Portion 59/216 Uitzigt in Brenton-on-Sea, Knysna, Western Cape

Terrestrial Animal Species Specialist Assessment:

Site Sensitivity Verification Report and Compliance Statement

Prepared For:	EcoRoute
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SACNASP:	Pr. Sc. Nat - Ecological Sciences - 162841 (Application status- Pending)
Reviewer:	Dr J.M. Dabrowski Pr. Sci. Nat. – Ecological Sciences - 114084
Date:	July 2024
Version:	Final

DECLARATION OF SPECIALIST INDEPENDENCE

- I consider myself bound to the rules and ethics of the South African Council for Natural Scientific Professions (SACNASP);
- At the time of conducting the study and compiling this report I did not have any interest, hidden or otherwise, in the proposed development that this study has reference to, except for financial compensation for work done in a professional capacity;
- Work performed for this study was done in an objective manner. Even if this study results in views and findings that are not favourable to the client/applicant, I will not be affected in any manner by the outcome of any environmental process of which this report may form a part, other than being members of the general public;
- I declare that there are no circumstances that may compromise my objectivity in performing this specialist investigation. I do not necessarily object to or endorse any proposed developments, but aim to present facts, findings and recommendations based on relevant professional experience and scientific data;
- I do not have any influence over decisions made by the governing authorities;
- I undertake to disclose all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by a competent authority to such a relevant authority and the applicant;
- I have the necessary qualifications and guidance from professional experts in conducting specialist reports relevant to this application, including knowledge of the relevant Act, regulations and any guidelines that have relevance to the proposed activity;
- This document and all information contained herein is and will remain the intellectual property of Confluent Environmental. This document, in its entirety or any portion thereof, may not be altered in any manner or form, for any purpose without the specific and written consent of the specialist investigators.
- All the particulars furnished by me in this document are true and correct.

Kim Daniels (MSc)

July 2024

SUMMARY OF EXPERIENCE AND ABRIDGED CV
- KIM DANIELS

Core skills

- MSc. Biodiversity and Conservation Biology (University of Cape Town.) and 3 years of work experience (research assistance and education) for research projects aimed at investigating invertebrate diversity, plant diversity, insect ecology, disease ecology, invasive species, plant systematics, herpetology, and climate change impacts on a variety of taxa.
- Ecological and field work experience before, during, and after postgraduate degrees across a range of environments (mesic savanna, arid savanna, fynbos, succulent karoo, and Nama karoo) and taxa (plants, invertebrates, avifauna, amphibians, and small mammals).
- My postgraduate studies have been focused on vegetation change in the fynbos and parasitic plants as thermal refugia for savanna birds.

Work experience

- Teaching assistant at the Organization of Tropical Studies and Roots & Shoots
- Internships in Entomology, Horticulture, and Plant Conservation
- Research assistant at the Centre for Invasion Biology
- Field assistant at Valuing Orchard and Integrated Crop Ecosystem Services Project

Qualifications

- BSc. Biodiversity and Conservation Biology (2018, University of the Western Cape)
- BSc. Hons. Biodiversity and Conservation Biology (2021, University of the Western Cape)
- MSc. Conservation Biology (2023, University of Cape Town)

References

- Dr Timm Hoffman – Academic supervisor and previous employer

  Former Director of the Plant Conservation Unit; University of Cape Town

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ABBREVIATIONS AND ACCRONYMS

CBA	Critical Biodiversity Area
CD:NGI	Chief Directorate: National Geo-spatial Information
DFFE	Department of Forestry, Fisheries, and the Environment
ESA	Ecological Support Area
EWT	Endangered Wildlife Trust
NEMA	National Environmental Management Act
SANBI	South African National Biodiversity Institute
SCC	Species of Conservation Concern
SDP	Site Development Plan
SSVR	Site Sensitivity Verification Report
WCBSP	Western Cape Biodiversity Spatial Plan

1. INTRODUCTION

Confluent Environmental Pty (Ltd) was appointed by EcoRoute to provide Terrestrial Animal Specialist inputs for the proposed development of a conference centre and guest accommodation upgrade, and construction of new garages on Portion 59 Uitzigt Farm 216 in Brenton on Sea, Knysna, Western Cape.

1.1 General Site Location

Portion 59 of Uitzigt Farm 216 is ca. 14 hectares in extent and located east of Brenton on Sea with the Knysna River estuary along its north-eastern boundary. The property currently has transformed areas concentrated in the north, on one side of a road running east to west through the property. Transformed areas are in the form of several buildings, lawns, horticultural plantings, and a parking lot. Portion 59 of 216 Uitzigt Farm is situated within a largely natural area (minimal development on neighbouring properties) (Figure 1). The site is currently accessible via existing roads. The property falls within the larger Garden Route Biosphere Reserve. Other protected areas within 5km of the site include Skuilte Private Nature Reserve, Brenton Blue Nature Reserve and Garden Route National Park, encompassing the Knysna River estuary. The property forms part of Featherbed Nature Reserve.

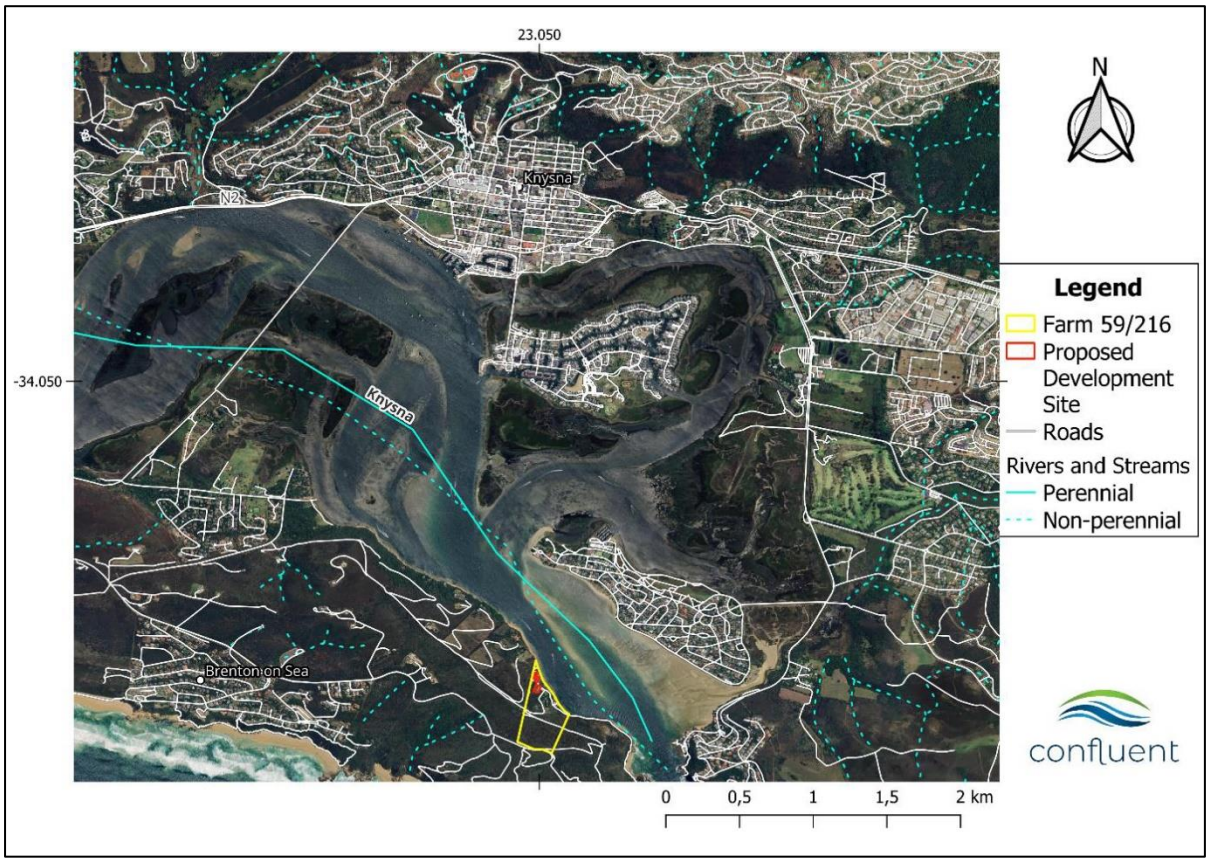

Figure 1. Portion 59 of Uitzigt Farm 216 in Knysna, Western Cape.

1.2 Development Layout

The development is to take place at the northern point of Farm 59 of 216. A large garage building is proposed on an existing concrete parking area. A conference centre and tourist

facilities are proposed 26.5 m north of the garage building in an area where an existing shed/workshop stands. A manager cottage is proposed 7.5 m north of the conference and tourist facility in an area where two shipping containers are standing. Lastly, an entertainment facility is also proposed 23.6 m south of the existing house (Figure. 2).

Figure 2. The preferred and alternative Site Development Plans (SDPs) for Portion 59 of Uitzigt Farm 216 showing two dwellings in the north and south of the property.

The garage building (approximately 1963,96 m^2) is proposed to consist of ten garages (28.7 m^2 each), a workshop (145 m^2), a cafeteria (16.9 m^2), a bathroom (3.1 m^2), a store (8.7 m^2) and an area to store boats and/or golf carts (144 m^2; Figure 3).

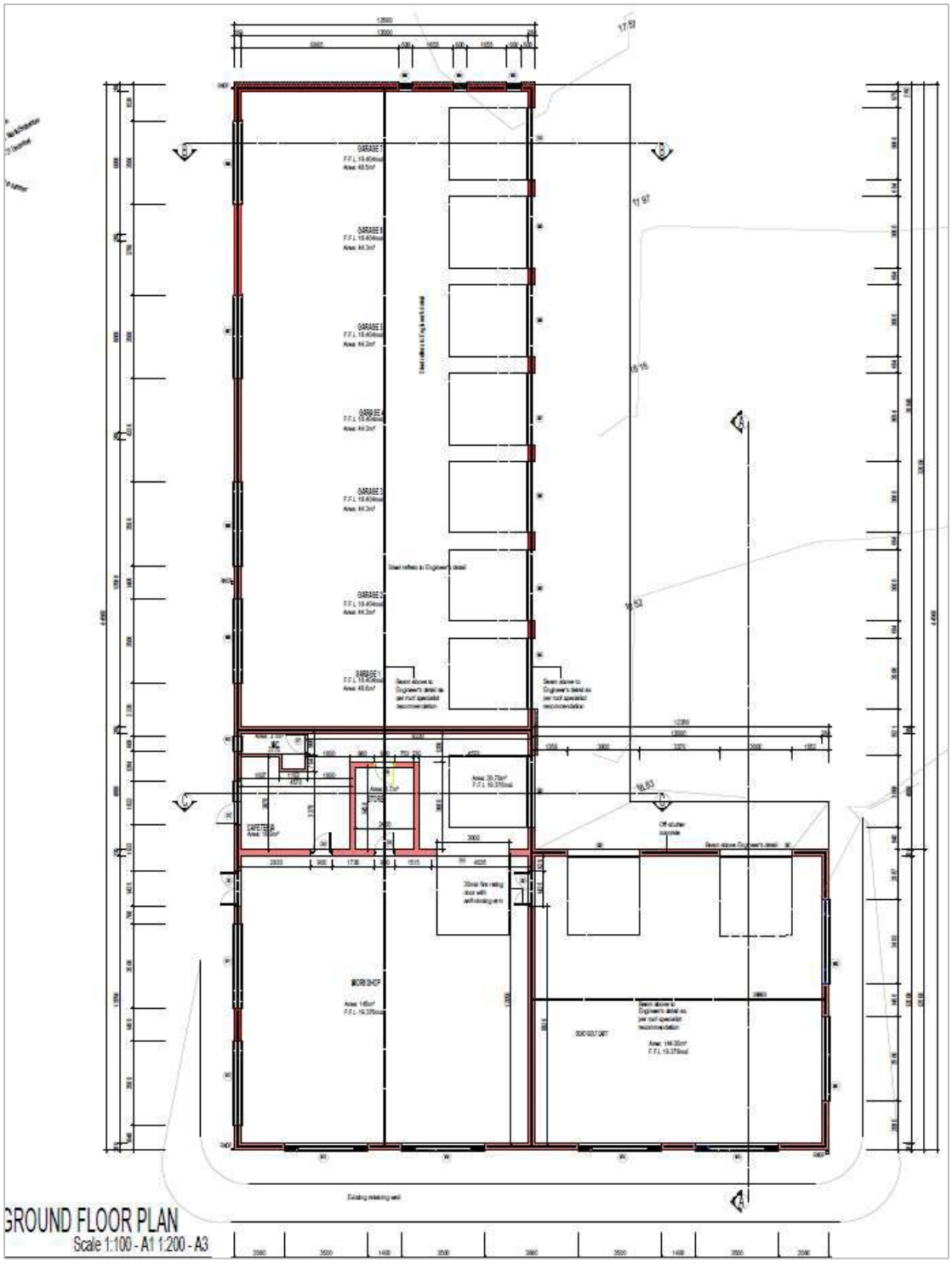

Figure 3. Proposed garage building.

The conference and tourist facility (approximately 1272,07 m^2) will be double-storey and includes: a conference area, a nature workshop area, three sleeping corners with ensuite bathrooms, double garages, three entertaining areas, several toilets, a laundry room, and swimming pool (Figure 4 and Figure 5).

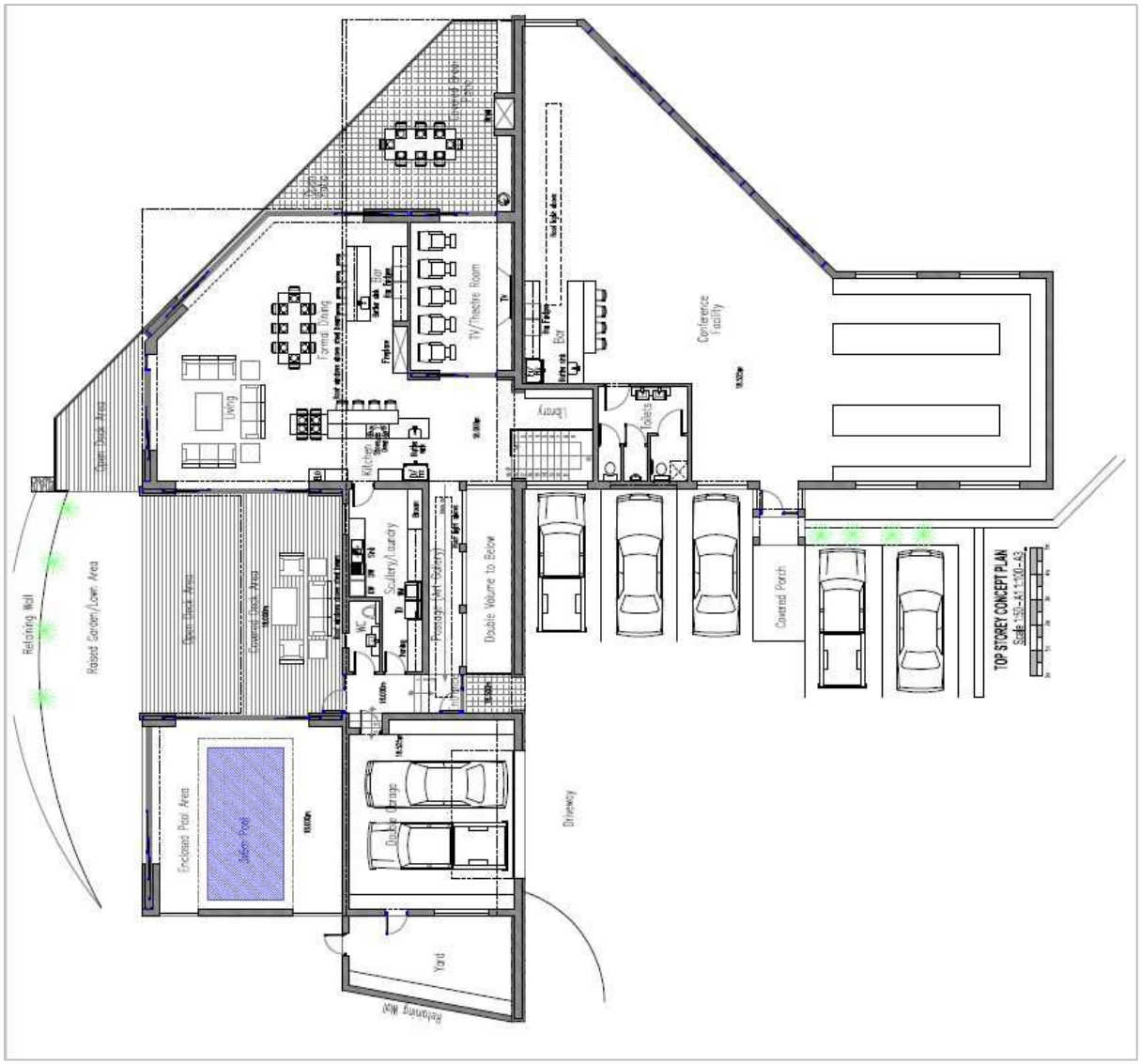

Figure 4. Proposed conference and tourist facility (ground floor).

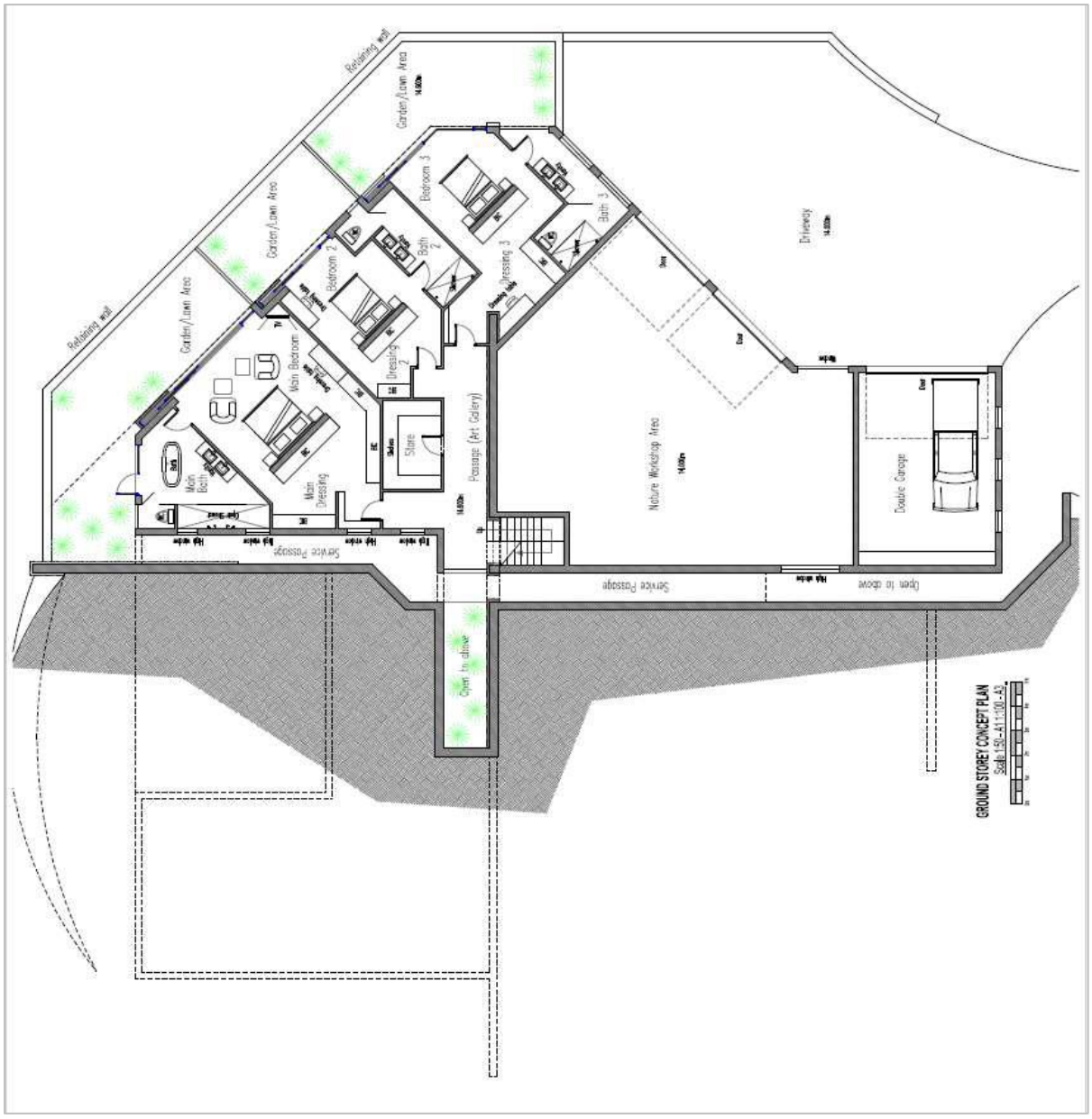

Figure 5: Proposed conference and tourist facility (top floor).

The manager's cottage (approximately 302,38 m^2) will be double-storey and will consist of a double garage, staff room, 3 bathrooms, a laundry, 3 bathrooms, a pantry and an open plan kitchen connected to a dining room and living room (Figure 6).

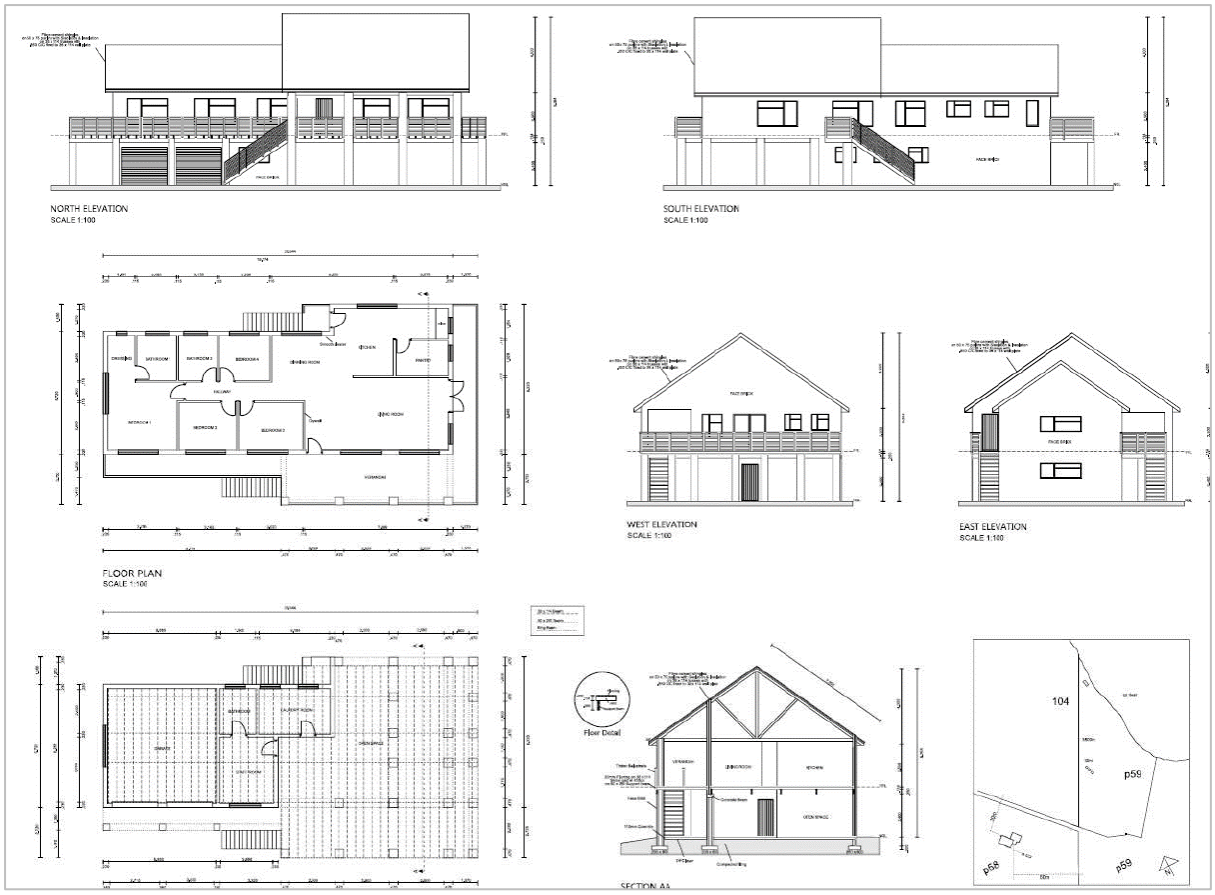

Figure 6. Proposed manager's cottage.

The entertainment facility (approximately 1185,59 m^2) is proposed to consist of two plant rooms, three bathrooms, lockers, a steam room, a sauna, a treatment room, footbaths, a squash court, a swimming pool, a chill area with a fruit bar, heat pumps, a storeroom, gym area, bar, scullery, large dining area and a timber deck with a fire pit (Figure. 7).

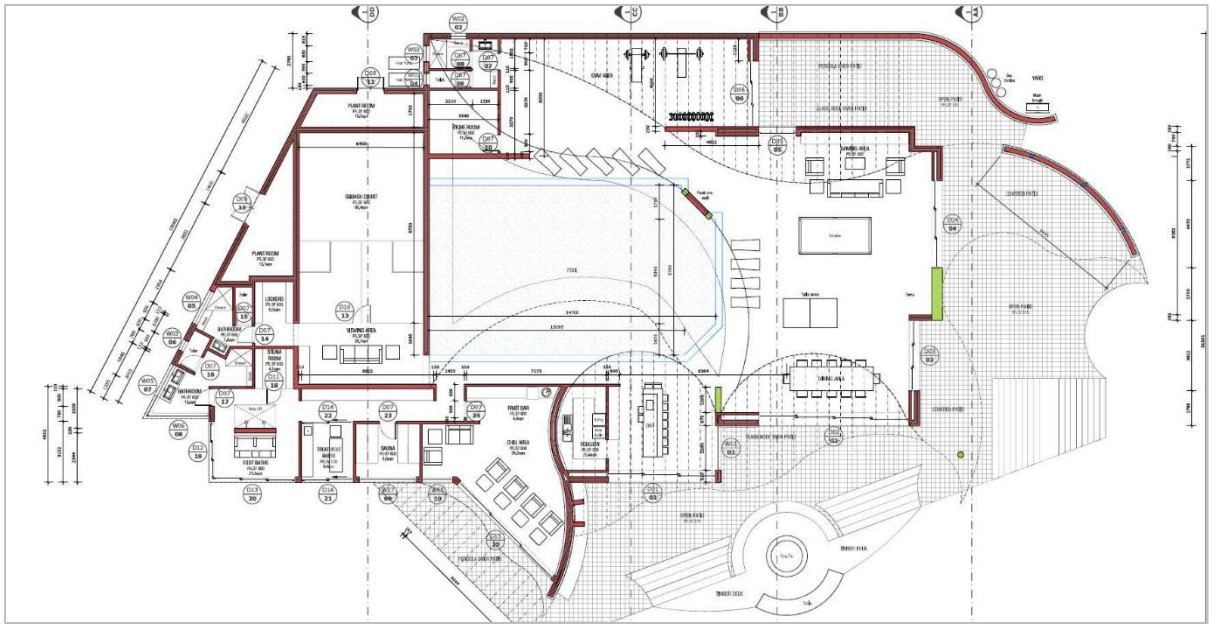

Figure 7. Proposed entertainment facility.

2. TERMS OF REFERENCE

2.1 Online Screening Tool

The scope of work for this report is guided by the legislative requirements of the National Environmental Management Act (NEMA; Act 107 of 1998). The Department of Forestry, Fisheries and the Environment (DFFE) Screening Tool determined a HIGH sensitivity for the terrestrial animal species theme across Portion 59 of Uitzigt Farm 216 (Figure 8), with several animal Species of Conservation Concern (SCC) potentially present (Table 1).

As per Published Government Notice No. 1150 of the Government Gazette 43855 (30 October 2020):

A **HIGH** sensitivity rating indicates:

1. Confirmed habitat for SCC.
2. SCC, listed on the IUCN Red List of Threatened Species or South Africa's National Red List website as Critically Endangered, Endangered or Vulnerable, according to the IUCN Red List 3.1. Categories and Criteria and under the national category of Rare.

These areas are unsuitable for development due to a very likely impact on SCC.

Figure 8. DFFE Online Screening Tool outcome for the terrestrial animal species theme for Portion 59 of Uitzigt Farm 216. The property boundary is indicated by the blue dashed line.

Table 1. Species of Conservation Concern highlighted by the DFFE Online Screening Tool for Portion 59 of Uitzigt Farm 216.

Sensitivity	Classification	Scientific name	Common name	Red list status*
High	Avifauna	*Circus ranivorus*	Marsh Harrier	Endangered
High	Avifauna	*Circus maurus*	Black Harrier	Endangered
High	Avifauna	*Stephanoaetus coronatus*	Crowned Eagle	Vulnerable
High	Avifauna	*Hydroprogne caspia*	Caspian Tern	Vulnerable
High	Avifauna	*Bradypterus sylvaticus*	Knysna Warbler	Vulnerable
High	Avifauna	*Polemaetus bellicosus*	Martial Eagle	Endangered
Medium	Amphibian	*Afrixalus knysnae*	Knysna Leaf-folding Frog	Endangered
Medium	Avifauna	*Podica senegalensis*	African finfoot	Vulnerable
Medium	Mammal	*Chlorotalpa duthieae*	Duthie's Golden Mole	Vulnerable
Medium	Mammal	Sensitive species 8	-	Vulnerable
Medium	Invertebrate	*Aneuryphymus montanus*	Yellow-winged Agile Grasshopper	Vulnerable
Medium	Invertebrate	*Aloeides thyra orientis*	Red Copper Butterfly	Endangered

* Red list status as per SANBI's Red List of South African Species http://speciesstatus.sanbi.org.

2.2 Scope of work

The purpose of this report is to verify the site sensitivity of Portion 59 of Uitzigt Farm 216 for the terrestrial animal species theme in accordance with the protocols specified in the Published Government Notice No. 1150, Government Gazette 43855 (30 October 2020).

The site sensitivity verification includes:

- A desktop assessment, to:
    - Characterize the vegetation, climate, general habitat features and topography of the property.
    - Assess the property's location within the context of the Western Cape Biodiversity Spatial Plan (WCBSP).
    - Conduct a historical assessment of the property and immediate surroundings for any disturbances, development and changes in land use or habitat characteristics over time.
    - Provide information on the habitat requirements for Species of Conservation concern highlighted by the DFFE online screening tool, in addition to other SCC indicated through online resources (e.g. Virtual Museum, iNaturalist) for the property and surrounding areas.
- On-site inspection(s) and field assessments to:
    - Verify the current land use and identify current impacts or disturbances on the property.
    - Characterize faunal habitats, determine the habitat suitability and the likelihood of SCC occurring on the property.
    - Conduct taxa-specific sampling for SCC in suitable habitats.
- Any other available and relevant information from

- Discussions with landowners/neighbours.
- Previous report findings for the property or surrounding areas.

Should the site sensitivity verification indicate a **LOW** sensitivity, then a Terrestrial Animal Species Compliance Statement will be issued.

Should the site sensitivity verification indicate a **HIGH** sensitivity, then a Terrestrial Animal Species Specialist Assessment will be compiled.

3. DESKTOP ASSESSMENT

3.1 Vegetation, Climate and General Habitat

Brenton on Sea near Knysna, Western Cape falls within the Fynbos biome and experiences a temperate climate year-round (Mucina and Rutherford 2006, Rebelo, et al. 2006). The mapped vegetation type at the site is Knysna Sand Fynbos (FFd 10; Critically Endangered) and Goukamma Dune Thicket (AT36; Least Concern). Average temperatures range between 28^{0}C and 8^{0}C, with the hottest days experienced from December to March peaking around 38^{0}C and the coldest days experienced from June-August not falling below 1^{0}C. Rain occurs throughout the year in a bimodal pattern with peaks in autumn (April) and spring (October-November) (Figure 9).

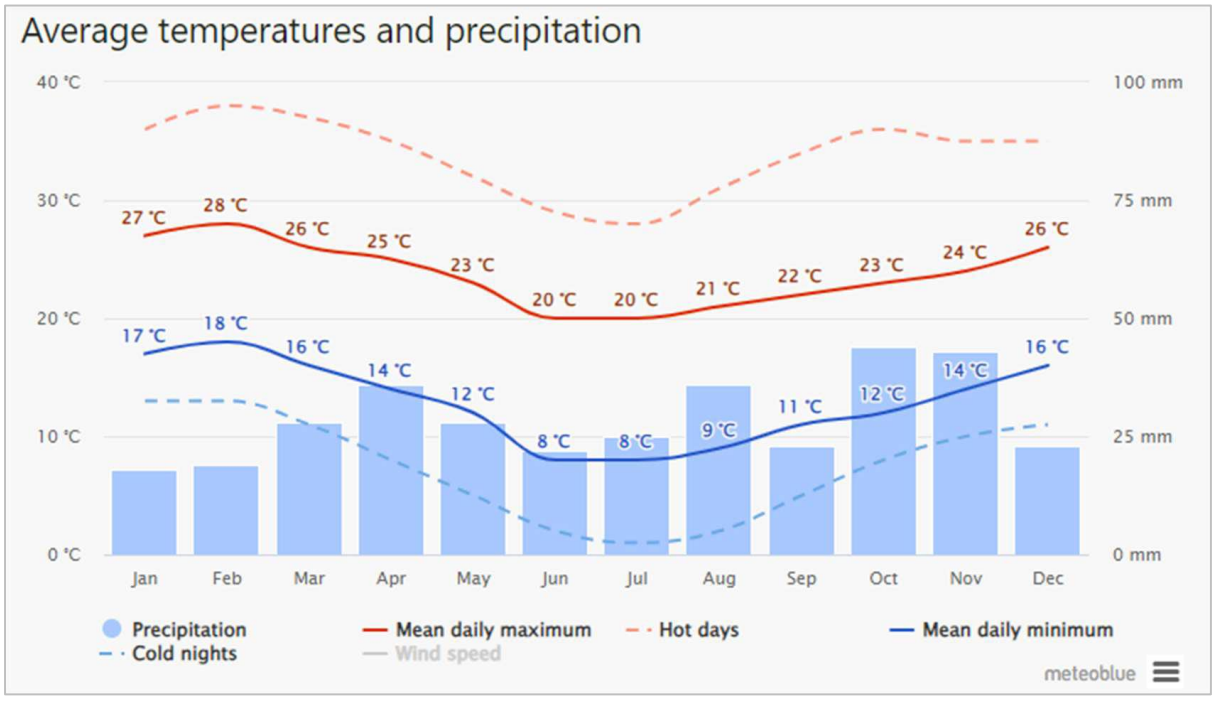

Figure 9: Summary of historical climate (modelled) for Brenton on Sea (www.meteoblue.com).

Satellite imagery from Google Earth and Cape Farm Mapper was used to assess general vegetation structure, elevational gradients and water bodies within the project area (Figure 10). The site mainly comprises mainly of dense thicket vegetation (except for the transformed sections which have predominantly horticultural plantings and maintained lawns) and a few dense stands of alien trees/shrubs in the north-western corner and at the base of dunes in the central and southern regions. Elevation is highest in the south and the site slopes in a southerly direction towards the coast. The property is located in quaternary catchment K50B in the

catchment of the Knysna River immediately adjacent to the Knysna Estuary (Figure 10, See Aquatic Specialist Report (F. de Ridder, Confluent Environmental) for further details).

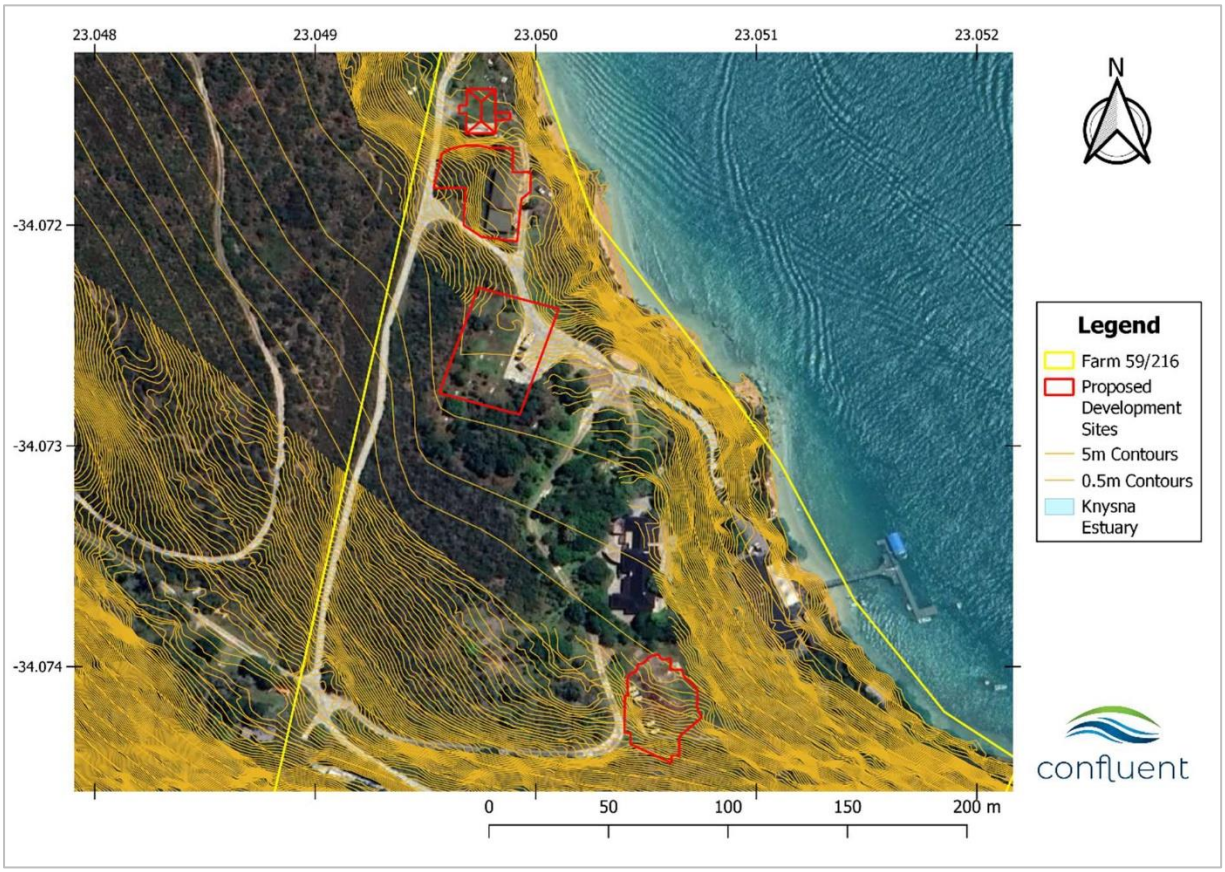

Figure 10. Satellite imagery of Portion 59 of Uitzigt Farm 216 showing topography (5m contours) and vegetation structure.

3.2 Western Cape Biodiversity Spatial Plan

The Western Cape Biodiversity Spatial Plan (WCBSP; 2017) indicated that the property falls within Featherbed Private Nature Reserve (Figure. 12). It is therefore highlighted as a Protected Area, as is Knysna estuary (part of Garden Route National. None of the other categories exist on the property itself but the areas adjacent to the property are as follows (explained in Table. 2):

- An aquatic and terrestrial Critical Biodiversity Area 1 (CBA1) and
- A terrestrial Critical Biodiversity Area 2 (CBA 2).
- The main reasons for the categorisation of the area are that the area falls within the following:
- Knysna (Core) Estuary
- Water source protection- Knysna
- Watercourse protection- South Eastern Coastal Belt Coastal Belt
- Coastal resource protection- Eden
- Knysna Sand Fynbos (CR) (Figure. 12).

Necessary actions in relation to the WCBSP (Table. 2) are to ensure that development on the site does not result in negative impacts on the ecology of the area.

Figure 11. The proposed development area in relation to mapped conservation features of the Western Cape Biodiversity Spatial Plan (2017). Featherbed Private Nature Reserve is highlighted in green, as is Knysna estuary which forms part of Garden Route National Park.

Table 2. Definitions and objectives for conservation categories identified in the Western Cape Biodiversity Spatial Plan (CapeNature 2017).

WCBSP Category	Definition	Management Objective
Critical Biodiversity Area 1 (CBA1)	Areas in a natural condition. Required to meet biodiversity targets for species, ecosystems or ecological processes and infrastructure.	Maintain in a natural or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.
Critical Biodiversity Area 2 (CBA2)	Areas in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.	Maintain in a natural or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.

3.3 Historical Assessment of Project Area

Portion 59 of Uitzigt Farm 216 has undergone changes throughout the past 25 years from 1998 to 2023. All the roads on the property seem to be present from 1998. A building that still exists today appears in 2003. In 2013 a parking area emerges (arrow) which still exists today. The most notable disturbances on the property were the clearance of vegetation by the

Knysna fires in 2017 which is also when we see the plantings emerge around the existing building (Figure. 13). It is worth noting that most of the footprint of the development was completely burnt in the 2017 fires, highlighting this factor as a significant risk.

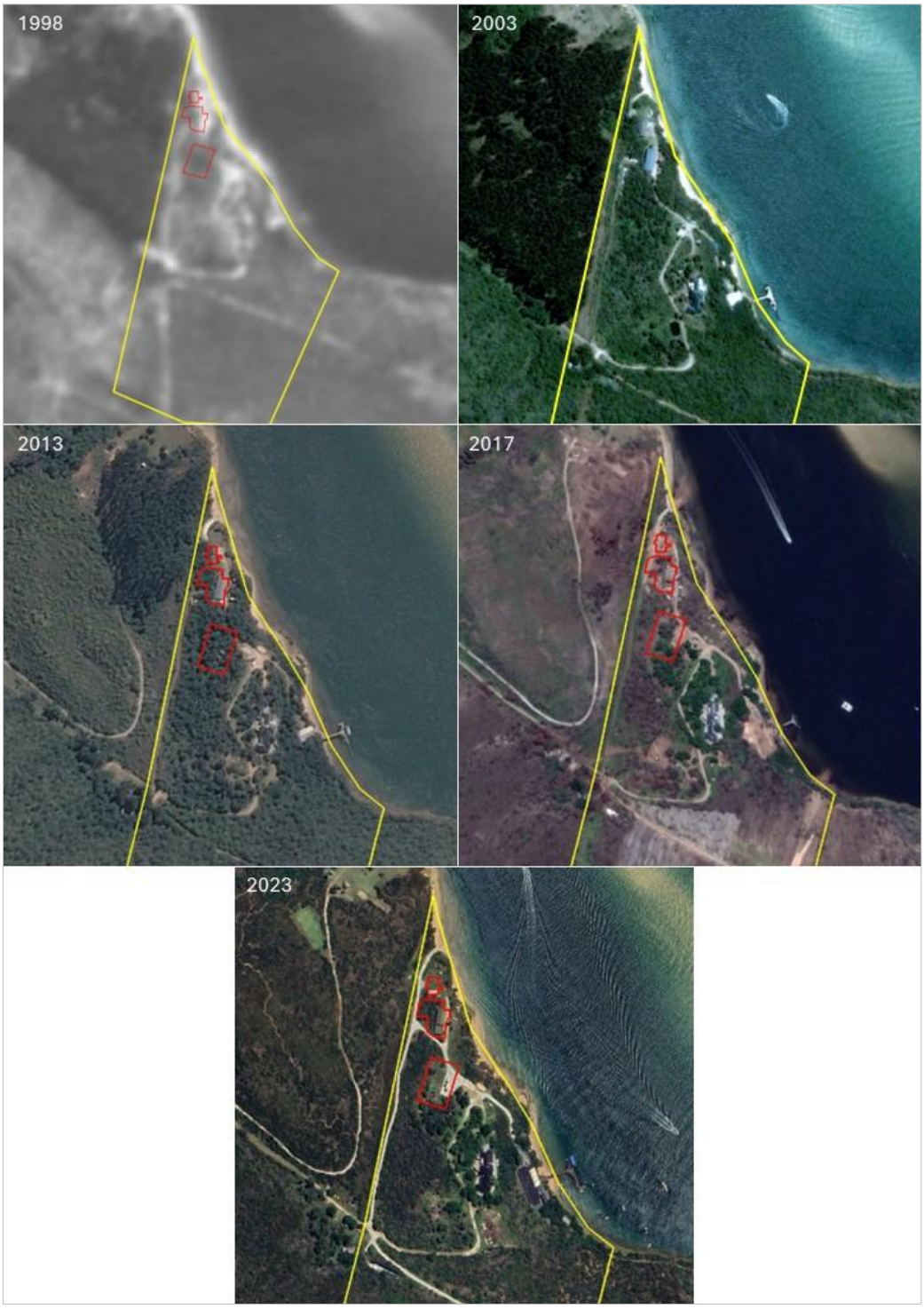

Figure 12. Historical photos showing Farm 59 of 216 through notable changes between 1958 and 2017 (CD:NGI & Google Earth imagery).The property boundary is indicated by the yellow line, the SDP outline is indicated by the red line.

3.4 Species of Conservation Concern

In addition to the SCC highlighted by the DFFE screening tool (Table 1), the following public resources were consulted to provide additional SCC for Portion 59 of Uitzigt Farm 216 and its immediate surroundings:

1. iNaturalist (all taxa) within 2 km x 2 km of the project area.
2. Virtual Museum for herpetofauna, mammals and invertebrate taxa within the Quarter Degree Square (QDS) 3423AA: DungBeetleMAP, FrogMAP, LacewingMAP, LepiMAP, MammalMAP, OdonataMAP, ReptileMAP, ScorpionMAP, SpiderMAP.
3. South African Bird Atlas Project (SABAP2) for pentad 3400_2300.

Some SCC reported on the platforms were highly unlikely to occur the site given either clearly unsuitable habitat or being deemed a vagrant/transient animal. For example, given that the property does not contain any waterbodies, all animals reliant on such habitat features for their existence are highly unlikely to occur on site. For the purposes of this report these animals were excluded from further assessment (see also Section 4.2 and Appendix 1 for additional information).

The combined list of SCC (from DFFE Screening Tool and public resources) possibly occurring on Portion 59 of Uitzigt Farm 216, along with their habitat, breeding and feeding requirements are listed in Table 3. The information for each SCC presented in Table 3 stems largely from the online SANBI Red List of South African Species (http://speciesstatus.sanbi.org) in addition to a few key resources for each taxa:

4. Avifauna: Roberts Birds of Southern Africa VII (Roberts, et al. 2005)
5. Mammals: The Mammals of the Southern African Subregion (Skinner 2005)
6. Invertebrates:
    - Field guide to the insects of South Africa (Picker, Griffiths and Weaving 2019)
    - Field guide to the butterflies of South Africa (Woodhall 2005)
    - Field guide to the spiders of South Africa (Dippenaar-Schoeman 2023)
7. Amphibians: A complete guide to the frogs of Southern Africa (Du Preez and Carruthers 2015)

Any information presented from different sources is cited in the text.

Table 3. Summary of habitat, breeding and feeding requirements for animal SCC potentially occurring on Portion 59 of Uitzigt Farm 216.

Redlist status	Species	Habitat	Breeding	Feeding
AMPHIBIANS				
Endangered	*Afrixalus knysnae* Knysna Leaf-folding Frog	Typically inhabit endorheic (inward draining) wetlands with shallow water (< 50cm), high clarity, and sufficient vegetation suitable for breeding (De Lange & Du Preez, 2018). No streaming or running water recorded at any of the sites where they've been recorded. The frog is associated with vegetation it can use for breeding which includes indigenous and exotic species. For example, slender knotweed (*Persicaria decipiens*) and kikuyu grass (*Pennisetum clandestinum*). It requires a habitat with diverse plant species, including shrubs, grasses, and ferns, providing shelter and breeding sites (Lange and Preez, 2018).	Females lay eggs on leaves which are folded and sealed by males, creating a protected environment (Du Preez & Carruthers, 2017). Breeding occurs during warmer wetter months such as September to November (De Lange, 2019). Breeding takes place near deeper parts of the waterbody, but still close to the water's edge.	The Knysna Leaf-folding Frog is an insectivorous amphibian feeding on small invertebrates found in its habitat (e.g. insects and spiders). Foraging behaviour includes actively searching for prey on the forest/fynbos floor and in the leaf litter. The frog uses its sticky, projectile tongue to capture and quickly ingest prey. It is primarily active at night, relying on its vision to locate and capture prey in the darkness.
AVIFAUNA				
Endangered	*Circus maurus* Black Harrier	In Western Cape, mostly found in Fynbos, especially montane Fynbos and Strandveld. Less common in dry restios and renosterveld. Elsewhere, occurs in dry grassland, Karoo scrub, crop fields (wheat) and grasslands (sometime >3000m elevation). Many move from Fynbos to Karoo and grasslands during the winter, likely to follow rodent numbers (e.g. capitalise on late summer litter of Sloggett's ice rats in Free State and Lesotho). Birds move away following fires and do not return for several years.	Mainly monogamous but some polygamy observed. Mate fidelity is low. Usually solitary nester and territorial, but in Western Cape some semi-colonial nesting observed with less territorial behaviour. Nest is a small structure of grass, stems and small twigs. Usually on or just above ground, in rank marsh grasses or near Fynbos bushes and sedges (Juncus spp.) Nests most often in marshes or next to small streams, but also on damp soil or dry ground. Nest areas reused in successive years (one observation of nest site used for 26 years).	Specialist predator of mice and birds. Predominantly rodents (vlei rats, mice) eaten by birds in Fynbos areas and small birds (Common Quail) dominate diet of birds in mountain areas. Also takes reptiles, frogs, insects to lesser extent. Sometimes caches prey. Forages most actively on blustery days (windy and rainy), hovers 1-3m above vegetation with buoyant flight. Flashes into vegetation, hits prey hard and eats on ground. Perch hunting rare.

Redlist status	Species	Habitat	Breeding	Feeding
Endangered	*Circus ranivorus* Marsh Harrier	Considered a waterbird. Roosts on taller trees around wetland edges from where it has a good vantage point. Can adapt to novel wetland habitats such as wastewater treatment works.	Breeding occurs between September and December. Egg-laying is from August to November in South Africa. Nests made of grass, reed stems or sticks in reedbeds, short sedge areas or in trees along the water's edge. The same nest is often reused by the same pair in following years.	Dietary assessment (Simmons et al., 1991) of pellets and prey deliveries to nests includes birds, frogs, fish, eggs and micromammals (*Rhabdomys*, *Otomys*, and Shrews). Hunts primarily in wetland habitats using various flight methods including soaring, hovering and low flight over wetlands and along the water's edge. May hunt in open grasslands or pastures near wetland areas.
Endangered	*Mycteria ibis* *Yellow-billed stork*	Wetlands including alkaline and freshwater lakes, pans, rivers, floodplains, marshes, flooded grassland with small pools or streams, marine mudflats (less often), estuaries (less often), and dams.	Monogamous, colonial nester, typically 10 to 20 nests per tree. Usually with other storks such as the marabou Stork,; also with herons, ibises, darters, spoonbills and/or cormorants. Nest is a platform of sticks with a shallow cup lined with fine grass, leaves, reeds and aquatic grasses, placed on top of trees such as *Vachellia* spp, water fig (*Ficus verruculosa*) or baobab (*Adansonia digitata*). Laying takes place June to October	Forages in shallow water free of emergent vegetation. Sometimes associates with great white pelicans; occasionally forages in the wake of Nile Crocodile or Hippopotamus. Eats mainly fish up to 150g, frogs and aquatic insects, worms, crustaceans, and possibly small mammals. Scavenges food regurgitated by cormorants.
Endangered	*Phalacrocorax capensis* Cape Cormorant	Restricted to inshore marine waters, estuaries and lagoons. Roosts at colonies and other coastal sites protected from predators (islands in wetlands) or open areas with good visibility (salt pans, broad beaches).	Monogamous. Colonial nester mostly in large colonies. In Namibia breeds on guano platforms. Breeding range extends from Ilha dos Tigres, southern Angola to Bird Island, Eastern Cape. Nest is loose pile of sticks, feathers, bones. In waves from Western Cape year-round, with peak in Sep-Feb.	Forages 10-20km offshore but also in coastal wetlands. Feeds in association with other species (in wetlands with grebes, terns, gulls, egrets). Diet includes mainly pelagic schooling fish (e.g. sardines, anchovies) and to a lesser extent other fish species and crustaceans.

Redlist status	Species	Habitat	Breeding	Feeding
Endangered	*Polemaetus bellicosus* Martial Eagle	Savanna, Karoo shrubland, semi desert. Can occur in open farmland with clumps of trees. Rare in mountainous and forest areas.	Monogamous, pair bond lasts several seasons. Solitary nester. Nest is a substantial platform of sticks (up to 1.5m long and 3cm thick) on tall trees or pylons. Nest tree usually tallest in vicinity, and nest placed in a large fork below the canopy. Rarely uses rocky outcrops.1 egg laid, incubation 48-53 days predominantly by female bird.	Mainly small mammals like hare, jackal, small antelope, mongoose, small baboons, but also small stock animals, birds (especially gamebirds) and reptiles (especially monitor lizards). Usually hunts on the wing by soaring high and attacking in long slanting stoop. Surprises prey by using available cover. Occasionally hunts from perch, especially at waterholes or along game trails. Prey killed by impact or strangulation and taken to high perch to eat.
Vulnerable	*Bradypterus sylvaticus* Knysna warbler	Inhabits dense understorey vegetation along riverbanks in fynbos forest patches, riverine woodland and afromontane forest and has even adapted to thickets of non-native brambles (e.g. Rubus). (BirdLife International, 2016).	Breeds from August and December coinciding with the greatest abundance of invertebrate species. (BirdLife International, 2016).	Mostly on ground, creeping through dense, matted vegetation and scratches in humus. Eats mostly grasshoppers, insect larvae, spiders, slugs, worms
Vulnerable	*Falco biarmicus* Lanner Falcon	Most frequently in open grassland or cleared woodlands and agricultural lands. Breeding pairs favour habitat close to cliffs but will also be found near alternative roosting sites like electricity pylons, buildings, large trees.	Monogamous, long-term pair bond, territorial. Nest is typically a simple scrape on cliffs, buildings or bird boxes, but will occasionally use stick nests from other species (including White-necked raven, Verreaux's eagle, Bateleur) in trees or electricity pylons.	Hunts from high perch or from air, using speed to surprise and catch prey but also adept at using cover. Prey taken in air and on ground. Pairs can hunt cooperatively. Prey mostly birds (>80%) but will also take reptiles and insects.
Vulnerable	*Hydroprogne caspia* Caspian Tern	Concentrated at estuaries and sheltered bays along the coastline and at large, permanent inland waterbodies (natural and artificial). The primary threats to this species are during the breeding period when it is highly susceptible to human disturbance, predation by domestic dogs and kelp gulls, and extreme weather events.	Coastal breeding habitat is primarily offshore islands but increasingly uses sandy beaches. Inland breeding habitat includes small islets in dams/pans. Monogamous, pair bonds lasting from year to year. Defends territory around nest site. Nest is shallow scrape on ground lined with dead vegetation. Laying	Forages in clear, shallow water. Feeds throughout the day but most active the mornings. Diet almost entirely of fish, swallowed in flight.

Redlist status	Species	Habitat	Breeding	Feeding
			dates in Western Cape are October - January. 1-3 eggs laid, incubation lasting 22-24 days.	
Vulnerable	*Podica senegalensis* *African Finfoot*	Mostly along quiet, wooded streams and rivers flanked by thick riparian vegetation and overhanging trees. Also dam verges, especially where there is sufficient overhanging vegetation and reed cover. Avoids stagnant and very fast-flowing watercourses, with a preference for clear trather than silted water.	Monogamous, territorial. Territories range from a few hundred meters to a few kilometres in length. Cover and open water necessary for courtship rituals. Laying dates August to April.	Forages close to the water's edge and river banks, usually under overhanging vegetation. Most prey taken from above water surface and from surrounding vegetation, but also takes prey within bill length below the surface without diving. Also leave the water to catch prey. Eats mostly insects; diet regularly includes dragonflies, (and their nymphs), grasshoppers, spiders, crabs, snails, shrimps, frogs, millipedes, beetles, fish, and molluscs. Recorded eating a 50cm snake.
Vulnerable	*Stephanoaetus coronatus* Crowned eagle	Forest (including gallery forest), dense woodlands and forested gorges in savannas and grasslands. Can be present in *Eucalyptus* and Pine plantations. Perches for long periods, resting in canopy. Sometimes soars high over territory, then descends vertically to perch. Manoeuvres agilely through thick forest, can take off vertically from forest floor.	Monogamous, possibly long-term pair bond. Territorial (at least 10 km^2), solitary nester. Tallest trees used to build large stick platform nest (sticks/branches up to 1.5m long, 3cm thick). Nest copiously lined with beachwood (*Faurea saligna*), Pine or *Eucalyptus* leaves/needles. Nest often reused and added to in consecutive years, can reach up 2-3m diameter, 3m high. Nest trees often at the base of cliff/ravine or at the edge of plantation. Nest trees usually white stinkwood (*Celtis africana*), yellowwoods (*Podocarpus* spp.), Cabbage tree (*Cussonia spicata*)	Predominantly feeds on mammals (96% diet) and mostly on hyrax, antelope, and primates. Will also take porcupine, hares, mongoose, sometimes domestic stock and domestic cats/dogs. Avian prey includes Hadeda Ibis, Egyptian geese, and domestic chickens. Reptile prey mainly monitor lizards. Most prey taken on ground, but occasionally crashes into dense foliage in pursuit. Frequently still-hunts (stalks prey) and hunts from concealed perches frequently above waterholes in evening waiting for antelope to drink. Pair sometimes hunt monkeys cooperatively. Prey struck with

Redlist status	Species	Habitat	Breeding	Feeding
			but also *Eucalyptus* and Pine species. Incubation 49-51 days.	downward blow of open foot, massive hind claw penetrates the skull killing instantly. Large prey that cannot be lifted are partly eaten and dismembered on the ground and then cached in trees.
Near Threatened	*Alcedo semitorquata* Half-collared Kingfisher	Clear, well-vegetated, fast-flowing perineal streams in forested habitat. Stream habitat usually narrow and secluded with dense marginal vegetation, near rapids. Also occurs in estuaries and well-vegetated lake shores but generally avoids dams.	Monogamous, solitary nester, territorial. Territory is ca. 1km of river. Burrows into vertical river banks (usually 1m high) with overhanging vegetation and roots providing screening. Entrance usually 40 cm below top of embankment, and sometimes only 15cm above water. Burrow chamber lined with fish bones. Laying dates Sep-Mar. Eggs incubated for >16 days, and brooding limited to 5 days. Nestling period ca. 27 days, and fledgling dependence on adults limited.	Sits motionless on perch for long time before diving steeply into water. Rarely hovers above water. Diet mainly fish (3-7 cm in size), carried back to perch to eat. Also consumes crabs, aquatic insects and amphibians.
Near Threatened	*Campethera notata* Knysna Woodpecker	Territorial, occurring in thornveld, Euphorbia thickets, riparian and montane evergreen forests. Marginal occurrence in *Protea* communities, coastal white Milkwood (*Sideroxylon inerme*) thickets and alien trees	Monogamous, solitary nester Hole in trunk/branch of tree, usually in a dead stem 1.2-6m off the ground. Holes infrequently reused in successive years, but a new hole can be excavated in the same branch. Laying from August-November	Forages at all levels of trees, especially mid-canopy. Pecks and probes for ants and termites on dead branches, but occasionally forages on ground.
Near Threatened	*Numenius arquata* Eurasian Curlew	Coastal wetlands; forages on intertidal mud- and sandflats and roosts on adjoining saltmarshes, sand-dunes, mangroves or rocks.	Extralimital two adults with possible chick at Swartkops estuary, Eastern Cape is the only suggestion of breeding in South Africa.	Diet in non-breeding season is primarily aquatic invertebrates, including shellfish, mudprawns, small crabs, shrimps and polychaete worms. Inland eats insects, insect larvae, sometimes

Redlist status	Species	Habitat	Breeding	Feeding
				small vertebrates and vegetable matter.
Near Threatened	*Phoenicopterus roseus* Greater Flamingo	Favours shallow saline or brackish waterbodies i.e. salt pans, large dams, coastal mudflats. Most important sites: Lake St Lucia (KwaZulu-Natal), Leeupan/ Barberspan (North West), Kamfers Dam (Northern Cape) and Langebaan Lagoon, Strandfontein Sewage Works and the Berg River Estuary (Western Cape).	Breeds at recently flooded saltpans, coastal mudflats, inland dams, sewerage treatment works, small ephemeral pans and river mouths. Monogamous, changing mates between year. Colonial nester. Laying dates Nov-Aug.	Wades in water to belly-depth. Filters small invertebrates in mud. Diet includes brine shrimp, and brine flies. Also eats molluscs and diatoms.
Least Concern (Regional), Near Threatened (Global)	*Buteo trizonatus* Forest Buzzard	Afromontane forests and plantations (mainly Pine, but also Eucalyptus). Generally unobtrusive, perching on large branches partially concealed under canopy, sometimes perching in open at the edge of forest edge.	Monogamous, territorial, solitary nester. Nest is platform of sticks, cup-lined with green leaves. Nests in plantations are smaller than in native forests. Laying dates from August-November. Breeding is confined to the Western Cape and Eastern Cape Provinces.	Forages along forest edges and within (also plantations). Hunts mainly from perch. Diet consists of small mammals (mice and moles), small birds, snakes, lizards, frogs and invertebrates.
Least Concern (Regional), Near Threatened (Global)	*Calidris ferruginea* Curlew Sandpiper	Estuaries, lagoons, sheltered coastlines and inland wetlands with muddy fringes.	Non-breeding migrant. Arrives in Aug and departs in Mar, with some juveniles overwintering in region.	Polychaete worms, molluscs, crustaceans, fly larvae
TERRESTRIAL INVERTEBRATES				
Critically Endangered	*Chrysoritis thysbe mithras* Brenton Sparkling Opal Butterfly	Endemic to the Western Cape Province in South Africa, only recorded from the Still Bay area in the west, Brenton on Sea near Knysna, and from Goesabos (Tsitsikamma) in the east. Declining due to dense stands of alien plant invasions (i.e. pines (*Pinus radiata*), Rooikrans (*Acacia cyclops*), Port Jackson (*Acacia saligna*), and Black Wattle (*Acacia mearnsii*))-At Brenton on Sea on both north- and south-facing slopes at an altitude of 80 m to 120 m in disturbed areas of Knysna Sand Fynbos with a high abundance of *Osteospermum monilifera* (Bitou). Habitat at Stilbaai is by contrast on limestone fynbos-covered hillsides at altitudes up to 300 m.	Adults are on wing year-round with peaks in October and March.	Larvae feed on *Chrysanthemoides incana*, Osteospermum *monilifera*, *O. polygaloides*, *Lebeckia plukenetiana*, *Aspalathus*, *Zygophyllum* and *Thesium* species. Host ant species is *Crematogaster peringueyi* ants.

Redlist status	Species	Habitat	Breeding	Feeding
Critically Endangered	*Orachrysops niobe* Brenton Blue Butterfly	Highly range-restricted endemic to the Western Cape. Cool, moist south-facing slopes close to the sea at 90 m to 115 m altitude. Mosaic of open and dense vegetation consisting of dune thicket, fynbos and forest. Host plant grows most abundantly in the partial shade of mature candlewood trees (*Pterocelastrus tricuspidatus*).	Adults are on wing from October to November and from February to March. There are two generations per year	Larvae feed on the rootstock of *Indigofera erecta*. Host ant species *Camponotus baynei*
Critically Endangered	*Thestor brachycerus brachycerus* Knysna Skolly	Endemic, range-restricted, known only from the Knysna area in the Western Cape. Currently restricted to two small subpopulations on the coast east of Coney Glen just above sea level. Butterfly and its host ant both require patches of open vegetation with significant bare ground or rocks. Inland habitat is on north-, north-east- and north-west-facing slopes covered with Knysna Sand Fynbos, originally with a warm, dry, fire-prone microclimate promoting low fynbos vegetation and patches of open sandy soil and animal paths. Coastal habitat close to the sea to the east of Coney Glen at the Knysna Heads, with a completely different microclimate (south-facing, moist, sea spray) and vegetation type (Cape Seashore vegetation). General requirements are low vegetation and a sunny, warm microclimate in midsummer, promoting good host ant populations.	Adults are on the wing from December to January. There is one generation per year.	Larvae have been found in the nests of the pugnacious ant, *Anoplolepis custodiens*, but the larval food is unknown.
Endangered	*Aloeides thyra orientis* Red Copper Butterfly	Restricted range taxon endemic to the Western Cape from Witsand to Gouritsmond in the west, to the Brenton Peninsula near Knysna in the east. Declining because of alien plant encroachment and lack of regular burning of the fynbos. Coastal fynbos on flat sandy ground (either naturally occurring or from anthropogenic disturbances such as footpaths or unsurfaced track) between 40m to 240m above sea level.	Adults are on wing from July to April with peaks in October and February. Several generations per year through the warmer months (Woodhall, 2005)	Larvae feed on *Aspalathus acuminata, A. laricifolia* and *A. cymbiformis*. The larvae are attended to by *Lepisiota capensis* ants (Woodhall, 2005).

Redlist status	Species	Habitat	Breeding	Feeding
Vulnerable	*Circellium bacchus* Flightless dung beetle	Endemic to South Africa, on the Southern coastline in the winter and bimodal rainfall regions. Habitat types include the Albany Thicket and Fynbos biome, including vegetation units in Shale Renosterveld (FRs), Limestone Fynbos (FFl), Sandstone Fynbos (FFs), Sand Fynbos (FFd), Strandveld (FS). No association known for particular soil type (Davis et al., 2020)-Abundant in dense shrub/woodland on sandy soils; most uncommon in adjacent disturbed open vegetation (Davis et al., 2020). Flightless, ectothermic and diurnal with maximal activity between 18–26°C, particularly after rainfall (Davis et al,. 2020).	In Addo Elephant National Park: Buffalo and cattle dung preferred for breeding, but also recorded on dung of monkey, human, rhinoceros, hare, ostrich (Davis et al., 2020).	Elephant dung preferred for feeding but also recorded on dung of monkey, human, rhinoceros, hare, ostrich (Davis et al., 2020).
Near Threatened	*Aloeides pallida littoralis* Knysna Pale Copper Butterfly	Endemic taxon to the Western Cape Province. Relatively flat terrain near the coast, coastal Fynbos	Little known, but *Lepisiota capensis* ants are hosts for subspecies *A. p. grandis.*	Little is known, but larval food for the subspecies *A. p. pallida* and A. *p. jonathani* feed on *Aspalathus* species. The larvae of subspecies *A. p. grandis* are fed by trophallaxis by *Lepisiota capensis* ants and feed on these ant eggs.
MAMMALS				
Endangered	*Myosorex longicaudatus* Long-tailed forest shrew	Typically associated with afromontane evergreen forest, mostly preserved along the deep valleys and cooler south-facing slopes- Also found in range of moist habitats in montane and temperate forests, forests edges, fynbos and boggy grassland. Depends on permanently moist microhabitats. Long tail suggests an arboreal lifestyle.	Not known	Little known, but predominantly seeds and some insects.
Vulnerable	*Chlorotalpa duthieae* Duthie's Golden Mole	Occur on alluvial sands and sandy loams in southern Cape Afrotemperate forests (Bronner, 2014). Preference for forest vegetation over fynbos. Narrow coastal band 275 km long between Wilderness and Port Elizabeth with fairly disjunct populations. Can occur in gardens and pastures adjoining forests. Mainly active at night.	Little is known but a female was recorded with a litter of two young in November (Bronner, 2014).	Shallow subsurface foraging tunnels radiate outwards from beneath the roots of trees. Forages at night in tunnels and through the leaf litter. Diet includes earthworms.

Redlist status	Species	Habitat	Breeding	Feeding
Vulnerable	*Panthera pardus* Leopard	Wide habitat tolerance, but generally associated with rocky outcrops, hills, mountains and forests. Manage to persist in areas of development provided there is adjacent cover of rocky hills or forest (Skinner & Chimimba, 2005).	Solitary animals with males and females holding territories and defend against same sex. No specific breeding season but has been found to peak in unison with some ungulate prey species births in certain regions (i.e. impala in Kruger National Park). Oestrous lasts 7 days during which male and female copulate frequently. Gestation 106 days and cubs remain with mother for 12months after which siblings remain together for a further 2-3 months.(Skinner & Chimimba, 2005).	Nocturnal, solitary hunter. Small to medium animals, usually ungulates < 70kg (Impala, Klipspringer, Grey Rhebuck, Cape Grysbok, Duiker) but also take Baboons, Hyrax, hares, rodents, reptile, livestock or domestic cats/dogs. Usually drags larger prey items into cover (dense shrubs) or up trees (Skinner & Chimimba, 2005).
Vulnerable	Sensitive Species 8	Specialised habitat requirements within a home range of approximately 0.75 ha (Skinner & Chimimba, 2005). Strong habitat preference for dense vegetation with good undergrowth providing good cover in which to retreat. Forest, thicket, dense coastal bush, independent of water. Can inhabit forest edges and transitional zones. Requires diverse plant community with variety of tree and shrub species. Can adapt to fragmented habitat given sufficient cover and food availability. Actively avoids open grasslands, and areas with human disturbance.	This species can breed throughout the year. Males establish territories and exhibit aggressive behaviours towards other males and to attract females.	Highly selective feeders, often feeding on food below troops of monkeys or frugivorous birds which drop lots of material. Preference for fruit, but also fallen leaves, flowers and insects. Seldom actively browse. Active in the early morning and late afternoon, foraging for around 8 hours a day within their territory.
Near Threatened	*Amblysomus corriae* Fynbos Golden Mole	Sandy soils and soft loams in Mountain Fynbos, Grassy Fynbos and Renosterveld of South West Cape. Also Afromontane forest and southern African moist savanna along the southern Cape coast. Favours richer and wetter soils (Broom 1907) preferring forest fringes and associated fynbos. Thrives in gardens, cultivated lands, golf courses and livestock paddocks. Present also in	Fynbos Golden Moles probably breed aseasonally because pregnant females have been captured in August, May, and December. Mean litter size is two; young are altricial and hairless at birth	Insectivorous, mainly feeding on earthworms and insects (Skinner & Chimimba 2005).

Redlist status	Species	Habitat	Breeding	Feeding
		exotic plantations, but apparently at lower densities (Bronner 2013).		

4. FIELD ASSESSMENT

4.1 Methods

Following the Species Environmental Assessment Guidelines (SANBI 2020) and Table 3, taxa-specific sampling techniques were conducted in habitats where SCC were likely to occur. Taxa-specific sampling was interspersed with a meander across the project area to collect additional opportunistic data for all fauna and inspect all habitat types (Table 4).

Table 4. Sampling techniques conducted for potential SCC occurring Portion 59 of Uitzigt Farm 216.

Taxa	Field methods	Public platform where observations were reported
Avifauna	• Meander* across site for direct observations. • 2 point counts (5-minute bird counts).	Birdlasser (species lists), iNaturalist (photos)
Mammals	• Meander* across site for direct observations, tracks, scats and signs.	iNaturalist (photos)
Amphibia	• Meander* across site for direct observations. • Active searching.	iNaturalist (photos)
Invertebrates	• Meander* across site for direct observations. • Active searching. • Baited pitfall trapping. • Sweep netting.	iNaturalist (photos)

* Meandering involved slow walking across the site through various habitat types and key landscape features. Active observations took place for all fauna throughout this walk which was then supplemented by taxa specific sampling methods in habitats deemed most suitable for SCC.

4.2 Assumptions and Limitations

1. While the public platforms mentioned in Section 3.4 are excellent sources of additional information for animal species occurring within an area, these results require some expert interpretation to determine which of the SCC are relevant to include in the faunal assessment of the project area. For example, the coarse spatial scale of reporting within the Virtual Museum platforms (Quarter Degree Square level (27km x 27km) or SABAP2 pentad level (9km x 7 km)) can result in species records from habitats quite different to those present on site. Additionally, these platforms include sightings of vagrant or transient animals upon which an assessment cannot reasonably be based. Expert interpretation is therefore applied to the full list of SCC identified by the various public platforms (see Appendix 1) and some species are then excluded from further assessment due to the project area clearly lacking suitable habitat or the species clearly representing a vagrant or transient animal outside its normal range. The SCC assessed in this report therefore represent those which may reasonably occur on site. However, there is always the possibility that some SCC (although highly unlikely to occur on site) are overlooked in this process.
2. One field visit took place to the site for the faunal assessment. The detectability of animal species increases with more visits. This assessment therefore only represents a “snap-shot” in time and it is possible that SCC occurring on site were not observed

during the visit. These results should therefore be interpreted with this in mind and not be treated as an exhaustive list of species occurring on site.

3. Site visits took place during daylight hours so the likelihood of encountering nocturnal species was limited although no species of this description were highlighted as SCC.
4. The site visit coincided with late autumn. This may be of consequence for some species showing seasonal variation in breeding and activity patterns.
5. Evidence of animals in the form of tracks, scats and signs always brings with it a level of uncertainty, but best efforts were made in this regard and uncertainties are highlighted in the report.
6. Due to time constraints, pitfall trapping was done over a 3-hour period during daylight hours (08h30 to 11h30). Pitfall trapping was also conducted on an adjacent property (12h00 to 15h00) on the same day and this is used to reinforce our knowledge on invertebrates in the area. This limited sampling period however still places constraints on the invertebrates caught by this method and these data should be interpreted as a minimum estimate.

4.3 Site Inspection Details

One site visit took place to Portion 59 of Uitzigt Farm 216 on 31 May 2024. The weather was partly cloudy and warm with little wind: suitable conditions for catching invertebrates using sweep netting. Vegetation type mapped for the site according to the National Vegetation Map is Knysna Sand Fynbos and Goukama Dune Thicket. Habitat types found on the site consist mainly of thicket, lawns, transformed areas, and horticultural plantings. The site proposed for development consists primarily of lawns, transformed areas, and thicket (Figure 14). Some pine invasions are also present. An effort was made to cover the project area with the meander and to conduct taxa specific sampling techniques across a range of suitable habitats for potential SCC (Figure 15).

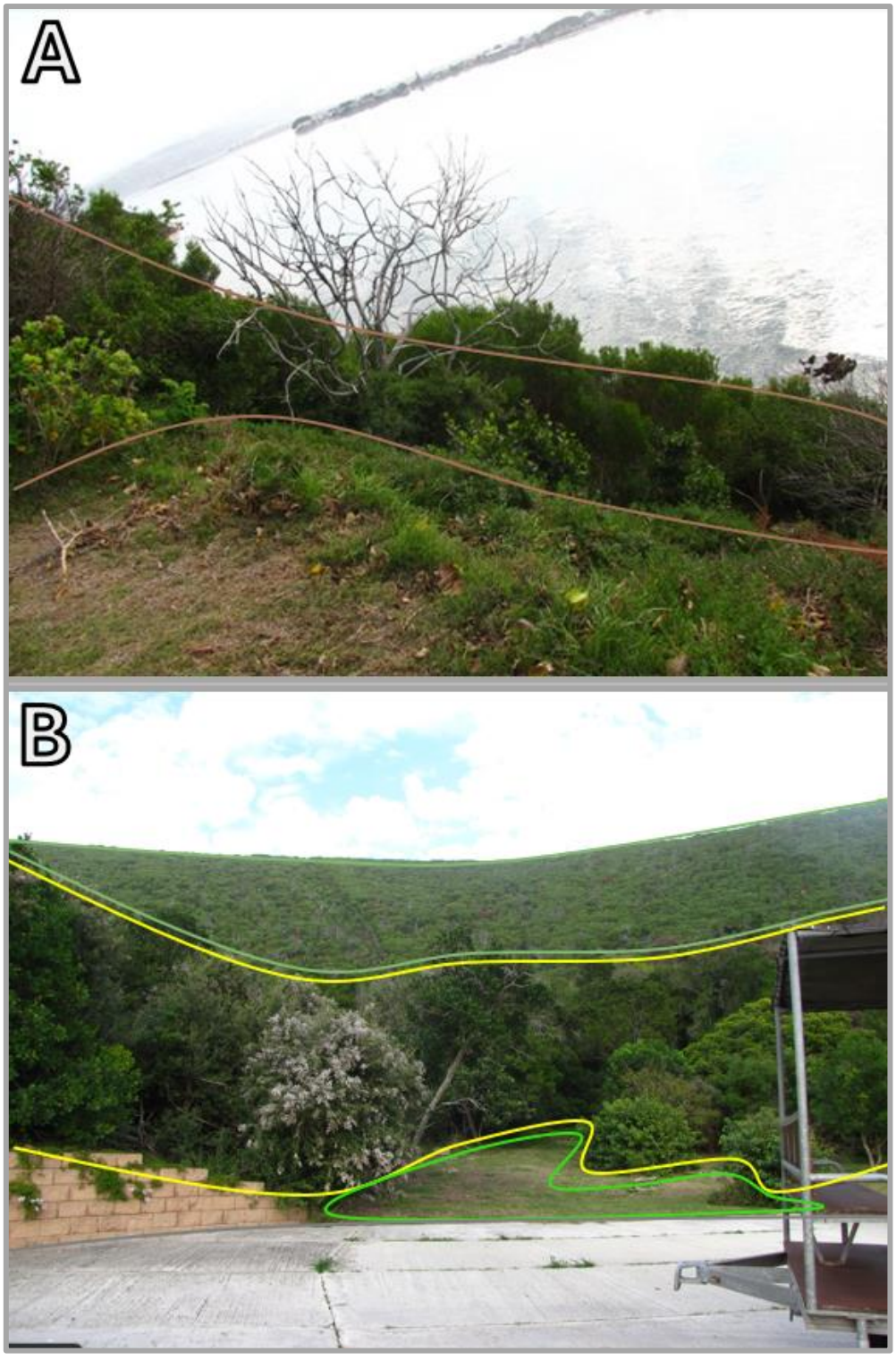

Figure 13. Habitat types identified on Portion 59 of Uitzigt Farm 216. (A.) Grassy area in the foreground, with degraded thicket outlined in brown (B.) From foreground- hardened surface outlined in grey grassy area outlined in green, plantings outlined in yellow, and dense thicket in the background.

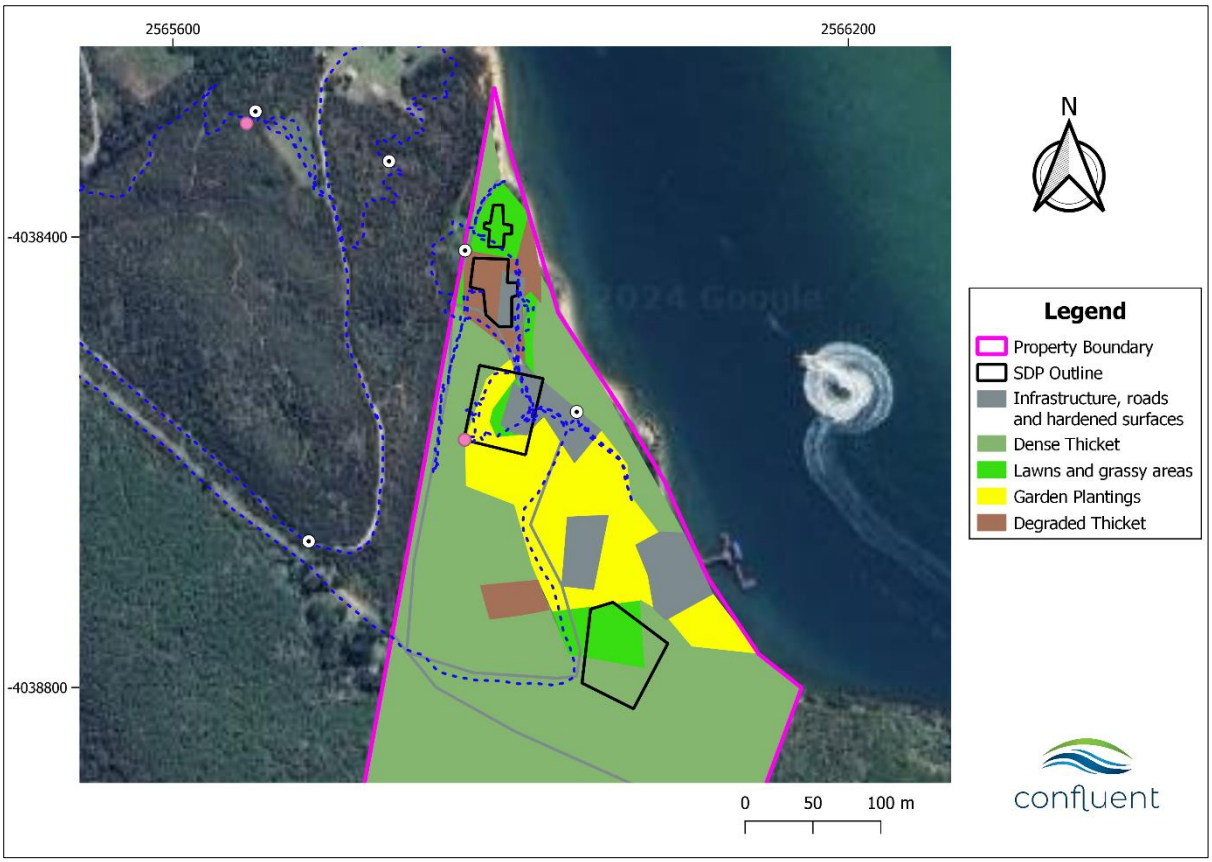

Figure 14. Habitats found on Portion 59 of Uitzigt Farm 216 and the GPS track for the meander (in dark blue) of the site visits conducted in October and December 2023.

4.4 Results

4.4.1 Avifauna

No SCC was encountered during the site visit. Two 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 13 bird species were identified during the site visit (See Appendix 2, Figure 15).

Figure 15. Spotted Eagle-owl (Bubo africanus) seen in plantings habitat during a site visit to Portion 59 of Uitzigt Farm 216.

4.4.2 Mammals

No SCC were found during the site visit. A bushbuck (Figure 17) was seen and signs of caracal, rodents, and baboons were present at the site (See Appendix 3 for full list of mammals).

Figure 16. Cape Bushbuck (Tragelaphus sylvaticus sylvaticus) seen on the edge of grassy and plantings habitats during a site visit to Portion 59 of Uitzigt Farm 216.

4.4.3 Terrestrial Invertebrates

No SCC were found during the site inspection. Carton nests of cocktail ants (*Crematogaster* sp.) were found at the site as well as spiderwebs (Araneae). Other invertebrates were directly observed (Figure 18 - see Appendix 3 for full list of terrestrial invertebrates). The baited pitfall

trap set out with to determine presence of the dung beetle SCC attracted flies (Calliphoridae) but no beetles. Host plants for butterfly species were not observed.

Figure 17: Carton nest of Cocktail Ants (Crematogaster sp.) photographed in the degraded thicket habitat on Portion 59 of Uitzigt Farm 216 during the site inspection

4.4.4 Amphibians

No SCC were encountered during the site visit and 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 Knysna Leaf-folding Frog SCC (*A. knysnae*).

4.4.5 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.

4.4.6 Likelihood of Occurrence for SCC

Following the terrestrial fauna surveys and site inspection, the possible SCC occurring on Portion 59 of Uitzigt Farm 216 were evaluated according to their likelihood of occurrence (Table 5). It is always possible that a species assessed as having a low probability of occurrence can still occur on the site, especially for the golden moles species which are listed as having a low likelihood of detection (SANBI 2020), and therefore this table should only be used as a guideline.

Table 5: Likelihood table for faunal SCC suspected to occur on Portion 59 of Uitzigt Farm 216

Redlist status	Species	Observed	Suitable habitat	Likelihood of occurrence	Reason
AMPHIBIANS					
Endangered	*Afrixalus knysnae* Knysna Leaf-folding Frog	No	No	Low	No suitable wetland habitat
AVIFAUNA					
Endangered	*Circus maurus* Black Harrier	No	No	Low	Forage is available but habitat is not suitable for breeding. Mountainous areas are preferred, of which there are plentiful options in the larger landscape.
Endangered	*Circus ranivorus* Marsh Harrier	No	No	Low	Considered a waterbird. No suitable wetland habitat
Endangered	*Phalacrocorax capensis* Cape Cormorant	No	No	Low	Roosting unlikely to happen at this site (no open beaches and no wetland islands).
Endangered	*Polemaetus bellicosus* Martial Eagle	No	Maybe	Low	No cover for hunting and most frequently eaten species not found at this property. Invasive trees are the tallest in the landscape and may be suitable nesting sites, but none were spotted (this time of year is suitable to spot a nest)
Vulnerable	*Bradypterus sylvaticus* Knysna warbler	No	Yes	Low	Dense thicket is available at the site, but this species is more likely to use the larger landscape rather than the site assessed in this report due to human presence, noise disturbance, and infrastructure already existing at the site.
Vulnerable	*Falco biarmicus* Lanner Falcon	No	No	Low	Habitat units at the property are unsuitable for this species which favours a tall vegetation structure.
Vulnerable	*Hydroprogne caspia* Caspian Tern	No	No	Low	The habitat within the property is not suitable for this species but it may use the larger landscape.
Vulnerable	*Podica senegalensis* African Finfoot	No	No	Low	No suitable habitat available.
Vulnerable	*Stephanoaetus coronatus* Crowned eagle	No	No	Low	No forest habitats are available at the site.

Redlist status	Species	Observed	Suitable habitat	Likelihood of occurrence	Reason
Near Threatened	*Alcedo semitorquata* Half-collared Kingfisher	No	No	Low	Suitable habitat is not available at this site.
Near Threatened	*Campethera notata* Knysna Woodpecker	No	No	Low	There are no forest habitats within the boundaries of this property.
Near Threatened	*Numenius arquata* Eurasian Curlew	No	No	Low	Unsuitable habitat to support the life processes of this SCC, mudflats not available.
Near Threatened	*Phoenicopterus roseus* Greater Flamingo	No	No	Low	There are no suitable waterbodies at the site.
Least Concern (Regional), Near Threatened (Global)	*Buteo trizonatus* Forest Buzzard	No	No	Low	There are no forest habitats within the boundaries of this property.
Least Concern (Regional), Near Threatened (Global)	*Calidris ferruginea* Curlew Sandpiper	No	No	Low	Unsuitable habitat to support the life processes of this SCC.
TERRESTRIAL INVERTEBRATES					
Critically Endangered	*Chrysoritis thysbe mithras* Brenton Sparkling Opal Butterfly	No	No	Low	No evidence of this species was found and preferred dung is not present.
Critically Endangered	*Orachrysops niobe* Brenton Blue Butterfly	No	Maybe	Low	North-facing slopes are not present at the site. Known population is range restricted and could not traverse the landscape to disperse to this property, despite it having potentially suitable vegetation.
Critically Endangered	*Thestor brachycerus brachycerus* Knysna Skolly	No	Maybe	Low	North-facing slopes are not present at the site. Known population is range restricted and could not traverse the landscape to disperse to this property, despite it having potentially suitable vegetation.

Redlist status	Species	Observed	Suitable habitat	Likelihood of occurrence	Reason
Endangered	*Aloeides thyra orientis* Red Copper Butterfly	No	No	Low	Vegetation within the topographical requirements of the species is unsuitable to sustain it (it is not well-maintained (by fire) fynbos)
Vulnerable	Aneuryphymus montanus *Yellow-winged Agile Grasshopper*	No	No	Low	No suitable habitat found at the site.
Vulnerable	*Circellium bacchus* Flightless dung beetle	No	No	Low	South-facing slopes are not present at the site.
Near Threatened	*Aloeides pallida littoralis* Knysna Pale Copper Butterfly	No	No	Low	Plant species needed for larval food have not been found on this property.
MAMMALS					
Endangered	*Myosorex longicaudatus* Long-tailed forest shrew	No	No	Low	No forests are present at this property, it therefore cannot support an arboreal species.
Vulnerable	*Chlorotalpa duthieae* Duthie's Golden Mole	Yes	No	Low	No evidence of golden moles has been found at this property, but foraging tunnels have been found at a neighbouring property on a grassy area. Grassy areas at this property have been looked at extensively No suitable forest habitat exists for this SCC.
Vulnerable	*Panthera pardus* Leopard	No	No	Low	No suitable habitat available.
Vulnerable	Sensitive Species 8	No	No	Low	No tracks or signs found at the property and most observations of the species are far from the property.
Near Threatened	*Amblysomus corriae* Fynbos Golden Mole	Yes	Maybe	Low	No evidence of golden moles has been found at this property, but foraging tunnels have been found at a neighbouring property on a grassy area. Grassy areas at this property have been looked at extensively. The SCC is also highly adaptable to gardens which were surveyed extensively at this site. No natural habitat (natural spaces with mobile sand) exists for the SCC at this site.

5. SITE SENSITIVITY VERIFICATION

After the site visit and fauna surveys, it is determined that the site sensitivity for the terrestrial animal theme of Portion 59 of Uitzigt Farm 216 is **LOW** in contrast to the high and medium sensitivities highlighted by the DFFE Screening tool.

Based on the information in this report during the desktop and field assessment, the following reasons support this finding:

- All SCC have a low likelihood of occurrence. Those that might find suitable habitat at this property would be more likely to use the less modified thicket vegetation in the south of the property, use the larger landscape which has similar natural vegetation, or are highly adaptable to modified landscapes.
- Little natural habitat exists within the project footprint. Most of the site consists of lawns, infrastructure, hardened surfaces, horticultural planting and degraded thicket.
- A small amount of dense thicket habitat is removed by the development but in the scale of the larger property and the landscape, this is negligible in the specialists' view.

As per the Published Government Notice No. 1150, Government Gazette 43855 (30 October 2020), the **LOW** sensitivity allows for a Terrestrial Animal Species Compliance statement to be issued. This is however issued with the following conditions as precautionary measures:

- Due to the low likelihood of detection of the golden mole SCC, an Environmental Compliance Officer must be appointed to monitor for the presence of any golden moles in the footprint of the project prior to any earthworks (construction phase) of the project.
- Should any golden moles be found (See Box 1. For guidelines on encountering fauna during construction and operation) or suspected to occur on site through the observation of subterranean tunnels, construction should be paused until such time that their presence can be confirmed by a relevant fauna expert.
- If the golden mole SCC are confirmed to occur on site (following positive identification by a relevant expert), this Compliance Statement will be revoked, and construction is to be paused until such time that a Terrestrial Animal Species Specialist Report is produced.

6. RECOMMENDATIONS

- Recommendation made within the Aquatic Specialist Report (F. de Ridder, Confluent Environmental) should be implemented to minimize impacts to any aquatic environments, thereby reducing impacts to associated fauna species.
- General recommendation and best practice guidelines should be followed for all animal species encountered (regardless of whether they are SCC or not) during any stage of development on a site. These are summarised in Box 1 below:

Box 1: Best practice principles for ALL fauna encounters during construction or operational phases of projects

If any animals are seen on site, a photo or a video should be taken if possible (to assists in identification) and all fauna encountered on site should be reported to the ECO immediately. This is particularly important when:

- An animal is harmed or compromised in any way during construction.
- Ground-dwelling animals their nests or eggs are unearthed during earthworks (e.g. moles, tortoise eggs, terrapins/frogs estivating).
- Any animal with limited mobility is found on site (e.g. tortoises, moles, chameleons).
- Any potentially dangerous animal is encountered. This includes any potentially venomous animal (e.g. snakes, scorpions) or any medium-large animal that has become cornered in an enclosed area such that it cannot escape (e.g. porcupines, monkeys, baboons, antelope). It is critical in the case of snakes/ scorpions o get pictures/videos to aid in identification and appropriate treatment of anyone needing medical assistance.
- Any animal that shows a reluctance to escape or move away from the construction site thereby increasing its exposure to harm or increasing the risk of injuring people on site.

The ECO should provide guidance or assistance to get all animals to safety, treating any injured animals, and issuing instructions on when to continue with construction (once they are satisfied that all animals have been removed from site) or put additional mitigation measures in place to protect animals on the site from harm.

For any injured animals or animals to be removed from site (domestic or wild):

A local SPCA or animal welfare society can collect and treat most animals and should be the first point of call for assistance. If they cannot directly assist, they will revert and notify the relevant authorities/vets.

For any assistance with snake removals/relocations, identifications, or bite treatment contact the African Snakebite Institute. The contact details of a suitably qualified snake handler are provided at the following link: https://snakeremoval.co.za/brenton-on-sea. Also available are the following emergency contacts.

SNAKEBITE EMERGENCIES:	GET THE FREE APP:
Poisons Information +27 861 555 777	

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APPENDIX 1: SCC IDENTIFIED FROM PUBLIC PLATFORMS FOR THE PROJECT AREA.

SCC were included or excluded from further analysis in this report based on expert interpretation for the presence/absence of key landscape and habitat features on site. See Section 4.2 Assumptions and Limitations for more information.

Species	Common name	Regional Assessment status	Source	Assessed in report Y/N
AMPHIBIANS				
Afrixalus knysnae	Knysna Leaf-folding Frog	EN	Virtual Museum; Screening Tool	Y
AVIFAUNA				
Alcedo semitorquata	Half-collared Kingfisher	NT	SABAP2	Y
Bradypterus sylvaticus	Knysna Warbler	VU	SABAP2; Screening Tool	Y
Buteo trizonatus	Forest Buzzard	LC	SABAP2	Y
Calidris ferruginea	Curlew Sandpiper	LC	SABAP2	Y
Campethera notata	Knysna Woodpecker	NT	SABAP2	Y
Circus maurus	Black Harrier	EN	SABAP2; Screening Tool	Y
Circus ranivorus	African Marsh Harrier	EN	SABAP2; Screening Tool	Y
Coracias garrulus	European Roller	NT	SABAP2	N
Falco biarmicus	Lanner Falcon	VU	SABAP2	Y
Grus paradisea	Blue Crane	NT	SABAP2	N
Hydroprogne caspia	Caspian Tern	VU	SABAP2; Screening Tool	Y
Leptoptilos crumenifer	Marabou Stork	NT	SABAP2	N
Morus capensis	Cape Gannet	VU	SABAP2	N
Mycteria ibis	Yellow-billed Stork	EN	SABAP2	Y
Numenius arquata	Eurasian Curlew	NT	SABAP2	Y
Oxyura maccoa	Maccoa Duck	NT	SABAP2	N
Phalacrocorax capensis	Cape Cormorant	EN	SABAP2	Y
Phoenicopterus roseus	Greater Flamingo	NT	SABAP2	Y
Podica senegalensis	African finfoot	VU	Screening Tool	Y
Polemaetus bellicosus	Martial Eagle	EN	SABAP2; Screening Tool	Y
Procellaria aequinoctialis	White-chinned Petrel	VU	SABAP2	N
Spheniscus demersus	African Penguin	EN	SABAP2	N
Stephanoaetus coronatus	Crowned Eagle	VU	SABAP2; Screening Tool	Y
Stercorarius antarcticus	Brown Skua	EN	SABAP2	N
TERRESTRIAL INVERTEBRATES				
Aloeides pallida littoralis	Giant russet	NT	Virtual Museum	Y

Species	Common name	Regional Assessment status	Source	Assessed in report Y/N
Aloeides thyra orientis	Red russet	EN	Virtual Museum; Screening Tool	Y
Aneuryphymus montanus	Yellow-winged Agile Grasshopper	VU	Screening Tool	Y
Chrysoritis thysbe mithras	Brenton opal	CR	Virtual Museum	Y
Circellium bacchus	Flightless Dungbeetle	VU	Virtual Museum	Y
Ecchlorolestes nylephtha	Queen Malachite	NT	Virtual Museum	N
Orachrysops niobe	Brenton cupid	CR	Virtual Museum	Y
Thestor brachycerus brachycerus	Knysna skolly	CR	Virtual Museum	Y
MAMMALS				
Amblysomus corriae	Fynbos Golden Mole	NT	Virtual Museum	Y
Chlorotalpa duthieae	Duthie's Golden Mole	VU	Virtual Museum; Screening Tool	Y
Kogia breviceps	Pygmy Sperm Whale	DD	Virtual Museum	N
Leptailurus serval	Serval	NT	Virtual Museum	N
Mesoplodon layardii	Strap-toothed Whale	DD	Virtual Museum	N
Myosorex longicaudatus	Long-tailed Forest Shrew	EN	Virtual Museum	Y
Panthera pardus	Leopard	VU	Virtual Museum	Y
Poecilogale albinucha	African Striped Weasel	NT	Virtual Museum	N
Sensitive species 8		VU	Virtual Museum; Screening Tool	Y

APPENDIX 2: AVIFAUNA SPECIES OBSERVED DURING SITE VISIT TO PORTION 59 OF UITZIGT FARM 216

Scientific name	Common name
Ploceus capensis	Cape Weaver
Zosterops virens	Cape White-eye
Ardea intermedia	Intermediate Egret
Bubo africanus	Spotted Eagle-owl
Phalacorcorax carbo ssp. *lucidus*	White-breasted Cormorant
Ardea melanocephala	Black-headed Heron
Cinnyris afer	Greater Double-collared Sunbird
Tauraco corythaix	Knysna Turaco
Motacilla capensis	Cape Wagtail
Andropadus importunus	Sombre Greenbul
Larus dominicanus	Kelp Gull
Alopochen aegyptiaca	Egyptian Goose
Lanius collaris	Southern Fiscal

APPENDIX 3: MAMMAL SPECIES OBSERVED DURING SITE VISITS TO PORTION 59 OF UITZIGT FARM 216

Common name	Scientific name	Notes
Cape Bushbuck	*Tragelaphus sylvaticus sylvaticus*	Observed
Old World Mice and Rats	Muridae	Identified from paths
Cape Chacma Baboon	*Papio ursinus ursinus*	Identified from scat
Caracal	*Caracal caracal*	Identified from scat

APPENDIX 4: INVERTEBRATE SPECIES OBSERVED DURING SITE VISITS TO PORTION 59 OF UITZIGT FARM 216

Order	Family	Common name	Scientific name
Hymnenoptera	Formicidae	Cocktail Ants	*Crematogaster* sp.
Araneae		Spiders	Araneae
Diptera	Calliphoridae	Blow Flies	Calliphoridae
Stylommatophora	Achatinidae	Zebra Agate Snail	*Cochlitoma zebra*
Coleoptera	Scarabaeidae	Toktokkies	*Molurina*
Lepidoptera	Pieridae (suspected)	Whites	Pieridae