable	High Negative	High Negative
construction	Indigenous vegetation and SCC positively affected by destruction of alien invasive plants (AIP) during vegetation clearing.	Limited to the site	Permanent	Low	Highly probable – definite	Partially reversible	Partially replaceable	Low Positive	Low positive – the impact will have minor positive effects
construction	Plant poaching	Limited to the site	Short-term	Medium	Probable	Partially reversible	Partially replaceable	Medium Negative	Medium negative – the impact will have moderate negative effects and will require moderate mitigation
construction	Disturbance to wildlife	Limited to the site	Medium term	Low / Medium	Highly probable – definite	Partly reversible	Marginal – significant loss	Low / Medium	Low negative – where it would have negligible effects and would require little or no mitigation / Medium negative – the impact will have moderate negative effects and will require

									moderate mitigation
construction	Disturbance to vegetation and soils in the riparian buffer area - Loss of stabilising vegetation and increased erosion risk	Limited to the site and immediate surroundings	Medium-term (10-15 years)	Medium	Likely	Partly reversible -	Marginal loss	Low negative	Low negative- where it would have negligible effects and would require little or no mitigation
construction	Pollution /contamination of the surrounding environment due to incorrect storage of waste materials	Limited to the site	Short term	Low	Probable	Completely reversible	No loss of resources	Low	Low negative- where it would have negligible effects and would require little or no mitigation
construction	Pollution /contamination of the surrounding environment due to incorrect storage of sewage/portable toilets	Limited to the site and immediate surroundings	Short term	Low - Medium	Unlikely	Partly reversible	Marginal loss	Low - Medium	Low negative- where it would have negligible effects and would require little or no mitigation / Medium negative - the impact will have moderate negative effects and will require moderate mitigation

construction	Inappropriate disposal of waste causing pollution by workers on site.	Limited to the site	Short term	Low	Probable	Completely reversible	No loss of resources	Low	Low negative—where it would have negligible effects and would require little or no mitigation
construction	Noise pollution	Limited to the site and immediate surroundings	Short term	Low - Medium	Definite	Irreversible for the duration of the construction phase	No loss of resources	Low - Medium	Low negative—where it would have negligible effects and would require little or no mitigation
construction	Stormwater management	Limited to the site and immediate surroundings	Short term	High	Likely	Partly reversible	No loss of resources	Low negative	Low negative—where it would have negligible effects and would require little or no mitigation
construction	Increased dust levels	Limited to the site	Short term	Low	Definite	Completely reversible	No loss of resources	Low – Medium	Low negative—where it would have negligible effects and would require little or no mitigation
construction	Visual Impact / Sense of place	Limited to the site and immediate surroundings	Short term	Low - Medium	Definite	Irreversible for the duration of the construction phase	No loss of resources	Low – Medium	Low negative—where it would have negligible effects and would require little or no mitigation

construction	Empowerment of the local community members living in the area relating to temporary employment opportunities	Local	Short term	Low	Definite	n/a	n/a	Low – Medium	Low positive – the impact will have minor positive effects / Medium positive – the impact will have moderate positive effects
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PHASE	NATURE OF IMPACT	EXTENT	DURATION	INTENSITY	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS OF RESOURCES	CUMULATIVE EFFECT	SIGNIFICANCE
operational	Indigenous vegetation and SCC habitat affected by increased pedestrian traffic around the site (trampling damage to plants and subsequent increased soil erosion).	Limited to the site	Long term	Low	Probable	Partially reversible	Partially replaceable	Low negative	Low negative – where it would have negligible effects and would require little or no mitigation
operational	Indigenous vegetation and SCC habitat disturbed during infrastructure maintenance.	Limited to the site	Long term	Low	Highly probable	Partially reversible	Partially replaceable	Medium negative	Medium negative – the impact will have moderate negative effects and will require moderate mitigation
operational	Loss of indigenous species and species diversity including protected/threatened species due to landscaped gardens	Limited to the site	Long term	Low	Unlikely	Partially reversible	Partially replaceable	Medium negative	Medium negative – the impact will have moderate negative effects and will

									require moderate mitigation
operational	Visual pollution / Sense of place	Limited to the immediate surroundings	Long term	Low	Improbable	Irreversible	n/a	Low	Low negative—where it would have negligible effects and would require little or no mitigation
operational	Perimeter fencing - Fencing along the Erf boundary in the buffer will cause disturbance of vegetation and fragment habitat	Limited to the immediate surroundings	On-going	Medium	Highly probable	Partially reversible	No loss of resources / marginal loss of resources	Low	Low negative—where it would have negligible effects and would require little or no mitigation
operational	Stormwater management - Concentrated high velocity flows from downpipes and paved areas can cause erosion of the slope.	Limited to the site	Long term	Low	Highly probable	Completely reversible	No loss of resources / marginal loss of resources	Low	Low negative—where it would have negligible effects and would require little or no mitigation
operational	Empowerment of the local community members living in the area relating to permanent employment opportunities	Local	Long term	Low	Definite	n/a	n/a	Low	Low positive – the impact will have minor positive effects

The following impacts are likely to occur during the construction and operational phases. Decommissioning is not anticipated.

Construction Phase

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
Construction Phase	Direct Impacts		
	Site clearing	Medium - High	<ul style="list-style-type: none"> - Clearing of vegetation in areas with Very High or High SEI must be avoided. - Limit vegetation clearing to areas within the approved development footprint. - Disturbance to intact vegetation must be restricted by demarcating those areas that will be cleared during construction, including lay-down and stockpile areas. - Lay-down areas should be contained within the planned clearance areas or existing lawns and should not be placed in the surrounding intact vegetation. - All construction personnel active on site must be notified of the importance of avoiding disturbance to intact vegetation outside of demarcated clearance areas. - Permits for the destruction of protected plant species must be obtained from the relevant authorities.
	Disturbance to vegetation and soils in the riparian buffer area	Low	<ul style="list-style-type: none"> - Before any construction commences at the site, the 15 m riparian buffer zone must be delineated using temporary fencing and indicated to all staff on site as a No-Go area for equipment, materials, vehicles or personnel. - As far as possible, all work along the edge of the buffer zone must be done by hand, with no heavy machinery permitted to work in the vicinity of the buffer. - Material and fuel stockpile and laydown areas must be located to the western portion of the erf, placed on impermeable material (geotextile or plastic) and bunded with sandbags to prevent loss during rainfall.

			<ul style="list-style-type: none"> - Absolutely no building materials, excess soil, rocks or litter can be thrown or discarded down the slope. All waste materials must be disposed of at a suitable location such as a registered landfill site. - No indigenous vegetation must be cut, trimmed, removed or damaged within the riparian buffer zone due to the valuable stabilising service provided.
Spread of Alien Invasive species	Negligible		<ul style="list-style-type: none"> - An AIP management plan must be developed for the site and implemented during the Construction and Operational phases of the project. This plan should aim to eradicate and control the spread of AIPs within the portions of the site that are not proposed for development. - Any AIP material removed during clearing of the development footprints must be removed from the site and destroyed so that reestablishment on site is avoided. - Follow-up clearing for AIPs within the intact vegetation should take place on a yearly basis. - Only vegetation indigenous to the area may be used for rehabilitation.
Disturbance to wildlife	Low - Medium		<ul style="list-style-type: none"> - The development site must be barricaded with shade cloth. - If any animals are encountered on site they should be relocated to undisturbed areas. - No animals may be caught, trapped, killed, injured or hunted
Incorrect disposal / storage of waste materials	Low		<ul style="list-style-type: none"> - Provide designated sites for rest periods, rubbish disposal, and ablutions. - Adequate toilet facilities must be provided. - All workers on site must be briefed that the riparian buffer zone is a No-Go area to prevent trampling of vegetation and wearing of paths which could increase alien plant encroachment and erosion risk. - Adequate refuse bins and skips must be provided and emptied weekly. - Demarcate areas for different waste groups

			<ul style="list-style-type: none"> - Hazardous waste must be sealed within closed containers, protected from the natural elements and correctly disposed of at a registered hazardous waste disposal site. - All hazardous chemicals stored on-site must have relevant MSDs.
Incorrect storage of sewage	Low - Medium		<ul style="list-style-type: none"> - Temporary toilets must be provided at a ratio of 1:15. - All temporary toilets must be serviced on a weekly basis by a professional sewage disposal company. - The servicing of the toilets must be monitored so as to ensure that sewage does not spill out of the temporary chemical toilets.
			-
Noise pollution	Low - Medium		<ul style="list-style-type: none"> - Construction activities must only take place during normal working times between 08:00-17:00 on weekdays.
The use of alternative technology for household requirements.	Low - Medium		<ul style="list-style-type: none"> - No mitigation required.
Indirect Impacts:			
Stormwater management	Low		<ul style="list-style-type: none"> - Before construction begins on site, embed a line of hay bales along the length of the construction side of the buffer zone. A shallow ditch of approximately 10cm deep must be dug along the buffer zone, and the bales placed into this. Bales must be staked into the ground with wooden stakes. It is very important that the bales are jammed tightly together to prevent gaps where water can flow between bales. Stakes can be hammered in at an angle towards adjacent bales to improve the contact between bales. The aim is to prevent sediment-laden surface runoff from flowing down the slope into the riparian zone in case of rain during construction on site. - Disturbance to intact vegetation must be restricted by demarcating those areas that will be cleared during construction, including lay-down and stockpile

			<p>areas, personnel rest areas and site offices.</p> <ul style="list-style-type: none"> - Wind erosion should be limited by using mesh netting set up around any cleared footprints as soon as clearing has taken place - To prevent stormwater damage, the increase in stormwater runoff resulting from construction activities must be estimated and the drainage system assessed accordingly. - No overburden or rubble should be allowed to spill downslope into the perennial stream or its banks – this can be achieved by setting up netting at the top of the slope.
	Pollution of water resources and soil	Low - Medium	<ul style="list-style-type: none"> - Do not hose spills into the natural environment - Hazardous waste must not be emptied into the sea or onto the soil. - Waste must be stored in closed containers and transported to the nearest registered landfill site regularly.
	Visual Pollution	Low - Medium	<ul style="list-style-type: none"> - Due to the proposed dwelling being surrounded by already existing dwellings, there is little to be done to mitigate against visual pollution; however, shade cloth can be used to create a site boundary. - The site must remain neat and tidy at all times.
	Perimeter fence	Low	<ul style="list-style-type: none"> - Fencing is not considered necessary along the erf boundary adjacent to the stream. The site is steep, with difficult access, meaning that workers will cause significant disturbance when installing the fence. The fence will also restrict the movement of animals along the watercourse, such as the otter. Accessibility to the erf from this perspective is difficult and highly unlikely if the riparian vegetation is maintained in its current dense state. - Fencing (if necessary, e.g. to enclose pets) along the edge of the riparian buffer zone would be supported as this would ensure reduced disturbance to this area.

	Scavenging by animals	Low	<ul style="list-style-type: none"> - Adequate refuse bins and skips must be provided and emptied weekly or more frequently if required. - All refuse bins are to be covered at all times.
	Increased dust levels	Low – Medium	<ul style="list-style-type: none"> - If necessary, the use of rain water may be used for site watering.
	Fire management	Low	<ul style="list-style-type: none"> - No open fires must be allowed on site.
	Poaching	Medium	<ul style="list-style-type: none"> - Construction workers must be notified of the prohibition of poaching plants and a fine system implemented. - This must also be included in the site induction for personnel.
Cumulative impacts:			
	Loss of indigenous species and species diversity including protected/threatened species	Low - Medium	<ul style="list-style-type: none"> - Limit and minimise the removal of unnecessary vegetation. Only areas where development will be taking place must be cleared. - No formal gardening in areas not to be developed. - The approved development footprint should be clearly demarcated prior to any construction personnel, machinery or vehicles entering the site, and no clearing should be permitted outside of this area. - Lay-down and stockpile areas should be contained within the planned clearance area and should not be placed in the surrounding intact vegetation. - All construction personnel active on site must be notified of the importance of avoiding disturbance to intact vegetation outside of demarcated clearance areas.
	Ecological Connectivity	Medium	<ul style="list-style-type: none"> - Clearing of vegetation must be restricted to approved development footprints. - Existing major roads should be used as transport corridors to and from the site. - The construction of the dwelling on stilts will further serve to mitigate this impact.
	Pollution /contamination of the surrounding environment due to incorrect storage of waste materials	Low	<ul style="list-style-type: none"> - Adequate refuse bins and skips must be provided and emptied weekly. - Hazardous waste must be sealed within closed containers, protected from the natural

			elements and correctly disposed of at a registered hazardous waste disposal site.
	Pollution /contamination of the surrounding environment due to incorrect storage of sewage	Low - Medium	<ul style="list-style-type: none"> - All temporary toilets must be serviced on a weekly basis by a professional sewage disposal company. - The servicing of the toilets must be monitored so as to ensure that sewage does not spill out of the temporary chemical toilets.
	Reduced water and electricity reliance on municipal infrastructure – energy saving – sustainable development	Low - Medium	<ul style="list-style-type: none"> - No mitigation required.
	Empowerment of the local community members living in the area relating to temporary employment opportunities	Low	<ul style="list-style-type: none"> - Use existing social structures and communication channels to ensure social representation.
Alternative 2			
Construction Phase			
Direct Impacts			
Construction Phase	Site clearing	Medium - High	<ul style="list-style-type: none"> - Clearing of vegetation in areas with Very High or High SEI must be avoided. - Limit vegetation clearing to areas within the approved development footprint. - Disturbance to intact vegetation must be restricted by demarcating those areas that will be cleared during construction, including lay-down and stockpile areas. - Lay-down areas should be contained within the planned clearance areas or existing lawns and should not be placed in the surrounding intact vegetation. - All construction personnel active on site must be notified of the importance of avoiding disturbance to intact vegetation outside of demarcated clearance areas. - Permits for the destruction of protected plant species must be obtained from the relevant authorities.
	Disturbance to vegetation and soils in the riparian buffer area	Low	<ul style="list-style-type: none"> - Before any construction commences at the site, the 15 m riparian buffer zone must be

			<p>delineated using temporary fencing and indicated to all staff on site as a No-Go area for equipment, materials, vehicles or personnel.</p> <ul style="list-style-type: none"> - As far as possible, all work along the edge of the buffer zone must be done by hand, with no heavy machinery permitted to work in the vicinity of the buffer. - Material and fuel stockpile and laydown areas must be located to the western portion of the erf, placed on impermeable material (geotextile or plastic) and banded with sandbags to prevent loss during rainfall. - Absolutely no building materials, excess soil, rocks or litter can be thrown or discarded down the slope. All waste materials must be disposed of at a suitable location such as a registered landfill site. - No indigenous vegetation must be cut, trimmed, removed or damaged within the riparian buffer zone due to the valuable stabilising service provided.
	Spread of Alien Invasive species	Negligible	<ul style="list-style-type: none"> - An AIP management plan must be developed for the site and implemented during the Construction and Operational phases of the project. This plan should aim to eradicate and control the spread of AIPs within the portions of the site that are not proposed for development. - Any AIP material removed during clearing of the development footprints must be removed from the site and destroyed so that reestablishment on site is avoided. - Follow-up clearing for AIPs within the intact vegetation should take place on a yearly basis. - Only vegetation indigenous to the area may be used for rehabilitation.
	Disturbance to wildlife	Low - Medium	<ul style="list-style-type: none"> - The development site must be barricaded with shade cloth. - If any animals are encountered on site they should be relocated to undisturbed areas. - No animals may be caught, trapped, killed, injured or hunted

Incorrect disposal / storage of waste materials	Low	<ul style="list-style-type: none"> - Provide designated sites for rest periods, rubbish disposal, and ablutions. - Adequate toilet facilities must be provided. - All workers on site must be briefed that the riparian buffer zone is a No-Go area to prevent trampling of vegetation and wearing of paths which could increase alien plant encroachment and erosion risk. - Adequate refuse bins and skips must be provided and emptied weekly. - Demarcate areas for different waste groups - Hazardous waste must be sealed within closed containers, protected from the natural elements and correctly disposed of at a registered hazardous waste disposal site. - All hazardous chemicals stored on-site must have relevant MSDs.
Incorrect storage of sewage	Low - Medium	<ul style="list-style-type: none"> - Temporary toilets must be provided at a ratio of 1:15. - All temporary toilets must be serviced on a weekly basis by a professional sewage disposal company. - The servicing of the toilets must be monitored so as to ensure that sewage does not spill out of the temporary chemical toilets.
Noise pollution	Low - Medium	<ul style="list-style-type: none"> - Construction activities must only take place during normal working times between 08:00-17:00 on weekdays.
Use of municipal infrastructure for household requirements	Low – Medium	<ul style="list-style-type: none"> - It is recommended that energy saving options forming part of alternative 1 are followed.
Indirect Impacts:		
Stormwater management	Low	<ul style="list-style-type: none"> - Before construction begins on site, embed a line of hay bales along the length of the construction side of the buffer zone. A shallow ditch of approximately 10cm deep must be dug along the buffer zone, and the bales placed into this. Bales must be staked into the ground with wooden stakes. It is very important that the bales are

			<p>jammed tightly together to prevent gaps where water can flow between bales. Stakes can be hammered in at an angle towards adjacent bales to improve the contact between bales. The aim is to prevent sediment-laden surface runoff from flowing down the slope into the riparian zone in case of rain during construction on site.</p> <ul style="list-style-type: none"> - Disturbance to intact vegetation must be restricted by demarcating those areas that will be cleared during construction, including lay-down and stockpile areas, personnel rest areas and site offices. - Wind erosion should be limited by using mesh netting set up around any cleared footprints as soon as clearing has taken place - To prevent stormwater damage, the increase in stormwater runoff resulting from construction activities must be estimated and the drainage system assessed accordingly. - No overburden or rubble should be allowed to spill downslope into the perennial stream or its banks – this can be achieved by setting up netting at the top of the slope.
	Pollution of water resources and soil	Low - Medium	<ul style="list-style-type: none"> - Do not hose spills into the natural environment - Hazardous waste must not be emptied into the sea or onto the soil. - Waste must be stored in closed containers and transported to the nearest registered landfill site regularly.
	Visual Pollution	Low - Medium	<ul style="list-style-type: none"> - Due to the proposed dwelling being surrounded by already existing dwellings, there is little to be done to mitigate against visual pollution; however, shade cloth can be used to create a site boundary. - The site must remain neat and tidy at all times.
	Perimeter fence	Low	<ul style="list-style-type: none"> - Fencing is not considered necessary along the erf boundary adjacent to the stream. The site is steep, with

			<p>difficult access, meaning that workers will cause significant disturbance when installing the fence. The fence will also restrict the movement of animals along the watercourse, such as the otter. Accessibility to the erf from this perspective is difficult and highly unlikely if the riparian vegetation is maintained in its current dense state.</p> <ul style="list-style-type: none"> - Fencing (if necessary, e.g. to enclose pets) along the edge of the riparian buffer zone would be supported as this would ensure reduced disturbance to this area.
	Scavenging by animals	Low	<ul style="list-style-type: none"> - Adequate refuse bins and skips must be provided and emptied weekly or more frequently if required. - All refuse bins are to be covered at all times.
	Increased dust levels	Low – Medium	<ul style="list-style-type: none"> - If necessary, the use of rain water may be used for site watering.
	Fire management	Low	<ul style="list-style-type: none"> - No open fires must be allowed on site.
	Poaching	Medium	<ul style="list-style-type: none"> - Construction workers must be notified of the prohibition of poaching plants and a fine system implemented. - This must also be included in the site induction for personnel.
Cumulative impacts:			
	Loss of indigenous species and species diversity including protected/threatened species	Medium - High	<ul style="list-style-type: none"> - Limit and minimise the removal of unnecessary vegetation. Only areas where development will be taking place must be cleared. - No formal gardening in areas not to be developed. - The approved development footprint should be clearly demarcated prior to any construction personnel, machinery or vehicles entering the site, and no clearing should be permitted outside of this area. - Lay-down and stockpile areas should be contained within the planned clearance area and should not be placed in the surrounding intact vegetation. - All construction personnel active on site must be notified of the importance of avoiding disturbance to intact vegetation

			outside of demarcated clearance areas.
	Ecological Connectivity	Medium	<ul style="list-style-type: none"> - Clearing of vegetation must be restricted to approved development footprints. - Existing major roads should be used as transport corridors to and from the site. - The construction of the dwelling on stilts will further serve to mitigate this impact.
	Pollution /contamination of the surrounding environment due to incorrect storage of waste materials	Low	<ul style="list-style-type: none"> - Adequate refuse bins and skips must be provided and emptied weekly. - Hazardous waste must be sealed within closed containers, protected from the natural elements and correctly disposed of at a registered hazardous waste disposal site.
	Pollution /contamination of the surrounding environment due to incorrect storage of sewage	Low - Medium	<ul style="list-style-type: none"> - All temporary toilets must be serviced on a weekly basis by a professional sewage disposal company. - The servicing of the toilets must be monitored so as to ensure that sewage does not spill out of the temporary chemical toilets.
	Empowerment of the local community members living in the area relating to temporary employment opportunities	Low	<ul style="list-style-type: none"> - Use existing social structures and communication channels to ensure social representation.

Operational Phase

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
Operational Phase	Direct Impacts		
	Formal gardens	Medium	<ul style="list-style-type: none"> - Only vegetation indigenous to the area may be used for rehabilitation. - No manicured gardens must be created.
	Spread of Alien Invasive Plants	Low	<ul style="list-style-type: none"> - Management of AIPs must form part of continuous maintenance of the property.
	Disturbance to fauna	Low	<ul style="list-style-type: none"> - If any animals are encountered on the property they should not be disturbed if unnecessary. If it becomes necessary, animals must be relocated to undisturbed areas.

			<ul style="list-style-type: none"> - No animals may be caught, trapped, killed, injured or hunted.
	Pollution /contamination of the surrounding environment due to incorrect storage of waste materials	Low	<ul style="list-style-type: none"> - Refuse bins must be emptied weekly. The contents must be taken to the nearest Landfill site or recycling centre. - Waste bins must be secured and kept closed at all times.
	Light pollution	Medium - High	<ul style="list-style-type: none"> - Only downlights are permitted to be used on the outside of the house. - Municipal by-laws need to be adhered to.
	Infrastructure maintenance	Low	<ul style="list-style-type: none"> - Any activity associated with maintenance should take place in areas where vegetation has already been cleared and must not encroach on intact vegetation. - Mowing/brushcutting of vegetation along roads/fire breaks should be minimal. Mowed strips must not exceed 2 m (average height of vegetation).
	Empowerment of the local community members living in the area relating to permanent employment opportunities	Low	<ul style="list-style-type: none"> - Use existing social structures and communication channels to ensure social representation.
Indirect Impacts:			
	Stormwater management - Concentrated high velocity flows from downpipes and paved areas causing erosion of the slope	Low	<ul style="list-style-type: none"> - Install at least one 10000L rainwater collection tank to collect rainwater from the roof. Ensure this water is used regularly for watering or preferably integrated into the residence plumbing (e.g. for toilet flushing or showering. This creates capacity in the tank when it rains. If it is constantly full it doesn't help for reducing runoff from the property. - Install permeable paving (e.g. grass blocks) in parking areas / driveways as this encourages water infiltration instead of surface runoff. - Revegetate all bare areas of soil post-construction with indigenous vegetation found at the site. Try to minimise areas of mowed lawn as this has very poor surface runoff interception qualities.

			<ul style="list-style-type: none"> - Maintain vegetation in the riparian buffer zone in a completely natural state with no trimming, or removal. It is preferable to install a basic fence to delineate the buffer zone so this can be indicated to gardeners as a zone of zero disturbance. No garden waste is to be disposed of in the riparian buffer zone. - Try to create rain gardens at the location of any downpipes in order to soak away the rain and recharge groundwater, instead of encouraging surface runoff. - All stormwater drainage measures must be correctly installed and maintained. - Formal gardens must be limited to developed areas only.
	Contamination of soil and groundwater due to not maintaining the conservancy tank	Low	<ul style="list-style-type: none"> - The conservancy tank must be emptied regularly by either the municipality or a private sewage management company. - The conservancy tank must be inspected regularly for any maintenance issues.
	Pedestrian traffic	Low	<ul style="list-style-type: none"> - Residents must use existing paths to walk through intact vegetation.
	Exotic plants and landscaping	Medium	<ul style="list-style-type: none"> - Extensive lawns should be avoided, but where these are necessary, only grass species indigenous to the region (e.g., buffalo grass, <i>Stenotaphrum secundatum</i>, or quick grass, <i>Cynodon dactylon</i>) should be used; no invasive grass species (e.g., kikuyu, <i>Pennisetum clandestinum</i>) should be permitted. - Residents must be notified of the risks involved with introducing exotic plant species into a landscape and encouraged to use only plant species indigenous to the region during landscaping activities. Ideally, these plants should be locally sourced to avoid dilution of genetic diversity in wild populations.

			<ul style="list-style-type: none"> - Planting of bird-dispersed exotic plant species must be avoided. - Dumping of garden refuse into intact vegetation adjacent to the residential unit is not permitted, and residents must be notified of this
Cumulative impacts:			
	Destruction to neighbouring properties if stormwater is not managed.	Low	<ul style="list-style-type: none"> - Stormwater drains must be regularly monitored and maintained to prevent blockages.
	Loss of species habitat and ecological passage for movement of fauna	Low	<ul style="list-style-type: none"> - The northern boundary vegetation should be kept as is and not made into manicured gardens.
Alternative 2			
Operational Phase	Direct Impacts		
	Formal gardens	Medium	<ul style="list-style-type: none"> - Only vegetation indigenous to the area may be used for rehabilitation. - No manicured gardens must be created.
	Spread of Alien Invasive Plants	Low	<ul style="list-style-type: none"> - Management of AIPs must form part of continuous maintenance of the property.
	Disturbance to fauna	Low	<ul style="list-style-type: none"> - If any animals are encountered on the property they should not be disturbed if unnecessary. If it becomes necessary, animals must be relocated to undisturbed areas. - No animals may be caught, trapped, killed, injured or hunted.
	Pollution /contamination of the surrounding environment due to incorrect storage of waste materials	Low	<ul style="list-style-type: none"> - Refuse bins must be emptied weekly. The contents must be taken to the nearest Landfill site or recycling centre. - Waste bins must be secured and kept closed at all times.
	Light pollution	Medium - High	<ul style="list-style-type: none"> - Only downlights are permitted to be used on the outside of the house. - Municipal by-laws need to be adhered to.
	Fully reliant on Eskom for power supply	Low	<ul style="list-style-type: none"> - The use of alternative energy should be implemented in order to avoid adding to the strained power grid.
	Empowerment of the local community members living in the area relating to temporary employment opportunities	Low	<ul style="list-style-type: none"> - Use existing social structures and communication channels to ensure social representation.
	Indirect Impacts:		

	<p>Stormwater management - Concentrated high velocity flows from downpipes and paved areas causing erosion of the slope</p>	<p>Low</p>	<ul style="list-style-type: none"> - Install at least one 10000L rainwater collection tank to collect rainwater from the roof. Ensure this water is used regularly for watering or preferably integrated into the residence plumbing (e.g. for toilet flushing or showering. This creates capacity in the tank when it rains. If it is constantly full it doesn't help for reducing runoff from the property. - Install permeable paving (e.g. grass blocks) in parking areas / driveways as this encourages water infiltration instead of surface runoff. - Revegetate all bare areas of soil post-construction with indigenous vegetation found at the site. Try to minimise areas of mowed lawn as this has very poor surface runoff interception qualities. - Maintain vegetation in the riparian buffer zone in a completely natural state with no trimming, or removal. It is preferable to install a basic fence to delineate the buffer zone so this can be indicated to gardeners as a zone of zero disturbance. No garden waste is to be disposed of in the riparian buffer zone. - Try to create rain gardens at the location of any downpipes in order to soak away the rain and recharge groundwater, instead of encouraging surface runoff. - All stormwater drainage measures must be correctly installed and maintained. - Formal gardens must be limited to developed areas only.
	<p>Contamination of soil and groundwater due to not maintaining the conservancy tank</p>	<p>Low</p>	<ul style="list-style-type: none"> - The conservancy tank must be emptied regularly by either the municipality or a private sewage management company. - The conservancy tank must be inspected regularly for any maintenance issues.

	Pedestrian traffic	Low	- Residents must use existing paths to walk through intact vegetation.
	Exotic plants and landscaping	Medium	<ul style="list-style-type: none"> - Extensive lawns should be avoided, but where these are necessary, only grass species indigenous to the region (e.g., buffalo grass, <i>Stenotaphrum secundatum</i>, or quick grass, <i>Cynodon dactylon</i>) should be used; no invasive grass species (e.g., kikuyu, <i>Pennisetum clandestinum</i>) should be permitted. - Residents must be notified of the risks involved with introducing exotic plant species into a landscape and encouraged to use only plant species indigenous to the region during landscaping activities. Ideally, these plants should be locally sourced to avoid dilution of genetic diversity in wild populations. - Planting of bird-dispersed exotic plant species must be avoided. - Dumping of garden refuse into intact vegetation adjacent to the residential unit is not permitted, and residents must be notified of this
	Fully reliant on Eskom for power supply	Low	- The use of alternative energy should be implemented in order to avoid adding to the strained power grid.
Cumulative impacts:			
	Destruction to neighbouring properties if stormwater is not managed.	Low	- Stormwater drains must be regularly monitored and maintained to prevent blockages.
	Loss of species habitat and ecological passage for movement of fauna	Low	- The northern boundary vegetation should be kept as is and not made into manicured gardens.

Activity	Impact summary	Significance	Proposed mitigation
No-go option The property remains as is and no construction occurs.			
Direct impacts:			
	The property remains undeveloped	Medium positive	- No mitigation is proposed.
	Continued invasion of indigenous vegetation by alien invasive plants.	Low negative	- No mitigation is proposed.
Indirect impacts:			

	No vegetation is disturbed	Medium positive	- No mitigation is proposed.
	Cumulative impacts:		
	The property remains an ecological habitat and corridor for wildlife	Medium positive	- No mitigation is proposed.

3. CLIMATE CHANGE ASSESSMENT

Climate change issues must be considered as part of the EIA process Please consider the Climate Change guideline. EAP must determine:

- a) The potential impact of climate change on society and the economy, whether the impact is negative or positive, considering that society needs to be at the centre of the proposed development;

The construction of a single residential dwelling will not have a significant impact on climate change with regard to society and the economy. Environmentally sustainable technology will be incorporated into the proposed development which will ensure that the activity will not add much to the already strained sectors of water supply and electricity supply. It is envisioned that the basic needs required to run the household will all make use of 'green' technology in the near future.

- b) The potential alternatives of the proposed development, alternatives that will have less impact on climate change (environment and generation of waste included), the society and economy;

The dwelling will make use of solar panel generated energy and will make use of rainwater tanks. Power saving technology such as LED lighting will be used.

- c) whether, and to what extent, the proposed development will result in the release of greenhouse gas (GHG) emissions;

The household is not envisaged to produce greenhouse gases.

- d) whether the proposed development is necessary to achieve long term decarbonisation goals;

N/A.

- e) the impact of the development on social, economic, natural and built environment that are crucial for climate change, adaptation and resilience;

The construction of a single residential dwelling will not have a significant impact on the social, economic, natural and built environment.

- f) the projected impact of climate change on proposed development; and surrounding environment, and implications for the development.

Climate change is not expected to impact the development as it is not within flood lines, coastal erosion areas or high risk fire area.

- g) Explanation of how the impacts is likely to be exacerbated or minimised as result of climate change and what measures are likely to be implemented to accommodate and manage (adapt to) the anticipated worst scenario where applicable.

Pressure on municipal water supply is likely to be impacted with climate change, as an indirect impact on the development. However there are no significant impacts as a result of climate change that are anticipated for this development.

h) whether, and to what extent, the impacts identified in (a) -(g) can be mitigated.

The use of alternative energy in the household such as solar power, and the use of energy efficient technologies (LED lighting) will help to mitigate the use of municipal supplied electricity. Rainwater harvesting and water saving technologies installed in the household will reduce pressure on municipal supplied water.

4. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred alternative)

Vulnerability to coastal dynamic- The coastal location of the proposed development indicates that it is inherently exposed to risks associated with natural and dynamic coastal processes. These risks provide significant impacts to the sustainability of any development within coastal areas. However, with investigation of historical Google Earth imagery of the area, it can be seen that there has not been any change to the landscape seawards within the last 10 years; therefore, this impact is of low concern.

Loss of indigenous vegetation – due to the construction of a dwelling, there is approximately 43% indigenous vegetation loss envisaged. Transformation of relatively intact coastal thicket vegetation (Medium SEI). In order to decrease the impacts of this loss of vegetation, no formal gardens should form part of this development. The dwelling will be constructed on stilts and will therefore allow for some vegetation to re-establish beneath the structure once construction is completed.

Damage to vegetation and disturbance of soils in the riparian buffer area - Protection of this area is considered absolutely vital given the steep slope on which it occurs, and therefore the very first step prior to commencing with construction is to delineate it using temporary fencing and indicate this as a No-Go area to all workers on site. The impact is considered a Minor Negative if not mitigated, but if all measures are implemented will be a Moderate Positive impact.

Ponding of stormwater - due to the construction of a dwelling on the property, stormwater infiltration will be highly decreased. A specialist must design an adequate stormwater system in order to alleviate ponding of stormwater. The driveway for the development must not be tarred as this will increase the possibility for accelerated runoff.

Stormwater management during the construction phase - Clearing of vegetation which currently stabilised the slope within the footprint of the residence will render soil susceptible to erosion during heavy rainfall. Without the interception of vegetation, higher volumes of surface runoff will occur from the site. To protect the riparian buffer zone from erosion risk and the stream below from sedimentation, a line of hay bales along the buffer zone is recommended for the full duration of the construction phase until bare soil has been revegetated and stabilised on the site.

Pollution- Solid waste will be produced during the construction and operational phases of the proposed development. This may include, inter alia, concrete rubble and bricks, material off-cuts and other surplus construction, and litter. The solid waste produced during the project has the potential to enter into the ocean and impact marine life. Therefore, adequate waste bins must be provided, especially during the construction phase. Waste from the site must be disposed of on a

weekly basis or more frequently if required. All litter bins must be covered to prevent loose litter being carried off the site.

Liquid waste that may result from accidental spillage of oils, cement-laden water, curing compounds, sealants, paints and other chemicals, temporary sanitation infrastructure, leaks from sewerage systems, and stormwater systems has the potential to be transported as contaminated run-off into the soil and groundwater systems. All hazardous chemicals or wastewater must be stored within closed and covered containers. All hazardous waste must be disposed of on a weekly basis. No spillage may take place. All hazardous spills must be reported to the designated ECO and to the Department of Economic Development, Environmental Affairs and Tourism / DEDEAT immediately.

The use of pesticides on the site is strictly prohibited. Endemic coastal vegetation is to be used as part of the landscaping scheme as these are adapted to local conditions and would not require chemical maintenance.

Alternative Technology – This alternative will make use of rainwater harvesting and solar panels. The use of alternative sources to supply the property with basic services will result in minimum additional strain being placed on the municipality and inevitably natural resources – making this a sustainable development.

Alternative B (alternative)

Vulnerability to coastal dynamic- The coastal location of the proposed development indicates that it is inherently exposed to risks associated with natural and dynamic coastal processes. These risks provide significant impacts to the sustainability of any development within coastal areas. However, with investigation of historical Google Earth imagery of the area, it can be seen that there has not been any change to the landscape seawards within the last 10 years; therefore, this impact is of low concern.

Loss of indigenous vegetation – due to the construction of a dwelling, there is approximately 31% indigenous vegetation loss envisaged. Transformation of relatively intact coastal thicket vegetation (Medium SEI) and habitat of one plant of SCC (High SEI). In order to decrease the impacts of this loss of vegetation, no formal gardens should form part of this development. The dwelling will be constructed on stilts and will therefore allow for some vegetation to re-establish beneath the structure once construction is completed.

Damage to vegetation and disturbance of soils in the riparian buffer area - Protection of this area is considered absolutely vital given the steep slope on which it occurs, and therefore the very first step prior to commencing with construction is to delineate it using temporary fencing and indicate this as a No-Go area to all workers on site. The impact is considered a Minor Negative if not mitigated, but if all measures are implemented will be a Moderate Positive impact.

Ponding of stormwater- due to the construction of a dwelling on the property, stormwater infiltration will be highly decreased. A specialist must design an adequate stormwater system in order to alleviate ponding of stormwater. The driveway for the development must not be tarred as this will increase the possibility for accelerated runoff.

Stormwater management during the construction phase - Clearing of vegetation which currently stabilised the slope within the footprint of the residence will render soil susceptible to erosion during heavy rainfall. Without the interception of vegetation, higher volumes of surface runoff will occur from the site. To protect the riparian buffer zone from erosion risk and the stream below from sedimentation, a line of hay bales along the buffer zone is recommended for the full duration of the construction phase until bare soil has been revegetated and stabilised on the site.

Pollution- Solid waste will be produced during the construction and operational phases of the proposed development. This may include, inter alia, concrete rubble and bricks, material off-cuts

and other surplus construction, and litter. The solid waste produced during the project has the potential to enter into the ocean and impact marine life. Therefore, adequate waste bins must be provided, especially during the construction phase. Waste from the site must be disposed of on a weekly basis or more frequently if required. All litter bins must be covered to prevent loose litter being carried off the site.

Liquid waste that may result from accidental spillage of oils, cement-laden water, curing compounds, sealants, paints and other chemicals, temporary sanitation infrastructure, leaks from sewerage systems, and stormwater systems has the potential to be transported as contaminated run-off into the soil and groundwater systems. All hazardous chemicals or wastewater must be stored within closed and covered containers. All hazardous waste must be disposed of on a weekly basis. No spillage may take place. All hazardous spills must be reported to the designated ECO and to the Department of Economic Development, Environmental Affairs and Tourism / DEDEAT immediately.

The use of pesticides on the site is strictly prohibited. Endemic coastal vegetation is to be used as part of the landscaping scheme as these are adapted to local conditions and would not require chemical maintenance.

Basic services – This alternative does not make use of sustainable options to supply the dwelling with basic services.

No-go alternative (compulsory)

The No-go alternative assumes that the dwelling will not be constructed as proposed, and the status quo will remain in place. This will preserve the ecological value of the property. There will be continued invasion of indigenous vegetation by alien invasive plants. It is to be noted that this is a residential Erf and the Applicant has the legal right to develop on this Erf.

SECTION E. RECOMMENDATIONS OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES✓	NO
YES✓	NO

Is an EMPr attached?

The EMPr must be attached as Appendix F.

If “NO”, indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

N/A

If “YES”, please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

Based on the information provided it is the opinion of Eco Route that no fatal flaws have been identified regarding the proposed construction of the residential dwelling on Erf 8 Konkiebaai. **The recommendations will be fully addressed in the Final Basic Assessment Report.**

The EMPr provides detail of mitigation measures concerning the development and must be strictly adhered to. The below is a summary of key issues that may arise during the construction phase:

1. Prior to vegetation clearance any protected plant species must be safely transplanted to be used in the rehabilitation process.
2. An ECO with knowledge of the local vegetation must be appointed to monitor the site.
3. All areas not included in the development footprint must remain as natural vegetation.
4. The contractor must ensure that all stormwater runoff is correctly anticipated and is sufficiently managed. No stormwater runoff is to impact on the neighbouring properties.
5. Dust must be managed.
6. Construction hours must be strictly applied.
7. All neighbours must be notified prior to construction taking place.
8. The site must be demarcated with shade cloth to reduce visual pollution.
9. Any damage caused to property adjacent to the development must be repaired with costs falling on the developer.
10. The developer must acknowledge and obey the expiry date of the EA.

The Terrestrial Biodiversity and Plant Species Assessment Report (version 1.0) for the development by specialist Dr B. Adriaan Grobler, 25 August 2022, makes the following conclusion:

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. Therefore, it is the terrestrial biodiversity and plant species specialists' opinion 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 recommended that buffer zones be established on site as determined in figure 6 below. A no-go area must be established for the 3m buffer zone of the identified Species of Conservation Concern (SCC) as well as for the forest area (red), although it is not found within property boundary.

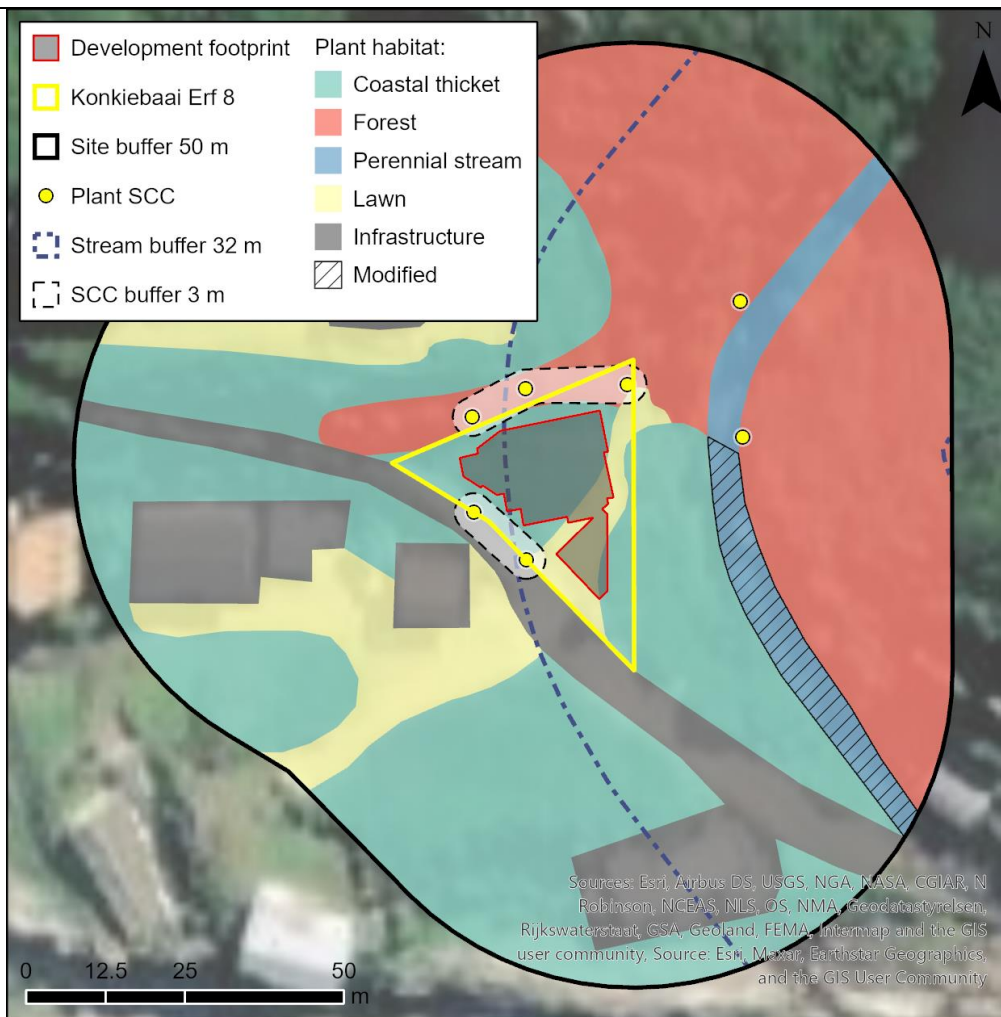


Figure 9: Recommended buffer zones and 'no-go' areas.

The Aquatic Impact Assessment Report for the development by specialist Dr J. Dabrowski, November 2022, makes the following conclusion:

The Ecological Importance and Sensitivity of the stream was determined to be 'High'. The importance was increased by the presence of the Knysna Warbler and various plant species of conservation concern, some of which are present along the stream (See botanical study). The stream forms an important green corridor through an increasingly fragmented landscape due to farming and coastal development. The sensitivity was elevated by the presence of strictly aquatic amphibians such as the Cape River Frog (*Amietia fuscigula*) and the African Clawed Frog (*Xenopus laevis*). These frogs are dependent on permanent water for various stages of their life cycle.

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** (figure 9), 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.

Mitigation measures are required to protect the delineated riparian buffer zone both during the construction and operational phase. These are primarily aimed at protecting the integrity of

vegetation and soil on the steep slope leading to the stream below. The buffer zone forms a vital function as it maintains stability in its current state. This area has been prone to destabilisation before, as evidenced by the presence of a gabion wall along the stream bank. All mitigation measures provided in this report should be fully implemented to ensure preservation of the ecological infrastructure on site.

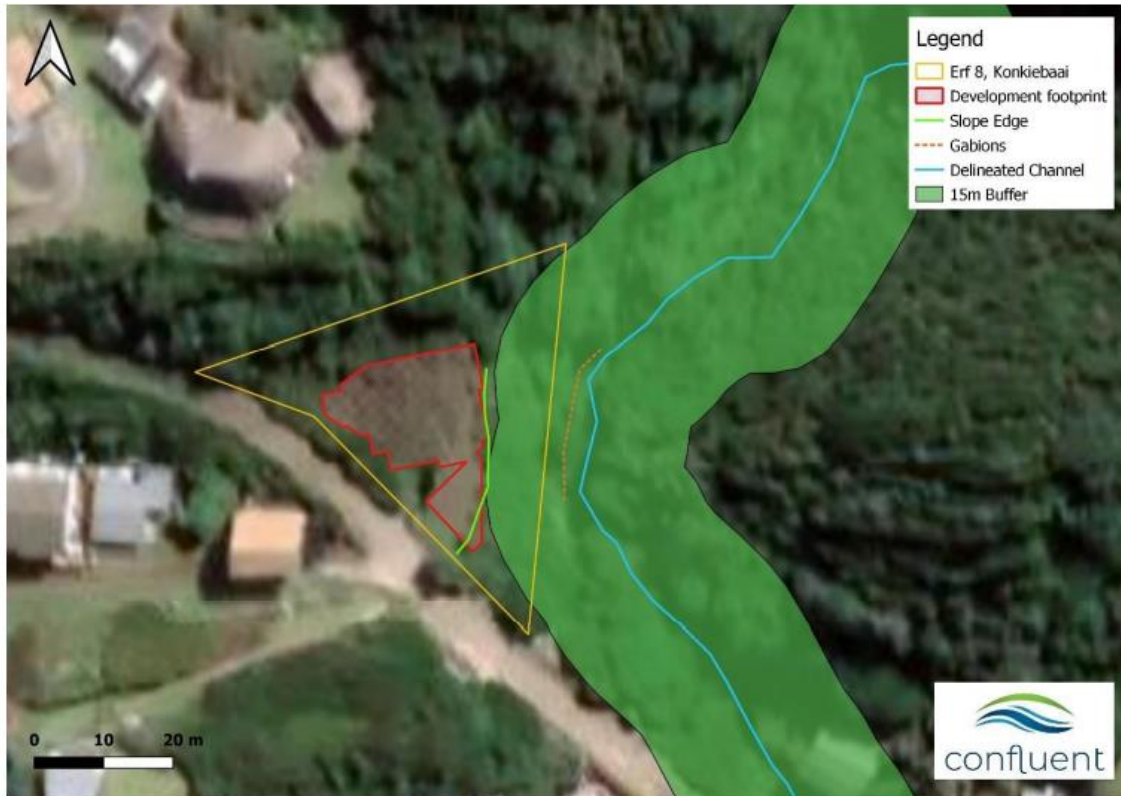


Figure 10: Delineated channel and relevant features affecting development setback line of 15m at Erf 8, Konkiebaai.

SECTION F: APPENDICES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)✓

Appendix A – Site Plan 1: Location of Erf 8 (Portion 53 of Eersterivier 626)

Appendix A – Site Plan 2: SG Diagram

Appendix A – Site Plan 3: Sensitive Environment

Appendix A – Site Plan 4: Contour plan

Appendix A – Site Plan 5: Buffer Zone

Appendix B: Photographs✓

Appendix C: Facility illustrations (Site Plans and Sections)✓

Appendix D: Specialist reports✓

Appendix D1: Specialist reports: Terrestrial Biodiversity and Plant Species Assessment Report (version 1.0) for the Erf 8 Konkiebaai by specialist Dr B. Adriaan Grobler, 25 August 2022.

Appendix D2: Specialist reports: Aquatic Biodiversity Impact Assessment for the proposed construction of a residential dwelling on Erf 8 Konkiebaai (Portion 53 of Eesterivier 626), Kou-Kamma Municipality, Eastern Cape by specialist Dr J. Dabrowski of Confluent Aquatic Consulting & Research, November 2022.

Appendix E: Comments and responses report✓

Appendix F: Environmental Management Programme (EMPr)✓

Appendix G: Other information

Appendix G1: Screening Tool Report

Appendix G2: Site Sensitivity Verification Report

**APPENDIX 14
DECLARATION OF THE APPLICANT**

I, CHRISTO HORAU, declare that I -

- am, or represent¹, the applicant in this application;
- have appointed / will appoint (delete that which is not applicable) an environmental assessment practitioner to act as the independent environmental assessment practitioner for this application / will obtain exemption from the requirement to obtain an environmental assessment practitioner²;
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Regulations, including but not limited to –
 - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
 - costs incurred in respect of the undertaking of any process required in terms of the Regulations;
 - costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
 - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
 - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of the Regulations and will take reasonable steps to verify that the EAP
 - know the Act and the regulations, and how they apply to the proposed development
 - know any applicable guidelines
 - perform the work objectively, even if the findings do not favour the applicant
 - disclose all information which is important to the application and the proposed development
 - have expertise in conducting environmental impact assessments
 - complies with the Regulations
- will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;
- will perform all other obligations as expected from an applicant in terms of the Regulations;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence and punishable in terms of the section 24F of the Act.

¹ If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached.

² If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.



CS

Signature³ of the applicant⁴/ Signature on behalf of the applicant:

PRADO PROPERTIES.

Name of company (if applicable):

23/02/2023.

Date:

[Signature]

Signature of the Commissioner of Oaths:

[Signature]

Date:

Set

Designation:

Official stamp (below)



³ Only original signatures will be accepted. No scanned, copied or faxed signatures will be accepted.

⁴ If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.
An EAP may not sign on behalf of an applicant.

**APPENDIX 15
DECLARATION OF THE EAP**

I, JANET EBERSHO, declare that –

General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 13 of the Regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence and punishable in terms of section 24F of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations;
- I have a vested interest in the proposed activity proceeding, such vested interest being:

~~_____

_____~~
N/A

S. P. P. P. P. P.

Signature of the environmental assessment practitioner:

Eco Route

Name of company:

27/02/2023

Date:

Signature of the Commissioner of Oaths:

2023.02.27

Date:

Constable

Designation:

Official stamp (below)



CV of the EAP

FORM TECH-6
(CONTINUED)

CURRICULUM VITAE (CV)

Position Title and No.	Senior Environmental Assessment Practitioner
Name of Expert:	Janet Ebersohn
Date of Birth:	23/05/1977
EAPASA REG:	2019/1286
Country of Citizenship/Residence	South Africa

Education:

Institution: Tshwane University of Technology and Unisa

Year: 1998

Degree: National Diploma in Food Service Management

Institution: University of South Africa

Year: 2012

Degree: BSc. Hons in Environmental Management

Institution: Stellenbosch University

Year: 2012

Degree: Certificate on Flood Line Determination

Institution: Rhodes University

Year: 2013

Degree: Certificate on Wetland Delineation.

Employment record relevant to the assignment:

Period	Employing organization and your title/position. Contact info for references	Country	Summary of activities performed relevant to the Assignment
1998 - 2008	Various positions in Food Service Management Reference: Voughan Havenga	South Africa	Chef, Food procurement, Menu Development, Client Liaison
2008 -2010	Junior Environmental Assessment Practitioner Reference: Dr C Ebersohn / Peet Joubert	South Africa	Oscaer Permits, DAFF permits, Basic Assessment Reports
2010 -2022	Senior Environmental Assessment Practitioner Reference: Dr C Ebersohn / Danie Smit	South Africa	Social Impact Assessments, Wetland Delineation, Environmental Impact Assessments and Environmental Impact Reports pertaining to: <ul style="list-style-type: none"> • Residential Developments • Industrial Developments • Game Farm Management • Water use license

		<p>applications</p> <ul style="list-style-type: none"> • Waste management license applications • Air quality license applications • Permit applications for developments in identified sensitive areas <p>Environmental Management Programmes & Frameworks pertaining to:</p> <ul style="list-style-type: none"> • Residential Developments • Industrial Developments • Game Farm Management • Water use license applications • Waste management license applications • Air quality license applications • Permit applications for developments in identified sensitive areas <p>Environmental Assessments for the determination of:</p> <ul style="list-style-type: none"> • Coastal set back lines • Erosion set back lines • Flood line determinations • Wetland delineation • Sensitive areas set back lines <p>Integrated Environmental and Conservation Planning with Multi Spectrum Participation:</p> <ul style="list-style-type: none"> • Environmental Management Programmes and training for companies • Environmental Management Programmes and training for NGO's
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Membership in Professional Associations:

Environmental Assessment Practitioners of South Africa

Language Skills:

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

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
{List all deliverables/tasks as in TECH- 5 in which the Expert will be involved}	Ms Janet has completed various Environmental Impact Assessment Applications, Environmental Management Programmes and social impact assessment reports. She has worked on the assessment of goods and services that the wetlands provide, thereby aiding informed planning and decision making.

Expert's contact information: (e-mail : janet@ecoroute.co.za, phone : +27 082 5577122)

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.

