ANIMAL SPECIES SPECIALIST ASSESSMENT REPORT FOR THE PROPOSED DEVELOPMENT ON PORTION 11 OF FARM 449 MELKHOUTEFONTEIN, GOURITSMOND, HESSEQUA MUNICIPALITY

Prepared by

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And

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Prepared for:

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Western Cape

6530

11 October 2024

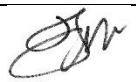
DECLARATION OF SPECIALIST INDEPENDENCE

We, Mr Willem Matthee and Prof. Jan A. Venter, hereby declare that:

- we are acting as independent specialists regarding this application;
- we do not have any interest, hidden or otherwise, in the outcome of this application, apart from financial compensation for the work done to survey the proposed development area and compile this report;
- surveying the site for this faunal compliance statement was done objectively, and that this report and the facts therein contained (regardless of its impact on the application approval process) will not be affected by any outside factors;
- we have the required expertise to perform surveys and produce compliance statements as it pertains to the faunal aspect of this proposed development
- we will comply with the relevant Acts, regulations and legislation;
- we have not, and will not, engage in conflicting interests while performing our duties for this activity, and have no influence over the decision-making authorities regarding their accepting or rejecting of this proposed development;
- we undertake to disclose to the applicant and competent authority all material and information within my possession that may influence the decision-making process regarding the proposed development;
- all particulars furnished by us in this form are true and correct, and that it is an offense to present a false declaration, and that such a false declaration is punishable in terms of Section 24F of the Act; and that
- this document is to be viewed as a whole, and not misquoted out of context.

Date: 11 October 2024

Date: 11 October 2024

DATE	REVISION	STATUS	PREPARED BY	CHECKED AND APPROVED BY
11 October 2024	1	Approved for submission	Willem Matthee	Prof. Jan A. Venter (SACNASP Registration Nr. 400111/14)
				

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1. INTRODUCTION

Cape EAPrac (Pty) Ltd was appointed to facilitate the environmental impact aspects of a low-key tourism development on Portion 11 of Farm 449, Gouritsmond, Western Cape (S34º19'23.82"; E21º49'28.67"). The property is bisected by the R325 regional road. The proposed development consists of six (6) glamping cottages, with some located in the section close to the river, and some in the fynbos-dominated section of the property on the western side of the R325. For each of the cottages, the development footprint consists of a cottage and a limited lawn (landscaping) area. Each cottage will have a maximum disturbed area of 420m^2.

The smaller section (to the east of the R325, and hereafter called the "eastern section") has some indigenous fynbos vegetation present, but is also invaded by exotic Rooikrans (*Acacia cyclops*). There are also some exotic gum (*Eucalyptus*) and poplar (*Populus*) trees present, as well as reedbeds and sedges (associated with the permanent river present along the eastern edge of the property. The larger section of the property (to the west of the R325, and hereafter called the "western section") is dominated by indigenous fynbos vegetation. The western section has also been invaded by exotic Rooikrans (*A. cyclops*), but have been removed from large areas of this section of the property. There is also a large cluster of exotic *Eucalyptus* present on this section of the property.

As per the "Protocols for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes" (hereafter called "the Protocols"), as promulgated in Government Gazette Notice 320 (Government Gazette 43110, 20 March 2020), and amended in Government Gazette Notice 3717 (Government Gazette 49028, 28 July 2023), the Protocols must be adhered to for all new applications for Environmental Authorisation.

As per the Protocols, an animal species specialist report must:

a) identify the SCC which were found, observed or are likely to occur within the study area;
b) provide evidence (photographs or sound recordings) of each SCC found or observed within the study area;
c) identify the distribution, location, viability and provide a detailed description of the population size of the SCC identified within the study area;
d) identify the nature and extent of the potential impact of the development on the population of the SCC located within the study area;
e) determine the importance of the conservation of the population of the SCC identified within the study area, based on the information available in national and international databases;
f) determine the potential impact of the proposed development on the habitat of the SCC located within the study area;
g) include a literature review of the SCC population sizes, the conservation interventions, and any national or provincial management plans for the SCC. This should also indicate whether the development is compliant with the applicable species management plans;
h) identify dynamic ecological processes (e.g. fire in fire-prone ecosystems) occurring within the broader landscape that might be disrupted by the development and result in negative impacts on the identified SCC;
i) identify any potential impact of ecological connectivity in relation to the broader landscape, resulting in impacts on the identified SCC and its long-term viability;
j) determine buffer distances as per the Species Environmental Assessment Guidelines used for the population of each SCC;
k) discuss the presence (or likely occurrence) of additional SCC not identified by the screening tool, as well as undescribed species, or roosting and breeding and foraging areas used by migratory species (where these species show significant congregations) occurring in the vicinity; and
l) identify any alternative development footprints within the preferred site that would be of “low” or “medium” sensitivity as identified by the screening tool and verified through site sensitivity verification.
m) A signed copy of the assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

The Department of Forestry, Fisheries and the Environment (DFFE) screening tool (performed on 15 September 2023) identified the site as having **High** sensitivity in terms of the animal species theme (Fig. 1), due to the possible occurrence of ten species of conservation concern (SCC). These SCC (and their associated sensitivities) are:

- African marsh-harrier, *Circus ranivorus* (Aves) – High sensitivity
- Black harrier, *C. maurus* (Aves) – High sensitivity
- Denham's bustard, *Neotis denhami* (Aves) – High sensitivity
- Knysna warbler, *Bradypterus sylvaticus* (Aves) – High sensitivity
- Martial eagle, *Polemaetus bellicosus* (Aves) – High sensitivity
- Crowned eagle, *Stephanoaetus coronatus* (Aves) – Medium sensitivity
- Southern black korhaan, *Afrotis afra* (Aves) – Medium sensitivity
- Sensitive Species 5 (which cannot be disclosed) – Medium sensitivity
- Sensitive Species 8 (which cannot be disclosed) – Medium sensitivity
- Yellow-winged agile grasshopper, *Aneuryphymus montanus* (Insecta) – Medium sensitivity

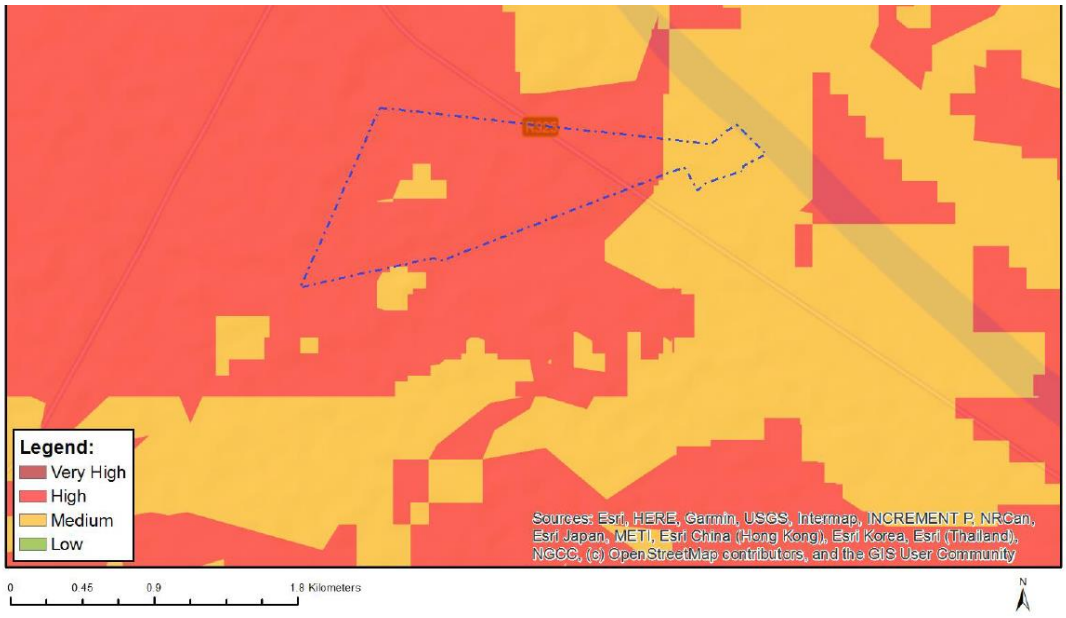

Fig. 1: The site sensitivity in terms of the animal species theme, as recorded in the DFFE screening tool (performed 15 September 2023). The majority of the property is classified as High sensitivity, with the easternmost section (next to the river) and the gum-invaded section on the western section being classified as Medium sensitivity.

The site sensitivity verification report also suggested a high sensitivity, and included a sensitivity map (in terms of animal species) for the property (Fig. 2). The sensitivity maps of all relevant themes were used to compile a combined sensitivity map (Fig. 3), and used to adjust the placement of proposed glamping cottages (Figs 4 & 5). The changes in placement thereby reduces the impacts of the proposed development, though one of the glamping cottages in the eastern section is still placed in an area that is classified as medium sensitivity due to the high likelihood of *B. sylvaticus* occurring in that area or the surrounding thicket vegetation. Provided the recommendations (see the Recommendations section of this report) are followed during and after the construction phase of this development, the proposed development will have minimal impacts on this species or other SCC in the area.

As per the Protocols, this animal species specialist assessment report is based on the findings of a desktop study (using Cape Farm Mapper, iNaturalist, BGIS and GBIF) and a site visit (conducted on 22 September 2023, and used to compile the site sensitivity verification report as well as this specialist assessment report), to determine the presence (or likely presence) of the SCC, and the potential impacts of the development on these SCC. This specialist report also incorporates the new site development plan, which was unavailable when the site sensitivity verification report was compiled. This document reports whether any of the SCC identified by the DFFE screening tool report are likely to occur within the development footprint, or are likely to be affected by the proposed development, and propose mitigation measures to be implemented to reduce the impact of the proposed development.

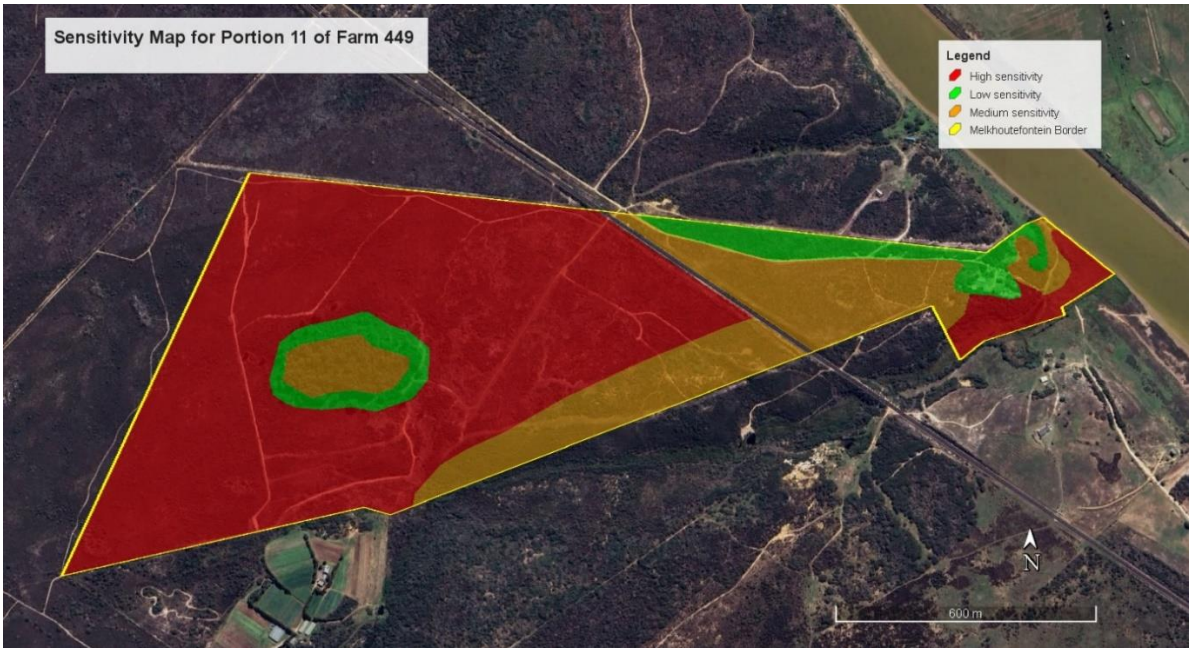

Fig. 2: The sensitivity map of the property in terms of the animal species theme, as compiled for the site sensitivity verification report.

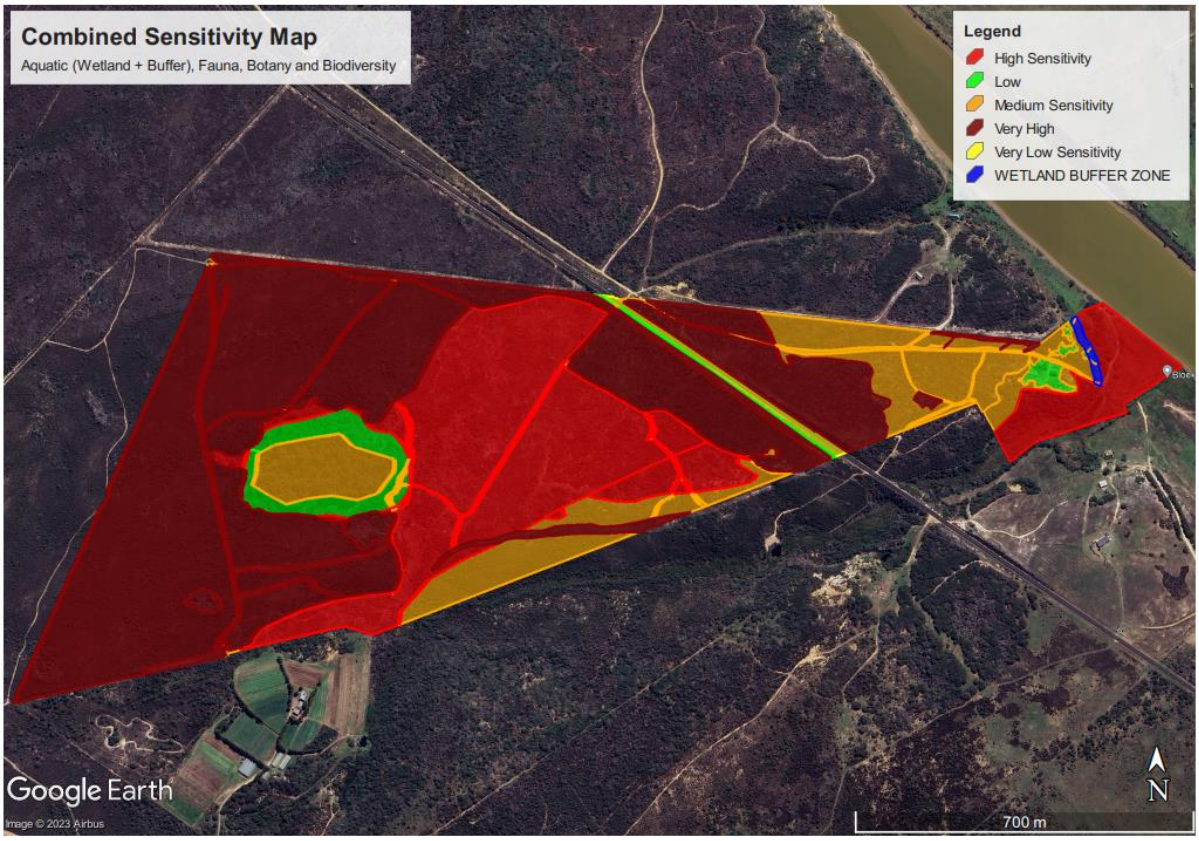

Fig. 3: The combined sensitivity map for the proposed development (as compiled by Cape EAPrac), which incorporates the aquatic, animal, plant and biodiversity sensitivity maps.

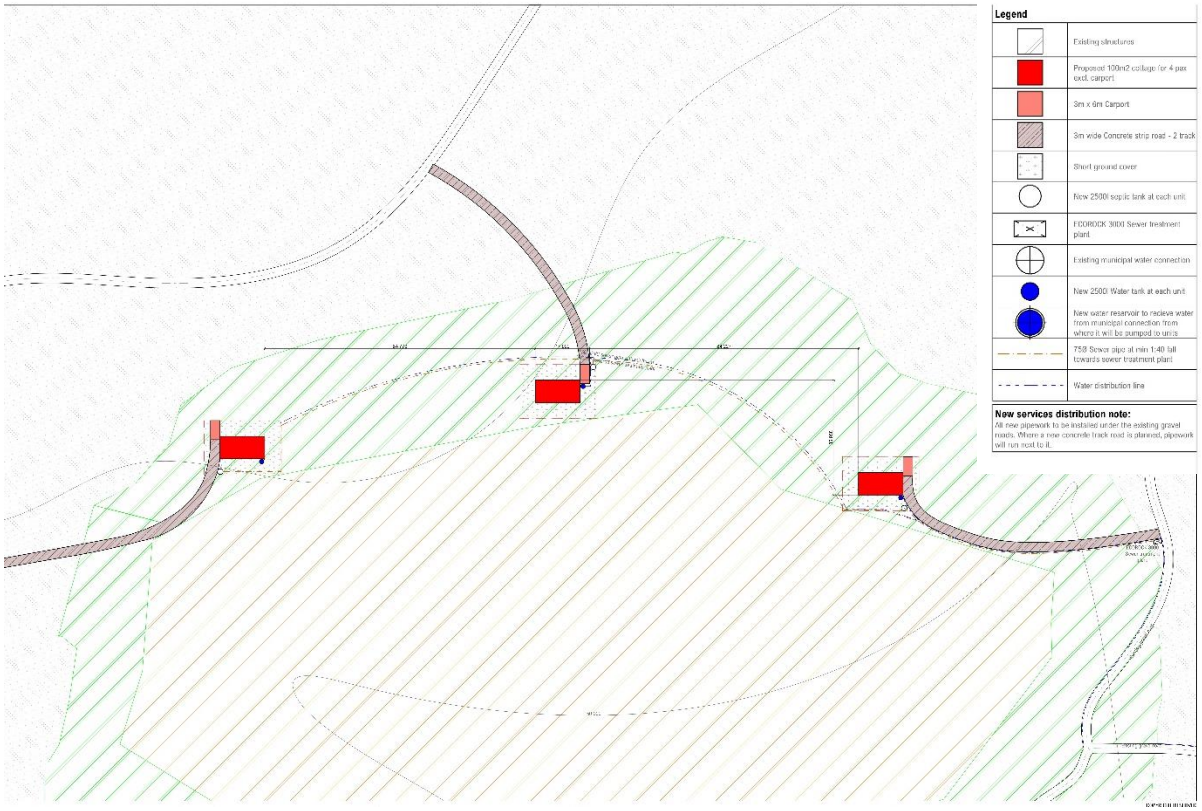

Fig. 4: The new proposed location of the glamping cottages near the *Eucalyptus*-clump. The dotted line indicates the maximum area that will be disturbed per cottage, and includes the area designated as limited lawn (landscaping) space.

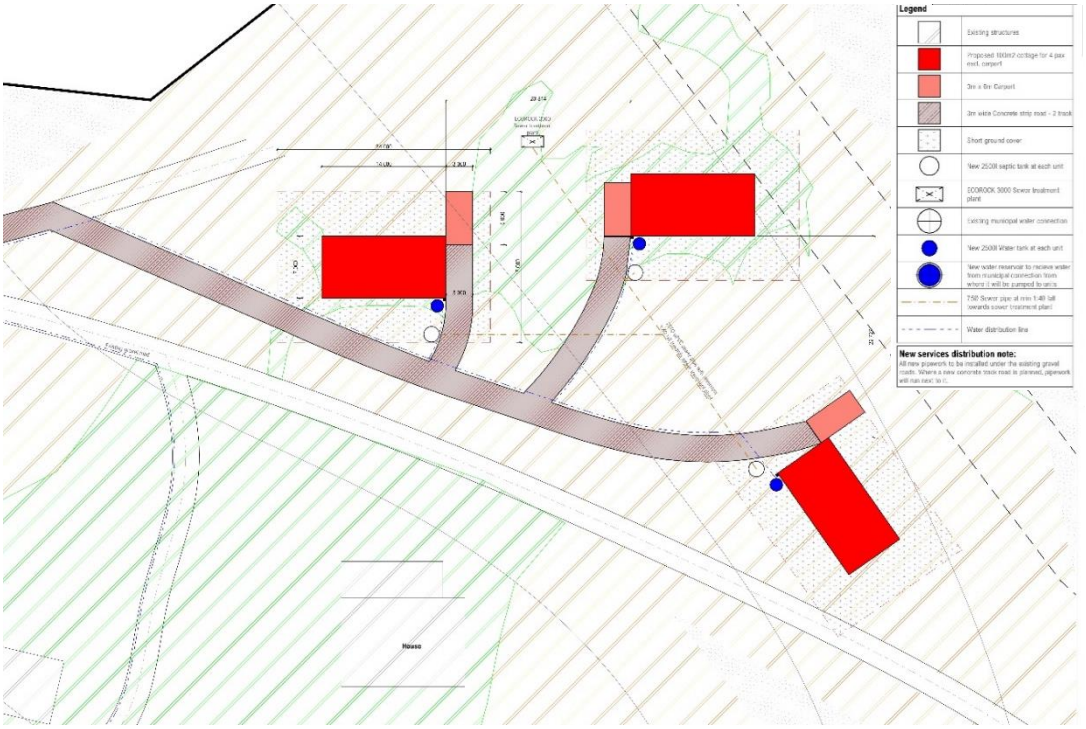

Fig. 5: The new proposed location of the three glamping cottages closest to the river.

2. DETAILS OF THE SPECIALISTS

Both specialists that compiled this document have experience in faunal species identification, and the identification of suitable habitats for various species, from invertebrates to large mammalian species. Their details are in the table below.

Table 1. The details and experience of the specialists involved with this report.

Specialist and contact details	Qualifications	SACNASP Registration	Experience
Prof. Jan A Venter **Email:** JanVenter@mandela.ac.za **Mobile:** 0824161096	PhD (Biology) UKZN	400111/14	27 Years' experience in faunal ecology and conservation in both the government and tertiary education sector. Current position: Associate Professor in the Department of Conservation Management at Nelson Mandela University
Willem Matthee **Email:** WillemM@mandela.ac.za **Mobile:** 084 620 4246	M.Sc. (Nature Conservation) NMU	Not registered	Willem has three years' experience in surveying amphibian populations, and an additional five years of bird surveys. He has also been involved in animal diversity surveys on an on-off basis for the past six years. He has completed his MSc in Nature Conservation in 2014. He currently lectures as a lecturer in Conservation Ecology at the Nelson Mandela University George Campus.

3. SITE DESCRIPTION

3.1. Location and Vegetation

The site for the proposed development is located at Melkhoutefontein, near Gouritsmond (S34º19'23.82"; E21º49'28.67"). The property is 105.62 ha in size, with 23.0 ha thereof located to the east of the R325 that bisects the property, and the remainder to the west of the R325.

The entire western section of the property consists of Albertinia Sand Fynbos (FFd9, classified as vulnerable; Rebelo et al., 2006), while the eastern section consists of a mixture of Albertinia Sand Fynbos, Canca Limestone Fynbos (FFl3, classified as least concern), Hartenbos Dune Thicket (AT40, classified as endangered; DFFE 2022), and estuarine salt marsh vegetation along the Gouritz River (that border the property to the east). The western section is dominated by shortish fynbos shrubland, with *Leucospermum praecox* in particular flowering profusely during the site visit. There is evidence that the western section had been invaded heavily by *A. cyclops*, but that these trees have been removed systematically from the property. The eastern section of the property also has *A. cyclops* invasion present, mainly along the northern boundary fence.

3.2. Development Layout

Six glamping cottages are proposed (Fig[s] 4 – 7). Three of these cottages are proposed for the area around the *Eucalyptus* clump in the western section of the property, and the other three for the area near the Gouritz River. The cottages adjacent to the *Eucalyptus* clump are proposed for an area that has been classified as low sensitivity, due to the invasion by *Eucalyptus* and other alien invasive plants. Though the *Eucalyptus* clump likely contains a nest of Martial Eagles (*Polemaetus bellicosus*), these birds are unlikely to be impacted by the proposed development, as construction of this development will avoid entering the *Eucalyptus* clump, and will not result in a reduction in natural fynbos vegetation (hunting grounds of this species). The three glamping cottages near the river (in the eastern section of the property) is largely proposed for an area where there is also a high occurrence of alien invasive plants. Two of these are proposed for an area classified as low sensitivity for the animal species of conservation concern, whereas the third is proposed for an area classified

as medium sensitivity (due to the potential presence of *B. sylvaticus* within the development footprint). Each glamping cottage will have a maximum development footprint of 420 m^2, excluding entrance roads leading to these cottages from pre-exiting roads. All infrastructure (glamping cottages, roads, landscaping, and associated infrastructure) is planned for areas with low sensitivity (and confined to the 420m^2 development footprints), apart from the one glamping cottage in the eastern section of the property (which is proposed for an area with medium sensitivity, but will also be confined to a maximum development footprint of 420m^2).

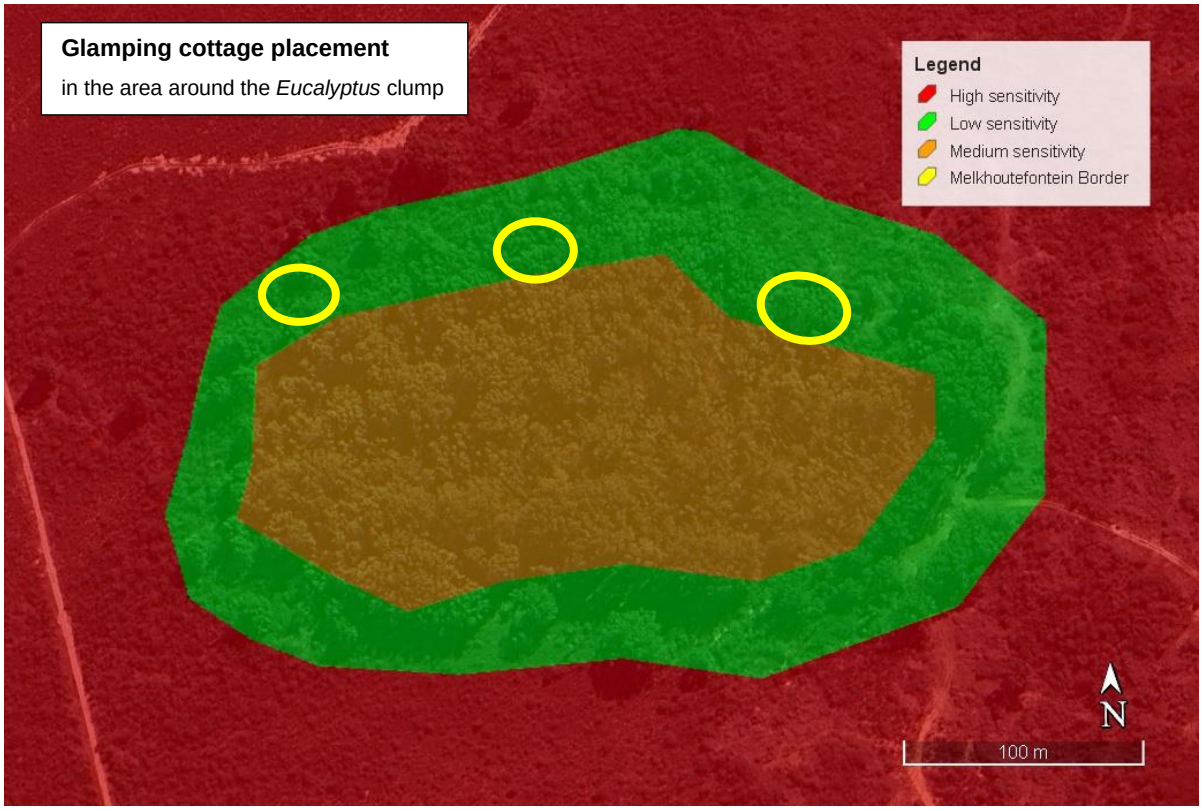

Fig. 6: The location of the six glamping cottages (yellow circles) located around the *Eucalyptus* clump in the western section of the property, relative to the sensitivity scores given in the SSVR. All three of these glamping sites are located within areas that are classified as low sensitivity.

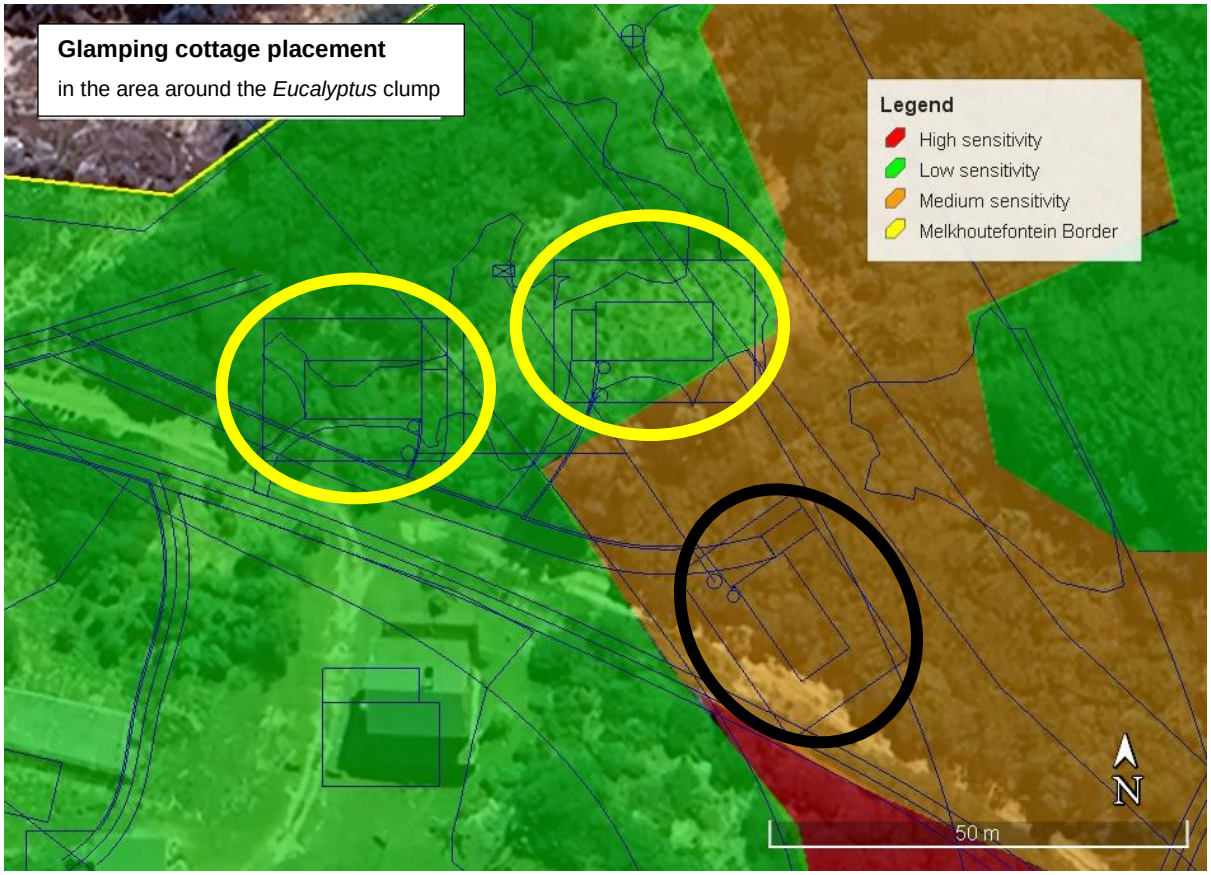

Fig. 7: The location of the three glamping sites in the eastern section of the property (near the Gouritz River), relative to the sensitivity scores presented in the SSVR. Two of these sites (circled in yellow) are in areas with low sensitivity, but one (circled in black) is located in an area with medium sensitivity.

4. METHODOLOGY

4.1. Desktop Analysis

The findings of this report are based on:

1) a desktop study to determine the potential presence of the SCC identified by the DFFE screening tool report (and any SCC not identified in the report) at the study site; and
2) a site visit to the study site, to determine the presence of (and habitat suitability for) the SCC highlighted by the DFFE screening tool report, and any SCC not flagged by the screening tool report.

The desktop analysis consisted of Cape Farm Mapper to determine vegetation types at the study site, and the use of the Global Biodiversity Information Framework (GBIF) and iNaturalist for the confirmation of records of species of conservation concern (SCC) near the study area. References regarding the conservation statuses of SCC consisted of the IUCN Red List of Threatened Species, Taylor et al. (2015) for birds, and Child et al. (2016) for mammals.

The DFFE screening tool identified a total of ten species of conservation concern (SCC). These species, along with their associated sensitivities were:

- African marsh-harrier, *Circus ranivorus* (Aves) – High sensitivity
- Black harrier, *C. maurus* (Aves) – High sensitivity
- Denham's bustard, *Neotis denhami* (Aves) – High sensitivity
- Knysna warbler, *Bradypterus sylvaticus* (Aves) – High sensitivity
- Martial eagle, *Polemaetus bellicosus* (Aves) – High sensitivity
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- Sensitive Species 8 (which cannot be disclosed) – Medium sensitivity
- Yellow-winged agile grasshopper, *Aneuryphymus montanus* (Insecta) – Medium sensitivity

***Circus ranivorus* (African marsh-harrier)** occurs along large water bodies and in neighbouring open vegetation (Simmons, 2005a). This species is classified as Endangered in South Africa (Taylor, 2015a), with habitat loss and degradation being the most significant threat to the continued survival of this species. The property is bordered by the Gouritz River, which has suitable reedbeds and open vegetation adjacent to it. These habitats likely support sufficient numbers of rodents, birds and amphibians (the main food sources of *C. ranivorus* to support a population of these birds. A total of 16 records of this species have been recorded on the GBIF network, with the majority thereof collected during birds atlassing for the Southern African Bird Atlas Project 2 (SABAP2), and one record collected during a Coordinated Waterbird Count (CWAC). There is therefore a high likelihood that this species occurs along the eastern edge of the property, but a very low likelihood that this species occurs within the development footprint of the proposed development (as the vegetation is either too dense, or too far from water to be suitable for this species).

***Circus maurus* (Black harrier)** is an endangered raptor (Taylor, 2015b), endemic to southern Africa. It occurs in indigenous fynbos and neighbouring cropfields (Simmons et al., 2005). It is threatened mainly by habitat destruction and fragmentation, and the conservation of intact suitable habitat is therefore essential for the continued existence of this species. The western section of the property is mainly covered by suitable fynbos vegetation, and there are 49 records of this species on the GBIF database (mainly SABAP2 records, but also a number of iNaturalist observations). Due to the habitat suitability and high occurrence of *C. maurus* observations from the area, there is a high likelihood of this species occurring in this area. However, there is a low likelihood of this species occurring within the development footprint, as the vegetation along the river is too dense for this species, and the area around the *Eucalyptus* vegetation is too degraded and invaded by alien invasive plants (AIPs) to be suitable for this species.

Neotis denhami **(Denham's bustard)** occurs in natural vegetation (fynbos and grasslands), pastures and agricultural fields (Allan, 2005a). It is classified as Vulnerable in South Africa (Taylor, 2015c), mainly due to powerline collisions, habitat conversion to intensive monoculture fields, and overgrazing of grassland habitats. There are 49 records of this species on the GBIF database, including two iNaturalist records from the area. These two iNaturalist records (as well as four closer to the N2 to the north) are from pastures, where the vegetation is more open than the vegetation on this property. Natural vegetation (such as the fynbos present on the property) is used as breeding habitat (and feeding habitat during the breeding season) for this species, and it is likely that individuals in the area would spend some time in this vegetation. There is therefore a medium likelihood that this species occurs on the property, particularly the western section of the property. However, there is a low likelihood of this species occurring within the development footprint, as the vegetation is either too dense (eastern section) or degraded and invaded by AIPs (western section) to be suitable habitat for this species.

Bradypterus sylvaticus **(Knysna warbler)** is a vulnerable bird species occurring in dense thickets, including riparian vegetation and coastal thickets dominated by White milkwood, *Sideroxylon inerme* (Smith, 2005; Taylor, 2015d). This species is threatened mainly by habitat destruction, specifically the clearing of coastal clearings where it occurs. Although it mainly occurs in indigenous thickets, it may also occur in suitable thickets of exotics, such as exotic *Rubus* (bramble) and lantana (*Lantana camara*). The western section of this property does not appear to have suitable vegetation for this species, as it is dominated by fynbos vegetation (which is too sparse for this species) and a *Eucalyptus* thicket (which has too sparse understory to support this species). The eastern section of the property may have suitable vegetation, particularly the *S. inerme*-thickets along the river. With 46 records of this species for the area on the GBIF database, this species is present in the general area. There is therefore a high likelihood of this species occurring on the property, mainly in the eastern section thereof. There is also a medium likelihood of this species occurring within the development footprint of the eastern glamping cottages (particularly the one cottage placed within the area with a medium sensitivity), as one individual was heard in thicket vegetation nearby, and the vegetation is dense enough to be used as a corridor for this species. The other two glamping cottages in the eastern section, as

well as the three glamping cottages adjacent to the *Eucalyptus* clump in the western section of the property, are unlikely to have an impact on this species, as the vegetation in those areas lack the well-developed understorey that this species requires, and is therefore not suitable for this species.

Polemaetus bellicosus **(Martial eagle)** is a large, endangered raptor that prefers open vegetation, and breeds in tall trees (Simmons, 2005b; Taylor, 2015e). This species is threatened mainly due to direct persecution by small livestock farmers, poisoning, and reduction of prey abundance due to habitat transformation. Though tall trees are rare in fynbos, the clump of large *Eucalyptus* trees in the western section of the property may be suitable for nest construction and subsequent breeding attempts. There are 24 records of this species on the GBIF database, and combined with the presence of large trees suitable for nest construction, it is likely that this species occurs on the property. There is a low likelihood, however, that this species occurs within the development footprint, as the vegetation in the eastern section is too dense to support this species, and the vegetation around the *Eucalyptus* clump is too invaded by AIPs (and too dense) to be of value for this species. The presence of this species in the area around the development footprint is due to the clump of large *Eucalyptus* trees in the western section, which is probably used as a nesting site.

Stephanoaetus coronatus **(Crowned eagle)** is a large, vulnerable eagle that occurs in forested or densely-wooded habitats (Simmons, 2005c; Taylor, 2015f). There are no forested or densely-wooded habitats (of sufficient size to support this species and its prey) on or around the property. The nearest record of this species, is a record from Brandwacht, which is approximately 37 km from this property (and has forested habitats in the area). There is therefore a very low likelihood that this species occurs on this property, and this development is therefore highly unlikely to have an impact on this species.

***Afrotis afra* (Southern black korhaan)** is a vulnerable bird species that occurs in open fynbos and arid shrublands (Allan, 2005b; Hofmeyr & Taylor, 2015). There are four records of this species in the area, mainly from the more open shrublands to the east (towards Vleesbaai). This species occurs in vegetation up to 3m in height, and this property may therefore provide suitable habitat. The absence of records on the GBIF database may be due to an underreporting of this species, as it is cryptic unless calling. Due to the potential suitability of the habitat on the property (especially the western section thereof), there is a medium likelihood that this species occurs on the property. However, the vegetation in the areas proposed for the glamping cottages is too dense (and invaded by AIPs) to be suitable habitat for this species, and it is highly unlikely that this species occurs within the development footprint, or will be impacted by the proposed development.

Sensitive species 5 (which cannot be disclosed) occurs in open vegetation, where prey animals are plentiful. It is classified as vulnerable; however, they have gone locally extinct in the Western Cape, and occur only on protected areas (Van der Merwe et al., 2016). Since this species has not been introduced onto this property, and there are no records of this species on the GBIF database, there is a very low likelihood of it occurring on this property or within the development footprint, and the proposed development is therefore highly unlikely to affect this species' continued survival.

Sensitive species 8 (which cannot be disclosed) occurs in forested areas, where sufficient undergrowth occurs (Venter et al., 2016). There are no records of this species from this area, with the closest records thereof being from Klein Brak River (approximately 40km from this property). Due to the absence of suitable habitat of sufficient size to support this species, and the absence of records from this area, there is a low likelihood that this species occurs on the property or within the development footprint, and the proposed development is therefore unlikely to affect this species' continued survival.

Aneuryphymus montanus **(Yellow-winged agile grasshopper)** is a vulnerable grasshopper species known from only six localities (Hochkirck et al., 2018). There are no records of this species on the GBIF database, with the closest record being from the Swartberg Mountains (>100km from this site). *A. montanus* also prefers arid fynbos on rocky substrates, neither of which are present on this property. Due to the lack of records from the area and the lack of suitable habitat on the property, there is a very low likelihood of this species on this property or in the development footprint, and the proposed development is highly unlikely to affect the continued survival of this species.

4.2. Site Visit

A site visit was performed on 22 September 2023, between 09:00 and 13:00. During the site visit, the species observed (mainly animal species, but also the plant species forming part of the habitat present at the study site) were recorded. Observations were visual (i.e., the animals were observed), acoustic (the animals were heard), or based on the presence of tracks or dung. The survey consisted of walking throughout the study area, observing the study site from different vantage points, and attempting to cover the entire property sufficiently to determine the presence or absence of the SCC (with an emphasis on the area that forms the development footprint, and the areas directly around the development footprint). The main purposes of the site visit were to determine whether:

1) any of the 10 SCC flagged by the screening tool occur at the study site;

2) the site for the proposed glamping cottages acts as a corridor for any of the SCC highlighted by the screening tool;

3) the vegetation that will be impacted by the proposed glamping cottages likely supports undetected individuals or populations of the SCC highlighted by the screening tool (that were not picked up during the desktop study); and

4) there are any SCC present at the site that were not picked up by the screening tool.

4.2.1. Vegetation

The site visit confirmed that the western section of the property is dominated by indigenous fynbos vegetation (Albertinia sand fynbos). Large numbers of flowering *Leucospermum praecox* are present in this section, and there is evidence that large numbers of exotic rooikrans (*Acacia cyclops*) have been removed in this section of the property. There is also a clump of tall (>15m) *Eucalyptus* trees present in this section of the property, with some saplings of these trees present on the edges thereof. The eastern section of the property had three main vegetation types present, namely (1) estuarine vegetation (dominated by sedges and *Phragmites australis* (an indigenous reed species), Hartenbos dune thicket (with white milkwood, *Sideroxylon inerme*, present), and Canca limestone fynbos. The northern edge of this section has a high density of *A. cyclops* present, while there is also a clump of poplar (*Populus* sp.) trees between the thicket and estuarine vegetation. This section will focus on the five main habitats on the property.

For the western section of the property, two habitats were present:

- Albertinia sand fynbos; and
- *Eucalyptus* thicket

For the eastern section of the property, three habitats were present:

- Estuarine vegetation
- Canca limestone fynbos; and
- Hartenbos dune thicket

a) Albertinia sand fynbos

This vegetation type is the dominant vegetation type in the western section of the property. Dominated by tall shrubs, particularly *Leucospermum praecox*, with an understorey of smaller shrubs, this section of the property was previously invaded by *A. cyclops*. Large sections thereof have been cleared, though some areas are still invaded. The flowering *L. praecox* will provide an abundance of food for nectivorous species such as Cape sugarbird (*Promerops cafer*), Orange-breasted sunbird (*Anthobaphes violacea*) and Malachite sunbird (*Nectarinia famosa*), though none of these species were observed during the survey. In terms of the SCC, this vegetation provides suitable habitat for Denham's bustard (*N. denhami*), Black harrier (*C. maurus*), Southern black korhaan (*A. afra*) and Martial eagle (*P. bellicosus*). During the site visit, a **Martial eagle (*P. bellicosus*)** was observed flying over this habitat (Fig. 8) and it is likely important hunting habitat for this species. The vegetation structure is suitable for *A. afra*, *N. denhami* and *C. maurus*, and due to the likelihood of these SCC occurring in this habitat, the majority thereof is designated as **High sensitivity** in the sensitivity map provided (Fig. 2). Photographs of this site were taken at S34º19'23.5", E21º49'23.8" (Figs 9 & 10), and at S34º19'21.8, E21º49'07.8" (Figs 11 & 12).

Fig. 8: The Martial eagle (*P. bellicosus*) observed flying at S34º19'26.6", E21º49'02.8".

Fig. 9: Albertinia sand fynbos at S34º19’23.5”, E21º49’23.8”, looking west towards the *Eucalyptus*-thicket. This vegetation is dominated by *Leucospermum praecox* (seen flowering in the foreground).

Fig. 10: Albertinia sand fynbos (also at S34º19’23.5”, E21º49’23.8”), looking east.

Fig. 11: The border between the Albertinia sand fynbos (foreground) and *Eucalyptus*-thicket (in the background). This area also has *A. cyclops* (the medium-sized, light green trees) present, and is too dense and degraded for most of the SCC.

Fig. 12: Adjacent to the *Eucalyptus*-thicket, the *Leucospermum praecox* is flowering profusely, providing habitat and food for those species dependent on pristine fynbos habitat.

b) *Eucalyptus* thicket

This vegetation (centred around S34º19’25.5”, E21º49’09.8) is dominated by large gum trees (*Eucalyptus* sp.). There is a relative shortage of understorey in this habitat, and it is therefore unsuitable for Sensitive species 8 (which cannot be disclosed) and *B. sylvaticus*. Additionally, the thicket is too small to support a population of *S. coronatus* (and its prey). During the site visit, a Black Sparrowhawk (*Accipiter melanoleucus*) was observed flying into this *Eucalyptus*-thicket, and it is possible that this species uses the *Eucalyptus*-thicket for breeding. The **Martial eagle (*P. bellicosus*)** that was observed flying over the fynbos vegetation (Fig. 8) was initially observed flying from this vegetation type, and they likely use the largest trees as perch sites (and possibly nest sites, though no nests were observed during the site visit). Due to the importance of these trees for raptors such as the ones observed, the area where large trees are present has been designated as **Medium sensitivity** in the sensitivity map. The section around the area with tall eucalypts is designated as **Low sensitivity**, as the trees are not big enough to support populations of *P. bellicosus*, but the vegetation is also too degraded and dense to accommodate the other SCC.

Fig. 13: The *Eucalyptus*-thicket, as viewed from the southeast (at S34º19’27.7”, E21º49’15.5”), showing the tall *Eucalyptus* trees that dominated this vegetation type.

Fig. 14: The *Eucalyptus*-thicket (here viewed from S34º19'27.7", E21º49'15.5") is characterised by tall *Eucalyptus* trees, and a sparse understorey unsuitable for the SCC that require a dense understorey (such as *B. sylvaticus* and Sensitive species 8).

c) Estuarine vegetation

This vegetation is confined to the eastern corner of the property's eastern section (S34º19'18.2"; E21º50'15.2"). The vegetation is characterised by Common reed (*Phragmites australis*) and various sedge (Cyperaceae) species (Figs 15 & 16). This vegetation provides a habitat for aquatic and semi-aquatic species, including Yellow-billed ducks (*Anas undulata*), Gamtoos river crab (*Potamonautes barbarai*), and Cape clawless otter (*Aonyx capensis capensis*). During the site visit, numerous droppings of Cape clawless otters (Fig. 17) were recorded, particularly in the grassy embankment next to the river, indicating its presence in this area. Since this vegetation is part of the riparian vegetation (and therefore act as an ecological corridor along the river course), and is likely used by *C. ranivorus*, this vegetation is designated as **High sensitivity** in the sensitivity map provided.

Fig. 15: The reedbed along the Gouritz River estuary (at S34º19’18.2”; E21º50’15.2”), with short sedges in the foreground.

Fig. 16: Taller sedges in the estuarine vegetation (at S34º19’18.2”; E21º50’15.2”), with Hartenbos dune thicket vegetation in the background.

Fig. 17: A Cape clawless otter dropping, filled with undigested crab shells (mostly Cape shore crab, *Cyclograpsus punctatus*).

d) Canca limestone fynbos

This vegetation type is the dominant vegetation type present in the eastern section of the property. The section to the north of the entrance road is invaded by *A. cyclops*, and is therefore assigned **Low sensitivity** in the sensitivity map. The remainder of this vegetation appears to be in good condition, and may be potentially suitable habitat for *A. afra*, *C. maurus* and *N. denhami*. However, the proximity to the current farmhouse (which, along with the associated lawns and orchard, is also designated as low sensitivity) reduces the likelihood that these sensitive species will use this section of the property, and it is therefore designated as **Medium sensitivity**.

Fig. 18: A Limestone conebush (*Leucadendron meridianum*, the larger shrub) and Yellow conebush (*Leucadendron salignum*, the smaller, lime green shrub in front) flowering in the Canca limestone fynbos. In the background (to the right), a Stink-leaf protea (*Protea susannae*) is also flowering.

Fig. 19: A section of Canca limestone fynbos (at S34º19'17.4", E21º49'42.1), with *Polygala myrtifolia* flowering in the foreground. Dead branches of the invasive *A. cyclops* that have been cleared are also visible in the photo.

e) Hartenbos dune thicket

During the site survey, a brief response to a call playback was observed from a **Knysna warbler (*B. sylvaticus*)**. This bird was likely present in the thicket vegetation, though no further calls were heard. The dense thicket vegetation present around the farmhouse and to the south thereof is potentially suitable for this sensitive species, and is therefore designated **High sensitivity**. *B. sylvaticus* has undergone drastic population declines to the west, and further habitat destruction and alteration in this area may result in similar declines in this region. The section where the poplar trees are present within this vegetation type has been designated **Low intensity**, as the undergrowth necessary to support this bird species is not present, and it is unlikely that they use that portion of the property.

Fig. 20: An invaded section of Hartenbos dune thicket (invaded by *A. cyclops*), at S34º19’19.8, E21º50’11.8”. Despite the high rate of invasion, there are still indigenous species (such as White milkwood, *Sideroxylon inerme*) present in this habitat.

Fig. 21: Hartenbos dune thicket (left of the path) and estuarine vegetation (right) at S34º19'19.7", E21º50'12.8"). The dune thicket here is invaded by *A. cyclops*, and the poplar (*Populus*) stand is visible at the back (arrow).

Fig. 22: The poplar (*Populus* sp.) stand at S34º19'18.3", E21º50'12.2". This clump is a monospecific stand, which is unlikely to support any of the SCC, and has been designated as low sensitivity in the sensitivity map.

4.2.2. Animal species sensitivity

During the site visit, a Knysna warbler (*B. sylvaticus*) was heard calling briefly in the Hartenbos dune thicket near the existing house. This species is surprisingly resilient in semi-urban environments, provided suitable thicket vegetation is present. If the Hartenbos thicket vegetation is restored (*A. cyclops* removed, and the development not placed within the thicket vegetation itself), it is likely that this species will inhabit the thicket vegetation after construction has been completed. Two of the glamping cottages closest to the Gouritz River are located in areas designated low sensitivity, while one is located in an area designated medium sensitivity. The two glamping cottages proposed for the low sensitivity area are unlikely to impact *B. sylvaticus*, but the glamping cottage proposed for the medium sensitivity area may impact this species if mitigation measures are not implemented. These mitigation measures are discussed in detail in **sections 5.2.1, 5.2.2 and 6.**

The only other SCC that was recorded during the site visit, was the Martial eagle (*P. bellicosus*) near the *Eucalyptus*-thicket in the western section of the property. No nest was observed during the site visit, but it is possible that the tall trees could provide suitable breeding places for this species (another specialist reported seeing an adult flying into the tall trees with a carcass, potentially indicating a breeding attempt in progress, and the carcass being taken to the chicks). The pristine fynbos vegetation surrounding the thicket is likely important hunting grounds for this species, and the conservation thereof is important for the continued persistence of this species. However, the glamping cottages will be placed in vegetation that are not important as either feeding or breeding habitat, as they will be placed in the vegetation around the *Eucalyptus* clump, where the vegetation is degraded due to AIP invasion.

No signs of the other eight SCC were observed during the site visit. The habitats, however, may be suitable for some of these species, and due to the habitat suitability and records in the general area, there is a **high likelihood** of *C. ranivorus*, *C. maurus*, *B. sylvaticus* and *P. bellicosus* occurring at the site. There is also a medium likelihood of *N. denhami* and *A. afra* occurring at the site, particularly in the western section of the property. Due to there being a general lack of suitable habitat on the property (and with no records of this species in the area), there is a low likelihood of Sensitive species 8 occurring at the site. There is also a very low likelihood of *A. montanus*,

Sensitive species 5 and *S. coronatus* occurring at the study site. *A. montanus* is unlikely to occur in sandy areas, as it prefers sclerophyllous fynbos in arid and semi-arid areas with a rocky substrate (none of these requirements are met at the study site). Sensitive species 5 requires open vegetation (the vegetation at the study site is too dense to accommodate it), and in the Western Cape only occurs on reserves where they have been re-introduced: it is very unlikely that it occurs on this property. *S. coronatus* requires large areas that are densely-wooded: this habitat is not present at the study site, and it is very unlikely to occur here. **Apart from *B. sylvaticus*, however, all SCC are highly unlikely to occur within the development footprint, and they are unlikely to be impacted by the proposed development.**

For the SCC that are likely to occur at the study site, the pristine fynbos, aquatic vegetation, and tall *Eucalyptus* trees (for *P. bellicosus*) are the most important vegetation to avoid disturbing. Therefore, placing the glamping cottages in areas where exotic plants have invaded (which are areas that are not suitable for the SCC recorded at the study site, and where they are unlikely to occur) will prevent the development from impacting the SCC identified by the screening tool report.

Table 2: The ten species of conservation concern (SCC) identified by the DFFE screening tool, and each species' conservation assessment, habitat requirements and likelihood of occurrence on the property and at the study site (development footprint), based on the site sensitivity verification report, desktop assessment and the site visit on 22 September 2023.

Common name	**Threat Status**		**Habitat requirements**	**Likelihood of occurrence**
	International	**National**		
Knysna warbler *Bradypterus sylvaticus*	Vulnerable Decreasing	Vulnerable Decreasing (<2 500 adult individuals) Endemic to South Africa.	Forest edges, riparian thickets and coastal thickets where *Sideroxylon inerme* is present. Also utilises thickets dominated by lantana and bramble.	High The thicket vegetation in the eastern section of the property is suitable for this species; one individual was heard calling during the site visit for the site sensitivity verification report. The areas invaded by AIPs are less likely to be of significance for this species, due to the lack of proper vegetation stratification in these areas.
Black harrier *Circus maurus*	Endangered Decreasing (251-999 adult individuals)	Endangered Decreasing Near-endemic to southern Africa.	Open vegetation, particularly indigenous fynbos and renosterveld; also uses pastures and wheat fields.	Medium May be present on the property, but unlikely to occur within the development footprint and be affected by the proposed development.
Denham's bustard *Neotis denhami*	Near-threatened Decreasing	Vulnerable Decreasing Population estimated at <5000 pairs for South Africa.	Open vegetation, including grasslands, renosterveld, and old fields.	Medium May be present on the property, but unlikely to occur within the development footprint and be affected by the proposed development.

Common name	Threat Status		Habitat requirements	Likelihood of occurrence
	International	National		
Martial Eagle *Polemaetus bellicosus*	Endangered Decreasing (uncertain population size)	Endangered Decreasing (800 mature individuals in the subregion).	Open woodlands, semi-arid shrublands, and fynbos vegetation with sufficient prey available.	High Was recorded flying over the pristine fynbos vegetation, and the *Eucalyptus* clump. However, this species is unlikely to utilise the areas where the glamping cottages are planned, and unlikely to be impacted by the proposed development.
Southern black korhaan *Afrotis afra*	Vulnerable	Vulnerable Declining (uncertain population size) Endemic to South Africa.	Open fynbos and karrooid shrubland.	Medium May be present on the property, but unlikely to occur within the development footprint and be affected by the proposed development.
African marsh-harrier *Circus ranivorus*	Least Concern Decreasing	Endangered Decreasing (<2 500 adult individuals)	Estuaries and large wetlands with sufficient reedbeds for food and breeding	Very low There is no suitable habitat of sufficient size at the study site to support this species.
Crowned eagle *Stephanoaetus coronatus*	Near-threatened Decreasing 5 000 – 50 000 mature individuals	Vulnerable Decreasing Quite widespread, with a high tolerance for modified habitats. Estimated population of 800 – 900 mature individuals in South Africa.	Well-developed forests, dense woodlands, commercial plantations, and well-wooded suburbs.	Very low The habitats present at the study site are not suitable for this species, as there is a lack of tall, tree-dominated vegetation apart from the isolated clump of *Eucalyptus* in the western section. There are also no records of this species in the surrounding landscape.

Common name	Threat Status		Habitat requirements	Likelihood of occurrence
	International	National		
Yellow-winged agile grasshopper *Aneuryphymus montanus*	Vulnerable Likely declining No population estimates, and rarely collected.	Vulnerable Likely declining No population estimates, and rarely collected.	Dry, sclerophyllous fynbos in rocky foothills.	Very low Not known from the area, and no suitable habitat present at the study site.
Sensitive Species 5 (which cannot be disclosed)	Vulnerable Decreasing (<10 000 mature individuals remaining)	Vulnerable Stable (<2 000 mature individuals in South Africa).	Open vegetation, mainly savanna, with sufficient food availability. Limited occurrence outside fenced protected areas, and extinct as free-roaming species in the Western Cape.	Very low In the Western Cape, this species only occurs within fenced protected areas where sufficient food is available and they have been re-introduced. This species has not been re-introduced onto this property.
Sensitive Species 8 (which cannot be disclosed)	Least Concern Decreasing No population estimate, but widely distributed in Central, East and southern Africa.	Endangered Decreasing (Highly variable estimates, indicating between 3 538 and 50 015 individuals in South Africa).	Densely-wooded and forested landscapes, including coastal thickets.	Very low There is very little suitable habitat on the property, with the area with suitable habitat not being of sufficient size to support this species.

4.2.3. Other animal species

During the site visit, a total of 51 animal species were recorded (Appendix 1). These observations consisted of 35 bird, nine insect, five mammal, one reptile, and one crustacean species. Apart from the two SCC recorded, notable observations included the Cape clawless otter (*Aonyx capensis*) feeding site, tracks and dung of Cape grysbok (*Raphicerus melanotis*) and Southern bushbuck (*Tragelaphus sylvaticus sylvaticus*), and beehives destroyed by Honey badger (*Mellivora capensis*). Of these noteworthy species observed, all are classified as Least Concern, with the exception of the Cape clawless otter (which is classified as Near Threatened, but not a species of conservation concern). The proposed development, however, is unlikely to impact the survival of any of these species, including the Cape clawless otter. Also, at least one Black sparrowhawk (*Accipiter melanoleucus*) was present at the site (at the *Eucalyptus* clump). Of the 51 animal species recorded, 36 were observed in the eastern section of the property, and 23 species were recorded in the western section of the property.

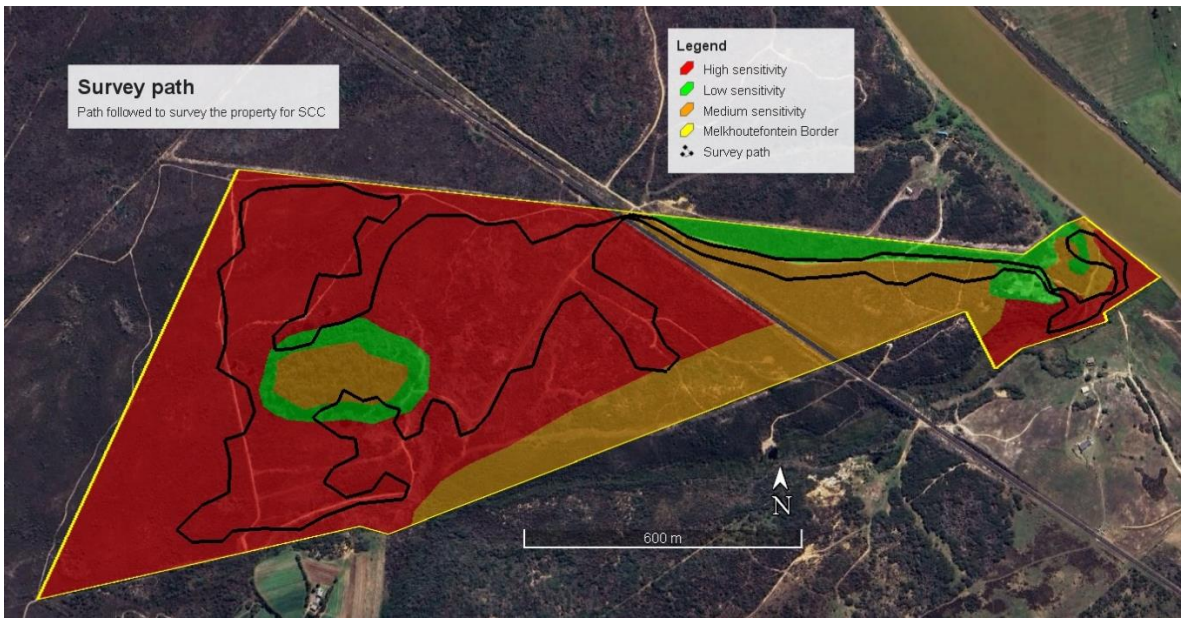

Fig. 23: The survey path (black line) followed to determine the presence (and potential presence) of SCC on the property.

5. FINDINGS AND EVIDENCE

5.1. Animal species sensitivity

During the site visit, no signs were observed of *C. ranivorus*, *C. maurus*, *N. denhami*, *A. afra*, Sensitive Species 5, Sensitive Species 8, *A. montanus* or *S. coronatus*. The study site (and, naturally, the development footprint) does not support the correct habitat for *S. coronatus* (which requires well-developed woodlands or forested habitats), *A. montanus* (requiring sclerophyllous xeric fynbos vegetation on a rocky substrate), or Sensitive Species 8 (requiring extensive forested or thicket vegetation). Additionally, Sensitive Species 5 is highly unlikely to occur on the property, as it is only present in fenced protected areas to which it has been re-introduced. Though the pristine fynbos vegetation appear superficially suitable for *A. afra*, *N. denhami*, *C. maurus* and *P. bellicosus*, the glamping cottages are not to be placed in this vegetation, and disturbance to animal species in these areas will be minimal. Similarly, although the reedbed vegetation adjacent to the Gouritz River is suitable habitat for *C. ranivorus*, the glamping cottages are not proposed for these areas, and they are unlikely to impact this species.

During the site visit, two SCC were recorded at the study site: *P. bellicosus* was recorded flying over the pristine fynbos vegetation near the *Eucalyptus* clump, and one individual of *B. sylvaticus* was heard calling in the thicket vegetation near the existing house in the eastern section of the property. A record of the *P. bellicosus* observation was placed on iNaturalist (Matthee, 2023), but the *B. sylvaticus* call was too quick to obtain a recording of.

As the only SCC (*B. sylvaticus*) that may be affected by the proposed development (particularly the glamping cottage located in an area with medium sensitivity), the following sections will focus only on that one species.

5.2. Development impacts on *B. sylvaticus*

The proposed development will potentially impact one SCC (*B. sylvaticus*) during the construction and operational phases, though the impacts will be most significant during the construction phase. Since no permanent inhabitants will be staying in the proposed development, impacts during the operational phase will be limited to when visitors are present. For this section of the report:

- "non-mitigated alternative" refers to the development taking place as initially planned, without any mitigation measures;
- "preferred alternative" refers to mitigation measures being implemented to reduce the impacts on the SCC (notably, *B. sylvaticus*); and
- "no-go alternative" refers to no human intervention (including the removal of alien invasive plant species).

It should be noted that the non-mitigated alternative already consists of the proposed glamping cottages being placed in areas where the environmental impacts will be reduced (i.e., outside wetland areas or other areas of high sensitivity). The main glamping cottage that will have an impact on *B. sylvaticus*, is the one located in the area that is classified as medium sensitivity. The impacts and mitigation measures will focus mainly on this glamping cottage, but the mitigation measures should also be implemented for the other glamping cottages (which are located in areas with low sensitivity).

5.2.1. Impacts during the construction phase

During the initial construction phase, the main impacts will be due to the removal of vegetation, noise disturbance, and potential disturbance to vegetation outside the development footprints. The no-go alternative will likely only have an impact if the AIPs are not removed from the property, as these plants will spread to surrounding areas, changing the vegetation composition, and subsequently affecting the potential habitat availability for SCC potentially occurring in the area (and other animal species that are not classified as SCC).

Development within the area classified as Medium sensitivity will likely have a moderate impact on *B. sylvaticus* if no mitigation measures are implemented. The one individual that was heard calling at the study site during the site visit, was calling from an area near the proposed site (but not within the development footprint itself). Though *B. sylvaticus* can occur in vegetation where AIPs are present, they still require a well-developed understorey vegetation under the canopy. The proposed development footprint does not, however, have this vegetation structure, and it is unlikely that this species utilises this section often.

Bradypterus sylvaticus has a specific breeding season (September – November), during which they are more susceptible to disturbances in and around their breeding habitat (Smith, 2005). To mitigate the impacts of the proposed development on this species, construction (especially of the glamping cottage in the area with medium sensitivity) should preferably be performed outside the breeding season (i.e., construction should occur between January and early-August). If this is not feasible, additional mitigation measures should be taken, with an environmental control officer (ECO) being appointed to determine the presence of *B. sylvaticus* at or near the development footprints (especially the one located in the area with medium sensitivity). If there is evidence that this species is present (as determined by the presence of calling individuals, regardless of whether nests are present) prior to construction commencement, construction must not occur during the breeding season of this bird species. Nests are difficult to detect, and disturbance (i.e., construction) directly adjacent to calling individuals will disturb their breeding attempts. This is only applicable to the cottage proposed for the area with medium sensitivity, as I have recorded successful breeding attempts of *B. sylvaticus* approximately 30m from building construction (and the construction of the other two cottages is therefore unlikely to impact breeding attempts by *B. sylvaticus* in the thicket vegetation present in the eastern section of the property). If no individuals of *B. sylvaticus* are recorded near the proposed site of the cottage in the area with medium sensitivity (as determined by the ECO appointed), construction can commence.

Additionally, the indigenous thicket vegetation should be cordoned off, with proper hoarding, to prevent the spillage of construction material into the indigenous thicket vegetation, and limit vegetation removal to the development footprint itself. Lastly, exotic plants that are present in the area around the development footprints should preferably be removed, the stumps treated with an appropriate herbicide, and natural thicket vegetation allowed to re-establish after clearing has occurred. This re-establishment of indigenous thicket vegetation will reduce the impact of the proposed development post-construction, as the thicket vegetation may provide important habitat or corridor vegetation for this species (and other thicket species in the area).

Table 3: The likely impacts on *B. sylvaticus* during the construction phase of the development, for the three alternatives.

	Non-mitigated Alternative	**Preferred Alternative**	**No Go Option**
Nature of impact	Loss of a section of habitat, where cottages are possibly placed in areas where indigenous thicket vegetation occurs. Noise disturbance, potentially disturbing breeding attempts.	Negligible habitat loss. Disturbance of breeding attempts, if construction performed during breeding season.	None, apart from potential habitat loss if the alien invasive plants (AIPs) increase in abundance.
Extent and duration of impact	Largely confined to the study area; Likely short-term (0-5 years) impacts, but long-term (6-15 years) if repeated disturbances occur, or there is large-scale habitat loss.	If construction occurs during a breeding season, it could impact the short-term persistence of this species in the surrounding area. Likely short-term (0-5 years) impacts, but long-term (6-15 years) if indigenous thicket vegetation is removed .	If the thicket vegetation gets replaced by AIPs completely, it would have a permanent impact on the species, resulting in their disappearance from the study area.
Consequences of impact or risk	Medium-High, destructive impact; If habitat loss occurred alongside noise disturbance during the breeding season, it would likely result in the species moving away from the area, and possibly not returning in following years.	Medium, destructive impact; Repeated disturbance during the breeding season may result in the species abandoning the study area.	High, destructive impact; Likely extinction of the species at the study area due to habitat transformation (AIP invasion).

	Non-mitigated Alternative	**Preferred Alternative**	**No Go Option**
Probability of occurrence	Probable; Due to the combination of habitat loss and noise disturbance, this species could likely abandon the site for a number of years.	Probable; If noise disturbance occurs during the breeding season, the disturbance is likely to impact this species. If the impacts are mitigated, there is a low likelihood that this species will be impacted severely.	Probable; It is difficult to quantify the likely impacts on this species if AIPs increase in abundance, as the exotic vegetation decreases feeding and breeding habitat, but could still act as a corridor for dispersal.
Degree to which the impact may cause irreplaceable loss of resources	If unmitigated, this could result in the local disappearance of the species from the study area.	With mitigation measures, the impacts are less severe, and with correct application of the mitigation measures, the long-term impacts would be negligible.	If invasion by AIPs increase to the extent that indigenous thicket vegetation is replaced by AIPs, the loss of habitat and feeding resources would be difficult and expensive to reverse.
Degree to which the impact can be reversed	Habitat loss would be near impossible and expensive to replace/ reverse. If the preferred habitat is still present, a period of construction exclusion during the breeding season could reverse the species' disappearance from the study area.	With negligible habitat loss, and mitigating the negative impacts by limiting construction to periods outside the breeding season, the impacts can be reversed easily.	Difficult to reverse if the area has a very high density of AIPs and the habitat is no longer suitable for the species.
Indirect impacts	None	None	None
Cumulative impact prior to mitigation	High (-)	Medium (-)	Medium to High (-)
Significance rating of impact prior to mitigation	High (-)	Medium (-)	Medium to High (-)

	Non-mitigated Alternative	Preferred Alternative	No Go Option
Can these impacts be mitigated?	No	Yes	Not in this scenario
Proposed mitigation	No construction during the breeding season of this species (end-August until early-December); No removal of indigenous thicket vegetation; Removal of AIPs, particularly in the thicket vegetation, and construction of cottages preferably limited to areas where AIPs are cleared.		
Degree of confidence	High	High	Medium (uncertain about how significant the impact of AIPs will be on this SCC)
Significance of impacts on the development	High (No construction during the breeding season of this SCC, if it is present at the site; removal of exotic plant species; proper hoarding used to cordon off natural vegetation outside the development footprint)		

5.2.2. Impacts during the operational phase

Only six cottages are proposed for this development. Each of these will have a small development footprint, and will not have any permanent residents – instead, visitors will be present for short periods of time. The main potential impacts would be if pets (particularly cats and dogs) are allowed on the premises, as these animals (especially cats) will potentially have a dramatic impact on local birdlife (including *B. sylvaticus*), especially during the breeding season (Loss et al., 2013). Provided the natural thicket vegetation is not disturbed further beyond the development footprint (apart from clearing of AIPs), and the rehabilitation of the indigenous thicket occurs post-construction, the impacts on *B. sylvaticus* during the operational phase will be very small.

Table 4: The likely impacts on *B. sylvaticus* during the operational phase of the development, for the three alternatives.

	Non-mitigated Alternative	**Preferred Alternative**	**No Go Option**
Nature of impact	Noise disturbance from glamping cottages directly adjacent to the thicket vegetation. Predation by cats, particularly during the breeding season.	Negligible habitat loss. Predation by cats, particularly during the breeding season, if visitors are allowed to bring their cats to the property.	None, apart from potential habitat loss if the alien invasive plants (AIPs) increase in abundance.
Extent and duration of impact	Likely short-term (0-5 years) impacts, but long-term (6-15 years) if there is a high mortality of chicks, fledglings and adults caused by domestic cats, or if future developments occur within the indigenous thicket vegetation.	Likely short-term (0-5 years) impacts, but long-term (6-15 years) if there is a high mortality of chicks, fledglings and adults caused by domestic cats, or if future developments occur in the indigenous thicket vegetation.	If the thicket vegetation gets replaced by AIPs completely, it would have a permanent impact on the species, resulting in their disappearance from the study area.
Consequences of impact or risk	High, destructive impact; Reduced breeding success and increased predation by domestic cats (if visitors can bring their cats to the cottages) could result in the local extinction of the species. Fragmentation of the indigenous thicket for future developments could impact the persistence of this species.	High, destructive impact; Reduced predation losses and reduced habitat will have less of an impact on the species, permitting it to persist in the area.	High, destructive impact; Likely extinction of the species at the study area due to habitat transformation (AIP invasion).

	Non-mitigated Alternative	**Preferred Alternative**	**No Go Option**
Probability of occurrence	Highly probable; Due to the combination of habitat fragmentation and potential predation, this species would very likely abandon the site for a number of years.	Probable; If the impacts (particularly of predation) are mitigated, there is a low likelihood that this species will be impacted severely.	Probable; It is difficult to quantify the likely impacts on this species if AIPs increase in abundance, as the exotic vegetation decreases feeding and breeding habitat, but could still act as a corridor for dispersal.
Degree to which the impact may cause irreplaceable loss of resources	If unmitigated, this could result in the local disappearance of the species from the study area, and likely hamper movement of the species across the landscape.	With mitigation measures, the impacts are less severe, and with correct application of the mitigation measures, the long-term impacts would be negligible.	If invasion by AIPs increase to the extent that indigenous thicket vegetation is replaced by AIPs, the loss of habitat and feeding resources would be difficult and expensive to reverse.
Degree to which the impact can be reversed	If predation by cats is impacting this species at the study area, the removal of all cats from the property could reverse these impacts. If habitat fragmentation results in this species disappearing from the study area, the rehabilitation of thicket vegetation could provide suitable habitat for the re-establishment of this species.	With mitigation, there would likely not be any impacts to reverse. However, if habitat fragmentation has impacted this species, the re-establishment of indigenous thicket vegetation in areas where *A. cyclops* has formed thickets, could reverse the impacts of the proposed development.	Difficult to reverse if the area has a very high density of AIPs and the habitat is no longer suitable for the species. Re-establishment of indigenous thicket vegetation (after clearing all the *A. cyclops*) could provide habitat for this species, but is difficult, time-consuming, and expensive.

	Non-mitigated Alternative	Preferred Alternative	No Go Option
Indirect impacts	None	None	None
Cumulative impact prior to mitigation	High (-)	Medium (-)	Medium to High (-)
Significance rating of impact prior to mitigation	High (-)	Medium (-)	Medium to High (-)
Can these impacts be mitigated?	Yes	Yes	Yes
Proposed mitigation	• No pets allowed at the glamping cottages. This could be part of an agreement signed by visitors staying in the cottages adjacent to the thicket vegetation (in the eastern section of the property). • No removal of indigenous thicket vegetation beyond the development footprint • Removal of AIPs, particularly in the thicket vegetation. • If trails or other infrastructure development occurs, these developments must keep the thicket vegetation as intact as possible.		
Degree of confidence	High	High	Medium (uncertain about how significant the impact of AIPs will be on this SCC)
Significance of impacts on the development	High (No development in the indigenous thicket vegetation beyond the development footprint; no domestic or feral cats on the property)		

5.3. Comparison of the three alternatives

Though the “no-go alternative” does not have any immediate negative impacts on the SCC at the study site, the persistence (and eventual spread) of AIPs (particularly *A. cyclops*) will have a negative long-term impact on *B. sylvaticus*, due to the loss of suitable habitat for feeding and breeding. Of the three options, the preferred alternative will have the lowest impact on the SCC, and rehabilitation of areas where AIPs have been removed could influence the SCC positively, by providing more suitable habitat in the area. The three glamping cottages near the *Eucalyptus* clump will not impact any SCC significantly, and the two glamping cottages in the low sensitivity area of the property’s eastern section will not have a significant impact on the SCC recorded by the DFFE screening tool.

5.4. Site sensitivity verification

The DFFE screening tool identified the study area as having a **High sensitivity** for the animal species theme, due to the potential presence of ten species of conservation concern. The site visit, and site sensitivity verification report, confirmed that this **property** as a whole has a **HIGH SENSITIVITY**, due to:

- The confirmed presence of two SCC (*B. sylvaticus* and *P. bellicosus*);
- The likely presence of another four SCC (*C. ranivorus*, *C. maurus*, *N. denhami*, and *A. afra*) on the property (but not within the development footprint); and
- The importance of many of the vegetation present as potential ecological corridors.

However, with the proposed glamping cottages being moved to the areas with low sensitivity, the sensitivity of the development footprint can be regarded as **LOW SENSITIVITY**, as glamping cottages are to be placed in habitats that are unlikely to be utilised by the SCC, and are of low significance as ecological corridors. This is due to:

- The SCC being largely absent from the development footprint (with the exception of *P. bellicosus* and *B. sylvaticus* that may be utilising the vegetation adjacent to the development footprint);
- The impacts of the proposed development on these SCC being mitigated easily by performing construction outside the main breeding seasons of these SCC, and using proper hoarding to demarcate the development footprint clearly; and
- The absence of other SCC from the development footprint.

Only one glamping cottage is located in an area with medium sensitivity in terms of the animal species theme. However, as indicated in this report, the impacts can be mitigated by appointing an ECO, performing construction outside the breeding season of *B. sylvaticus*, removing AIPs in the indigenous thicket vegetation, and allowing thicket to re-establish in the cleared areas.

The development is unlikely to impact the continued existence of Sensitive species 5, Sensitive species 8, *S. coronatus* or *A. montanus*, as these species are highly unlikely to occur on this property, or in the surrounding areas. In the eastern section of the property, the development is likely to impact *B. sylvaticus*, if the existing Hartenbos dune thicket is degraded or removed during the construction phase. It is also likely to impact *C. ranivorus* if the estuarine vegetation (reedbeds and other riparian vegetation) is removed or impacted during development. The new glamping cottage placement will, however, have reduced impacts on these two species, as their preferred habitats will not be impacted. In the western section of the property, the development is likely to impact local individuals of *A. afra*, *N. denhami* and *C. maurus* if the glamping cottages and associated infrastructure are located in the pristine fynbos. It is also likely to impact *P. bellicosus* if these birds are nesting in the large *Eucalyptus* trees and construction is done during that breeding attempt. However, the glamping cottages are now proposed for the area around the *Eucalyptus* trees, where the fynbos vegetation has been invaded by *Eucalyptus* and other alien invasive plant species to the extent that it cannot be considered pristine fynbos. The invading trees are also not of sufficient height to be used by *P. bellicosus*, and can be removed without impacting this SCC. The western glamping cottages are therefore unlikely to impact any of the SCC, provided that mitigation measures (see Recommendations section) are implemented.

The sensitivity maps drawn up for this property (Fig[s] 2 & 3) indicate the different sensitivities of the various habitats (as it relates to the animal species that are of conservation concern, and the development as a whole). The majority of the western section of the property is classified as High sensitivity, due to the importance of this fynbos vegetation for *A. afra*, *N. denhami*, *C. maurus* and *P. bellicosus*, as well as the importance of this habitat as an ecological corridor. The *Eucalyptus*-thicket in this section of the property is classified as Medium sensitivity, due to the potential importance as a nesting site for *P. bellicosus*, and the use of this habitat by other raptor species (such as Black sparrowhawk, *A. melanoleucus*). The area around the *Eucalyptus*-thicket is classified as Low sensitivity, due to the degradation of this habitat through *Eucalyptus* and *A. cyclops* invasion.

In the eastern section of the property, the Canca limestone fynbos section (that is not invaded by *A. cyclops*) is classified as Medium sensitivity. The invaded Canca limestone fynbos, poplar tree clump and area around the existing farmhouse are classified as Low sensitivity, due to the low likelihood that it is utilised by any of the SCC. The estuarine habitat and majority of the Hartenbos dune thicket are classified as High sensitivity, due to the likelihood of use by *C. ranivorus* and *B. sylvaticus*, respectively, and the area between these habitat and the low sensitivity areas is classified as Medium sensitivity (as a buffer area around the High sensitivity area).

6. RECOMMENDATIONS

Due to the high likelihood of *C. ranivorus*, *C. maurus*, *B. sylvaticus*, *P. bellicosus*, *A. afra* and *N. denhami* occurring at the site, the EAPs confirm (through the desktop study and site visit) that the site has an overall **HIGH sensitivity**. The fynbos vegetation should be conserved (and the clearing of exotic plant species should continue). However, the new proposed locations for the glamping cottages fall within areas that are of **LOW sensitivity** (with the exception of one glamping cottage that falls within a **MEDIUM sensitivity**. Subsequently, the development footprint can therefore be regarded as having a **LOW sensitivity**.

In terms of fencing of the property, we recommend that fences that exclude small game animals not be considered. There are both Cape grysbok and Southern bushbuck present on the property, and these species would likely move between this property and adjacent properties.

The new proposed placement of the glamping cottages are likely to have minimal impact on the SCC that occur (or may occur) at or near the development footprint. However, further mitigation measures will further reduce the likely impacts on SCC that may be impacted by the proposed development. The period during which construction is performed may impact the SCC at or around the development footprint. For the glamping cottages located adjacent to the *Eucalyptus* stand, it is important to consider the breeding period of *P. bellicosus*, and determine whether this species is breeding in the *Eucalyptus* stand before clearing for construction commences. This species is most likely to breed at the site between April and November (particularly since they were likely feeding a chick in September 2023). The best time to construct these glamping cottages would therefore be between November and March, providing enough time for the adults to perform nest maintenance prior to breeding without disturbances associated with the glamping cottage construction. For the glamping cottages along the Gouritz River, the breeding period of *B. sylvaticus* (August to November) should preferably be avoided, especially for the glamping cottage that is located within the Medium sensitivity area. Performing clearing and construction outside this breeding period will mitigate the potential impacts on this species.

For *B. sylvaticus*, the appointment of an Environmental Control Officer (ECO) is also recommended, to determine the presence of *B. sylvaticus* at the development footprint before the development site is cleared (particularly if construction is likely to occur during a part of this species' breeding season). If this species is recorded at the site, the construction of the glamping cottage within the Medium sensitivity area must be postponed until after the breeding season. The development footprint must also be demarcated properly, using proper hoarding to prevent spillage into the surrounding vegetation. If these recommendations are followed, the long-term impacts on this species will be negligible.

In the eastern section, the removal of the poplar trees (Fig. 22) is recommended. These trees are located in a wetland system, and the area should be rehabilitated as such. The combined sensitivity map (Fig. 3) has clearly indicated the wetland buffer zone, and this area may not be disturbed (apart from the removal of AIPs) during and after construction. The poplar trees are likely not providing habitat to any of the SCC, and the removal thereof (along with the rehabilitation of the wetland) should follow suggestions made by specialists that mapped the wetland ecosystem.

If the recommendations set out in this report are followed, the proposed development will not have a significant impact on the SCC identified in the DFFE screening tool report.

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APPENDIX 1: ANIMAL SPECIES RECORDED ON THE EASTERN AND WESTERN SECTIONS OF PORTION 10 OF FARM 449, MELKHOUTEFONTEIN. OBSERVATIONS WERE ACOUSTIC OR VISUAL (INCLUDING TRACKA DUNG)

Common name	Scientific name	Eastern	Western
Birds			
Apalis, Bar-throated	*Apalis thoracica*	X	X
Bishop, Southern Red	*Euplectes orix*	X	
Bishop, Yellow	*Euplectes capensis*	X	X
Boubou, Southern	*Laniarius ferrugineus*	X	X
Bulbul, Cape	*Pycnonotus capensis*	X	X
Bunting, Cape	*Emberiza capensis*		X
Buzzard, Jackal	*Buteo rufofuscus*		X
Canary, Brimstone	*Crithagra sulphurate*	X	X
Canary, White-throated	*Crithagra albogularis*		X
Cuckoo, Klaas's	*Chrosococcyx klaas*	X	
Dove, Red-eyed	*Streptopelia semitorquata*	X	
Duck, Yellow-billed	*Anas undulata*	X	
Eagle, Martial	*Polemaetus bellicosus*		X
Flycatcher, African Paradise-	*Terpsiphone viridis*	X	
Flycatcher, Fiscal	*Melaenornis silens*	X	
Guineafowl, Helmeted	*Numida meleagris*	X	
Gull, Kelp	*Larus dominicanus*	X	
Hoopoe, African	*Upupa africana*	X	
Kingfisher, Giant	*Megaceryle maxima*	X	
Lapwing, Crowned	*Vanellus coronatus*	X	
Martin, Brown-throated	*Riparia paludicola*	X	
Martin, Rock	*Ptyonoprogne fuligula*	X	
Mousebird, Red-faced	*Urocolius indicus*	X	
Prinia, Karoo	*Prinia maculosa*	X	
Robin-Chat, Cape	*Cossypha caffra*	X	
Sparrowhawk, Black	*Accipiter melanoleucus*		X
Starling, Common	*Sturnus vulgaris*	X	
Sunbird, Southern Double-collared	*Cinnyris chalybeus*	X	X

Swallow, Greater Striped	*Cecropis cucculata*	X	
Wagtail, Cape	*Motacilla capensis*	X	X
Warbler, Knysna	*Bradypterus sylvaticus*	X	
Warbler, Little Rush	*Bradypterus baboecala*	X	
Weaver, Cape	*Ploceus capensis*	X	
Weaver, Southern masked	*Ploceus elatus*	X	
White-eye, Cape	*Zosterops virens*	X	
Crustaceans			
Crab, Cape Shore	*Cyclograpsus punctatus*	X	
Insects: Coleoptera			
Beetles, Monkey	*Kubousa* sp.		X
Insects: Diptera			
Flies, Biting	*Rhigioglossa* sp.		X
Flies, Robber	Asilidae		X
Insects: Hymenoptera			
Ant, Small Pugnacious	*Anoplolepis steingroeveri*	X	
Bee, Cape Honey	*Apis mellifera capensis*		X
Bumblebee, Double-banded	*Xylocopa caffra*		X
Insects: Lepidoptera			
Border, Eastern Dotted	*Mylothris agathina*		X
Brown, Silver-bottom	*Pseudonympha magus*		X
Painted Lady	*Vanessa cardui*		X
Mammals			
Badger, Honey	*Mellivora capensis*		X
Bushbuck, Southern	*Tragelaphus sylvaticus sylvaticus*	X	
Grysbok, Cape	*Raphicerus melanotis*	X	X
Molerat, Cape Dune	*Bathyergus suillus*	X	
Otter, Cape Clawless	*Aonyx capensis*	X	
Reptiles			
Skink, Red-sided	*Trachylepis homalocephala*		X