Eco Route
Environmental Consultancy
REGISTRATION NO. 1998/031976/23

46 President Steyn, The Island, Sedgefield
Western Cape, South Africa

Mobile: 082 557 7122
Email: admin@ecoroute.co.za
Website: www.ecoroute.co.za

PRE – APPLICATION ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)

For

PROPOSED DEVELOPMENT OF ASSISTED CAMPING FACILITIES FOR THE LOVEMORE FAMILY - PORTION 104 OF FARM 216, UITZICHT, KNYSNA, WESTERN CAPE

PREPARED FOR:	**Lovemore Children's Secondary Trust**
PREPARED BY:	Eco Route Environmental Practitioners Joclyn Marshall (EAPASA 2022/5006) Justin Brittion (Can. EAPASA 2023/6648)
DOCUMENT REFERENCE:	2025.09.11 - Pre - Application EMPr (version 1)
DFFE REFERENCE:	TBC
DATE:	**2025/05/29**
SUBMITTED TO:	**Department of Forestry, Fisheries, and the Environment (DFFE) – Competent Authority** **I&AP's**

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STATEMENT OF INDEPENDENCE

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

EAP SIGNATURE:_____

ENVIRONMENTAL MANAGEMENT PROGRAMME REQUIREMENTS:

Appendix 4 of Regulation 982 of the 2014 EIA Regulations contains the required contents of an Environmental Management Programme (EMP). The table below serves as a summary of how these requirements were incorporated into this EMPR:

(1) An EMPr must comply with section 24N of the Act and include:-

Requirement	Description
(a) Details of – (i) The EAP who prepared the EMPr; and (ii) The expertise of the EAP to prepare an EMPr, including a curriculum Vitae;	EMPr prepared by Joclyn Marshall (EAPASA 2022/5006) (Appendix A – Joclyn CV). Assisted by Justin Brittion (Can. EAPASA 2023/6648) (Appendix B – Justin CV)
(b) A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	Section 2
(c) A map at an appropriate scale which superimposes the proposed activity, it associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers;	Appendix 4
(d) A description of the impact management outcomes, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including – (i) planning and design; (ii) pre-construction activities; (iii) construction activities; (iv) rehabilitation of the environment after construction and where applicable post closure; and (v) where relevant, operation activities;	Section 3, 7, 8, 9, and 10
(f) a description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated in paragraph (d) will be achieved, and must, where applicable, include actions to – (i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) comply with any prescribed environmental management standards or practises; (iii) comply with any applicable provisions of the Act regarding closure, where applicable; and	Section 3, 7, 8, 9, and 10

(iv) comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;	
(g) the method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Section 6
(h) the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Section 6
(i) an indication of the persons who will be responsible for the implementation of the impact management actions;	Section 6
(j) the time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	Section 6
(k) the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	Section 6
(l) a program for reporting on compliance, taking into account the requirements as prescribed by Regulations;	The entire report serves as a programme for reporting on compliance
(m) an environmental awareness plan describing the manner in which – (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and (ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and	Section 6
(n) any specific information that may be required by the competent authority.	N/A

Glossary of Terms

BAR	**Basic Assessment Report –** A tool used by the EAP to submit to the competent authority if listed activities is triggered in Regulations GNR 327 and GNR 324 as per NEMA to make a decision regarding a proposed development.
DFFE	**Department Forestry Fisheries and Environment**– the national authority for sustainable environmental management and integrated development planning.
DFFE&DP	**Department of Environmental Affairs and Development Planning** – the provincial authority for sustainable environmental management and integrated development planning.
CBA	**CBA Critical Biodiversity Area** – Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.
EAP	**Environmental Assessment Practitioner –** An EAP and a specialist, appointed in terms of regulation 12(1) or 12(2) must – (a) be independent. (b) Have expertise in conducting environmental impact assessments or undertaking specialist work as required, including knowledge of the Act, these regulations and any guidelines that have relevance to the proposed activity. (c) Ensure compliance with these Regulations (d) Perform the work relating to the application in an objective manner, even if this results in views and findings that are not favorable to the application. (e) Take into account, to the extent possible, the matters referred to in regulation 18 when preparing the application and any report, plan or document relating to the application; and (f) Disclose to the proponent or applicant, registered and affected parties and the competent authority all material information in the possession of the EAP and, where applicable, the specialist, that reasonably has or may have the potential of influencing – i. Any decision to be taken with respect to the application by the competent authority in terms of these regulations; or ii. The objectivity of any report, plan or document to be prepared by the EAP or specialist, in terms of these Regulations for submission to the competent authority; unless access to that information is protected by law, in which case it must be indicated that such protected information exists and is only provided to the competent authority. (2) In the event where the EAP or specialist does not comply with sub regulation (1)(a), the proponent or applicant must, prior to conducting public participation as contemplated in chapter 5 of these regulations, appoint another EAP or specialist to externally review all work undertaken by the EAP or specialist, at the applicants cost. (3) An EAP or specialist appointed to externally review the work of an EAP or specialist as contemplated in sub regulation (2), must comply with sub regulation (1).
ECO/ESO	**Environmental Control Officer** – A site agent who needs to ensure that all environmental authorisation and conditions are adhered to during the construction phase of the project

EMPr	**Environmental Management Programme –** can be **defined** as "an **environmental management** tool used to ensure that undue or reasonably avoidable adverse impacts of the construction, operation and decommissioning of a project are prevented; and that the positive benefits of the projects are enhanced".
ESA	**Ecological Support Area –** Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of Pas or CBAs, and are often vital for delivering ecosystem services.
MMP	**Maintenance Management Plan –** means a maintenance management plan for maintenance purposes defined and adopted by the competent authority
NEMA	**National Environmental Management Act (Act 107 of 1998) as amended 2017** – national environmental legislation that provides principles for decision-making on matters that affect the environment.
PA	**Protected Area -** A protected area is an area of land or sea that is formally protected by law and managed mainly for biodiversity conservation. Protected areas recognised in the National Environmental Management: Protected Areas Act (Act 57 of 2003) (hereafter referred to as the Protected Areas Act) are considered formal protected areas in the NPAES. This is a narrower definition of protected areas than the International Union for Conservation of Nature (IUCN) definition.1 The NPAES distinguishes between land-based protected areas, which may protect both terrestrial and freshwater biodiversity features, and marine protected areas.

Table of Contents

1. INTRODUCTION

According to the National Environmental Management Act (Act 107 of 1998) (NEMA), it is specified under Section 24 N that an Environmental Management Programme (EMPr) be prepared and implemented as part of obtaining Environmental Authorisation (EA) for specified activities that may have a significant impact on the environment. It emphasizes that an EMPr must detail the mitigation measures, monitoring, and management actions necessary to ensure that environmental impacts are controlled during all phases of the project.

This EMPr must form an integral part of the contract documents, as it outlines the methodology & duties required so that the project objectives can be achieved in an environmentally sustainable manner; with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with this project.

This EMPr is a dynamic document that may need to evolve during its implementation period so that it recognises any new issues that may arise; or changes in the parameters of identified issues and can address these issues with the required/amended mitigation.

1.1. Purpose of the EMPr

The purpose of this EMPr is to ensure that the negative environmental impacts of the proposed activities are managed, mitigated and kept to a minimum during the planning, construction and operation of the proposed development. The EMPr focuses on avoiding damage or loss on ecosystems and the services they provide, and to enhance positive environmental impacts where possible.

The EMPr is a living document that is flexible and responsive to new and changing circumstances, however, should a change be made within the EMPr permission from the competent authority must first be obtained.

Once the EMPr is approved by the competent authority it is seen as a legal binding document on the following affected parties:

1 Project Applicant.
2 All contractors.
3 Sub-contractors and construction staff.
4 The appointed ECO monitoring the construction phase.

Copies of this EMPr must be kept on site and all senior personnel are expected to familiarise themselves with the content of this EMPr.

It is suggested that the EMPr be reviewed on a 5 yearly basis if required. Should any amendments need to be made during operational phase, written authorisation should be obtained from DEA&DP.

1.2. The Polluter-Pays Principle

This principle provides for "the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimizing further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment." The Polluter Pays Principle will be rigorously applied throughout the construction phase of this project.

2. PROJECT DETAILS

2.1. Location Description

Portion 104 of Farm 216, Knysna (hereafter referred to as "the property") the Knysna Estuary on the northern boundary, and Featherbed Private Nature reserve on the western boundary. The property extends **9.96 Ha** (as per the title dead).

SG Region:	KNYSNA
Farm Nr:	104/216
Area (Ha):	9.96
SG Code:	C03900000000021600104

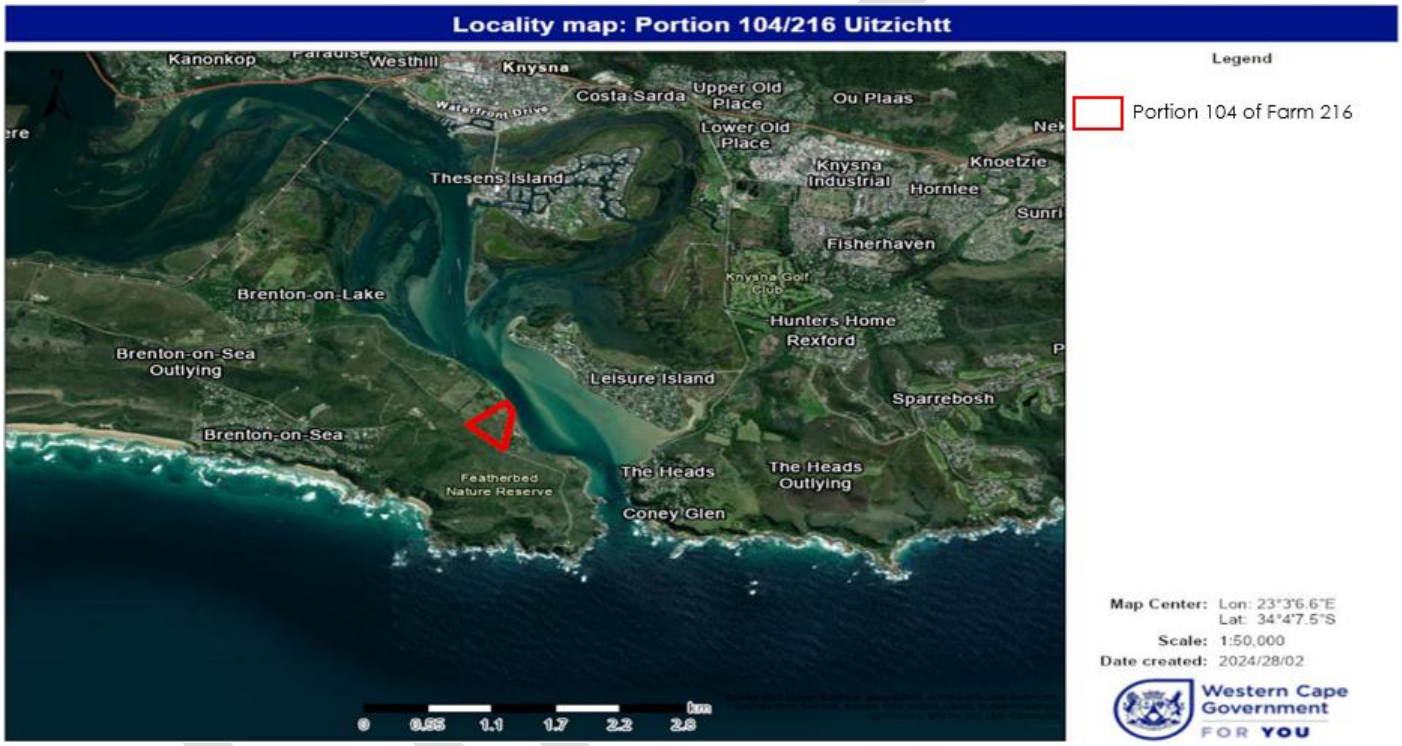

Figure 1: Locality Map of Portion 104 of Farm 216

Access to the site will be via Dolley Raats Street (a tarred road) that transitions into a gravel road, Dominee J.F. du Toit Avenue, which eventually becomes C.J. Langenhoven, leading towards the property. The following coordinates indicate the boundaries of the property (Google Earth, 2024).

FEATURE	LATITUDE (S)			LONGITUDE (E)		
	DEG	MIN	SEC	DEG	MIN	SEC
Northern Boundary	34°	04'	11.13"	23°	02'	54.85"
Eastern Boundary	34°	04'	16.84"	23°	02'	58.28"
Southern Boundary	34°	04'	26.60"	23°	02'	55.97
Western Boundary	34°	04'	17.99	23°	02'	44.04

3. RECEIVING ENVIRONMENT

This section presents the available environmental data alongside specialist confirmations to assess the current state of the receiving environment. It considers historical classifications and identifications, integrating ground-truthing information to provide context for the present conditions. This approach is necessary because desktop data may not always align with the actual findings on-site.

3.1. VEGETATION

According to the National Vegetation Map of South Africa (SANBI, 2018) (Figure 2) the expected vegetation type on the property would be Knysna Sand Fynbos (Critically Endangered).

Figure 2: SANBI Original Ecosystem Status including Knysna Sand Fynbos

Some important features of this vegetation type are included in Table 1.

Table 1: Important Information Regarding Knysna Sand Fynbos (SANBI, 2018)

FFh 10 Knysna Sand Fynbos	VT 4 Knysna Forest (85%) (Acocks 1953). LR 2 Afromontane Forest (72%), LR 4 Dune Thicket (24%) (Low & Rebelo 1996). BHU 100 Knysna Afromontane Forest (72%) (Cowling et al. 1999b, Cowling & Heijnis 2001).
Distribution	Western Cape Province: Garden Route coastal flats from Wilderness, generally to the north of the system of lakes, several patches around the Knysna Lagoon, with more isolated patches eastwards to the Robberg peninsula near Plettenberg Bay. Altitude 40–300 m.

Vegetation & Landscape Features	Undulating hills and moderately undulating plains covered with a dense, moderately tall, microphyllous shrubland, dominated by species more typical of sandstone fynbos.
Geology & Soils	Deep, acid Tertiary sand inland of coastal dunes forming regic sands and soils of Lamotte form. Land types mainly Hb and Ga.
Climate	MAP 670–1 090 mm (mean: 850 mm), with a slight peak in autumn and spring. Mean daily maximum and minimum temperatures 27.3°C and 7.3°C for February and July, respectively. Frost incidence 2 or 3 days per year. See also climate diagram for FFd 10 Knysna Sand Fynbos (Figure 4.57).
Important Taxa	Small Tree: Widdringtonia nodiflora. Tall Shrubs: Cliffortia linearifolia, Leucadendron eucalyptifolium, Metalasia densa, Passerina corymbosa. Low Shrubs: Anthospermum aethiopicum, Berzelia intermedia, Cliffortia drepanoides, Clutia rubricaulis, Erica diaphana, E. glandulosa subsp. fourcadei, E. glumiflora, E. sessiliflora, Helichrysum asperum var. asperum, Lachnaea diosmoides, Leucadendron salignum, Leucospermum cuneiforme, Lobelia coronopifolia, Morella quercifolia, Muraltia squarrosa, Oedera imbricata, Protea cynaroides, Stoebe plumosa, Tephrosia capensis. Herbs: Geranium incanum, Helichrysum felinum. Graminoids: Aristida junciformis subsp. galpinii, Brachiaria serrata, Cynodon dactylon, Eragrostis capensis, Ficinia bulbosa, Heteropogon contortus, Ischyrolepis eleocharis, Tetraria cuspidata, Thamnochortus cinereus, Themeda triandra, Tristachya leucothrix.
Conservation	Endangered. Target 23%. Patches are statutorily conserved in the proposed Garden Route National Park (about 3%) as well as 2% in several private nature reserves. Almost 70% already transformed (pine and gum plantations, cultivation, Knysna urban sprawl, building of roads). Alien Acacia melanoxylon, A. mearnsii and A. longifolia occur locally at low densities. Erosion very low and moderate.
Remarks	This is a very poorly researched vegetation unit.

* Reference - Taylor (1970b), Drews (1980a).

The vegetation within the study area was mapped at a fine scale in the C.A.P.E. Fine-scale Mapping Project by Vlok, Euston-Brown, & Wolf (2008). According to this mapping, two distinct vegetation units are identified within the study area: Groenvlei Coastal Forest (Endangered) and Sedgefield Thicket-Fynbos (Least Threatened).

Taking this into consideration, together with ground truthing information (e.g. disturbance caused by alien invasive plant species and the 2017 Knysna veld fires), the proposed vegetation on the property consist of a fynbos thicket mosaic of varying degrees of degradation. This vegetation is closer in structure to Sedgefield Thicket-Fynbos and Goukamma Dune Thicket found on the property directly adjacent to the eastern side (Featherbed Nature Reserve) (Capensis, 2024).

The habitat map (Figure 3) distinguishes between dune thicket and thicket-fynbos vegetation, and their corresponding condition. The habitats mapped at the site include (1) Degraded Dune Thicket, (2) Degraded Thicket-Fynbos, and (3) Transformed vegetation.

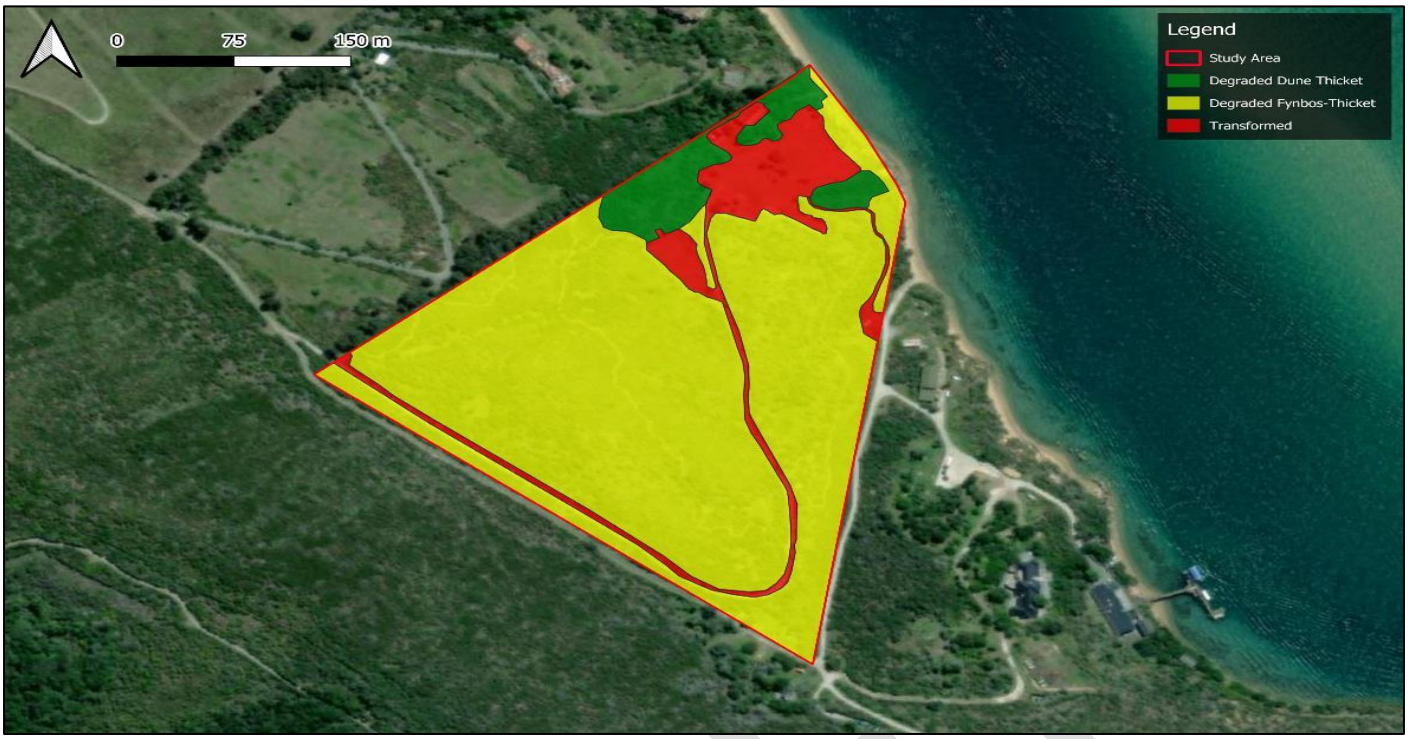

Figure 3: The habitats identified at the study area, superimposed on an ESRI TM satellite image (Capensis, 2024)

3.1.1. Degraded Dune Thicket

Several portions of the study area can be classified as degraded dune thicket. This habitat is found primarily on the north-western boundary of the site, with smaller areas to the north-east. The vegetation consists primarily of moderately sized thicket shrubs and small trees (2 -2.5m). The dominant species, much like the rest of the site is Osteospermum moniliferum however this vegetation type is distinguished from the thicket-fynbos vegetation by its increased diversity of thicket species and its denser structure (Capensis, 2024).

3.1.2. Degraded Fynbos Thicket

The majority of the site is covered in thicket-fynbos vegetation. The composition and structure of the habitat conforms more closely to the Sedgefield Fynbos-Thicket habitat described by Vlok, Euston-Brown, & Wolf (2008) than to Knysna Sand Fynbos (VEGMAP, 2018). The vegetation is dominated by Osteospermum monileferum, with other sclerophyllous shrub species forming a dense mid-canopy layer. These include Passerina corymbosa and Metalasia muricata. Thicket species such as Pterocelastrus tricuspidatus and Searsia lucida are fairly common and are likely to increase in density should fire continue to be excluded from the site. Two species of conservation concern were found in this habitat. These include Lebeckia gracilis (EN), and Selago villicaulis (VU). Within the dense fynbos-thicket vegetation there are open gaps, supporting low growing vegetation such as Helichrysum cymosum, Helichrysum foetidum, Helichrysum petiolare, Selago corymbosa, and Ficinia acuminata (Capensis, 2024).

3.1.3. Transformed Habitat

Transformed habitat contains very little indigenous or naturally occurring vegetation and describes areas of the study area that have been converted to open grassy areas or replaced by roads and other hard infrastructure (buildings, concrete pads etc.). The vegetation is dominated by grasses such as Cynodon dactylon, Stenotaphrum secundatum, and Pennisetum clandestinum, interspersed with common ruderal species (Capensis, 2024).

3.1.3. Sensitivities related to the identified habitats

In the case of the study area, a **Medium sensitivity** applies to the Degraded Fynbos-thicket habitat for the following reasons (Capensis, 2024):

1. The site classified as a CBA 1 and CBA 2 in the WCBSP. The CBA 1 area would be more accurately classified as CBA 2 due to the poor condition of the vegetation.
2. Two SCC were found in this habitat (*Lebeckia gracillis* & *Selago villicaulis*).
3. The ecological functioning of this habitat is moderately modified. The historic medium to high density of IAPs and high intensity fires have depleted the species richness of the vegetation.
4. This habitat occurs on moderate to steep slopes which would be prone to erosion if developed.
5. The restoration potential of this area is moderate with appropriate active management inputs.

A **Low sensitivity** applies to the Degraded Dune Thicket habitat for the following reasons (Capensis, 2024):

1. The vegetation type present is Least Concern, however the vegetation that remains in this habitat is only marginally representative of the original ecosystem in its current condition. However, it does contain "indigenous vegetation" by definition.
2. The site classified as CBA 1 and CBA 2 in the WCBSP. The CBA 1 area would be more accurately classified as CBA 2 due to the poor condition of the vegetation.
3. Two protected tree species were found in this habitat (White Milkwood *Sideroxylon inerme* and Outeniqua yellowwood *Afrocarpus falcatus*). The white milkwood is likely naturally occurring whereas the Outeniqua yellowwood appears to have been planted.
4. The ecological functioning of this habitat is modified in its current state due to the long history of high-density IAPs and significant fire events.
5. The restoration potential of this habitat is low to moderate without active management inputs, but restoration is possible, and recommended for the areas which are not developed.

A **Very Low sensitivity** applies to the Transformed habitat for the following reasons (Capensis, 2024):

1. The indigenous vegetation has been almost completely removed from this habitat, with the dominant vegetation consisting of lawn grasses.
2. One individual of one SCC (*Selago villicaulis*) was found in this habitat however this species is fairly abundant elsewhere on the property.

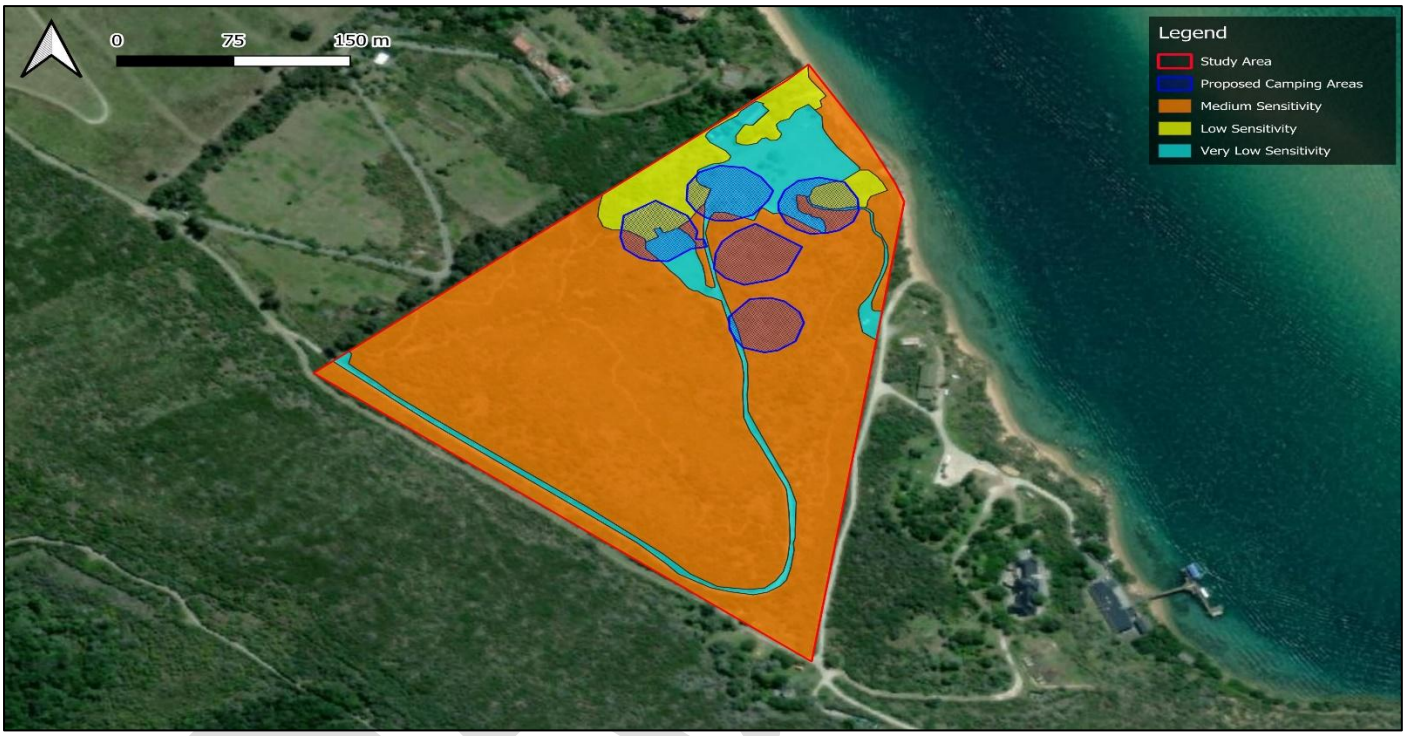

Figure 4: The sensitivities for habitats described in the study area overlaid on an ESRI ™ image.

Although a Species of Conservation Concern has been identified on the property, the architect (Tracey Mills Brink, 2025) designed the layout of the preferred alternative to avoid impacting the species. It will be recommended, as part of the mitigation measures and the Environmental Management Programme, that the location of this species be clearly demarcated and remain undisturbed throughout all phases of the development

3.2. SENSITIVE AREAS (CBA, ESA, and PA)

The Western Cape Biodiversity Spatial Plan (WCBSP, 2017) designated the property as situated within a Critical Biodiversity Area (CBA:1 – To maintain and CBA:2 – To restore), including terrestrial and aquatic features. An Ecological Support Area (ESA:2 – To restore) is also included on the property.

CBA1: Terrestrial – Terrestrial

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

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

CBA1: Aquatic – Wetland

The definition and objective remain the same.

ESA 2: Restore from other land use

Definition: Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs and are often vital for delivering ecosystem services.

Objective: Restore and/or manage to minimize impact on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement.

By the 2017 Western Cape Biodiversity Spatial Plan the eastern boundary of the site abuts the Featherbed Nature Reserve whereas the north-eastern boundary borders on the Garden Route National Park, both of which as designated protected areas (Figure 5).

Figure 5: Western Cape Biodiversity Spatial Plan (WCBSP 2017) Sensitive areas

However, the new 2023 Western Cape Biodiversity Spatial Plan designated the entire property as a protected area (Figure 6).

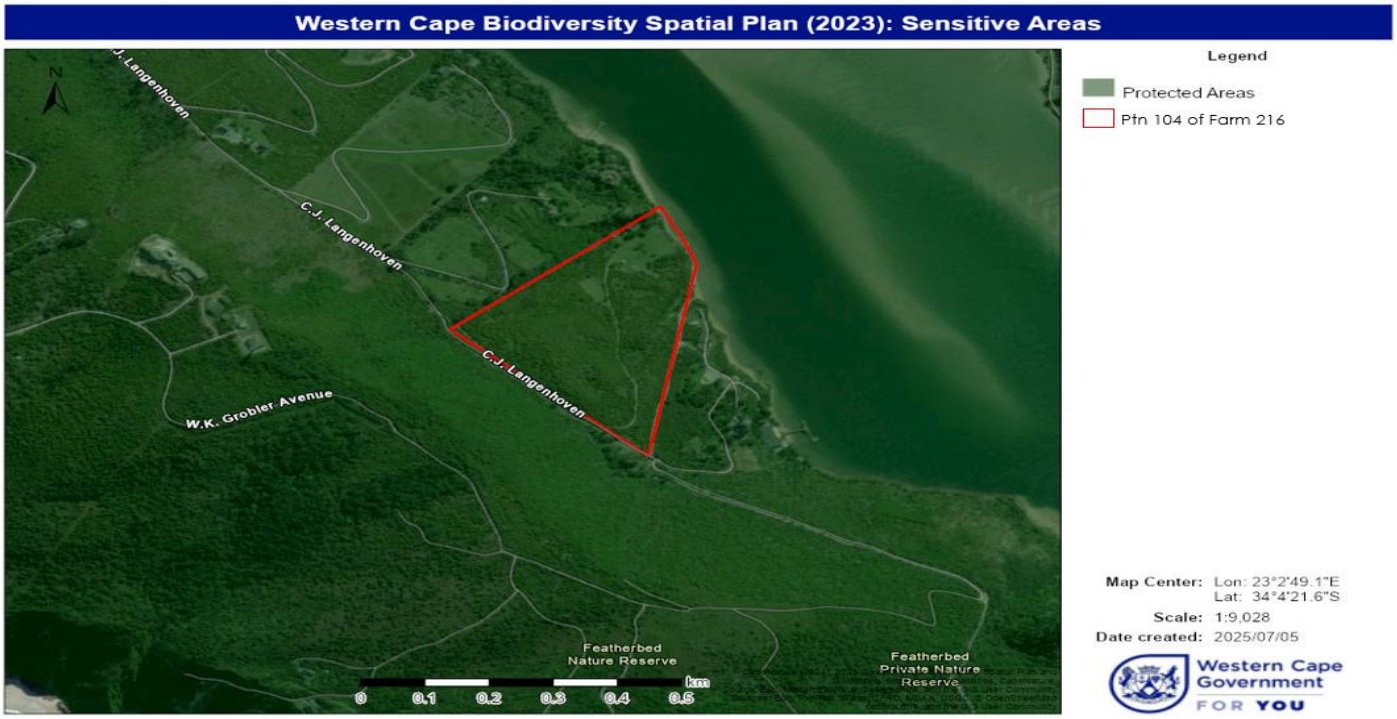

Figure 6: Western Cape Biodiversity Spatial Plan (WCBSP 2023) Sensitive areas

Definition: Areas proclaimed as protected areas in terms of national or provincial legislation.
Objective: Must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. A benchmark for biodiversity.

It should be noted that that property is not proclaimed as a protected area, but as of the introduction of the 2023 WCBSP, the entire property will be dealt with according to the general guidelines for protected areas.

Table 2: Extract from Western Cape Biodiversity Spatial Plan (2023) regarding protected areas

WCBSP category	Desires management objective	General guidelines
Protected Areas	Must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. A benchmark for biodiversity.	• All operational aspects of managing these areas must be subject to their main purpose, which is to protect and maintain biodiversity and ecological integrity and should be governed by a formally approved management plan including land-use activities that support the primary function of these areas as sites for biodiversity conservation. • The management plan must identify allowable activities, which should be consistent at least with the CBA 1 category; the location of these allowable activities should

		be captured in a zonation plan in the management plan. • Activities relating to the construction of roads, administrative or tourism infrastructure and services (such as water reticulation systems, power lines, etc.) that are required to support the primary function of the protected area and its allowable activities, are subject to NEMA authorisation and the protected area management plan. • In the case of Protected Environments, a variety of agricultural land-uses may be allowed, such as livestock grazing, plantation forestry and limited cultivation. The location of these land-use activities must be informed by the WC BSP Map and should be specified in the zonation plan in the management plan for the Protected Environment. All areas of natural habitat that are zoned for conservation use, should be subject to implementation of the land-use guidelines for protected areas, CBAs, and ESAs. • Mountain Catchment Areas are also included in this category, however unlike the other types of protected area, there is no requirement for a management plan which would guide allowable land-uses and activities. Therefore, the land-use guideline should be aligned with that of Protected Areas, with the primary intention to ensure the steady supply of good quality water to downstream areas.

3.3. FRESHWATER SENSITIVITIES

Although the 2017 Western Cape Biodiversity Spatial Plan identifies Critical Biodiversity Areas (CBAs) associated with wetlands on the property, Cape Farm Mapper does not indicate the presence of any wetlands or rivers (perennial or non-perennial) on the site (Figure 7). Furthermore, the aquatic specialist study conducted by Confluent (2024) confirmed that no freshwater features are present on the property.

Figure 7: Map of Freshwater Resources in proximity to Ptn 104 of farm 216

3.4. FAUNA

Faunal Specialist (Confluent, 2024) were consulted to provide feedback on the faunal sensitivities relevant to the proposed development property. The GPS tracking gives indication to the extent of a site visit done on 31 May 2024.

Figure 8: Habitats found on Portion104/216 Uitzigt Farm and GPS tracks of the site visits (Confluent, 2024)

3.4.1. Avifauna

No SCC was encountered during the site visit. Three bird counts were conducted across the property, in addition to opportunistic sightings noted throughout the meander and searching for nests/roosting sites in suspected habitat. A total of 16 bird species were identified during the site visit.

Table 3: Avifauna species observed during the site visit (Confluent, 2024)

Common name	Species Name
Speckled Mousebird	*Colius striatus*
Hadada Ibis	*Bostrychia hagedash*
Kelp Gull	*Larus dominicanus*
Pied Crow	*Corvus albus*
Cape White-eye	*Zosterops virens*
Fork-tailed Drongo	*Dicrurus adsimilis*
Bar-throated Apalis	*Apalis thoracica*
Egyptian Goose	*Alopochen aegyptiaca*
African Fish Eagle	*Icthyophaga vocifer*
Cape Bulbul	*Pycnonotus capensis*
Jackal Buzzard	*Buteo rufofuscus*
Southern Boubou	*Laniarius ferrugineus*
Sombre Greenbul	*Andropadus importunus*
Greater Double-collared Sunbird	*Cinnyris afer*
Karoo Prinia	*Prinia maculosa*
Green-backed Camaroptera	*Camaroptera brachyura*

3.4.2. Mammals

There was evidence of sub-surface tunnelling by golden moles found on site especially in the lawn area. A bushbuck was seen on the site and more individuals are suspected based on tracks and droppings found. Caracal scat was also found at the site. There was substantial evidence of mole rat activity, particularly on the lawn area. Rodent paths were also observed.

Table 4: Mammal species observed during the site visit (Confluent, 2024)

Common name	Species Name
Cape White-eye	Zosterops virens
Grey Heron	Ardea cinerea
Jackal Buzzard	Buteo rufofuscus
Karoo Prinia	Prinia maculosa
Kelp Gull	Larus dominicanus
Malachite Sunbird	Nectarinia famosa
Neddicky	Cisticola fulvicapilla
Olive Thrush	Turdus olivaceus
Red-eyed Dove	Streptopelia semitorquata
Sombre Greenbul	Andropadus importunus
Southern Boubou	Laniarius ferrugineus
Southern Fiscal	Lanius collaris
Western Cattle Egret	Bubulcus ibis

3.4.3. Terrestrial Invertebrates

No SCC were found during the site inspections. Cocktail ants (Crematogaster sp.) were found in nests. Spider webs (Araneae) were found on site as were zebra agate snails (Cochlitoma zebra). Pitfall traps did not attract the dung beetle SCC (Circellium bacchus) but many blowflies (Calliphoridae) were attracted to the bait. A pea blue butterfly (Lampides boeticus) as well as an unidentified white lepidopteran (suspected Pieridae) were found during a sweep of the site. Butterfly host plants and ant species were not found at the site.

3.4.4. Amphibians

No amphibians were found, which is not surprising given the lack of any waterbodies/watercourses present on site. Consequently, there was no suitable habitat for the SCC Knysna Leaf-folding Frog (Afrixalus knysnae).

3.4.5. Reptiles

No reptile SCC were highlighted for this site by the DFFE Screening Tool or any of the public platforms. As such, no targeted sampling took place for this group. However, a puffadder was found on the property during the meander.

3.5. COASTAL ENVIRONMENT

The property slopes down to the northeast towards the Knysna Estuary (coastal environment) which is bordered by a very steep sandy cliff. The sandy cliff shows signs of erosion that is most likely associated with surface water that flows over a large, mowed lawn area immediately adjacent to the cliff. The lawn is located at the base of a relatively steep slope and acts a poor buffer to overland surface water flows which has most likely contributed to the erosion of the cliff face. The soil on the property is very sandy and no hydro-geomorphological landscape features (depressions, confined valleys, channels etc.) indicating the presence of a watercourse (i.e. stream, river or wetland) were observed within the proposed development footprint.

Table 5: Images that show the current state of the coastal environment (Confluent, 2024)

The mitigation measures proposed by the aquatic specialist will be fully considered and incorporated into both the Basic Assessment Report and the Environmental Management Programme (EMPr). Furthermore, it is confirmed that no development activities will be introduced that could negatively affect the coastal environment.

3.6. HERITAGE

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

4. PROPOSED DEVELOPMENT (ALTERNATIVE A)

Following feedback from the terrestrial biodiversity specialist regarding the identified Species of Conservation Concern (SCC), the original site plan was revised. The node with the highest potential impact (EUA 4) was recommended to be shifted and then confirmed that following the mitigation measures would suffice in keeping the layout in its preferred location. The SDP was adjusted to take the SCC into account. As a result, a modified layout was proposed (Figure 9).

Figure 9: Preferred Layout (Alternative A): The green nodes represent the camping areas that were not recommended for any changes. The yellow section indicates the proposed relocation area for EUA 4. Finally, the red overlay illustrates, in abstract form, the adjustment made to accommodate the identified Species of Conservation Concern (SCC), as advised by Capensis (2025).

4.1. DEVELOPMENT COMPONENTS

Since the initial alternative, which followed a more traditional camping style, the preferred alternative has evolved towards an assisted camping model. The layout still includes five (5) nodes, each consisting of five (5) platforms. The primary distinction between Alternative A (the preferred alternative) and Alternative B is

that Alternative A includes two (2) platforms per node designated for indoor sleeping arrangements. One (1) platform will serve as a communal space, featuring a functional kitchen and relaxation area, while the remaining two (2) platforms will accommodate traditional tent-style camping (Figure 10). This concept will be implemented for all five (5) nodes.

Figure 10: Visual representation of the assisted camping setup (TMB Architects, 2025)

4.1.1. Service considerations

- Access

  It has been confirmed that the proposed development will utilise the existing dirt road solely for access during construction. The road itself will not form part of the construction activities and will not be altered, upgraded, or expanded in any way. During the rehabilitation phase, the road will be retained and, if necessary, returned to its current condition. No construction work will be undertaken on the road.

- Water / Sewage / Electrical

  Each node will make use of harvested rainwater, collected from roofs and gutters, for general use. In addition, a borehole located on the property will supplement the water supply during periods when the Lovemore family is in residence. During times of absence, the aquifer will be allowed to recharge to maintain sustainable capacity.

  One ablution facility will be provided per node, shared among family members. Wastewater from these facilities will be managed through the installation of a bio-septic treatment plant, ensuring environmentally responsible disposal.

The proposed development is not expected to place any significant additional strain on the property's existing electricity supply. It has therefore been confirmed that the development will connect to the current electrical system servicing the property.

4.1.2. External Considerations

In general, the three (3) platforms designated for sleeping facilities and the communal area will be single-storey structures. They will be constructed using lightweight materials and elevated on stilts to adapt to the natural slope of the terrain, thereby minimising the need for excavation. The remaining two (2) platforms in each node will be used for traditional camping purposes and will similarly be constructed on stilts using lightweight materials.

Species of Conservation Concern will be taken into account during the construction phase, and it will be further recommended in the Environmental Management Programme (EMPr) that these species remain clearly demarcated and undisturbed throughout the operational phase.

All external structures will be designed and positioned in accordance with the mitigation measures proposed by the visual specialist. Compliance with these measures will be monitored by the appointed Environmental Control Officer (ECO) throughout the construction phase.

4. ENVIRONMENTAL IMPACTS AND GENERAL MITIGATIONS

Based on the updated environmental considerations and the proposed development, the following impacts have been identified. Recommendations from specialists regarding each of the identified environmental sensitivities are provided, ensuring that the proposed activities align with best environmental practices and minimise any potential negative impacts.

3.1. Impact of Proposed Development

The following table (Table 6) will serve as a summary of the impacts of proposed development during the construction phase of the proposed development. It has been determined that the preferred alternative (Alternative A) development proposal would have a slightly lesser impact on SCC than second alternative (Alternative B).

Table 6: Summary of impacts of proposed development associated with alternative A – Construction Phase

Impact	Without Mitigation	With Mitigation
	Significance of Impact	Significance of Impact
Loss of terrestrial biodiversity	**Low – negative (-)**	**Low – negative (-)**
Loss of species of conservation concern	**Low – negative (-)**	**Negligible – negative (-)**
Disturbance / loss of faunal habitat	**Medium - negative (-)**	**Low – negative (-)**

Loss of Fauna	**Low- negative (-)**	**Negligible – negative (-)**
Sedimentation of estuarine habitat	**Low- negative (-)**	**Negligible – negative (-)**
Waste Pollution	**Low- negative (-)**	**Negligible – negative (-)**
Construction Vehicles Pollution	**Low- negative (-)**	**Negligible – negative (-)**
Noise Pollution	**Low- negative (-)**	**Negligible – negative (-)**
Visual Impact	**Low – negative (-)**	**Negligible – negative (-)**
Employment	**Low – negative (-)**	**Negligible – positive (+)**

3.2. Summary of Recommendations from Specialist Input

At the current pre-application phase, it is expected that some of the specialist findings will have to be updated depending on the feedback received during the Pre-Application Public Participaction (29 May 2025 – 31 June 2025). The Draft Environmental Management Programme will be updated with final recommendations from relevant specialists.

3.3. NO – GO Areas

The proposed development will be constructed using lightweight materials and will not require extensive excavation. However, all construction-related activities and materials must remain strictly confined to the designated working area and must avoid sensitive areas, in accordance with the final recommendations of the relevant specialists. All areas outside the defined working area are to be treated as NO-GO zones and must remain undisturbed throughout the construction phase.

4. LEGISLATIVE REQUIREMENTS

All legislative requirements have been assessed during compilation of the Basic Assessment Process prior to the start of the proposed development. This section provides a concise overview of the most relevant legal requirements.

3.1. The National Environmental Management Act (Act 107 of 1998) (NEMA)

The proposed development was assessed in accordance with the National Environmental Management Act (NEMA) (Act 107 of 1998) and the relevant listed activities outlined in the Environmental Impact Assessment (EIA) Regulations, Listing Notice 1 and 3 of 2014 (amended in 2017) (GN. 327 and 324). Based on this review, the proposed development requires Environmental Authorisation for the following listed activities -

Table 7: Relevant listed activities that require environmental authorisation

Listing Notice 1: GN No. R.327 of 2014 (as amended 2017)		
Activity	**Description**	**Development applicability**
17	Development— (i) in the sea; (ii) in an estuary; (iii) within the littoral active zone; (iv) in front of a development setback; or (v) if no development setback exists, within a **distance of 100 metres inland** of the high-water mark of the sea **or an estuary**, whichever is the greater; in respect of— (a) fixed or floating jetties and slipways; (b) tidal pools; (c) embankments; (d) rock revetments or stabilising structures including stabilising walls; or (e) **infrastructure or structures with a development footprint of 50 square metres or more** — but excluding— (aa) the development of infrastructure and structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development is related to the development of a	The proposed development will exceed the minimum threshold for this listed activity and will therefore require environmental authorisation. **Applicable.**

	port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) the development of temporary infrastructure or structures where such structures will be removed within 6 weeks of the commencement of development and where coral or indigenous vegetation will not be cleared; or (dd) where such development occurs within an urban area.	
19A	The infilling or depositing of any material of more than 5 cubic metres into, or the **dredging, excavation, removal or moving of** soil, sand, shells, shell grit, pebbles or rock of more than **5 cubic metres** from— (i) the seashore; (ii) the littoral active zone, an estuary or a distance of **100 metres inland** of the high-water mark of the sea or an **estuary**, whichever distance is the greater; or (iii) the sea; — but excluding where such infilling, depositing , dredging, excavation, removal or moving— (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or i. where such development is related to the development of a port or harbour, in which	Excavation quantities are to exceed the minimum threshold. **Applicable.**

	case activity 26 in Listing Notice 2 of 2014 applies.	
Listing Notice 3: GN No. R.324 of 2014 (as amended 2017)		
Activity	**Description**	**Development Applicability**
12	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. Western Cape: i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; iii. Within the littoral active zone or **100 metres inland from** high water mark of the sea or an **estuarine functional zone**, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.	It is anticipated that more than 300m^2 will be cleared within 100 meters of the Knysna Estuary. **Applicable.**

3.2. National Forest Act (NFA) (Act 84 Of 1998)

The NFA provides for the protection of forests and specific tree species. According to the Act, "no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree or any forest product derived from a protected tree, except under a licence or exemption granted by the Minister to an applicant and subject to such period and conditions as may be stipulated." The Department of Forestry, Fisheries, and the Environment (DFFE) is responsible for implementing and enforcing the NFA, including the prohibition of damage to indigenous trees in any natural forest without a licence (Section 7 of the NFA) and the prohibition of cutting, disturbing, damaging, destroying, or removing protected trees without a licence (Section 15 of the

NFA). In the case of this application, all protected trees that are proposed to be disturbed must be done in accordance with the mentioned Forest Act.

3.3. National Environmental Management: Biodiversity Act (NEM:BA) (Act 10 Of 2004)

NEM:BA (Act 10 of 2004) governs the management and conservation of South African biodiversity within the framework of NEMA. It addresses the protection of species and ecosystems that require national protection, as well as the sustainable use of indigenous biological resources. Additionally, NEM:BA regulations regarding the control of alien invasive vegetation are set out within the Act and the Alien and Invasive Species Regulations of 2014. According to NEM:BA Regulation 75, landowners are required to manage all listed invasive alien species on their land. However, not all properties require a Control Plan. The Department of Environmental Affairs (DEA) developed criteria to determine when Invasive Alien Species (IAS) Control Plans are necessary.

Property size Hectares (ha) Square meters (m²)	Requirements	Timeframes for clearing
< 0.05 Ha (5000 m²)	Clear and remove plant material to approved Green Garden Waste site	30 days
0.051 – 5 Ha(5001 m² - 50,000 m²)	Clear and remove plant material to approved Green Garden Waste site; or apply for fuel reduction burn (See details below); or chip; or utilize. Or alternatively submit a Control Plan with acceptable timeframes to the Department of Environmental Affairs	90 days (at least by the end of November (start of the fire season)
– 5 Ha10,001 m² to 50,000 m²	Clear or submit Control Plan with timeframes acceptable to the Department of Environmental Affairs	120 days to clear or 30 days to submit a control plan
> 5.1 Ha> 50,001 m²	Submit Control Plan with timeframes acceptable to the Department. Prioritize the urban edge boundaries that are high-risk fire risk. Fire breaks are to be in place. Permits are required to keep category 2 plants except when they are in riparian areas, or where they pose a fire risk, in these cases there are to be treated as category 1b and cleared.	30 days to submit control plan. On approval: Start implementing within reasonable timeframe 5 - 10 years

Figure 11: Criteria for properties requiring IS Control Plans

In the case of this application the applicant is not required to produce a control plan. However, all invasive alien species must be eradicated from the property. This also aligns with the recommendations brought forward by the specialists during the Pre-Application Basic Assessment phase.

3.4. National Heritage Resource Act (act 25 of 1999)

The purpose of the National Heritage Resources Act is to introduce an integrated and interactive system for managing national heritage resources and to promote good governance at all levels. It empowers civil society to nurture and conserve heritage resources for future generations and establishes general principles for heritage resources management across South Africa. The Act introduces a system for identifying, assessing, and managing heritage resources, establishes the South African Heritage Resources Agency and its Council to coordinate national management, and sets norms and standards for protecting heritage resources of national significance. It controls the export of nationally significant heritage objects and the import of illegally exported cultural property, enables provinces to establish heritage authorities with powers to protect and manage heritage resources, and provides for the protection and management of conservation-worthy places and areas by local authorities, along with addressing related matters.

After the submission of a Notice of Intent to Develop (NID) under Section 38(1) and (8) of the NHR Act to Heritage Western Cape, the determination of requests and required mitigation actions will be included in this section of the EMPr.

3.5. National Environmental Management: Waste Amendment Act 2014 (Act 26 of 2014)

The National Environmental Management: Waste Amendment Act 2014 (Act 26 of 2014) in South Africa is a legislative framework aimed at promoting sustainable waste management practices and reducing the environmental impact of waste. It amends the National Environmental Management: Waste Act of 2008, enhancing provisions related to waste management planning, licensing, and compliance monitoring. The Act introduces more stringent measures for waste classification, minimisation, and recycling, and emphasizes the importance of extended producer responsibility. The most important aspect of this Act is its focus on the waste management hierarchy, prioritising waste avoidance and reduction, followed by reuse, recycling, recovery, and, as a last resort, safe disposal. This approach encourages a shift towards a circular economy, aiming to minimise waste generation and its adverse effects on the environment and human health.

The applicant must adhere to the National Environmental Management: Waste Amendment Act 2014 (Act 26 of 2014) at all times during both the construction and operational phases. Compliance with this Act is essential to ensure sustainable waste management practices and minimize environmental impact.

4. CONDITIONS OF APPROVAL

All conditions of the Environmental Authorisation will be added into this section. If it is not included in this document, then it should be noted that this is not the final approved EMPr.

5. ADMINISTRATION OF THE EMPR

The following section outlines the guidelines that will remain in effect until all components of the proposed development are fully completed, including site rehabilitation and the fulfilment of all contractor responsibilities. As the operational phase of the development has been assessed to have a low environmental impact, the EMPr will conclude once the final operational phase audit report confirms that all requirements have been satisfactorily met.

5.1. Phasing of the EMPr

The following provides clear distinction for the different phases of the proposed development –

Pre – construction phase:
This phase refers to all actions that need to proceed prior to the first physical implementation of activities related to the proposed development. Examples include (but are not limited to) the demarcation of recommended NO-GO areas. During this part of the pre-construction phase, all necessary mitigations must be in place before the physical execution of construction activities.

Construction phase:
This phase involves the physical construction and related activities necessary for development of the establishment of the managers' cottages, conference centre and tourist facilities, garages, and the entertainment facilities.

Operational phase:
This phase refers to the period when the constructed facilities are available for use. Confirmation of the operational phase marks the end of all construction related to all the proposed development structures.

Rehabilitation and Maintenance phase:
Rehabilitation and maintenance should be conducted during all phases of the development to minimize environmental impact and ensure that the post-construction rehabilitation workload does not become a burden on the applicant and contractor. Essentially the idea is to keep the surrounding environment intact. To have the environment represent a better state than before the proposed development of as near as originally assessed.

Decommission phase:
It is not expected that the proposed development will be decommissioned. However, once the operational phase reaches its end, decommissioning will involve removing the operating assets of the development.

5.2. Revisions of the EMPr

The EMPr is an integral part of the environmental application documentation and cannot be significantly amended without applying to the competent authority and undergoing public participation.

It is also recommended that the EMPr be reviewed during external audits, which will serve as the primary mechanism for suggesting amendments. The secondary mechanism will originate from such recommendations from the appointed Environmental Control Officer (ECO).

Any deficiencies identified within the EMPr should be addressed through the preparation of detailed method statements, outlining how tasks will be executed and how environmental impacts will be mitigated.

Clarification on method statements:

The Contractor may be required to provide Method Statements for approval by the ECO to work commencing on aspects of the project which are deemed to be, or identified as being, of greater risk to the environment, and/or which may not be covered in sufficient detail in the EMPr, when called upon to do so by the ECO.

A Method Statement is a "living document" in that modifications are negotiated between the Contractor, the ECO, and the project management team, as dictated by circumstances. All Method Statements will form part of the EMPr documentation and are subject to all terms and conditions contained within the EMPr. Note that a Method Statement is a 'starting point' for understanding the nature of the intended actions to be carried out and allows for all parties to review and understand the procedures to be followed in order to minimise risk of harm to the environment.

Changes to, and adaptations of Method Statements can be implemented with the prior consent of all parties. A Method Statement describes the scope of the intended work in a step-by-step description in order for the ECO and the Principal Agent to understand the Contractor's intentions. This will enable them to assist in devising any mitigation measures, which would minimise environmental impact during these tasks. For each instance where it is requested that the Contractor submit a Method Statement to the satisfaction of the PA and ECO, the format should clearly indicate the following:

The format of method statements should clearly indicate the following:

What	A Brief description of the work to be undertaken
How	A detailed description of the process of work, methods, and materials
Where	A description / sketch map of the locality of work
When	The dates which are due for commencement and completion dates estimates
Who	The person responsible for undertaking the works described in the method statement

Examples of method statements that the ECO may require include (but are not limited to) dust management, storage of hazardous materials (if applicable).

5.3. Monitoring and Compliance

It is clearly defined in the EMPr what is expected in terms of implementation of mitigation recommendations. The effectiveness of implementation of proposed mitigation recommendations and compliance therewith must be monitored.

5.3.1. Frequency

1. It is recommended that the appointed Environmental Control Officer (ECO) visit the proposed development site at least once during the pre-construction phase, unless otherwise determined at the discretion of the ECO, to establish a baseline of site conditions and confirm the implementation of pre-construction recommendations. During the construction phase, the ECO should conduct two (2) site visits per month, and once (1) per month during the operational phase, continuing until the final external audit is completed to monitor and report on rehabilitation compliance.
2. The ultimate authority is hereby given to the ECO to establish the necessity of frequency of site visits. This document only highlights the recommended frequency and must therefore be arranged by the ECO.

5.3.2. Reporting procedure of monitoring and compliance

1. It is stipulated (under roles and responsibilities) that an ECO must be appointed, and that it is the responsibility of the ECO to do regular site inspections to gather evidence of compliance against the EMPr.
2. The ECO should then compile a site inspection report that highlights the findings and serves as documented evidence of compliance with the recommendations and requirements outlined in this report. This report will form part of the ongoing monitoring process, ensuring that all environmental guidelines and best practices are adhered to throughout the development phases.

Reporting procedure of non-compliance:

The non-compliance is defined as, and will be issued for:

- Any deviation by the Applicant from the environmental conditions and requirements as set out in the EMPr, or;
- Any contravention by the Applicant of environmental legislation, or;
- Any unforeseen environmental impact resulting from direct or indirect actions or activities on site that would be considered as a significant impact. Significance will be determined by the ECO but will be informed by geographic extent, duration, lasting effects of the impact and extent of remediation to the impact.

Types of non-compliances issued:

Two types of non-compliances may be issued:

A. Stop Works Non-Compliance

Stop Works Non-Compliance will require that all works as described in the non-compliance will stop immediately and may only continue on a formal written permission from the ECO.

Stop Works Non-Compliance will be issued under the following conditions:

- Total disregard by the Applicant to the environmental conditions and requirements listed in the EMPr;
- An activity that if left unattended will escalate the degree, severity or extent of the environmental impact.

B. General Non-Compliance

A general non-compliance will allow work and activity by the receiving party to continue while the corrective action takes place.

A Non-Conformance Report (NCR) will be issued to the Applicant as a final step towards rectifying a failure in complying with a requirement of the EMPr. This will be issued by the ECO to the Applicant in writing.

Preceding the issuing of a NCR, the Applicant must be given an opportunity to rectify the issue.

Should the ECO assess an incident or issue and find it to be significant (e.g. non-repairable damage to the environment), it will be reported to the relevant authorities and immediately escalated to the level of an NCR.

The following information should be recorded in the NCR:

- Details of non-conformance;
- Any plant or equipment involved;
- Any chemicals or hazardous substances involved;
- Work procedures not followed;

- Any other physical aspects;
- Nature of the risk;
- Actions agreed to by all parties following consultation to adequately address the non-conformance in terms of specific control measures and should take the hierarchy of controls into account;
- Agreed timeframe by which the actions documented in the NCR must be carried out; and
- ECO should verify that the agreed actions have taken place by the agreed completion date, when completed satisfactorily; the ECO and Applicant should sign the Close-Out portion of the Non-Conformance Form and file it with the contract documentation.

If no remediation occurs for the reported non-compliances, the non-compliances will be communicated to the appropriate municipality and competent authority whereby financial implications will be determined.

5.4. Audits

Two construction audits are required prior to handover to the applicant. The first must commence within a year of the start of construction phase. Followed by a second within 30 days of the final construction phase completion activity.

Audits must be completed by an independent party (who is not the ECO or the appointed EAP) and must comply with the requirements of regulation 34 of the EIA regulations, 2014 (as amended). The contents of the environmental audit report must comply with Appendix 7 of the EIA regulations.

5.5. Clarified Roles and Responsibilities

The following section outlines roles and responsibilities to clarify the position of parties relevant to the proposed development. These roles remain fixed, unless otherwise mutually agreed upon by the relevant parties.

5.5.1. The Applicant / Holder of the EA

The holder of the EA / property owner is the overseeing entity responsible for ensuring that all activities undertaken on the property comply with the Environmental Authorisation (EA) and associated Environmental Management Programme (EMPr) (& any other approval / licence / permit).

Actions relate (but are not limited to) –

- Ensure that that all tender documentation include reference to, and the need for compliance with, the EA and EMPr as well as any other legally binding documentation.
- Ensure that all employed Contractors and Engineers are aware of and understand the conditions of the EMPr (Include the EMPr in all tender documents)
- The right to remove any person or appointed contractors or personnel from site if the contravene with the EMPr.
- Appoint an Environmental Control Officer.
- The project Applicant (holder of the Environmental Authorisation of the EMPr) must notify the competent authority of the commencement of maintenance management activities 14 days prior to such commencement taking place.

5.5.2. The ECO

The ECO's duties, inter alia, must be to ensure compliance with the EMPr through monitoring, and through proactive and open communication with the project/

The ECO's responsibility should include (but are not limited to) the following:

- Monitoring and verifying that the EMPr is adhered to at all times and taking action if the specifications are not followed.
- To environmentally educate and raise the awareness of the Contractor and his staff as to the environmental requirements relating to the Site and to facilitate the spread of the correct attitude during works on Site.
- To take immediate action on Site where clearly defined and agreed no-go areas are violated or are in danger of being violated.
- Monitoring and verifying that environmental impacts are kept to a minimum.
- Reviewing and approving construction method statements together with the PA.
- Assisting the Contractor in finding environmentally responsible solutions to problems.
- Keeping records of all activities/ incidents on Site in a Site Diary concerning the environment.
- Inspecting the Site and surrounding areas regularly (minimum monthly) with regard to compliance with the EMP (note that this could be reduced further in consultation with the environmental officer at SPM in the case of low activity on Site but would need to be increased to weekly inspections during high risk/high activity work).
- Keeping a register of complaints and report these first to the PA for action and follow-up.
- Requesting the removal of person(s) and/or equipment not complying with the specifications (done via the PA).
- Recommending the issuing of penalties for transgressions of environmental Site specifications to the PA.
- Completing start-up, monthly, and Site closure checklists and reports.
- Keeping a photographic record of progress on Site from an environmental perspective.
- Undertaking a continual internal review of the EMPr and making recommendations to the PA.

Site Visit Frequency:

- It is recommended that the appointed Environmental Control Officer (ECO) visit the proposed development site at least once during the pre-construction phase, unless otherwise determined at the discretion of the ECO, to establish a baseline of site conditions and confirm the implementation of pre-construction recommendations. During the construction phase, the ECO should conduct two (2) site visits per month, and once (1) per month during the operational phase, continuing until the final external audit is completed to monitor and report on rehabilitation compliance.

Environmental induction and training

- It will be the responsibility of the ECO to provide adequate environmental awareness training of senior site personnel takes place and that all construction workers receive an induction presentation on the importance and implications of the EA and EMPr.
- Where staff turnover is high and with additional appointment of Sub-contractors, it may be necessary to undertake additional induction training sessions. The Contractor must keep records of all environmental training sessions, including names, dates and the information presented.

5.5.3. The Engineers and Contractors

The responsibilities indicated here are also relevant to Sub-Contractors. The responsibilities of the Engineers and Contractors include but are not limited to the following:

- Adhere with the conditions and recommendations of the EMPr or any other legally binding documentation.
- Prevent actions that may cause harm to the environment.
- Be responsible for any remedial activities in response to an environmental incident within their scope of influence.

- Ensure compliance of all site personnel and / or visitors to the EMPR and any other authorisations.

6. PRE - CONSTRUCTION PHASE ENVIRONMENTAL MANAGEMENT PROGRAMME

Activity	Management / Mitigation	Responsibility	Frequency / Timing
6.1. Stormwater Management	• Apply the principles of Low Impact Development (LID) in the design of the drainage systems. Final design of the stormwater system must take place prior to construction to ensure timeous implementation.	Applicant / Architect	Once off
6.2. Water Resource Protection	**Rainwater harvesting**		
	• Rainwater harvesting must be incorporated into the designs. All rainwater tanks must be shown on building plans	Applicant / Architect	Once off
	Efficient water use		
	• Water efficiency must be incorporated into the design of the units (e.g.,) - - Duel flush toilets - Low flow shower head - Low flow taps - Waterwise landscaping - Reuse greywater	Applicant / Architect	Once off
6.3. Development preparation	**Site demarcation / NO-GO areas and site setup**		
	• Clearly identify and demarcate the development area, area of works and spoiling areas. (all areas outside the demarcated workspace will be considered NO-GO areas). • To ensure that the ecological integrity of the surrounding environment is maintained and preserved, the Applicant and contractor must ensure that the construction footprint is limited to the construction area. The extent of the construction must be marked out to satisfaction of the engineer and ECO. • Set up the site camp in a designated, level area away from sensitive environments, ensuring it includes secure storage for materials, sanitary facilities, and clear boundaries. • Install temporary utilities, safety signage, and waste management systems in compliance with environmental and safety regulations.	Applicant / Contractor	Once off (the frequency may be ongoing, depending on the state of demarcation)
	Method statements		
	• Method Statements must be submitted by the Applicant/ Contractor to the ECO and must be adhered to by the Applicant/ Contractor. These relate to:	Applicant/ Contractor	Prior to commencement of construction and during construction (if necessary)

	- water and stormwater management requirements, - dust management - solid waste management requirements, - the storage of hazardous materials (if applicable), and - standard emergency procedures.		
	Appointment of Environmental Control Officer (ECO)		
	• An Independent ECO must be appointed at the Applicant's cost to monitor the implementation of the EMPr. • It will be the responsibility of the ECO to provide adequate environmental awareness training of senior site personnel takes place and that all construction workers receive an induction presentation on the importance and implications of the EA and EMPr. • All contractors, sub-contractors and casual labourers must acknowledge their understanding of the EMPr and environmental responsibilities by signing an induction attendance record.	Applicant / ECO	Once off

7. CONSTRUCTION PHASE ENVIRONMENTAL MANAGEMENT PROGRAMME

	Activity	Management / Mitigation	Responsibility	Timing / Frequency
7.1.	**Soil Erosion and Stormwater Management**	• Stringent mitigation measures must be imposed during construction to minimise runoff, possible silt run-off and contamination of water leaving the site (especially into the adjacent 'natural' areas), with the use of silt-fencing, rows of onion bags, mulch, brushwood, sandbags, and deflection berms (the choice depending on the situation). • Exposure of bare surfaces must be kept to a minimum to restrict stormwater runoff towards the Knysna Estuary. • Any erosion channels developed during construction causing surface runoff must be backfilled, compacted and restored to an acceptable condition. • Ensure that stormwater and runoff generated by hardened surfaces is discharged in retention areas (i.e. swales or retention ponds), to avoid concentrated runoff and associated erosion. • Implement the use of sedimentation traps if and when determined necessary by the ECO. • In areas where construction activities have been completed and where no further disturbance would take place, rehabilitation and re-vegetation should commence as soon as possible. A suitable rehabilitation method statement must be submitted to the ECO for approval. * Take note of all recommendations made by specialist to minimize stormwater runoff towards the Knysna Estuary.	Applicant / Contractor	Ongoing
7.2.	**Dust Control**	• Implement a dust prevention strategy as presented by method statement. • This strategy must include - Speed control to minimise dust on site. - During dry, dusty periods haul roads should be kept dampened to prevent excess dust. No potable water or seawater may be used for damping haul roads. - Exposed stockpile materials must be adequately protected against wind (covered) and should be sited taking into consideration the prevailing wind conditions.	Contractor	Ongoing

		- Trucks bringing in materials must be covered to prevent dust and small particles escaping and potentially causing damage to people and property.		
7.3.	**Noise Control**	• Construction activities must only take place during normal working times between 07:00-17:00 on weekdays. • Machinery may be fitted with silences to dampen noise upon receiving complaints • Staff must be reminded that they are working within a residential area and noise levels must be kept low.	Contractor	Ongoing
7.4.	**Traffic Control**	• No vehicles may drive onto the adjacent properties and any other NO-GO areas. • No vehicles are to park or operate within "no-go" areas	Contractor	Ongoing
7.5.	**Waste Management**	• Provide refuse bins around site designated for the different types of generated waste (e.g., general waste, refuge, construction material). • Refuse bins will be responsibly emptied and secured. • Temporary storage of domestic waste shall be in covered and secured waste skips. • Dangerous waste such as metal wires and glass must be safely stored before being moved off site as soon as possible. • Under no circumstances may domestic waste be burned on site or buried on open pits. • Separation and recycling of different waste materials should be supported. • Littering on the site is forbidden and the site shall be cleared of litter at the end of each working day.	Contractor	Ongoing
7.6.	**Stockpile Management**	• Keep stockpiles on site to a minimum. • Keep topsoil and underburned stockpiles separate. • Locate stockpiles away from drainage lines, at least 10 metres away from natural waterways and where they will be least susceptible to wind erosion. • Ensure that stockpiles and batters are designed with slopes no greater than 2:1 (horizontal/vertical). • Stabilise stockpiles and batters that will remain bare for more than 28 days by covering with mulch or anchored fabrics or seeding with sterile grass.	Contractor	Ongoing

7.7. Storing fuels and chemicals	• Though unavoidable, fuels and chemicals stored on site must be kept to a minimum. • Refuelling and fuel storage areas, and areas used for the servicing or parking of vehicles and machinery, must be located on impervious bases and should have bunds around them (sized to contain 110 % of the tank capacity) to contain any possible spills. These areas must not be located within any natural drainage areas or preferential flow paths and must be located outside of buffer zones.	Contractor	Ongoing
7.8. Cement Batching	• The mixing of cement must be done on Rhino board. • All concrete batching must take place on an area that is to be hard surfaced as part of the development. • Concrete mixing areas must have bund walls or a settling pond in order to prevent cement run off. Once the settling ponds dry out, the concrete must be removed and dispatched to a suitable disposal site. • When using Readymix concrete, care must be taken to prevent spills from the trucks while offloading. This form of batching is preferable for large constructions as no on-site batching is required and there is a lesser likelihood of accidental spills and run off. Trucks may not be washed out on site.	Contractor	Ongoing
7.9. Fauna and Flora management	• Mark off the areas that are not going to be developed prior to undertaking any works and ensure that no unnecessary loss of adjacent vegetation occurs. • In situations fauna species are located at the site and need to be removed, the relevant specialists must be contacted to advise on how the species can be relocated. • No trapping, killing, or poisoning of any wildlife is to be allowed and Signs must be put up to enforce this. Monitoring must take place in this regard.	Contractor / ECO	Ongoing

7.10. Ablution facilities	• Toilets at the recommended Health and Safety standards must be provided. Portable toilets must be emptied regularly to prevent overflow. Once no longer required, they must be pumped dry to prevent leakage into the surrounding environment and removed from site. • Toilets facilities must comply with local authority regulations, shall be maintained in a clean and hygienic condition. Their use shall be strictly enforced. They must be positioned in an appropriate place, also taking into consideration, gradient of the land. • The Contractor must ensure that toilets are cleaned weekly or more regularly, if found to be necessary. • Unauthorised spilling of waste from the septic tank into the environment and burying of waste are strictly prohibited. • Ablution facilities must not cause any pollution to any water resource, and it must not be a health hazard to the general public.	Contractor	Ongoing
7.11. Social Requirements	• It is strongly recommended that the Contractor make use of local labour as far as possible for the construction phase of the project. • Theft and other crime associated with construction site are not allowed • A complaints register must be kept of all received complaints and delt with immediately.	Contractor	Ongoing
7.12. Heritage Requirements	• If any archaeological sites/materials are exposed, mitigation regarding the finds must be conducted with the Heritage Western Cape regarding the destiny of the material. Examples of heritage resources are as follow: - Human remains - Coins/Gold/Silver - Fossils - Fossils shell middens/ marine shell heaps - Pottery/ceramics	Applicant / Contractor	

	• If Heritage Western Cape agrees to the removal of the material, an archaeologist must apply for a permit to scientifically excavate/collect the material.		
7.13. Visual Mitigation	• Minimise exposure of working area by limiting the visibility of construction sites from sensitive receptors by using temporary barriers or screens, such as fencing or shade cloth. • Schedule construction activities during times when visual impacts are less critical (e.g., outside of tourist seasons or high-traffic periods) to reduce the visual impact on surrounding areas. • Store and organize construction materials in less visible areas to reduce the clutter and visual disturbance of scattered materials and equipment.		

8. OPERATIONAL PHASE ENVIRONMENTAL MANAGEMENT PROGRAMME

Activity	Management / Mitigation	Responsibility	Timing / Frequency
8.1. Stormwater management	• A sustainable stormwater design must be implemented to prevent excessive run-off that will lead to erosion of the surrounding landscape. • Runoff from the roof of the new buildings should be fed into an existing formal stormwater drainage system (if present) or directly infiltrate into soft landscaped areas surrounding the building . • Erosion prevention and control measures must be implemented by use of organic mulch or sandbags to contain all sediment and prevent erosion during rehabilitation.	Applicant / Architect / Contractor	Once off
8.2. Waste Management	• No waste may be disposed of anywhere else if not designated as a waste disposal area (disturbance zone). All waste must be disposed of in appropriate municipal or other authorised dumping sites. • NO Dumping of garden refuse on any part of the property or neighbouring areas is permitted.	Applicant	Ongoing
8.3. Alien Invasive Plants	• All invasive alien plants should be completely cleared from the property, and where a tree or bush cover is desired, replaced with suitable indigenous species. • Minimise disturbance to the natural vegetation using low impact manual labour techniques. • Reduce fire hazard on site.	Applicant	Ongoing
8.4. Visual Mitigation	• Use natural elements to minimise the visual impact. These may include but are not limited to form, colour, texture etc. • Plant and maintain indigenous vegetation around structures and exposed areas to blend the development into the surrounding landscape. • Install low-glare, downward-facing lights to minimize light pollution and visual impact at night.		

9. REHABILITATION AND MAINTENANCE PHASE ENVIRONMENTAL MANAGEMENT PROGRAMME

Activity	Management / Mitigation	Responsibility	Frequency / Timing
9.1. Vegetation Rehabilitation	**Vegetation**		
	• All disturbed areas, or areas which have been disturbed for the purpose of the development, are to be re-vegetated. This will aid in preventing erosion within the site. A 100% indigenous planting plan must be adhered to in terms of all planting carried out on the site. Consultation must be made with a Botanical Specialist for a site-specific vegetation list.	Applicant	
		Applicant & ECO	Project completion
	• Erosion prevention and control measures must be fully implemented (if necessary).	Applicant & ECO	On-going site maintenance
	• All rehabilitated areas must be maintained through weekly inspections until the 80% success rate has been achieved (if applicable).		
	• Encroachment of invasive alien plants in this regard will need to be monitored on a regular basis to prevent re-infestation.		
9.2. Stormwater Management	**Stormwater**		
	• Any negative stormwater effects, related to the operational phase, must be remediated.	Applicant	On-going site maintenance
	• On-going monitoring and assessing of stormwater drainage must occur on site during the operational phase of the proposed project.		
9.3. Land Rehabilitation	**Land**		
	• Rehabilitation must be executed in such a manner that surface runoff will not cause erosion of disturbed areas during and after rehabilitation.	Applicant / Contractor	Project completion
	• Any rubble is to be removed from site to an appropriate disposal site. Burying of rubble on site is prohibited.		
	• The site is to be cleared of all litter.		
	• The surface of all disturbed areas must be left rough to facilitate binding of topsoil and vegetation.		
	• Areas that are disturbed through building activities (such as the excavations for sewerage pipelines) should be suitably rehabilitated without delay. Failure to do so will have a knock-on effect on biodiversity in the form of an increase in wind erosion, soil exposure and a loss of the soil micro-organisms that are essential		

Activity	Management / Mitigation	Responsibility	Frequency / Timing
	for plant growth. Use complete cover of locally chipped woody material (for example Acacia cyclops stems and branches but not the seed pods).		

ACKNOWLEDGEMENT FORM

Record of signatures providing acknowledgment of being aware of and committed to complying with the contents of this Environmental Management Programme (EMPr), which relates to the environmental mitigation measures for the project outlined below, and the environmental conditions contained in all other contract documents.

PROJECT NAME:

PROPOSED DEVELOPMENT OF ASSISTED CAMPING FACILITIES FOR THE LOVEMORE FAMILY - PORTION 104 OF FARM 216, UITZICHT, KNYSNA, WESTERN CAPE.

DFFE Reference: TBC

APPLICANT:

Signed: …….. Date: …….....

CONTRACTOR:

Signed: …….. Date: …….....

ENVIRONMENTAL CONTROL OFFICER

Signed: …….. Date: …….....

Appendix 4 – NO-GO Map

Schematic representation of NO-GO areas	Date: 2024/10/11 Ref: 2024.17.06/07 – Appendix 4 Drawn By: Justin Brittion

Eco Route
Environmental Consultancy