

**TERRESTRIAL FAUNAL AND AVIFAUNAL SPECIES COMPLIANCE
STATEMENT REPORT FOR THE NEW N7 VISSERSHOK
WEIGHBRIDGE (C1038: UPGRADING OF TR11/1) ON EITHER
FARM 153 VISSERSHOK OR MORNING STAR RE/141, CITY OF
CAPE TOWN MUNICIPALITY**

February 2026



Prepared for:

Sharples Environmental Services cc (SES)

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- BSc Honours (Zoology) cum laude, Stellenbosch University (2010)
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Expertise

- 28 years of in-the-field naturalist experience involving all faunal groups
- Zoologist with 17 years of professional experience
- 14 Peer-reviewed publications in high impact national and international scientific journals on the patterns and processes which drive and maintain faunal biodiversity, as well as on aspects of faunal biology and ecology

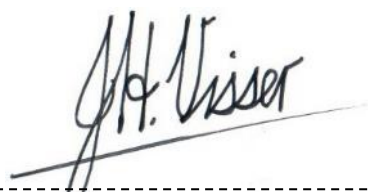
- 2 years of consultation experience as a Fauna Specialist (trading as Blue Skies Research)
- Five IUCN Red List assessments
- Over 70 faunal specialist assessments
- Involved in the Southern African Bird Atlas Project 2 (SABAP2)
- Contributor on the National Biodiversity Assessment 2018: The status of South Africa's ecosystems and biodiversity. Synthesis Report. South African National Biodiversity Institute, an entity of the Department of Environment, Forestry and Fisheries, Pretoria.

Declaration of independence by the independent person who compiled a specialist report or undertook a specialist process

I, Dr Jacobus Hendrik Visser, as the appointed independent specialist hereby declare that I:

- act/ed as the independent specialist in this application;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations and any specific environmental management Act;
- have no and will not have any vested interest in the proposed activity proceeding;
- have disclosed, to the applicant, EAP and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations and any specific environmental management Act;
- am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
- have ensured that information containing all relevant facts in respect of the specialist input/study was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments on the specialist input/study;
- have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;

- have ensured that the names of all interested and affected parties that participated in terms of the specialist input/study were recorded in the register of interested and affected parties who participated in the public participation process;
- have provided the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; and
- am aware that a false declaration is an offence.



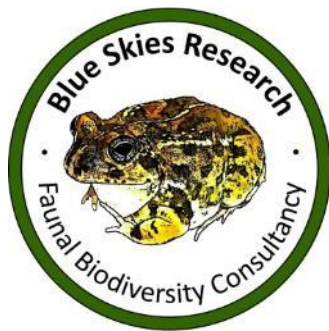
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TERRESTRIAL FAUNAL AND AVIFAUNAL SPECIES COMPLIANCE STATEMENT REPORT FOR THE NEW N7 VISSERSHOK WEIGHBRIDGE (C1038: UPGRADING OF TR11/1) ON EITHER FARM 153 VISSERSHOK OR MORNING STAR RE/141, CITY OF CAPE TOWN MUNICIPALITY

1. Introduction

The proponent is proposing construction of a new N7 Vissershok Weighbridge (C1038: Upgrading of TR11/1), City of Cape Town Municipality, Western Cape. While the **site originally considered** is located on a portion of **Farm 153 Vissershok (Alternative 1)**, two further alternative placements (**Alternatives 2 and 3**) for the project footprint were also subsequently added for consideration, both **located on Morning Star RE/141. Alternative 1** also originally considered **three layout options (Original layout, Options 5a and 5b)**, following botanical constraints. At present, there is an established and operational weighbridge approximately 500m south of the proposed new weighbridge sites at Alternative 1, and around 2 kilometres south of Alternatives 2 and 3. The proposed new weighbridge will replace this established weighbridge, which will be demolished and the site rehabilitated.

Blue Skies Research was appointed by Sharples Environmental Services cc (SES) on behalf of the City of Cape Town (CoCT) Municipality to perform the required terrestrial faunal and avifaunal assessment of the three alternative site locations (see Sections 2 and 3). The current report represents a terrestrial faunal and avifaunal species compliance statement for the sites and proposed development in

accordance with the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment (EIA) Regulations 2014 (Government Notice (GN) 984), as amended.

2. Terms of Reference

2.1. General legislature pertaining to this report

This terrestrial faunal and avifaunal assessment report is compiled in accordance with the following guidelines:

- *Department of Environmental Affairs and Development Planning (DEA&DP) Guidelines for Involving Biodiversity Specialists in the EIA Process* (Brownlie, 2005).
- *Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes*, Government Notice No. 320 (Gazetted 20 March 2020).
- *Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Animal Species*, Government Notice No. 1150 (Gazetted 30 October 2020).
- South African National Biodiversity Institute (SANBI). 2020. *Species Environmental Assessment Guideline. Guidelines for the implementation of the terrestrial fauna and terrestrial flora species protocols for environmental impact assessments in South Africa*. South African National Biodiversity Institute, Pretoria. Version 2.1 2021.

2.2 Other sources consulted

Other sources pertaining to this report are as follows:

- IUCN. 2021. The IUCN Red List of Threatened Species. Version 2021-3. <https://www.iucnlist.org>.

- *National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004): Publication of lists of critically endangered, endangered, vulnerable and protected species, Government Notice No. 2007 (Gazetted 14 December 2007).*

3. Reporting protocol

The three alternative site locations (Alternatives 1 to 3) have been identified as being of an overall “High Sensitivity” under the “Relative Animal Species Sensitivity Theme” in the Department of Forestry Fisheries and the Environment (DFFE) Screening Tool (<https://screening.environment.gov.za/screeningtool/>) (**Figure 1**). This follows from the projected and possible occurrence of five avifaunal and two invertebrate Species of Conservation Concern (SCC) (see **Table 1**). The current report therefore assesses the presence or likely presence of these SCC (as well as other possible SCC, see Section 9) within the study area in accordance with the protocols outlined in the Species Environmental Assessment Guideline (SANBI, 2020).

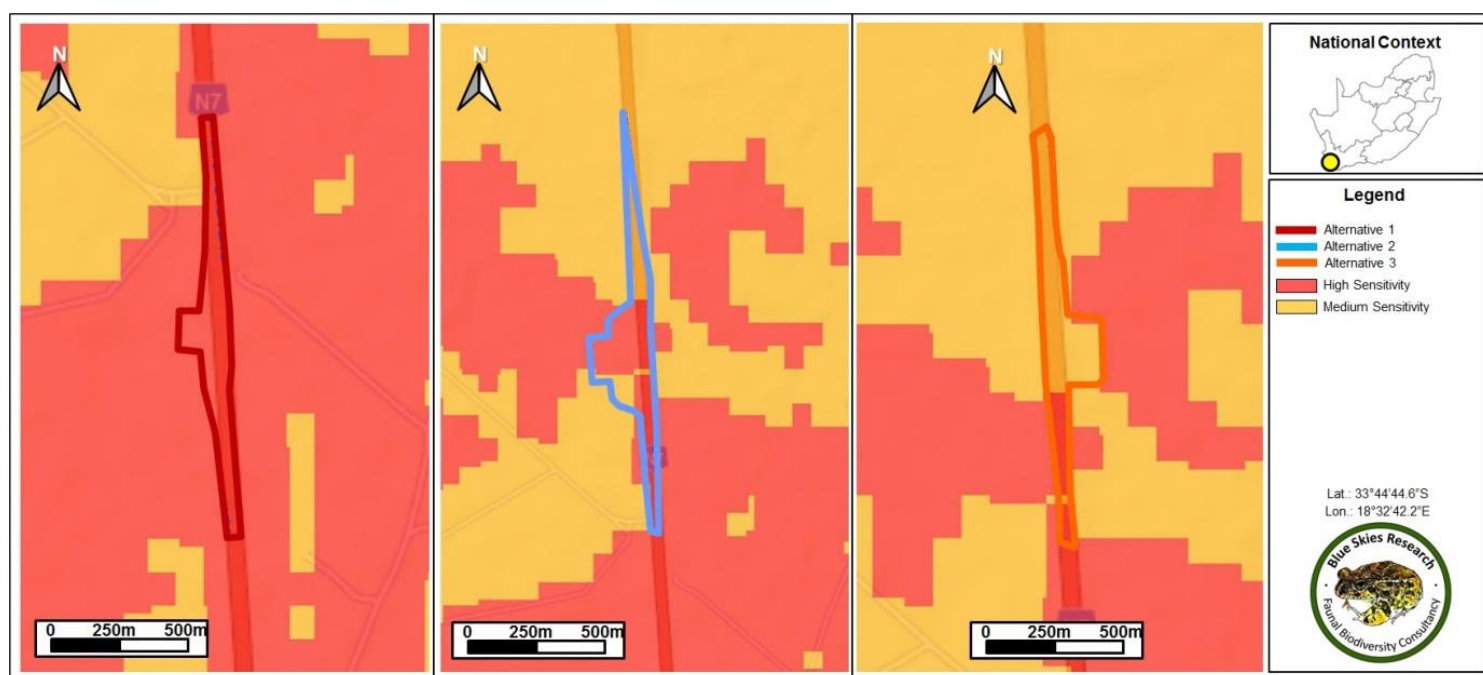


Figure 1 Relative Animal Species Sensitivity Map retrieved for the three alternative site locations by the DFFE Screening Tool (<https://screening.environment.gov.za/screeningtool/>).

Table 1 List of Species of Conservation Concern (SCC) identified in the DFFE Screening Tool Report. For each, the listed sensitivity (possibility of occurrence within the study area), species' scientific name and common name is shown, along with its current classification under the IUCN Red List of Threatened Species (IUCN, 2021).

Sensitivity	Species	Common name	IUCN status
High	<i>Circus ranivorus</i>	African Marsh-harrier	Least Concern
High	<i>Circus maurus</i>	Black Harrier	Endangered
High	<i>Polemaetus bellicosus</i>	Martial Eagle	Endangered
High	<i>Sagittarius serpentarius</i>	Secretarybird	Endangered
Medium	<i>Afrotis afra</i>	Southern Black Bustard	Vulnerable
Medium	<i>Pachysoma aesculapius</i>	West Coast Flightless Dungbeetle	Vulnerable
Medium	<i>Bullacris obliqua</i>	Bladder Grasshopper	Vulnerable

4. Overview of the study area

4.1 Geographic location

While the weighbridge footprint under all three alternatives was provided as around 2 hectares in size, each alternative will require different modifications to the N7 Road and off-ramps / access roads to allow access to the new weighbridge as well as normal traffic flow on the N7 (**Figures 2 and 3**). Alternative 1 is located to the north of the existing Vissershok Weigh Station west of the N7 Road and just south of the turn-off to the Reygersdal and Morningstar Roads. This site is also located adjacent to and west of the Morningstar Airfield. While the **original layout for this alternative is considered throughout the report, two other alternative layouts (Options 5a and 5b)** which takes into account botanical constraints was **considered in Section 11** of this report.

Alternative 2 is located around 2 kilometres north of the existing Vissershok Weigh Station and around 150m to the west of the N7 Road. This placement away from the N7 allows for a servitude containing high-voltage overhead powerlines, and therefore two new off-ramps / access roads (north and south) are considered for connecting the new proposed weigh station footprint to the N7. Alternative 3 is located around 2.2 kilometres north of the existing Vissershok Weigh Station and is directly adjacent to, and to the east of the N7 Road.

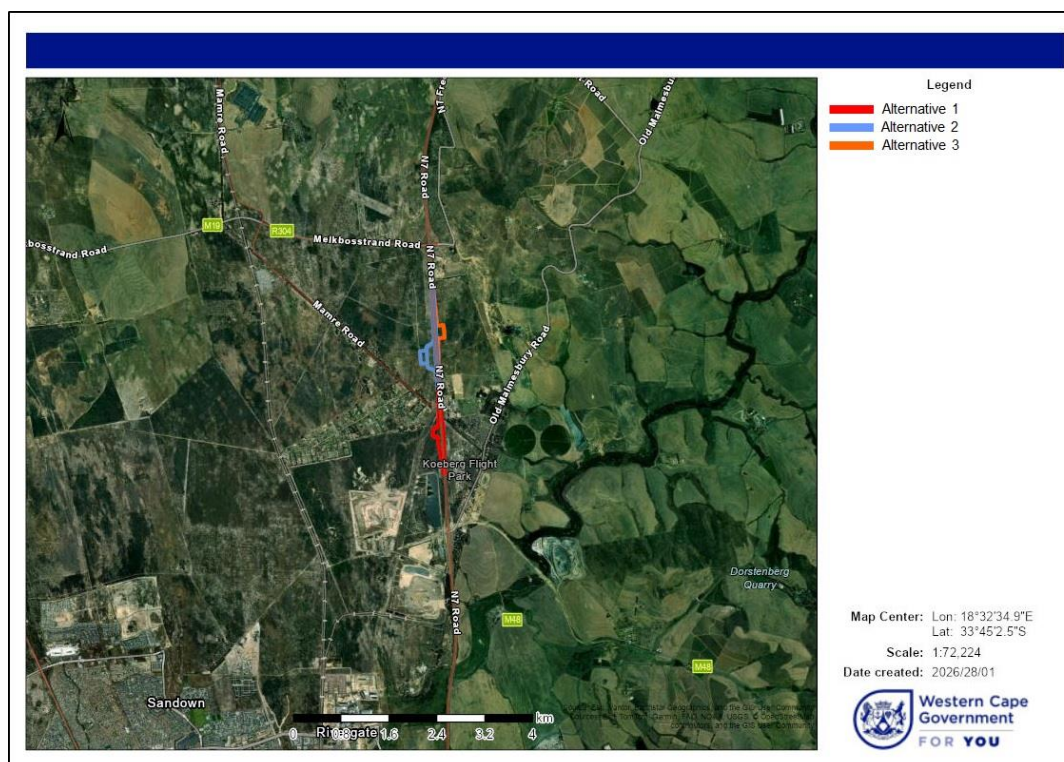


Figure 2 Spatial locations of the alternative site locations relative to surrounding settlements and main roads (map generated in Cape Farm Mapper version 3.0, Western Cape Department of Agriculture).

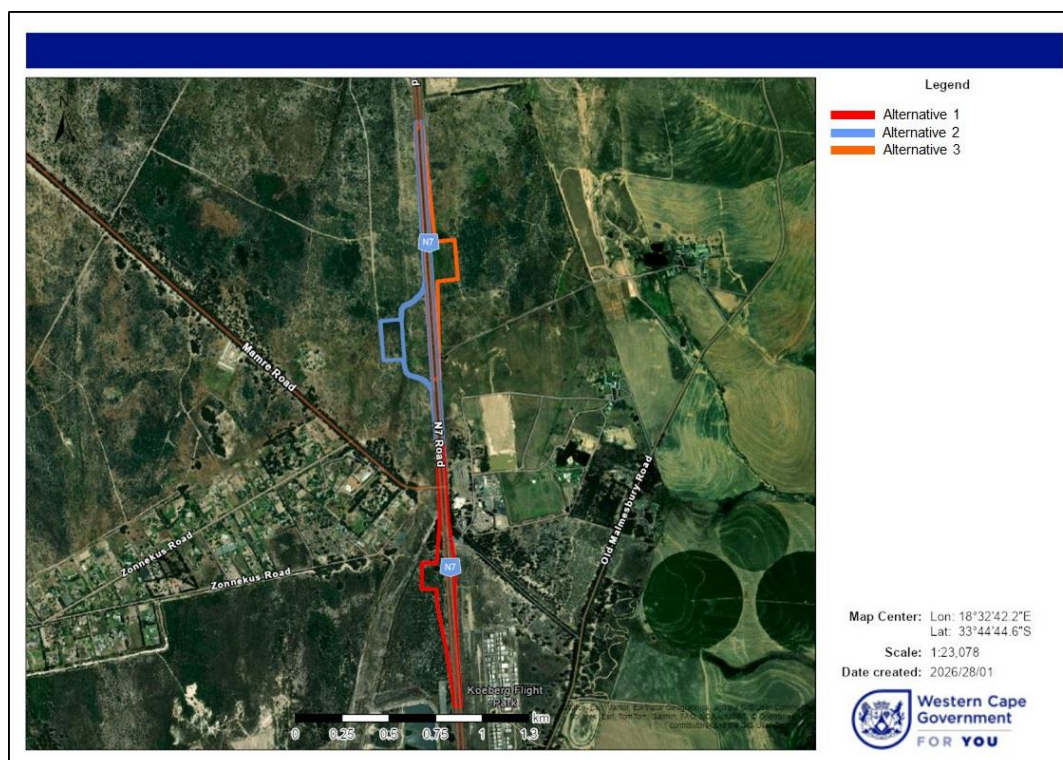


Figure 3 Spatial locations of the alternative site locations relative to surrounding main roads and built-up areas (map generated in Cape Farm Mapper version 3.0, Western Cape Department of Agriculture).

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4.2 Vegetation

Vegetation across the three alternative site locations is mapped as Cape Flats Sand Fynbos (VEGMAP 2024 Beta; **Figure 4**) classified as a “Critically endangered” ecosystem type according to *The Revised National List of Ecosystems that are Threatened and in Need of Protection* (Government Notice No. 2747 of 18 November 2022). Although some small remnant stands of this vegetation remains in place over Alternative 1, both Alternatives 2 and 3 displays no natural vegetation elements and exist in an open and degraded state due to historical land use (Section 7).

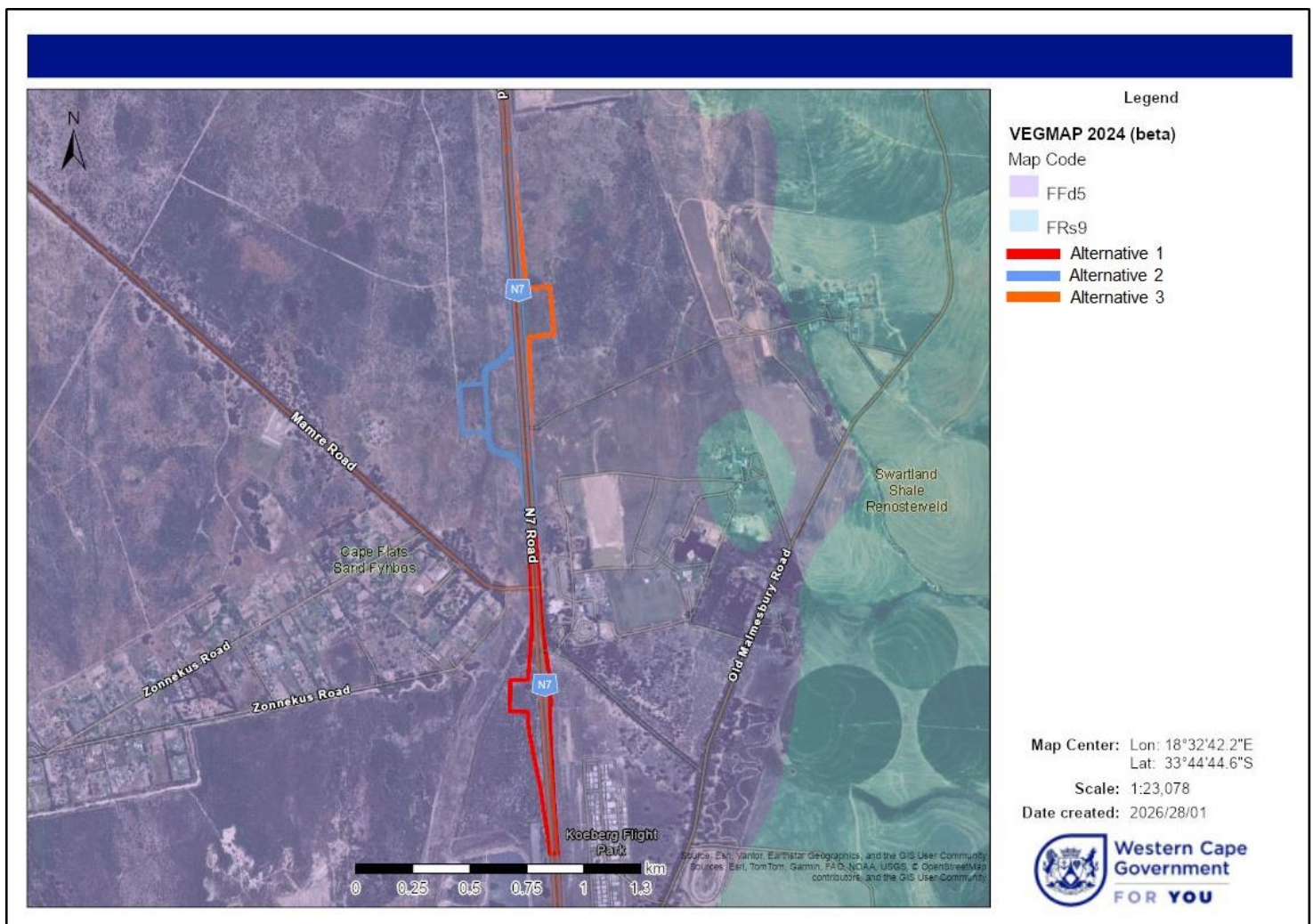


Figure 4 Vegetation type within the study area (VEGMAP 2024 Beta; map generated in Cape Farm Mapper version 3.0, Western Cape Department of Agriculture).

4.3 Critical Biodiversity Areas (CBAs)

Critical Biodiversity Areas (CBAs) are areas required to meet biodiversity targets for ecosystems, species and ecological processes, as identified in a systematic biodiversity plan (Purves and Holmes, 2015). Currently, parts of Alternative 1 and the entire Alternative 2 footprints overlap with degraded terrestrial CBA2 (**Figure 5**). Conversely, small parts of Alternative 1 and the entire Alternative 3 overlaps with terrestrial CBA1. The presence and integrity of the CBA which overlap the alternative site locations are discussed in Section 12.

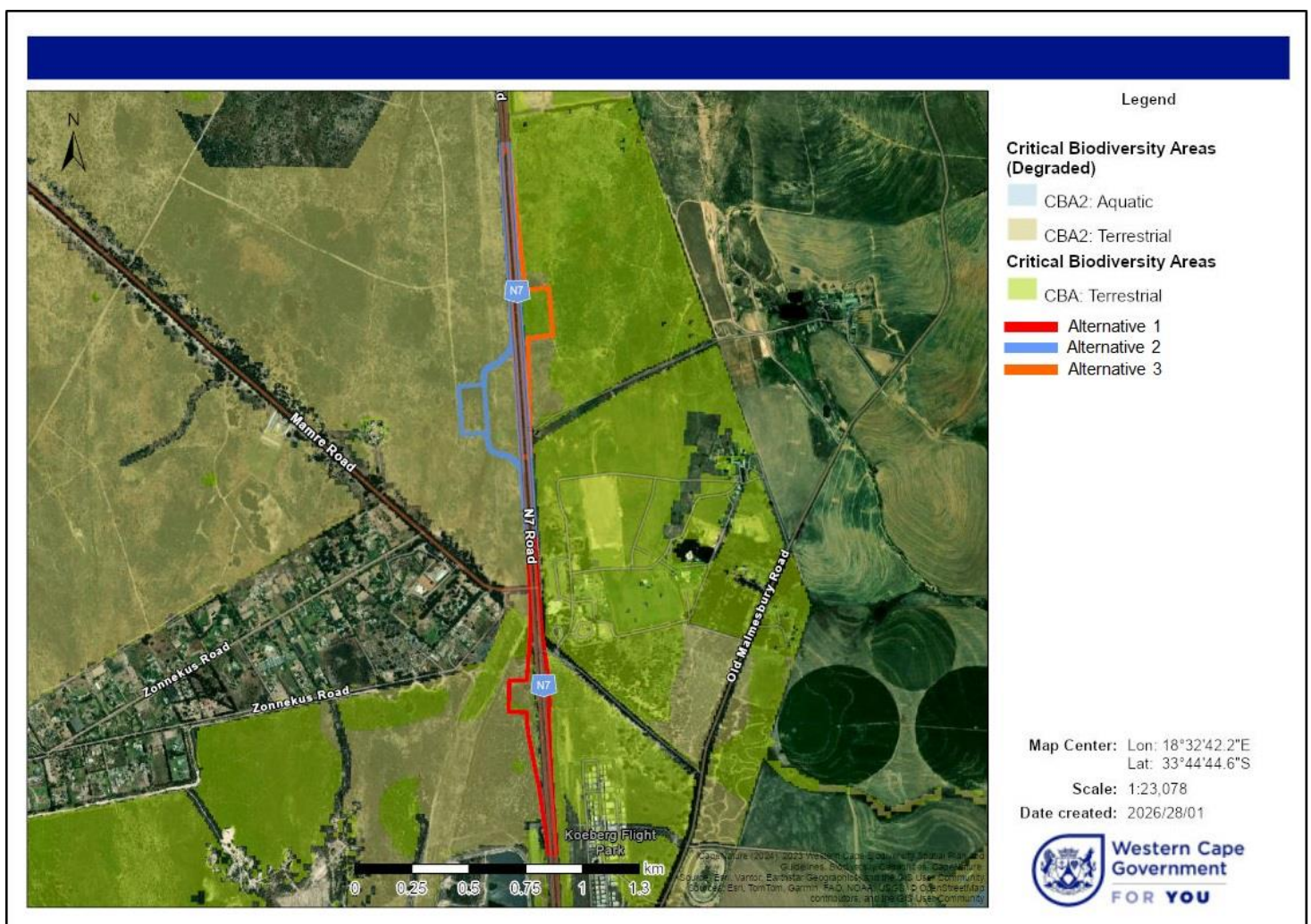


Figure 5 Spatial locations of Critical Biodiversity Areas (CBA) overlapping with the study area (information sourced from Cape Farm Mapper version 3.0, Western Cape Department of Agriculture).

4.4 Freshwater features

None of the alternative site locations currently overlap with any notable freshwater features (**Figure 6**). Even so, a small artificial dam is present at the northern limit of Alternative 3 (Section 7).

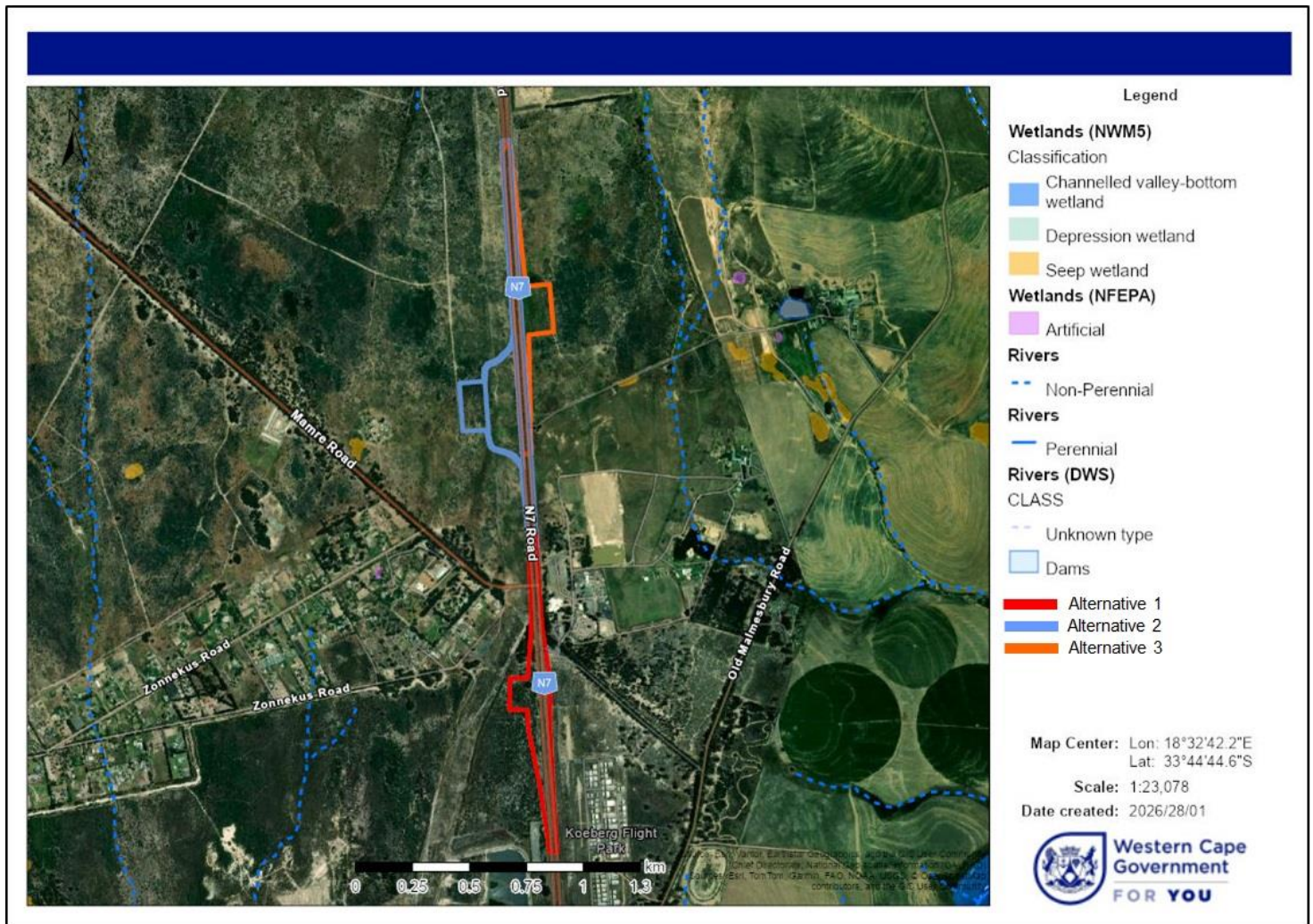


Figure 6 Location of freshwater features relative to the alternative site locations (information sourced from Cape Farm Mapper version 3.0, Western Cape Department of Agriculture).

5. Study methodology

5.1 Study aims

This study represents an assessment of the terrestrial faunal and avifaunal diversity and abundances, -habitat composition, ecosystem dynamics and potential occurrence of avifaunal and invertebrate (and other) SCC within the three alternative site locations. As such, the aims of this investigation were to:

- 1.) Assess, define and create a spatial rendering of available faunal and avifaunal habitats across the three alternative site locations based on information gathered during the field survey as well as through a desktop assessment using the latest satellite imagery,
- 2.) compile a complete faunal desktop species list (including avifauna) for the three alternative site locations based on a thorough desktop assessment so as to assess the presence of any of the listed SCC (**Table 1**) as well as any additional SCC,
- 3.) compile a faunal species list (including mammals, reptiles and avifauna) within the three alternative site locations through field surveying so as to assess the possibility of occurrence of the SCC retrieved in the desktop assessment (based on appropriate sampling methods, as well as the presence of suitable habitat for these species), or any additional SCC which are present on the sites, and
- 4.) generate spatial occurrence maps for the recovered faunal species within the three alternative site locations to assess the spatial extent of areas supporting higher levels of diversity.

5.2 Desktop assessment

To assess the possible occurrence of the SCC listed in the Screening Tool Report (as well as any additional SCC within this faunal group), a desktop assessment was performed to create a representative desktop species list for avifauna. Given the low

number of records for dungbeetle and grasshopper species, the potential presence or absence of the West Coast Flightless Dungbeetle and Bladder Grasshopper was assessed during the field survey based on habitat composition.

5.2.1 Avifauna

The desktop avifaunal species list for the three alternative site locations was generated by referring to the species records of the South African Bird Atlas Project 2 (SABAP2, <https://sabap2.birdmap.africa/>) (**Appendix A**). The three alternative site locations overlaps with one pentad (3345_1830) which is well-represented in the atlassing cards. To create the desktop avifaunal species list for the three alternative site locations, all species observed in this pentad were included, noting the total number of observations (including both full and ad-hoc protocols), and the latest date that the species was recorded.

5.3 Field survey

The area of Alternative 1 was surveyed on foot over a single day on the 23rd of May 2023, during the Autumn season. Because the other two alternatives were subsequently added, Alternatives 2 and 3 were surveyed over a single day on the 24th of January 2026 during the Summer season. Weather conditions during the surveying periods were characterised by relatively warm daily temperatures, no cloud cover and low wind conditions.

Surveying included unconstrained point sampling through search meanders. All tracks surveyed were recorded by GPS (Garmin eTrex® 10, Garmin International Inc, USA) and are represented in **Figure 7**. Terrestrial faunal species (mammals) were identified by direct visual observation, or by their tracks, burrows, remains or scat. Reptile species will be identified by direct visual observation, supplemented by manual searches under rocks, vegetation and debris. Avifaunal species were identified by visual observation, using a 180x zoom lens, or by auditory means. Finally, the potential presence of the West Coast Flightless Dungbeetle and Bladder Grasshopper was assessed based on the presence of suitable habitat for these species (the presence of firm deep sand of coastal hummocks, river banks and

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vegetated dunes in the case of the West Coast Flightless Dungbeetle, and the presence of the host plant Kapokbos, *Eriocephalus africanus* in the case of the Bladder Grasshopper). All observations were recorded by GPS and the species or evidence of species' presence or activity were photographed using a digital camera (Canon PowerShot SX430 IS, Canon Inc, USA). A species list for all fauna recorded within the study area is given in **Appendix B**.

Given the relatively optimal weather conditions, faunal and avifaunal species' activity was observed to be high over the surveying period, thereby resulting in 152 recorded observations across the alternative site locations (**Figure 8, Appendix B**). During surveying, faunal habitats were broadly identified in the field, and thereafter delineated through a desktop assessment of the three alternative site locations using satellite imagery (CapeFarmMapper Version 3.0, Western Cape Department of Agriculture).

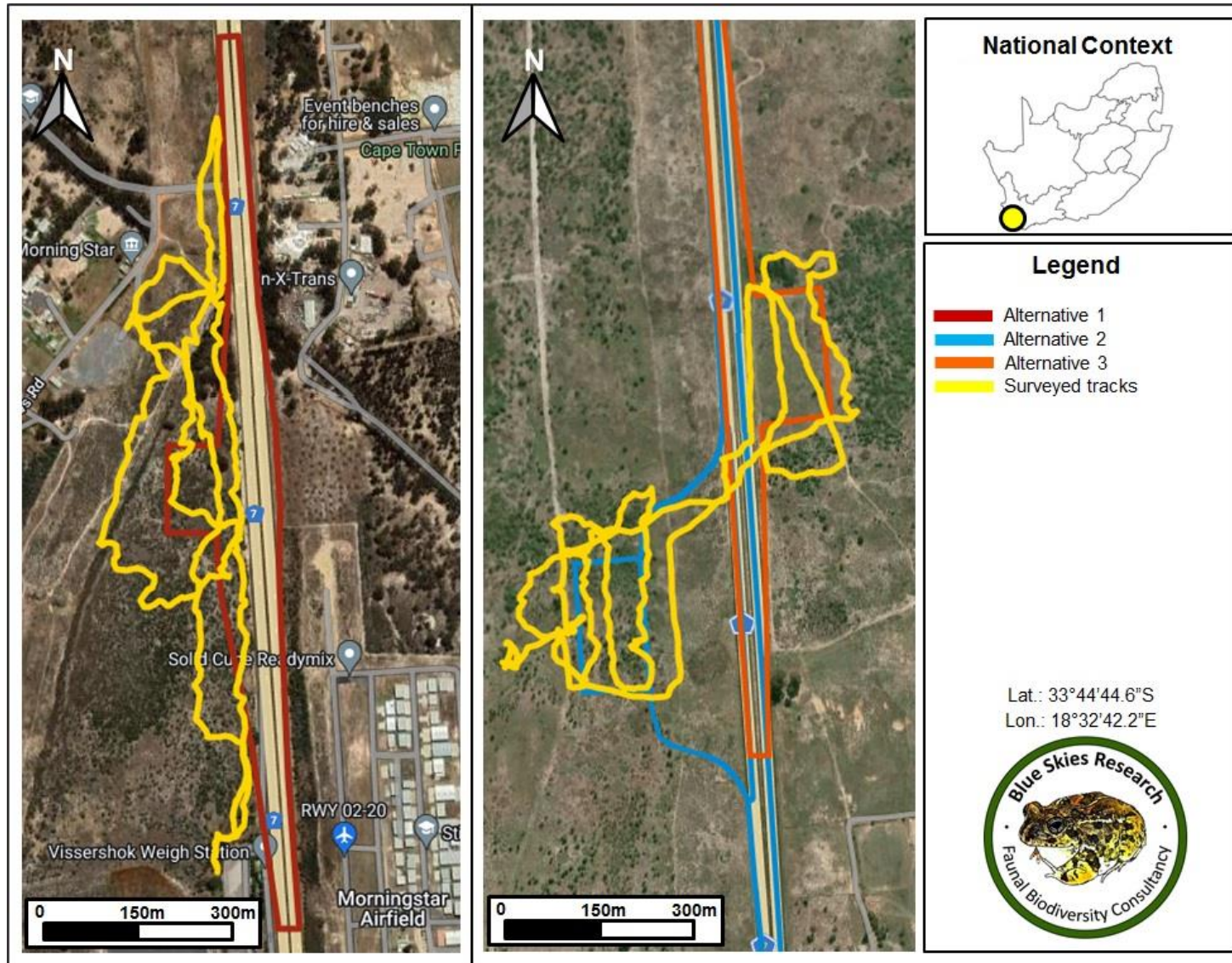


Figure 7 Spatial tracks recorded by GPS for all the search meanders across the alternative site locations over the surveying period.

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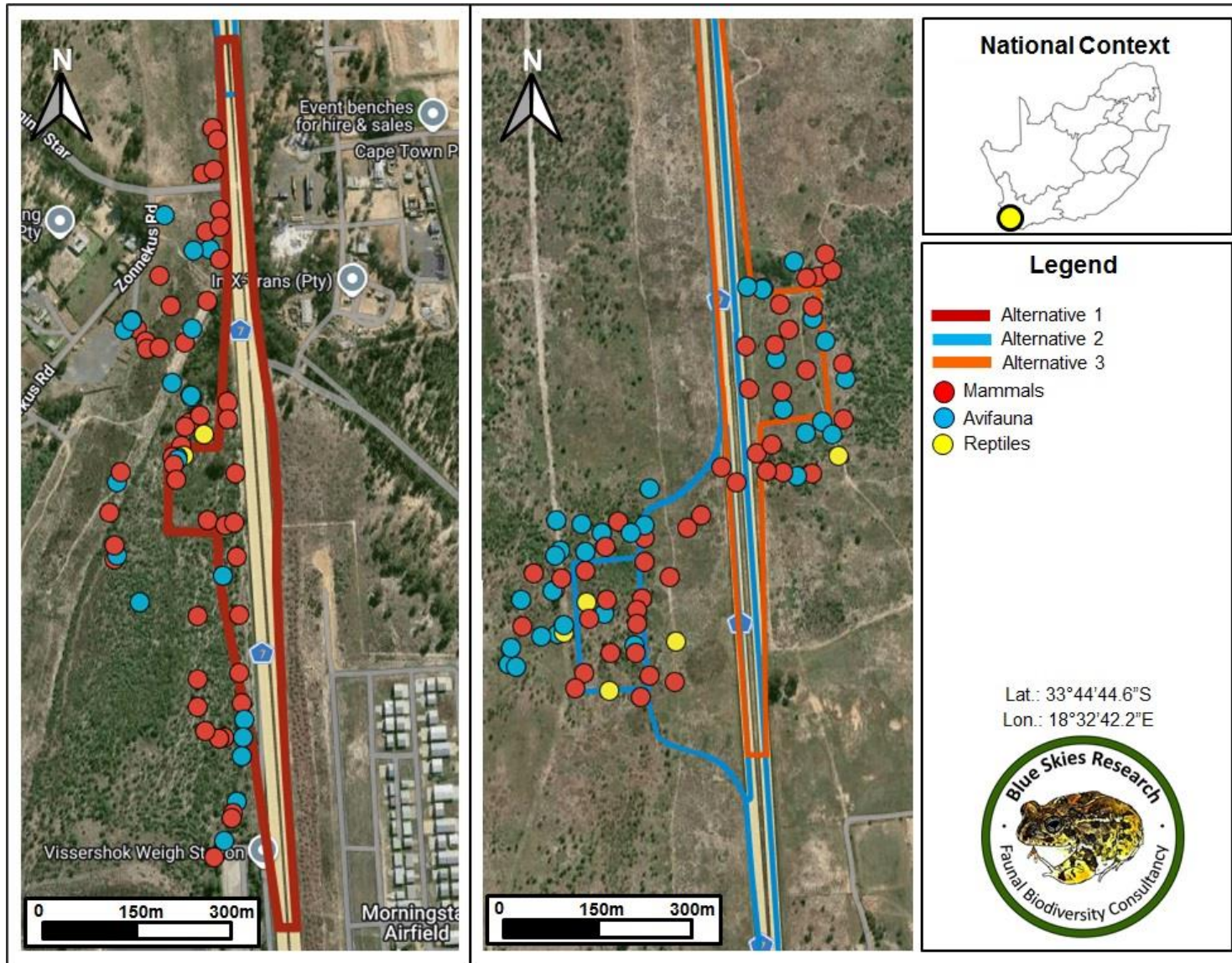


Figure 8 Spatial locations of all the terrestrial faunal and avifaunal observations across the alternative site locations over the surveying period.

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6. Assumptions and limitations

The desktop avifaunal species lists for the study area (**Appendix A**) utilized the most up-to-date and representative distributional data available, and therefore it is likely that all avifaunal SCC which have distributions overlapping the study area were considered in this report. Considering the field survey, optimal weather conditions coupled to the degraded and mostly open nature of the alternative site locations resulted in the recovery of a representative proportion of resident fauna. Even so, it is possible that the surveying period did not correspond to the activity period or activity season of some species. Additionally not all cryptic species (especially fossorial reptiles) could be observed. Taken together therefore, the current rendering of the terrestrial faunal composition within the three alternative site locations only partly reflects the true faunal species richness of, and faunal abundances on the sites. Ecosystem integrity on the site is therefore deduced based on habitat conditions and observed faunal biodiversity patterns.

7. Faunal habitat types within the study area

The alternative site locations are comprised of eight broadly identified habitat types based on composition and integrity (**Figure 9, Table 2**). The respective eastern portions of Alternatives 1 and 2 and western portion of Alternative 3 correspond to the N7 Road and transformed road verges where the access to the new weighbridge are to be located. Alternative 1 displays some remnant Cape Flats Sand Fynbos vegetation in the central portion and a large area of Restio vegetation to the west (outside of the proposed development footprint), but is otherwise mostly comprised of significant infestations of alien invasive plants (AIPs) such as Port Jackson and Bluegum trees with little remaining natural habitats. Alternatives 2 and 3 are located on fallow land with various densities of regrowth of AIPs. For instance, Alternative 2 shows a medium to low density of AIPs over open patches of pioneer grassland. The proposed access roads of Alternative 2 and entire Alternative 3 is located over open areas with only low pioneer grassland, and surrounded by medium to low densities of AIPs. Finally, a small artificial dam is located to the north and outside of Alternative 3.

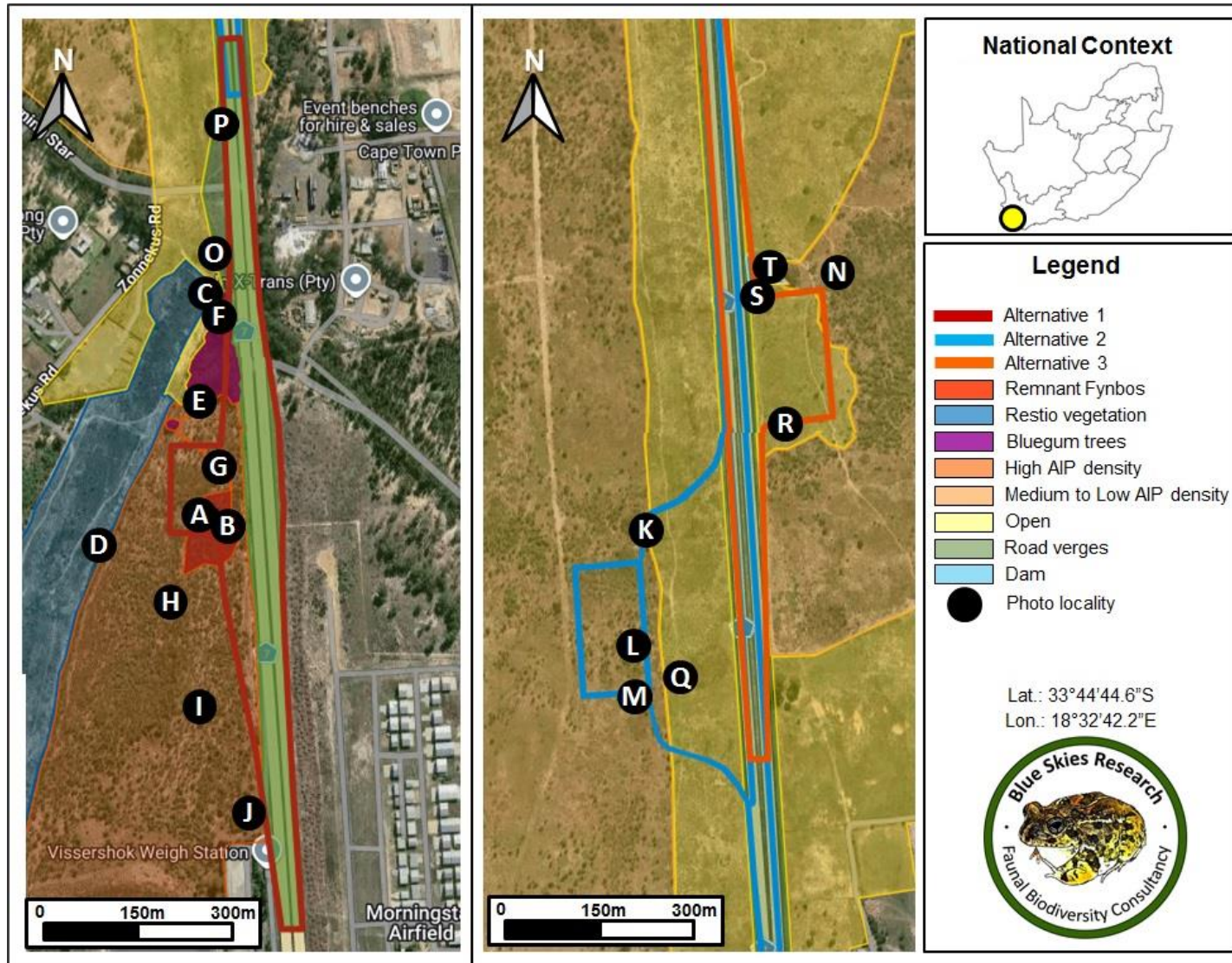


Figure 9 A broad indication of the spatial extent of habitat types over the alternative site locations. Photo localities (A to T) correspond to the habitat photos in Table 2.

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Table 2 Habitat locations, habitat descriptions and visual representations of the different habitat types over the alternative site locations.

Location designations (A to T) correspond to the photo locations in Figure 9.

Location	Habitat description	Photo 1	Photo 2
A -33.75386, 18.54579 B -33.75399, 18.54604	Remnant Fynbos Consists of remnant stands of Cape Flats Sand Fynbos among alien and invasive Port Jackson trees.		

C-33.7507,
18.54579**Restio vegetation**

Although located outside of the proposed Alternative 1 footprint, this habitat consists of dense and intact stands of Restio vegetation.

D-33.75426,
18.54396**E**-33.75229,
18.54558**Bluegum trees**

Consists of stands of alien and invasive Bluegum trees over Alternative 1 with no remaining natural vegetation.

F-33.7507,
18.54579

G-33.75317,
18.54593**H**-33.75509,
18.54504**I**-33.75654,
18.54564**J**-33.75806,
18.54645**High AIP density**

Consists of dense stands of alien and invasive Port Jackson trees with little to no remaining natural vegetation over Alternative 1.



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K
-33.74081,
18.54398

L
-33.74244,
18.54378

M
-33.74308,
18.54378

N
-33.73714,
18.54719

**Medium to Low AIP
density**

Consists of medium-
dense to open stands of
alien and invasive Port
Jackson trees over
open pioneer grassland
areas over Alternatives
2 and 3.



O
-33.75014,
18.54585

P
-33.74829,
18.54595

Q
-33.74281,
18.54457

R
-33.73923,
18.5463

Road verges / Open

Consists of the N7 Road and transformed road verges, or areas of only open pioneer grassland (in the high voltage powerline servitude and over Alternative 3 - Q and R).



S

-33.73735,
18.5458

T

-33.7371,
18.54599

Dam

A small artificial dam is located to the north and outside of Alternative 3.



8. Terrestrial faunal and avifaunal composition

8.1 Mammals

Eight mammal species were recorded within the alternative site locations (**Figures 10 and 11**), all of which are currently classified as “Least concern” by the IUCN (**Appendix B**). All three alternative sites exhibit high abundances of burrowing rodent species such as the Cape Dune Mole-rat (*Bathyergus suillus*) and Cape Gerbil (*Gerbilliscus afra*) given the presence of deep sandy soils. Because of this soil type, the Cape Golden Mole (*Chrysochloris asiatica*) is also present, especially over Alternative 1. A notable presence of the Four-striped Grass Mouse (*Rhabdomys pumilio*) also characterises the three alternative sites.

Other rodent species recorded include single instances of the African Mole-rat (*Cryptomys hottentotus*) (Alternative 1) and Cape Porcupine (*Hystrix africaeaustralis*) (Alternative 2), with individuals of the Common Duiker (*Sylvicapra grimmia*) also traversing mostly Alternative 1 (given its connectivity to more intact natural areas to the west), but also noted in Alternative 3. Finally, because of the significant presence of rodent prey species, a single individual of a small mammal predator, the African Wild Cat (*Felis silvestris*), was also noted in Alternative 3. Mammal diversity over the three alternative site locations point to altered ecosystem dynamics with only a few common (mostly rodent) species present, with the highest abundances pertaining to burrowing species which are common in transformed landscapes.

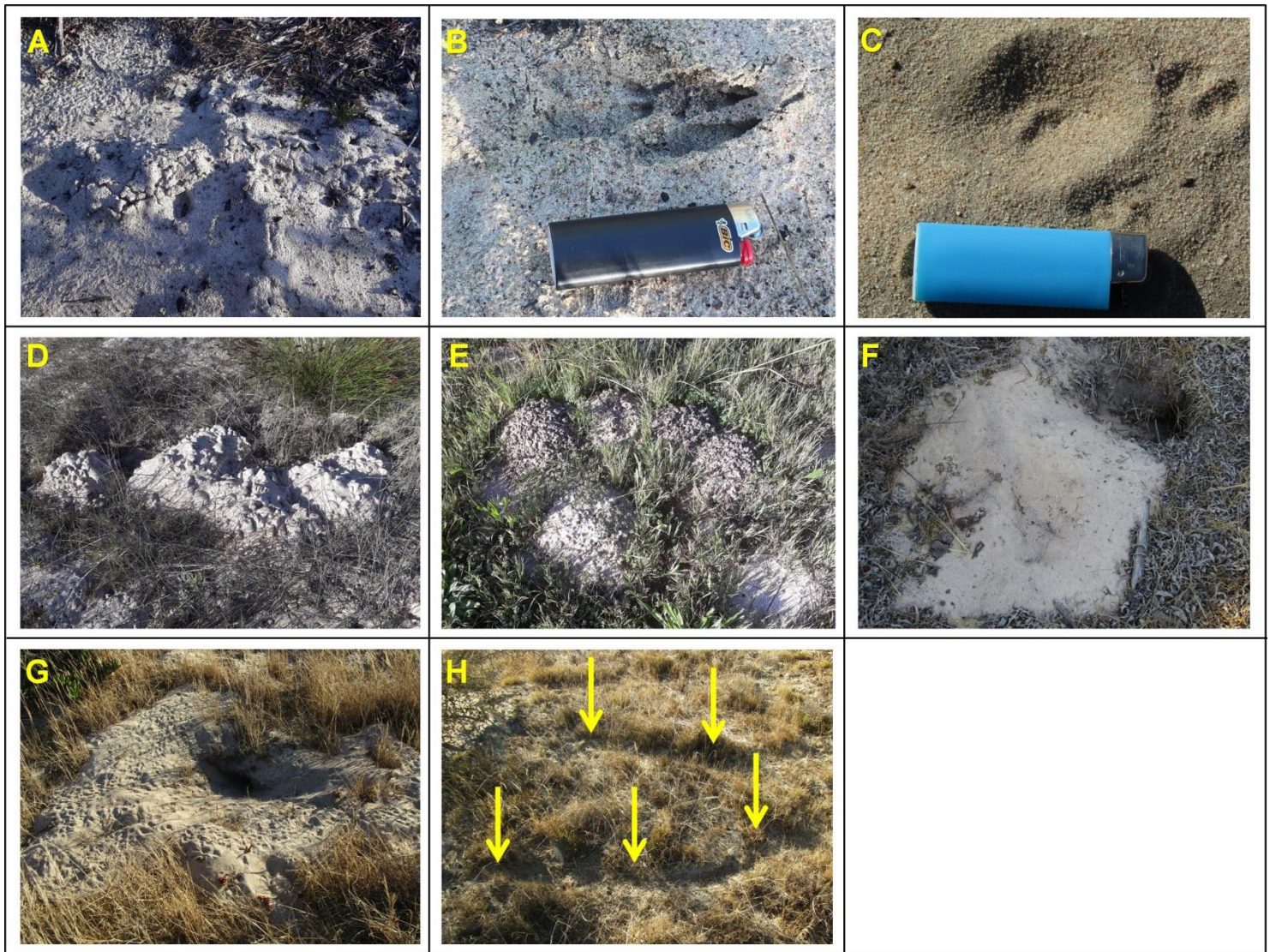


Figure 10 Photographic evidence of the different mammal species recorded in the alternative site locations. A) Tunnel system of the Cape Golden Mole (*Chrysochloris asiatica*). B) Tracks of the Common Duiker (*Sylvicapra grimmia*). C) Track of the African Wild Cat (*Felis silvestris*). D) Mounds of the Cape Dune Mole-rat (*Bathyergus suillus*). E) Mounds of the African Mole-rat (*Cryptomys hottentotus*). F) Feeding hole of the Cape Porcupine (*Hystrix africaeaustralis*). G) Burrow of a Cape Gerbil (*Gerbilliscus afra*). H) Runs (arrowed) of the Four-striped Grass Mouse (*Rhabdomys pumilio*).

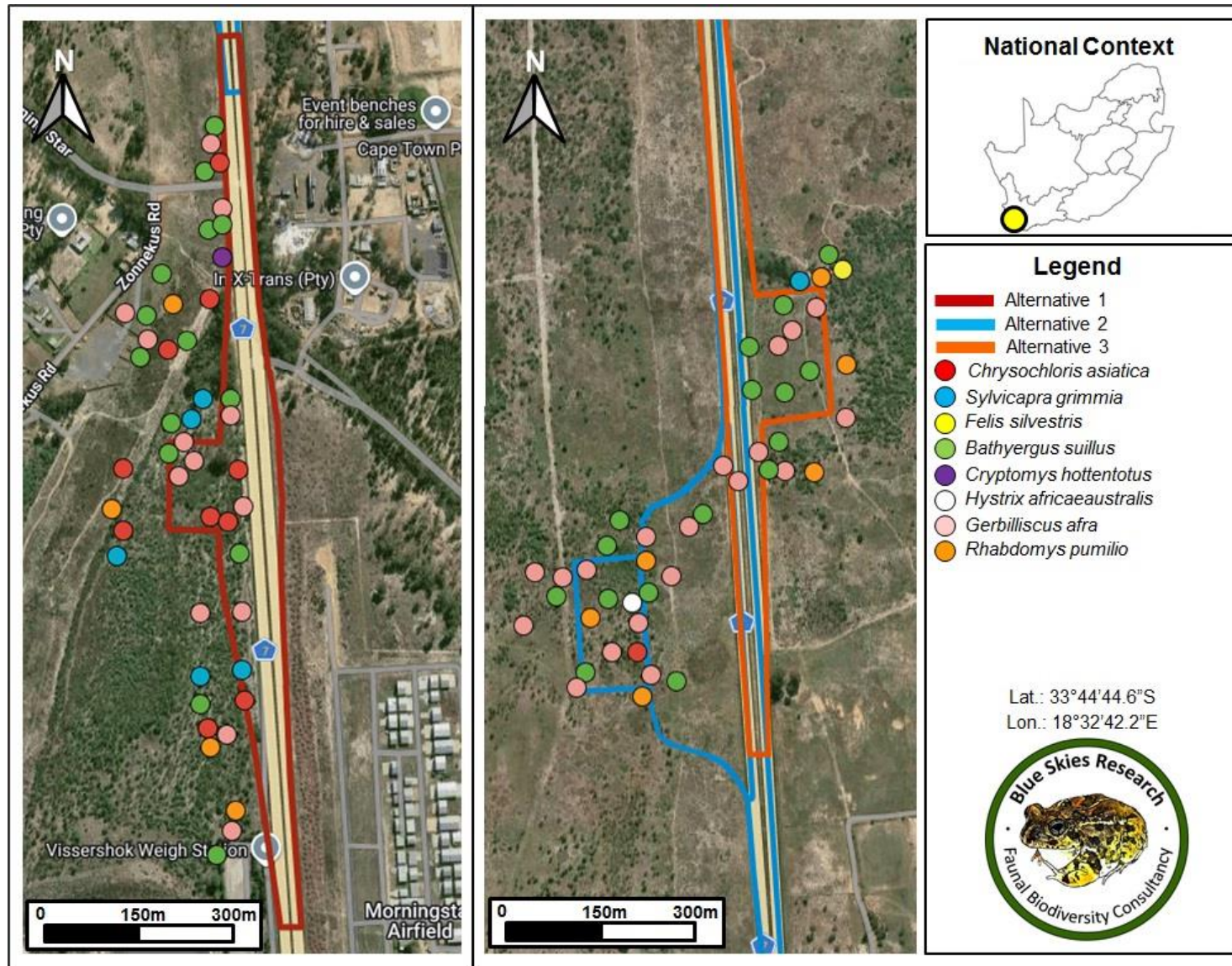


Figure 11 Spatial locations of the different mammal species recorded within the alternative site locations.

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8.2 Reptiles

Only two reptile species were recorded within the alternative site locations (**Figures 12 and 13**), both of which are currently classified as “Least concern” by the IUCN (**Appendix B**). While only a single individual of the Cape Skink (*Trachylepis capensis*) was located in Alternative 1, the Angulate Tortoise (*Chersina angulata*) is present over all three alternative site locations, representing the most abundant reptile species. The low retrieved reptile diversity is indicative of the transformed nature of habitats in this landscape and altered ecological conditions.

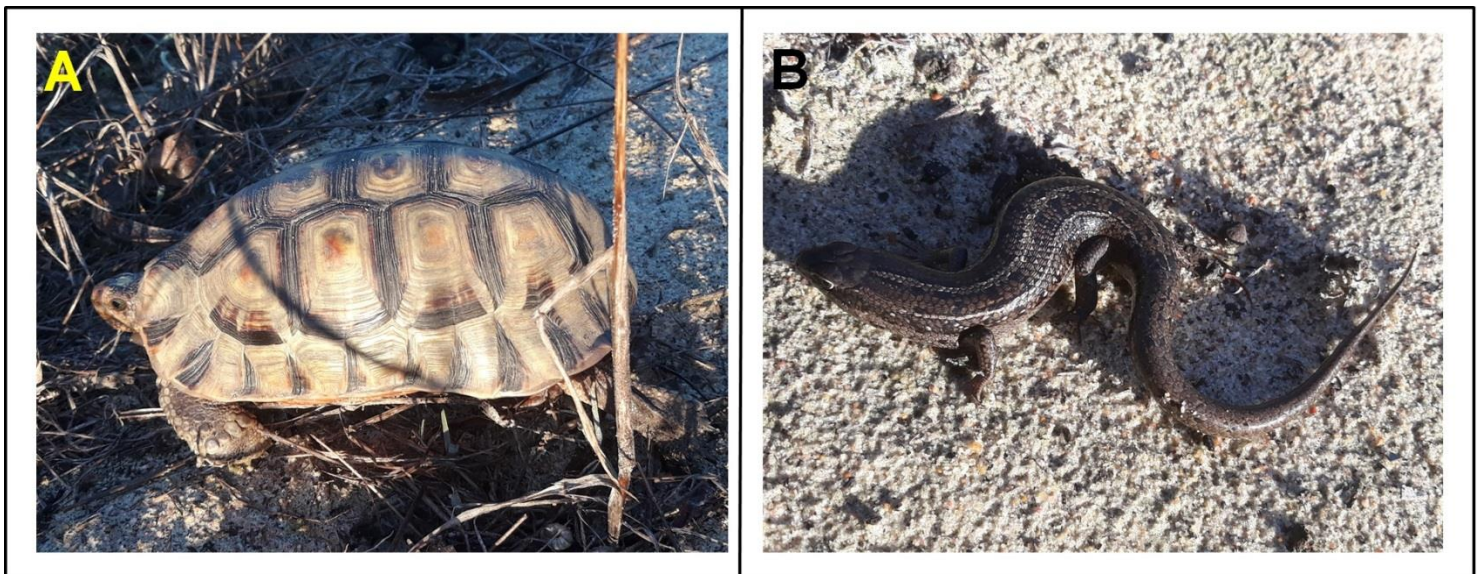


Figure 12 Photographic evidence of the different reptile species recorded in the alternative site locations. A) Angulate Tortoise (*Chersina angulata*). B) Cape Skink (*Trachylepis capensis*).

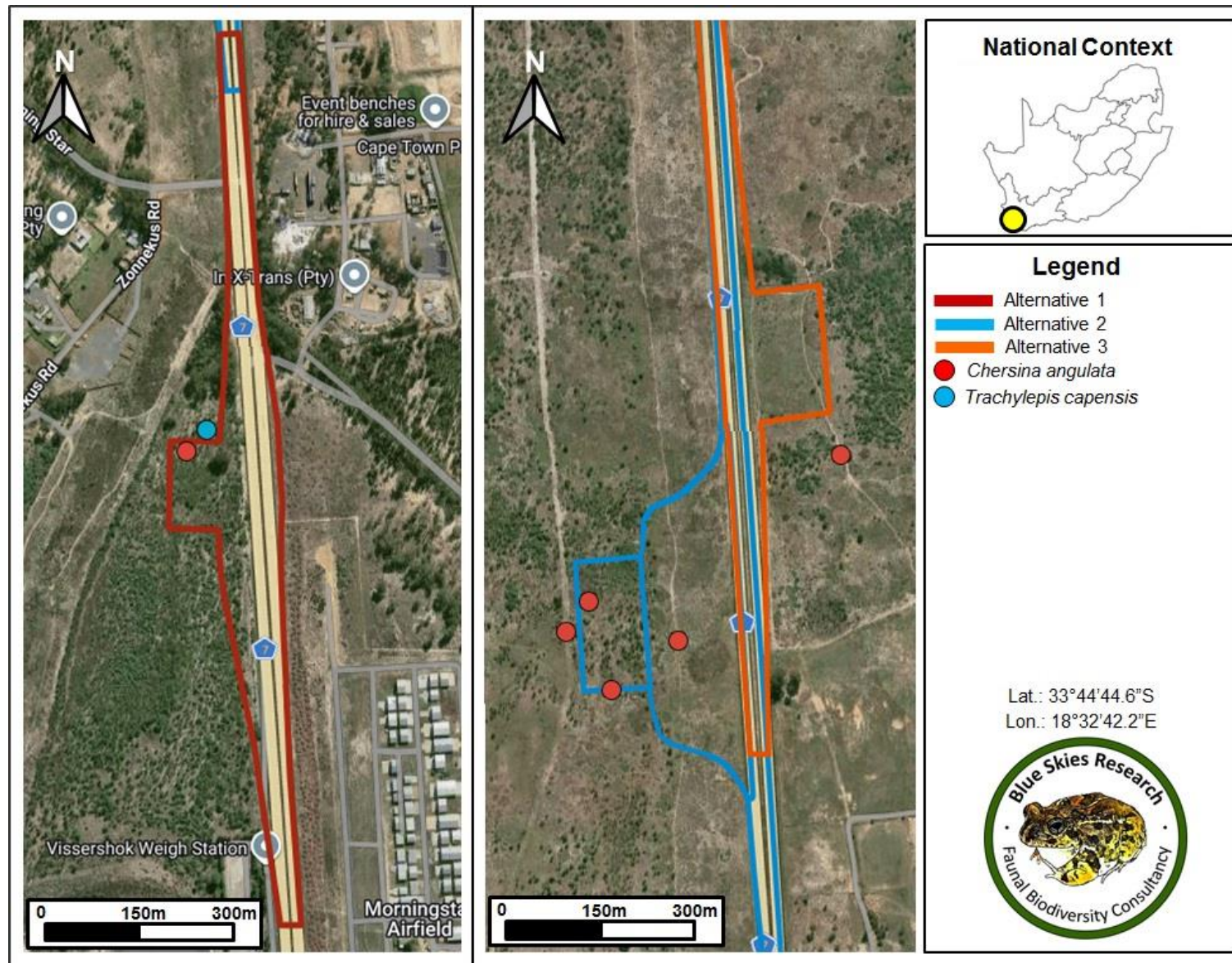


Figure 13 Spatial locations of the different reptile species recorded within the alternative site locations.

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8.3 Avifauna

8.3.1 Desktop assessment

According to the SABAP2 records, 194 bird species have been recorded from the pentad overlapping the three alternative site locations with 186 species classified as “Least Concern” by the IUCN, and eight species which constitute avifaunal SCC (Appendix A). These avifaunal SCC includes the:

1. Black Harrier (*Circus maurus*) classified as “Endangered”,
2. African Marsh Harrier (*Circus ranivorus*) classified as “Least Concern”,
3. Martial Eagle (*Polemaetus bellicosus*) classified as “Endangered”,
4. Lanner Falcon (*Falco biarmicus*) classified as “Least Concern”,
5. Caspian Tern (*Hydroprogne caspia*) classified as “Least Concern”,
6. Blue Crane (*Anthropoides paradiseus*) classified as “Vulnerable”,
7. Great White Pelican (*Pelecanus onocrotalus*) classified as “Least Concern”,
and
8. Cape Cormorant (*Phalacrocorax capensis*) classified as “Endangered” by the IUCN.

8.3.2 Field survey

In total, 27 bird species were recorded within the alternative site locations, all of which are currently classified as “Least concern” by the IUCN (**Figures 14 and 15, Appendix B**). Avifaunal species comprise common birds which are frequently encountered over transformed landscape and include a number of granivorous, insectivorous and nectivorous species. Most notable is the presence of a single raptor species, the Yellow-billed Kite (*Milvus aegyptius*), over the open habitats of Alternatives 2 and 3. The presence of this species may be linked to the abundance of rodent prey items (Subsection 8.1) and it is likely that other raptor species may also ephemerally traverse the sites in search of prey.



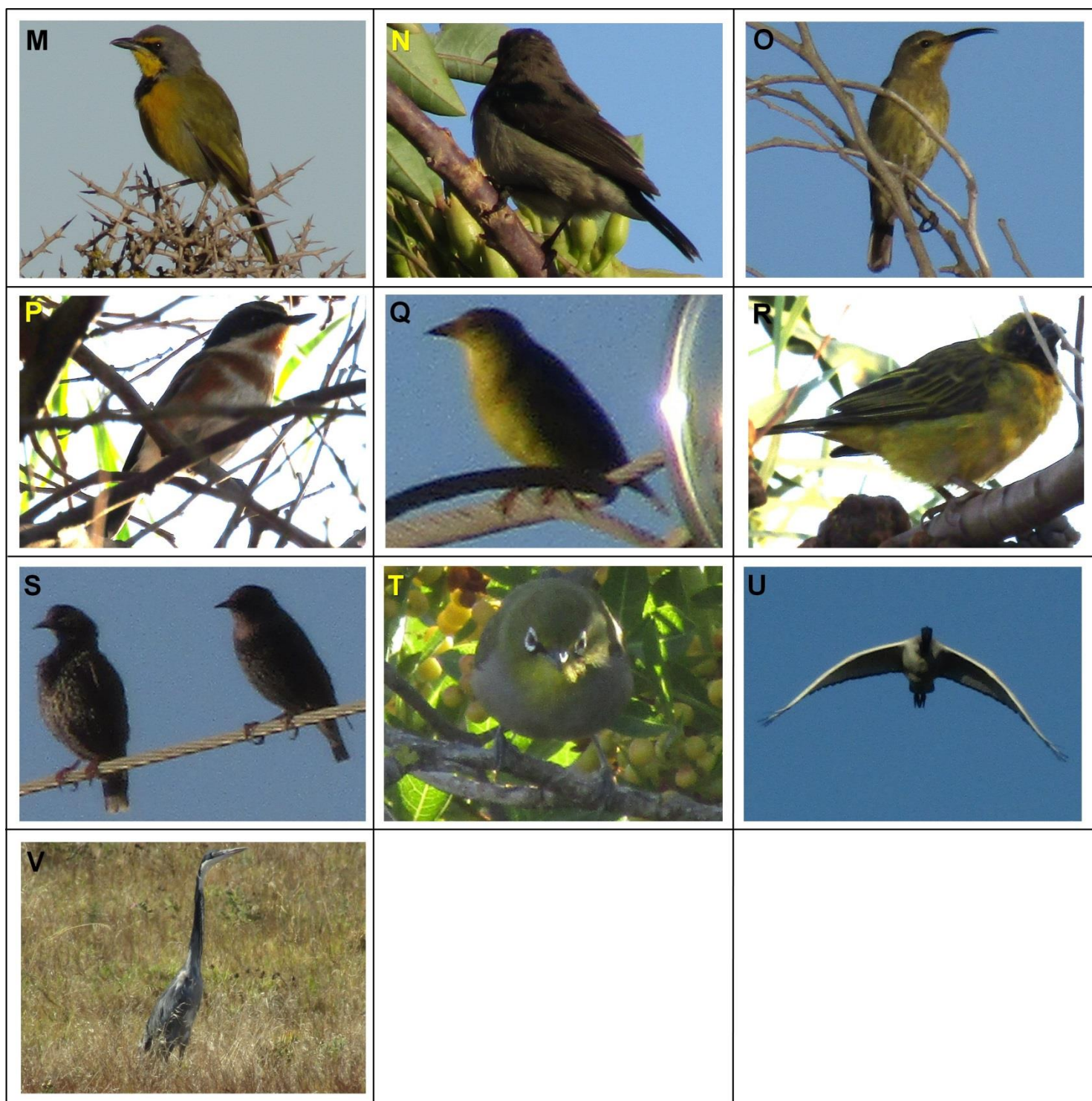


Figure 14 Photographic evidence of different avifaunal species recorded in the alternative site locations. A) Yellow-billed Kite (*Milvus aegyptius*). B) Egyptian Goose (*Alopochen aegyptiaca*). C) White-backed Mousebird (*Colius colius*). D) Red-eyed Dove (*Streptopelia semitorquata*). E) Laughing Dove (*Spilopelia senegalensis*). F) Tracks of the Helmeted Guineafowl (*Numida meleagris*). G) Levallant's Cisticola (*Cisticola tinniens*). H) Karoo Prinia (*Prinia maculosa*). I) Pied Crow (*Corvus albus*). J) Cape Canary (*Serinus canicollis*). K) Barn Swallow (*Hirundo rustica*). L) Southern Fiscal (*Lanius collaris*).

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M) Bokmakierie (*Telophorus zeylonus*). N) Southern Double-collared Sunbird (*Cinnyris chalybeus*). O) Malachite Sunbird (*Nectarinia famosa*). P) Cape Batis (*Batis capensis*). Q) Cape Weaver (*Ploceus capensis*). R) Southern Masked Weaver (*Ploceus velatus*). S) Common Starling (*Sturnus vulgaris*). T) Cape White-eye (*Zosterops virens*). U) African Sacred Ibis (*Threskiornis aethiopicus*). V) Black-headed Heron (*Ardea melanocephala*).

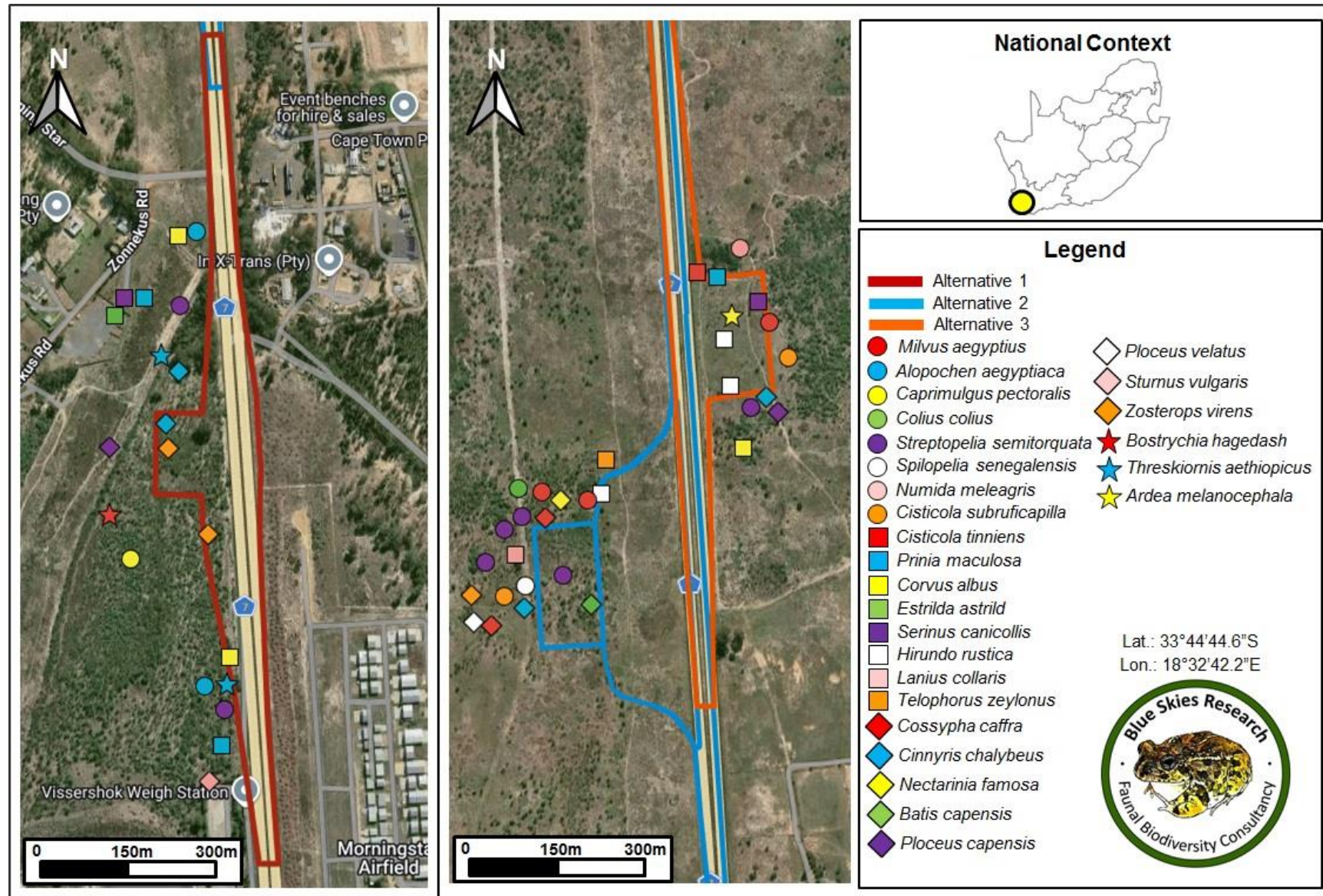


Figure 15 Spatial locations of the different avifaunal species recorded within the alternative site locations.

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8.4 Terrestrial faunal and avifaunal diversity and distributions within the study area

Faunal habitats over all three alternative site locations exist in a transformed and / or degraded state (Section 7) and therefore supports a faunal and avifaunal diversity comprising only relatively common species of “Least Concern” (IUCN, 2021) which are relatively disturbance-prone and frequently encountered in such transformed landscapes. A few burrowing rodent species represent the most abundant terrestrial faunal elements, with other (mammal and reptile) species displaying relatively low densities over the sites and with some more mobile species (larger mammals and avifauna) having only transient associations. Even so, and because of a rodent prey base, activity from some (mammal and avifaunal) predatory species is notable, pointing to some intact predator-prey dynamics. Taken together however, all three alternative site locations display altered ecosystem dynamics because of historical degradation and land-use and do not form important faunal focal points in the larger landscape.

9. Species of Conservation Concern

Along with the seven (five avifaunal and two invertebrate) SCC listed in the DFFE Screening Tool (**Table 1**), the potential occurrence of four other avifaunal SCC within the study area was assessed based on their recovery in the desktop assessment (**Table 3**). The probability of occurrence of the specific SCC within the study area was assessed based on the following criteria:

Confirmed - The species was confirmed as present within the study area during the field survey.

High - The species was not confirmed as present within the study area during the field survey but has been recorded in the overlapped pentad recently (less than 2 years ago) and in high number (>10 times) and is therefore likely to also occur on the site, given suitable habitat characteristics.

Medium - The species was not confirmed as present within the study area during the field survey, but has been recorded a number of times (<10 times) in the overlapped pentad (less than 2 years ago). Suitable habitat for the species is also present on the site.

Low - No suitable habitat for the species is present on the site, or the species has been recorded a low number of times (only once) or more than five years ago in the overlapped pentad.

Among the SCC considered, only the Blue Crane and Lanner Falcon may potentially forage over the alternative site locations on an ephemeral basis, however these species are unlikely to have permanent associations due to their habits, the small spatial extents of the sites as well as the degraded habitat structure. Indeed, all other SCC considered have a low likelihood of occurrence, either given a scarcity in the surrounding landscape or because the three alternative site locations do not harbour any of these species' preferred habitats while further existing in a degraded (secondary) ecological state with an incidence of AIPs and altered ecosystem dynamics. To this end, the alternative site locations do not constitute notable suitable habitat for subpopulations of any of the SCC considered in the current assessment.

Table 3 Probability of occurrence of specific SCC in the study area. For each species, the taxonomic Order, Family, scientific name and common name is shown, along with its current classification under the IUCN Red List of Threatened Species (IUCN, 2021). In addition, the species' preferred habitat and the probability that the species occurs within the study area is given, along with a justification for listing this probability.

Family	Species	Common name	IUCN status	Habitat	Probability of occurrence in the study area	Justification of probability
Avifauna						
Accipitridae	<i>Circus maurus</i>	Black Harrier	Endangered	The species occurs in coastal and montane Fynbos, highland grasslands, Karoo subdesert scrub, open plains with low shrubs and croplands (Curtis <i>et al.</i> 2004). In the Western Cape of South Africa it is most abundant in coastal and montane fynbos (Curtis <i>et al.</i> 2004), and loose colonies may aggregate around wetland areas. The Black Harrier prefers open ground with low vegetation for hunting, where it feeds mainly on small mammals, especially <i>Otomys</i> and <i>Rhabdomys</i> species, although its diet may also include birds and reptiles (Garcia-Heras <i>et al.</i> 2017). The main diet of the Black Harrier however constitutes the Four-striped Grass Mouse, <i>Rhabdomys pumilio</i> (Garcia-Heras <i>et al.</i> 2017). The species breeds close to coastal and upland marshes (damp sites, near vleis, marshes or streams are preferred for breeding), but may also nest in montane habitats, preferring south-facing slopes (Brown <i>et al.</i> 1982; Curtis <i>et al.</i> 2004). Nests are built on the ground in tall vegetation such as shrubs or reeds (Brown <i>et al.</i> 1982, Curtis <i>et al.</i> 2004). The species does not breed in transformed and cultivated lands, although it may forage in these environments (Curtis <i>et al.</i> 2004).	Low	The presence of this species was not confirmed during the field survey, and it has been recorded only twice in the study area landscape, with the latest observation over five years ago (March 2020; Appendix A). The alternatives site locations do support subpopulations of the species' preferred prey item <i>Rhabdomys pumilio</i> . Even so, given the relative scarcity of this species in the landscape, it is highly unlikely to occur over the sites.
Accipitridae	<i>Circus ranivorus</i>	African Marsh Harrier	Least Concern	The species breeds in wetlands, foraging primarily over reeds and lake margins (Harrison <i>et al.</i> 1997). Its diet consists largely of small mammals, particularly striped mouse <i>Rhabdomys pumilio</i> (Kemp and Dean, 1988).	Low	The presence of this species was not confirmed during the field survey, however it has been recorded 16 times in the study area landscape, with the latest record less than a year ago (March 2025, Appendix A). Furthermore, the alternatives site locations do support subpopulations of the species' preferred prey item, <i>Rhabdomys pumilio</i> . Even so, <i>C. ranivorus</i> typically forages over wetland-type habitats with a significant incidence of reedbeds with this habitat not present over any of the sites. It is therefore highly unlikely that this species will be present over the sites.

Accipitridae	<i>Polemaetus bellicosus</i>	Martial Eagle	Endangered	The species inhabits open woodland, wooded savanna, bushy grassland, thornbush and, in southern Africa, more open country and even subdesert, from sea level to 3,000 m but mainly below 1,500 m (Ferguson-Lees and Christie, 2001). The main prey is sizeable mammals, birds and reptiles (Ferguson-Lees and Christie, 2001).	Low	The presence of this species was not confirmed during the field survey, and it has been recorded only once in the study area landscape more than nine years ago (April 2016, Appendix A). Given its scarcity in this landscape along with a general lack of substantial prey items, it is therefore unlikely that this species will be present over the sites.
Sagittariidae	<i>Sagittarius serpentarius</i>	Secretarybird	Endangered	The species inhabits open landscapes, ranging from open plains and grasslands, to lightly wooded savanna, but is also found in agricultural areas and sub-desert (Ferguson-Lees and Christie, 2001), with up to 50% of recorded individuals in the Fynbos biome in winter being found in transformed environments (Hofmeyr et al. 2014). The species avoids areas of >20% wood cover (Loftie-Eaton, 2017). Although the species is nomadic, individuals which inhabit moist grassland tend to be less nomadic but may travel 20-30 km per day while foraging (Kemp and Kemp, 1977; Whitecross et al. 2019). The species preys on a variety of invertebrates (insects form 86% of the diet, Whitecross et al. 2019) and vertebrates (rodents, other mammals, lizards, snakes, eggs, young birds and amphibians, Kemp and Kemp, 1977; Ferguson-Lees and Christie, 2001). Breeding occurs throughout the year and the species typically nests in a flat-topped Acacia or other thorny tree, where it constructs a flattened stick structure (Ferguson-Lees and Christie, 2001).	Low	The species was not confirmed as present in the study area during the field survey and has never been recorded in the study area landscape. It is therefore highly unlikely that this species will be present over the sites.
Falconidae	<i>Falco biarmicus</i>	Lanner Falcon	Least Concern	The species inhabits a wide variety of habitats, from lowland deserts to forested mountains, and is recorded up to 5,000 m (del Hoyo et al. 1994). Small birds make up most of its diet, particularly quails, pigeons and doves (del Hoyo et al. 1994). Birds usually breed in the abandoned nests of other raptors, corvids or herons on trees and pylons (del Hoyo et al. 1994).	Medium	The species was not confirmed as present in the study area during the field survey but has been recorded 17 times in the study area landscape more than two years ago (September 2023, Appendix A). The study area does harbour some of the bird species preyed upon by the Lanner Falcon, and it is therefore possible that this species may ephemerally forage over the alternative site locations.
Otididae	<i>Afrotis afra</i>	Southern Black Korhaan	Vulnerable	The species is restricted to the non-grassy, winter rainfall or mixed winter-summer rainfall fynbos and succulent Karoo biomes, and the extreme south of the Nama-Karoo biome, in a narrow strip along the southern and western coastlines of South Africa (Hofmeyr, 2012). It also occurs in semi-arid scrub and dunes with succulent vegetation, and extends into renosterveld scrub and semi-arid karoo (del Hoyo et al. 1996, Hockey et al. 2005). It occurs occasionally in cultivated fields with nearby cover (Hockey et al. 2005). The diet consists of insects, small reptiles and plant material, including seeds and green shoots (Hockey et al. 2005).	Low	The species was not confirmed as present in the study area during the field survey and has never been recorded in the study area landscape. It is therefore unlikely that this species will be present over the sites.

Laridae	<i>Hydroprogne caspia</i>	Caspian Tern	Least Concern	The breeding, passage and wintering habitats of this species are similar, although during the winter it is largely confined to the coast (Shuford and Craig 2002). It frequents sheltered sea coasts, estuaries, inlets, bays, harbours, coastal lagoons, saltmarshes and saltpans, also occurring inland on fresh or saline wetlands including large lakes, inland seas, large rivers, creeks, floodlands, reservoirs and sewage ponds (Flint et al. 1984, Martin and Randall 1987, Richards 1990, Higgins and Davies 1996, del Hoyo et al. 1996, Snow and Perrins 1998).	Low	The species was not confirmed as present in the study area during the field survey and has been recorded only twice in the study area landscape more than 11 years ago (October 2014, Appendix A). Notwithstanding this scarcity in the landscape, all three alternative site locations are devoid of the open water environments required by this species and it is therefore highly unlikely to be present over the sites.
Gruidae	<i>Anthropoides paradiseus</i>	Blue Crane	Vulnerable	This species breeds in natural grass- and sedge-dominated habitats, preferring secluded grasslands at high elevations where the vegetation is thick and short (Barnes, 2000). Occasionally it will breed in or near wetland areas (Barnes, 2000), in pans or on islands in dams (Hockey et al. 2005). Particularly in the Western Cape of South Africa, it also uses lowland agricultural areas, particularly pasture, fallow fields and cereal crop fields as stubble becomes available after harvest (Barnes, 2000, Hockey et al. 2005). During the non-breeding season the species inhabits short, dry, natural grasslands, as well as the Karoo and fynbos biomes (Barnes, 2000). In fynbos it occurs almost exclusively in cultivated habitats, largely avoiding the natural vegetation (Barnes, 2000), although this habitat may provide important cover for juveniles (Bidwell et al. 2006). The agricultural habitats that it uses include pastures; croplands, particularly where cereal crops are grown (Barnes, 2000), and fallow fields. It is intolerant of intensively grazed and burnt grassland (Hockey et al. 2005). It roosts in shallow wetlands (Barnes, 2000, Hockey et al. 2005). This species feeds primarily on plant material including the seeds of sedges and grasses, roots, tubers and small bulbs (del Hoyo et al. 1996, Hockey et al. 2005). It also takes a variety of animals including insects such as locusts and their eggs, grasshoppers, termites and caterpillars, worms, crabs, fish, frogs, reptiles and small mammals (del Hoyo et al. 1996, Hockey et al. 2005). In agricultural areas it feeds on cereal grains such as wheat and maize, and also eats invertebrate crop pests (del Hoyo et al. 1996, Hockey et al. 2005).	High	The presence of this species was not confirmed during the field survey, but it has been recorded a high number of times (36 times) in the study area landscape recently (October 2025, Appendix A). Although the species is unlikely to be present over Alternative 1 (given a too dense AIP structure), it is possible that it may ephemerally forage over Alternatives 2 and 3 given more open grassland conditions.
Pelecanidae	<i>Pelecanus onocrotalus</i>	Great White Pelican	Least Concern	The species is associated with relatively large, warm, shallow fresh, brackish, alkaline or saline lakes, lagoons (del Hoyo et al. 1992, Johnsgard 1993), marshes (del Hoyo et al. 1992), broad rivers (Johnsgard 1993), deltas (del Hoyo et al. 1992, Johnsgard 1993), estuaries and coasts of landlocked seas (Snow and Perrins 1998). The species requires secure areas (Johnsgard 1993, Snow and Perrins 1998) of extensive reedbeds (del Hoyo et al. 1992), wet swamps, mudflats and sandbanks (Nelson 2005) or gravel and rocky substrates (del Hoyo et al. 1992, Johnsgard 1993, Snow and Perrins 1998) for nesting on.	Low	The species was not confirmed as present in the study area during the field survey, but has been recorded 106 times in the study area landscape recently (November 2025, Appendix A). Even so, all three alternative site locations are devoid of any of the open water conditions required by this species and it is highly unlikely to be present over the sites.

Phalacrocoracidae	<i>Phalacrocorax capensis</i>	Cape Cormorant	Endangered	This species is usually found in the Benguela Current less than 10 km from the coast (del Hoyo <i>et al.</i> 1992), although it does occasionally range as far as 70km offshore. During both the breeding and the non-breeding seasons it inhabits cliffs and ledges on the mainland and on offshore islands (Nelson, 2005). It is occasionally found in the brackish waters of coastal lagoons, estuaries and harbours (del Hoyo <i>et al.</i> 1992), but does not use these habitats for breeding. It occurs in highest densities in areas of suitable habitat near the recruitment grounds for pilchards (Clupeidae) and anchovies (Engraulidae) (Crawford and Shelton, 1978).	Low	The presence of this species was not confirmed during the field survey, and it has been recorded only once in the study area landscape more than eight years ago (January 2018, Appendix A). Notwithstanding this scarcity in the landscape, all three alternative site locations are devoid of the open water environments required by this species and it is therefore highly unlikely to be present over the sites.
Invertebrates						
Scarabaeidae	Westcoast Flightless Dungbeetle	<i>Pachysoma aesculapius</i>	Vulnerable	This large, day-active, flightless species is restricted to the firm deep sand of coastal hummocks, river banks and vegetated dunes. It has been trapped in small numbers using cattle dung baits in open shrubland on sand flats. During mid-summer the species was observed to actively forage for a short periods only in the morning (07h00-19h00) and late afternoon (16h00-18h00) when radiant heat was lower than at midday.	Low	The study area is characterised by deep sand, but does not contain any dune systems, and harbours a degraded habitat structure with an incidence of AIP vegetation. Furthermore, there is an almost complete lack of larger mammal species on the sites - the dung of which is required for the presence of this species. It is therefore highly unlikely that the species will be present on the sites.
Pneumoridae	Bladder Grasshopper	<i>Bullacris obliqua</i>	Vulnerable	The species inhabits the Fynbos biome, with <i>Erioccephalus africanus</i> currently listed as its only confirmed host plant.	Low	The sites do not contain any of the host plant (<i>Erioccephalus africanus</i>) of this species, and furthermore harbours a degraded habitat structure with an incidence of AIP vegetation. It is therefore highly unlikely that the species will be present on the sites.

10. Evaluation of Site Ecological Importance (SEI)

10.1 Evaluating SEI for habitats in the study area

Given the low probability of occurrence of any of the assessed SCC, the combined evaluation of the Site Ecological Importance (SEI) was performed for both avifauna and invertebrates, and follows the methods and criteria outlined in the Species Environmental Assessment Guideline (SANBI, 2020). In short, SEI is a function of the Biodiversity Importance (BI) of the receptor (e.g., SCC, the vegetation/faunal community or habitat type present on the site) and its resilience to impacts (Receptor Resilience, RR) as follows: $SEI = BI + RR$. Biodiversity Importance (BI) is in turn a function of Conservation Importance (CI) and the Functional Integrity (FI) of the receptor as follows: $BI = CI + FI$.

Following these methods, SEI for the study area was evaluated based on the suitable habitat for each SCC (Section 9), as well as the spatial distribution of habitats within the study area (Section 7). To calculate the Conservation Importance (CI) and Functional Integrity (FI) of each habitat within the study area, the criteria outlined in **Table 4** and **Table 5** were respectively used.

According to the Species Environmental Assessment Guideline, Conservation Importance (CI) may defined as follows:

Conservation Importance (CI): *“The importance of a site for supporting biodiversity features of conservation concern present, e.g. populations of IUCN threatened and Near Threatened species (CR, EN, VU and NT), Rare species, range-restricted species, globally significant populations of congregatory species, and areas of threatened ecosystem types, through predominantly natural processes.”*

Table 4 Conservation importance (CI) criteria (table adapted from the Species Environmental Assessment Guideline, SANBI, 2020).

Conservation Importance (CI)	Fulfilling Criteria
Very high	Confirmed or highly likely occurrence of CR, EN, VU or Extremely Rare or Critically Rare species that have a global EOO of $< 10 \text{ km}^2$. Any area of natural habitat of a CR ecosystem type or large area ($> 0.1\%$ of the total ecosystem type extent) of natural habitat of EN ecosystem type. <u>Globally significant populations of congregatory species ($> 10\%$ of global population).</u>
High	Confirmed or highly likely occurrence of CR, EN, VU species that have a global EOO of $> 10 \text{ km}^2$. IUCN threatened species (CR, EN, VU) must be listed under any criterion other than A. If listed as threatened only under Criterion A, include if there are less than 10 locations or $< 10\,000$ mature individuals remaining. Small area ($> 0.01\%$ but $< 0.1\%$ of the total ecosystem type extent) of natural habitat of EN ecosystem type or large area ($> 0.1\%$) of natural habitat of VU ecosystem type. Presence of Rare species. <u>Globally significant populations of congregatory species ($> 1\%$ but $< 10\%$ of global population).</u>
Medium	Confirmed or highly likely occurrence of populations of NT species, threatened species (CR, EN, VU) listed under Criterion A only and which have more than 10 locations or more than $10\,000$ mature individuals. Any area of natural habitat of threatened ecosystem type with status of VU. Presence of range-restricted species. $> 50\%$ of receptor contains natural habitat with potential to support SCC.
Low	No confirmed or highly likely populations of SCC. No confirmed or highly likely populations of range-restricted species. $< 50\%$ of receptor contains natural habitat with limited potential to support SCC.
Very low	No confirmed and highly unlikely populations of SCC. No confirmed and highly unlikely populations of range-restricted species. No natural habitat remaining.

According to the guideline, Functional Integrity (FI) is defined as:

Functional integrity (FI): *“The receptors’ current ability to maintain the structure and functions that define it, compared to its known or predicted state under ideal conditions. Simply stated, FI is: ‘A measure of the ecological condition of the impact receptor as determined by its remaining intact and functional area, its connectivity to other natural areas and the degree of current persistent ecological impacts.’”*

Table 5 Functional integrity (FI) criteria (table adapted from the Species Environmental Assessment Guideline, SANBI, 2020).

Functional Integrity (FI)	Fulfilling Criteria
Very high	<p>Very large (> 100 ha) intact area for any conservation status of ecosystem type or > 5 ha for CR ecosystem types.</p> <p>High habitat connectivity serving as functional ecological corridors, limited road network between intact habitat patches.</p> <p>No or minimal current negative ecological impacts with no signs of major past disturbance (e.g. ploughing).</p>
High	<p>Large (> 20 ha but < 100 ha) intact area for any conservation status of ecosystem type or > 10 ha for EN ecosystem types.</p> <p>Good habitat connectivity with potentially functional ecological corridors and a regularly used road network between intact habitat patches.</p> <p>Only minor current negative ecological impacts (e.g. few livestock utilising area) with no signs of major past disturbance (e.g. ploughing) and good rehabilitation potential.</p>
Medium	<p>Medium (> 5 ha but < 20 ha) semi-intact area for any conservation status of ecosystem type or > 20 ha for VU ecosystem types.</p> <p>Only narrow corridors of good habitat connectivity or larger areas of poor habitat connectivity and a busy used road network between intact habitat patches.</p> <p>Mostly minor current negative ecological impacts with some major impacts (e.g. established population of alien and invasive flora) and a few signs of minor past disturbance. Moderate rehabilitation potential.</p>
Low	<p>Small (> 1 ha but < 5 ha) area.</p> <p>Almost no habitat connectivity but migrations still possible across some modified or degraded natural habitat and a very busy used road network surrounds the area. Low rehabilitation potential.</p> <p>Several minor and major current negative ecological impacts.</p>
Very low	<p>Very small (< 1 ha) area.</p> <p>No habitat connectivity except for flying species or flora with wind-dispersed seeds.</p> <p>Several major current negative ecological impacts.</p>

Based on assessments of CI and FI for habitats within the study area, the Biodiversity Importance (BI) of each habitat was calculated using the matrix in **Table 6** (based on the formula: $BI = CI + FI$). As Biodiversity Importance (BI) is a function of Conservation Importance (CI) and the Functional Integrity (FI) of a receptor, BI can be derived from a simple matrix of CI and FI as follows:

Table 6 Matrix for calculating Biodiversity Importance (BI) (table adapted from the Species Environmental Assessment Guideline, SANBI, 2020).

Biodiversity Importance (BI)		Conservation Importance (CI)				
		Very high	High	Medium	Low	Very low
Functional Integrity (FI)	Very high	Very high	Very high	High	Medium	Low
	High	Very high	High	Medium	Medium	Low
	Medium	High	Medium	Medium	Low	Very low
	Low	Medium	Medium	Low	Low	Very low
	Very low	Medium	Low	Very low	Very low	Very low

Finally, the Receptor Resilience for each habitat was evaluated following the criteria listed in **Table 7**. According to the Species Assessment Guidelines, Receptor resilience (RR) may defined as follows:

Receptor resilience (RR): “*The intrinsic capacity of the receptor to resist major damage from disturbance and/or to recover to its original state with limited or no human intervention.*”

Table 7 Receptor Resilience (RR) criteria (table adapted from the Species Environmental Assessment Guideline, SANBI, 2020).

Receptor Resilience (RR)	Fulfilling Criteria
Very high	Habitat that can recover rapidly (~ less than 5 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a very high likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a very high likelihood of returning to a site once the disturbance or impact has been removed.
High	Habitat that can recover relatively quickly (~ 5–10 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a high likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a high likelihood of returning to a site once the disturbance or impact has been removed.
Medium	Will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a moderate likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a moderate likelihood of returning to a site once the disturbance or impact has been removed.
Low	Habitat that is unlikely to be able to recover fully after a relatively long period: > 15 years required to restore ~ less than 50% of the original species composition and functionality of the receptor functionality, or species that have a low likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a low likelihood of returning to a site once the disturbance or impact has been removed.
Very low	Habitat that is unable to recover from major impacts, or species that are unlikely to remain at a site even when a disturbance or impact is occurring, or species that are unlikely to return to a site once the disturbance or impact has been removed.

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Taken together, the Site Ecological Importance (SEI) was calculated for each habitat within the study area using the formula: $SEI = BI + RR$, and following the matrix outlined in **Table 8**. The interpretation of the development actions allowed for each SEI category are outlined in **Table 9**.

Table 8 Matrix for calculating Site Ecological Importance (SEI) (table adapted from the Species Environmental Assessment Guideline, SANBI, 2020).

Site Ecological Importance (SEI)		Biodiversity Importance (BI)				
		Very high	High	Medium	Low	Very low
Receptor Resilience (RR)	Very high	Very high	Very high	High	Medium	Low
	High	Very high	Very high	High	Medium	Very low
	Medium	Very high	High	Medium	Low	Very low
	Low	High	Medium	Low	Very low	Very low
	Very low	Medium	Low	Very low	Very low	Very low

Table 9 Guidelines for interpreting SEI in the context of the proposed development activities (table adapted from the Species Environmental Assessment Guideline, SANBI, 2020).

Site Ecological Importance (SEI)	Interpretation in relation to proposed development activities
Very high	Avoidance mitigation – no destructive development activities should be considered. Offset mitigation not acceptable/not possible (i.e. last remaining populations of species, last remaining good condition patches of ecosystems/unique species assemblages). Destructive impacts for species/ecosystems where persistence target remains.
High	Avoidance mitigation wherever possible. Minimisation mitigation – changes to project infrastructure design to limit the amount of habitat impacted; limited development activities of low impact acceptable. Offset mitigation may be required for high impact activities.
Medium	Minimisation and restoration mitigation – development activities of medium impact acceptable followed by appropriate restoration activities.
Low	Minimisation and restoration mitigation – development activities of medium to high impact acceptable followed by appropriate restoration activities.
Very low	Minimisation mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.

10.2 SEI of habitats in the study area

The SEI results for habitats within the study area are given in **Table 10** with the spatial representation for each habitat and its concomitant SEI category portrayed in **Figure 16**. All habitats overlapping the alternative site locations currently exist in a degraded and transformed state with a common and disturbance-tolerant faunal

profile, limited ability to provide suitable habitat for any terrestrial faunal or avifaunal SCC and a high probability of recovering their already impaired ecological functionality or species profile following major disturbance. To this end, **all habitats overlapping the alternative site locations are retrieved as having a “Very low” SEI** where minimisation mitigation is acceptable, and allowing for development activities of medium to high impact without restoration activities being required (**Table 9**). The only notable exception is the **Restio habitat** which is located outside of and to the west of the Alternative 1 as this area exists in a natural and intact state, and is therefore retrieved as having a **“High” SEI** where avoidance mitigation is advocated (**Table 9**).

Table 10 Evaluation of SEI for habitats within the study area. BI = Biodiversity Importance, RR = Receptor Resilience.

Habitat type	Conservation Importance	Functional Integrity	Receptor Resilience	Site Ecological Importance
Remnant Fynbos	Very low - No confirmed and a unlikely presence of populations of terrestrial faunal and avifaunal SCC.	Very low - Very small area (>1ha) of "Critically Endangered" Cape Flats Sand Fynbos vegetation. This vegetation appears remnant within an area of heavy infestation of AIPs.	High - Because this habitat consists of remnants of "Critically Endangered" Cape Flats Sand Fynbos vegetation, it is unlikely to recover from any major impacts. Even so, this small remnant patch currently exhibits significant infestations of AIPs and exists in a degraded state and exhibits reduced ecological functionality with an impaired faunal profile.	Very low - BI = Very low; RR = High
Restio vegetation	Medium - Although not confirmed, it is possible that this habitat may harbour subpopulations of terrestrial faunal SCC, given its intact nature.	High - Good habitat connectivity to natural areas further west and south with potentially functional ecological corridors. Only minor current negative ecological impacts with no signs of major past disturbance and good rehabilitation potential.	Low - This intact habitat will recover slowly (>15 years) from any major impacts. This habitat further exhibits ecological functionality as it is connected to other natural habitats in the landscape.	High - BI = Medium; RR = Low
Bluegum trees	Very low - No confirmed and a unlikely presence of populations of terrestrial faunal and avifaunal SCC.	Very low - Very small area (>1ha) area with several major current negative ecological impacts (alien and invasive Bluegum trees).	Very high - This habitat consists of alien AIPs with little remaining natural vegetation and can only recover to this degraded state.	Very low - BI = Very low; RR = Very high
High AIP density	Very low - No confirmed and a unlikely presence of populations of terrestrial faunal and avifaunal SCC.	Very low - Several major current negative ecological impacts in the form of high densities and infestations of AIPs.	Very high - This habitat consists of alien significant infestations of AIPs with little remaining natural vegetation and reduced ecological functionality. To this end, it harbours only a relatively common and disturbance-tolerant faunal profile.	Very low - BI = Very low; RR = Very high

Medium to Low AIP density	Low - Although not confirmed, it is possible that avifaunal SCC such as the Lanner Falcon and Blue Crane may ephemerally forage over this habitat.	Very low - Several major current negative ecological impacts in the form of fallow (completely transformed) land with medium to low infestations of AIPs.	Very high - This habitat consists of alien infestations of AIPs on fallow land (i.e., open and transformed parts) with no remaining natural vegetation and reduced ecological functionality. To this end, it harbours only a relatively common and disturbance-tolerant faunal profile.	Very low - BI = Very low; RR = Very high
Road verges / Open	Very low (Road verges) - No confirmed and a unlikely presence of populations of terrestrial faunal and avifaunal SCC. Low (Open) - Although not confirmed, it is possible that avifaunal SCC such as the Blue Crane may ephemerally forage over this habitat.	Very low - Several major current negative ecological impacts as this habitat consists of the N7 road and existing road verges or fallow (completely transformed) land with some regrowth of common grasses.	Very high - This habitat is completely transformed, comprising either the road and accompanying road verges or fallow land with only low common grasses and no remaining natural vegetation. To this end, it harbours only a relatively common and disturbance-tolerant faunal profile.	Very low - BI = Very low; RR = Very high
Dam	Very low - No confirmed and a unlikely presence of populations of terrestrial faunal and avifaunal SCC.	Very low - This small (100m ²) dam is of an artificial nature.	Very high - This habitat is of a small and artificial nature and does not constitute suitable habitat for any notable aquatic fauna.	Very low - BI = Very low; RR = Very high

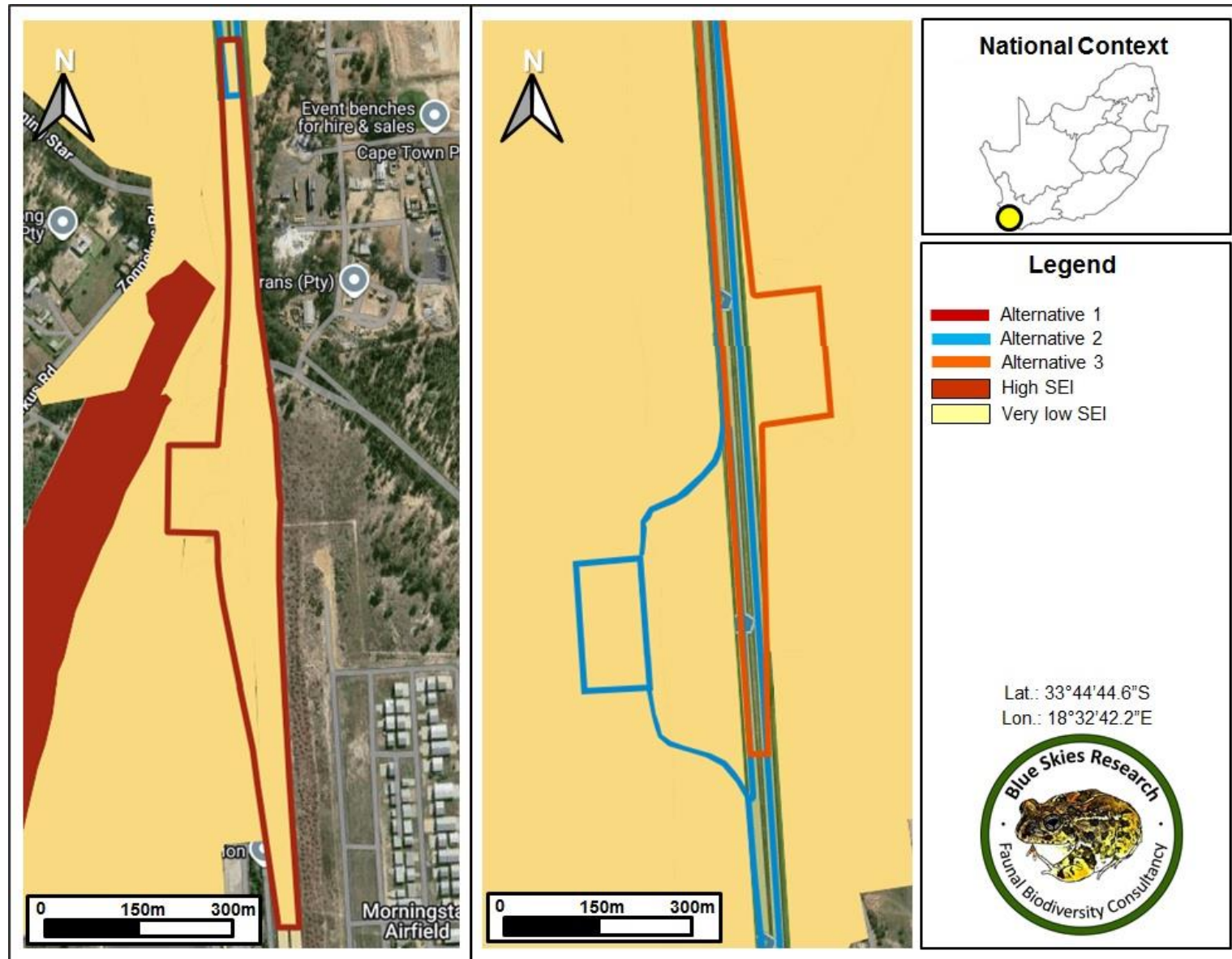


Figure 16 Spatial representation of the SEI of habitat types over the alternative site locations.

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11. Current impacts, alternative site locations, project impacts and mitigation measures / impact management actions

11.1 Current impacts

Current impacts over the three alternative site locations include the following:

- All three alternative site locations are bordered by, or located near the N7, Reygersdal and Morningstar Roads from where there is significant and constant noise and vibration from vehicle traffic.
- All three alternative site locations are located near the Morningstar Airfield where there is regular additional noise and vibration from air traffic.
- Alternative 1 exhibits significant infestations of AIPs with little remaining natural vegetation and a degraded habitat structure.
- Alternatives 2 and 3 comprise fallow land with no remaining natural vegetation (open areas of pioneer grassland) and / or a medium to low infestation of AIPs.

Given these impacts and disturbances, all three alternative site locations display a common and a disturbance-tolerant terrestrial faunal and avifaunal profile with impaired ecosystem functionality relative to the surrounding landscape.

11.2 Project description and alternative site locations

The proponent is proposing construction of a new N7 Vissershok Weighbridge (C1038: Upgrading of TR11/1) located either on a portion of Farm 153 Vissershok (Alternative 1), or on Morning Star RE/141 (Alternatives 2 and 3). The total provided footprint of the weighbridge is around 2 hectares, excluding off-ramps / access roads from, and modifications to the N7.

The initial Compliance Statement report for the project considered **Alternative 1** only (as is represented in Sections 4 to 10 of this report). Following the site sensitivity verification by the botanical specialist, an area of “Critically Endangered” Cape Flats

Sand Fynbos was noted in the central portion of the site, corresponding to the “Remnant Fynbos habitat” in the current study (see Section 7). Given the conservation importance of this vegetation type, it was proposed that this area be excluded from development planning. To this end, two additional development **alternative layouts (Options 5a and 5b)** were proposed for **Alternative 1** which was contrasted against the original provided layout. **Subsequently, two additional alternative placements (Alternative 2 and 3) were proposed.** These new alternative layouts were therefore assessed and considered in this updated report.

11.2.1 Alternative 1

11.2.1.1 Original Layout

This corresponds to the originally proposed development layout. Under this alternative, the project footprint will be restricted to areas of “Very low” SEI (see Subsection 10.2, **Figure 16**), but will lead to the destruction of a small central patch of “Critically Endangered” Cape Flats Sand Fynbos in the area of the proposed weighbridge. As such, this development layout will have a less favourable outcome from a botanical sensitivity perspective.

11.2.1.2 Option 5a

This development layout considers that the weighbridge footprint be placed further west, with the off-ramps / access roads surrounding the central patch of “Critically Endangered” Cape Flats Sand Fynbos, but excluding it from development footprint. From a terrestrial faunal and avifaunal perspective, the development footprint will still be restricted to areas of “Very low” SEI (**Figure 17**), but the weighbridge footprint will be located directly adjacent to the “High SEI” habitat which traverses the western part outside of the site. Because noise, vibration and pollution may impact on this adjacent habitat, this layout is less favourable from a terrestrial faunal and avifaunal perspective.

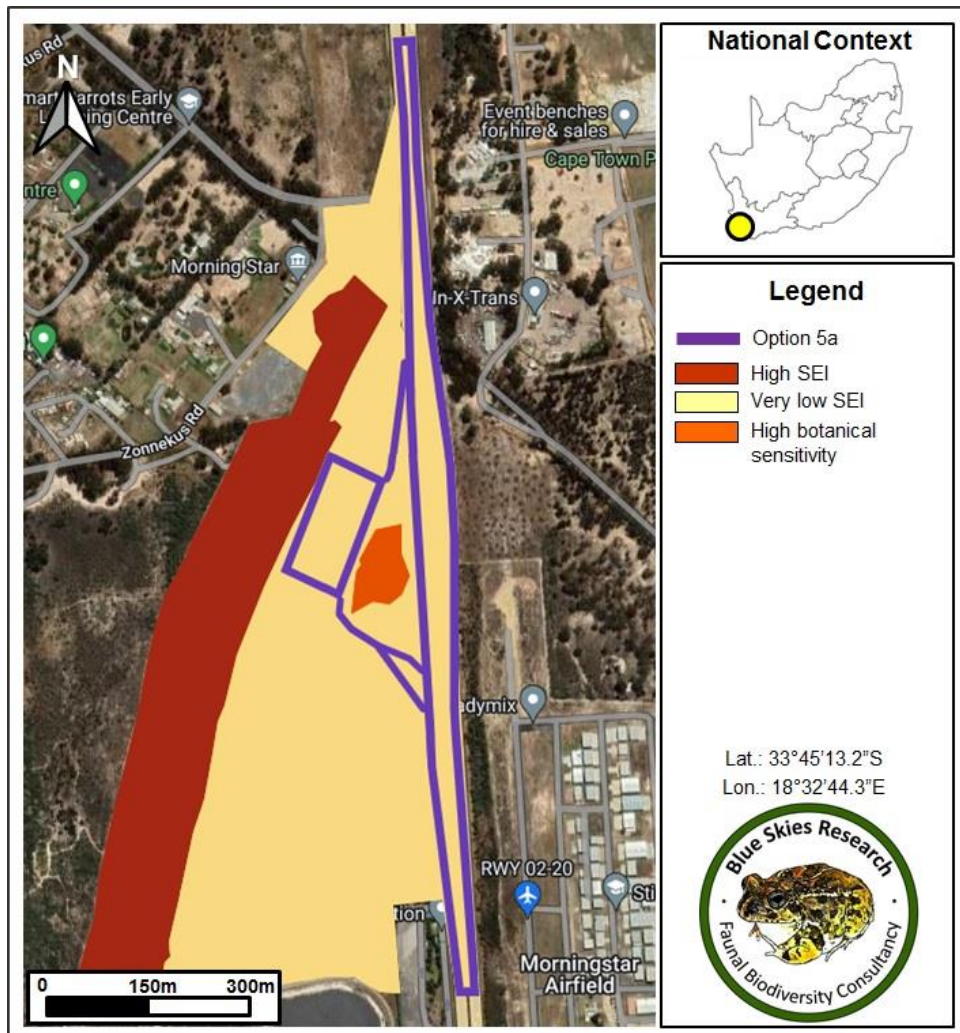


Figure 17 Spatial representation of the SEI of habitat types as well as the area of high botanical sensitivity identified by the botanical specialist, in relation to Alternative 1, Layout Option 5a.

11.2.1.3 Option 5b

This development layout proposes that the weighbridge footprint be placed further south, excluding the central patch of “Critically Endangered” Cape Flats Sand Fynbos. From a terrestrial faunal and avifaunal perspective, the development footprint will still be restricted to areas of “Very low” SEI (**Figure 18**), and the weighbridge footprint will be located a significant distance away from the “High SEI” habitat traversing the western part outside of the site. As such, this layout is likely to have a more favourable outcome from a terrestrial faunal and avifaunal sensitivity perspective (given less impacts from noise, vibration and pollution on the surrounding intact habitats).

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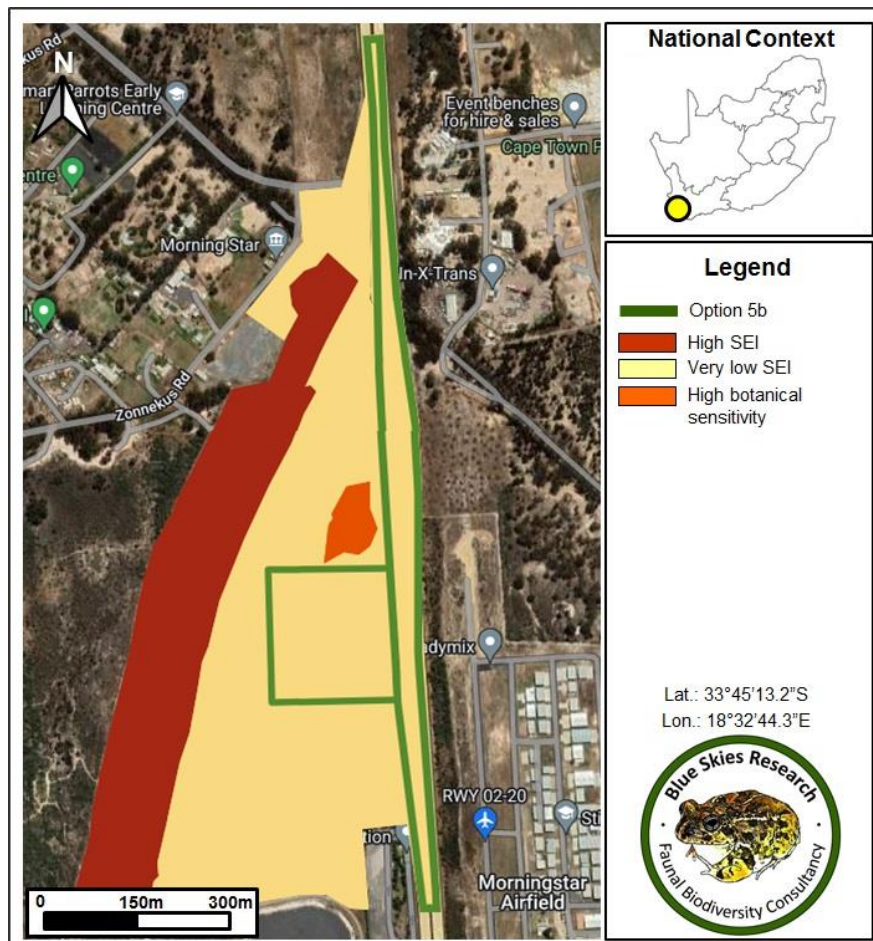


Figure 18 Spatial representation of the SEI of habitat types as well as the area of high botanical sensitivity identified by the botanical specialist, in relation to Alternative 1, Layout Option 5b.

11.2.2 Alternative 2

This development alternative considers only areas of “Very low” SEI to the west of the N7 Road and around 2 kilometres to the north of the existing Vissershok Weigh Station (Section 10.2; **Figure 16**). This alternative will also require two off-ramps / access road to the north and south which traverse a 150m servitude of high voltage powerlines. Under this alternative layout the proposed weighbridge and access road footprints will follow areas comprising already transformed and degraded habitats.

11.2.3 Alternative 3

This development alternative considers only areas of “Very low” SEI to the east of, and directly adjacent to the N7 Road and around 2.2 kilometres to the north of the existing Vissershok Weigh Station (Section 10.2; **Figure 16**). Under this alternative layout the proposed weighbridge footprints will follow areas comprising already transformed (open) habitats.

11.3 Anticipated project impacts

Planned development activities for the proposed project will include:

- Clearing of the vegetation,
- establishment of contractor laydown areas,
- soil preparation, and
- construction of the off-ramps / access roads and weighbridge infrastructure.

Impacts during the construction phase of the project will therefore include:

- The destruction of and loss of habitats,
- displacement of, or direct mortality of fauna,
- vibration and noise through machinery and people, and
- possible pollution of the surrounding area.

During the operational phase of the project, further noise and vibration is expected from vehicles routed to the weighbridge. Pollution of the area directly adjacent to the weighbridge and access roads is also possible, but should likely be restricted to a 30m buffer around these areas.

11.3.1 The destruction and loss of habitats

Impact description

All three alternative site locations overlap degraded and transformed habitats with a common and disturbance-tolerant faunal profile and limited ability to provide suitable habitat for any terrestrial faunal or avifaunal SCC. To this end, all three sites overlap areas of “Very low” SEI which do not serve as important faunal focal points in the surrounding landscape. From a terrestrial faunal and avifaunal perspective therefore, the sites do not intersect any notable habitats of concern.

Mitigation measures and / or impact management actions

Because the sites do not intersect any notable habitats of concern and intersects areas of “Very low” SEI, the proposed development is expected to lead to a limited loss of only degraded and / or transformed habitats. The destruction and loss of habitat is therefore expected to be “**Insignificant**” to the receiving environment and no mitigation measures or impact management actions are suggested.

11.3.2 Direct mortality of, or displacement of fauna

Impact description

Currently, all three alternative site locations harbour only a common and disturbance-tolerant terrestrial fauna and avifauna/ In addition, the majority of species (large mammal and avifauna) are highly vagile mammal species and show no permanent association to the sites. It is therefore expected that these vagile species will vacate the immediate or surrounding area of their own accord at the onset of any disturbance (e.g., the start of the construction phase) and will move into similar habitats which are plentiful in the surrounding landscape.

Even so, some of the smaller terrestrial species (e.g., the Angulate Tortoise especially burrowing species such as the Cape Golden Mole, Cape Gerbil and

African Mole-rat) are of a low mobility and will be unable to vacate the site of their own accord during the construction phase. It is therefore possible that a number of individuals of these species will suffer mortality. Notably, all these affected species are of “Least Concern” and have wide distributions and large population size in the local landscape as well as in the broader Western Cape region. The number of individuals impacted is further expected to be reduced as the project footprint is expected to be restricted to around 2 hectares. To this end, it is unlikely that the loss of a number of individuals of these species will impact on the genetic structures or population integrity at either local or regional scales.

Mitigation measures and / or impact management actions

Because of the non-resident and highly vagile nature of a number of the larger mammals and avifaunal species, **displacement of these faunal components is expected to be of an “Insignificant”** consequence to the receiving environment. Even so, it is likely that some of the less vagile terrestrial species (especially burrowing species) will suffer mortality during the construction phase. Taking into account that these are common and widespread species of “Least Concern”, and that the project footprint will be relatively spatially restricted (i.e., only a few individuals will be impacted), the **direct mortality of fauna** is expected to be of a **“Low” consequence** to the receiving environment.

Although no specific search and rescue procedures are advocated for the pre-construction phase, it is however suggested that every effort should be made to save and relocate any mammal, reptile, amphibian, bird, or invertebrate that cannot flee of its own accord, encountered during site preparation (i.e., to avoid and minimise the direct mortality of faunal species). These animals should be relocated to a suitable habitat area immediately outside the project footprint, but under no circumstance to an area further away.

11.3.3 Noise and vibration through vehicles, machinery and people (construction and operational phases)

Impact description

Noise and vibration through vehicles, machinery and people are an unavoidable impact during the construction and operational phases of the project. This impact may also lead to the displacement of fauna. As noted, the faunal species profile of the sites already comprises disturbance-tolerant species, also including a large number of vagile (larger mammal and avifaunal) species which may vacate the area of their own accord.

Mitigation measures and / or impact management actions

Impacts from noise and vibration on the disturbance-tolerant fauna of the sites are expected to be an “**Insignificant**” consequence to the receiving environment during both the construction and operational phases. As such, no mitigation measures or impact management actions are proposed.

11.3.4 Contamination of soils and ground water through chemical spills or leaching of chemicals

Impact description

During the construction phase it is possible that chemicals (such as oil, fuel and cement) may spill or leach into the surrounding environment, thereby causing contamination of soils or ground water.

Mitigation measures and / or impact management actions

Contamination of soils and groundwater is expected to be limited to the relatively small project footprint, however may be of a “**Low**” **consequence** to the receiving environment. To reduce this impact, vehicles and building material should be stored /

kept at clearly demarcated laydown areas. Storage of fuel, chemicals and other hazardous substances should be done in suitable secure weatherproof containers with impermeable and bunded floors to limit pilferage or spillage into the environment. Clean-up of any spillages (e.g. oil, fuel hazardous chemicals and cement) should proceed immediately and the contaminated soil should be removed and disposed of appropriately.

11.3.5 Pollution of the area directly adjacent to the weighbridge and access roads

Impact description

Pollution through e.g., wind-blown waste or fuel leakage is also possible through the operational phase. This is expected to be restricted to a ~30m buffer around the new weighbridge and off-ramps / access roads.

Mitigation measures and / or impact management actions

Although this impact is expected to be of a “**Low**” consequence to the receiving environment over the long term, it is suggested that all newly constructed areas (new weighbridge and off-ramps / access roads) should be fenced by adequate fencing to not allow wind-blown waste to contaminate surrounding areas, as well as restrict human and / or vehicle access to surrounding areas. Waste cleaning at least once a month is also advocated.

12. Conclusion

12.1 Listed sensitivity in the DFFE Screening Tool Report

The three alternative site locations have been identified as being of a “High Sensitivity” under the “Relative Animal Species Sensitivity Theme” DFFE Screening Tool Report (Section 3), however considering the results from the current report, the sites may be considered as of “Low Sensitivity”. This follows from their transformed and degraded habitat structure which harbours a common and disturbance-tolerant

faunal diversity, and does not constitute suitable habitat for any of the SCC considered. This confirms the need for the current Compliance Statement report.

12.2 Overlap with a Critical Biodiversity Areas

Currently, parts of Alternative 1 and the entire Alternative 2 footprints overlap with degraded terrestrial CBA2 (Subsection 4.3). Conversely, small parts of Alternative 1 and the entire Alternative 3 overlaps with terrestrial CBA1. Following the ground-thruthing phase, it was established that all three alternative site locations exist in a transformed and degraded habitat structure with common and disturbance-tolerant faunal species diversity, altered ecosystem dynamics and limited ability to support and terrestrial faunal and avifaunal SCC. To this end, these areas fail to meet the criteria of CBA1 and CBA 2 but may rather be defined as “Irreversibly transformed”.

12.3 Conclusion

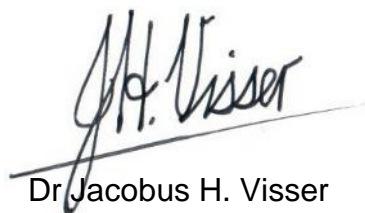
Taken together, habitats and faunal components on the three alternative site locations do not comprise significant links in the biodiversity and ecological patterns and processes within the study area landscape, and loss of habitats and species here should no adversely impinge on local, regional or national biodiversity targets. From a faunal biodiversity perspective therefore, **impacts** from the proposed development is expected to be **reduced** under either **Option 5b of Alternative 1**, or over the **entirety of Alternatives 2 and 3**. These layouts and proposed development activities are therefore supported from a terrestrial faunal and avifaunal sensitivity perspective.

13. Conditions to which this statement is subjected

The content of this report is based on the author’s best scientific and professional knowledge as well as available information. Since environmental impact studies deal with dynamic natural systems, additional information may come to light at a later stage which is not listed in this report. As such, the conclusions and

recommendations made in this report are done in good faith based on information gathered at the time of the investigation.

This report must not be altered or added to without the prior written consent of the author. This also refers to electronic copies of the report, which are supplied for the purposes of inclusion as part of other reports, including main reports. Similarly, any recommendations, statements or conclusions drawn from or based on this report must make reference to this report. If these form part of a main report relating to this investigation or report, this report must be included in its entirety as an appendix or separate section to the main report.

A handwritten signature in black ink, appearing to read 'J.H. Visser', is written over a horizontal line.

Dr. Jacobus H. Visser

(PhD Zoology; Pr. Sci. Nat.)

SACNASP Registration Number: 128018

14. References

- Barnes, K.N. 2000. *The Eskom Red Data Book of birds of South Africa, Lesotho and Swaziland*. BirdLife South Africa, Johannesburg.
- BirdLife International. 2016. *Afrotis afra*. The IUCN Red List of Threatened Species 2016: e.T22691975A93331501. <https://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22691975A93331501.en>. Accessed on 26 May 2023.
- BirdLife International. 2021. *Anthropoides paradiseus*. The IUCN Red List of Threatened Species 2021: e.T22692109A177514877. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T22692109A177514877.en>. Accessed on 26 May 2023.
- BirdLife International. 2021. *Circus maurus*. The IUCN Red List of Threatened Species 2021: e.T22695379A173521089. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T22695379A173521089.en>. Accessed on 26 May 2023.
- BirdLife International. 2016. *Circus ranivorus*. The IUCN Red List of Threatened Species 2016: e.T22695352A93504602. <https://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22695352A93504602.en>. Accessed on 26 May 2023.
- BirdLife International. 2021. *Falco biarmicus*. The IUCN Red List of Threatened Species 2021: e.T22696487A200013311. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T22696487A200013311.en>. Accessed on 26 May 2023.
- BirdLife International. 2021. *Pelecanus onocrotalus*. The IUCN Red List of Threatened Species 2021: e.T22697590A177120498. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T22697590A177120498.en>. Accessed on 26 May 2023.
- BirdLife International. 2018. *Phalacrocorax capensis*. The IUCN Red List of Threatened Species 2018: e.T22696806A132594943. <https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T22696806A132594943.en>. Accessed on 26 May 2023.
- BirdLife International. 2020. *Polemaetus bellicosus*. The IUCN Red List of Threatened Species 2020: e.T22696116A172287822.

- <https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T22696116A172287822.en>.
Accessed on 26 May 2023.
- BirdLife International. 2020. *Sagittarius serpentarius*. The IUCN Red List of Threatened Species 2020: e.T22696221A173647556.
<https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T22696221A173647556.en>.
Accessed on 26 May 2023.
- Brownlie, S. 2005. Guideline for involving biodiversity specialists in EIA processes: Edition 1. CSIR Report No. ENV-S-C 2005-053 C. Provincial Government of the Western Cape: Department of Environmental Affairs and Development Planning.
- Collar, N.J. 1996. Otididae (Bustards). In: del Hoyo, J.; Elliott, A.; Sargatal, J. (ed.), *Handbook of the birds of the world*, pp. 240-273. Lynx Edicions, Barcelona, Spain.
- Couldridge, V., Bazelet, C. 2018. *Bullacris obliqua*. The IUCN Red List of Threatened Species 2018: e.T100946682A100947328.
<https://dx.doi.org/10.2305/IUCN.UK.2018-1.RLTS.T100946682A100947328.en>.
Accessed on 27 May 2023.
- Crawford, R.J.M. and Shelton, P.A. 1978. Pelagic fish and seabird interrelationships off the coast of south west and south Africa. *Biological Conservation* 14: 85-109.
- Curtis, O., Simmons, R.E., Jenkins, A.R. 2004. Black Harrier *Circus maurus* of the Fynbos biome, South Africa: a threatened specialist or an adaptable survivor? *Bird Conservation International* 14: 233-245.
- Davis, A.L.V. 2013. *Pachysoma aesculapius*. The IUCN Red List of Threatened Species 2013: e.T137321A523186. <https://dx.doi.org/10.2305/IUCN.UK.2013-2.RLTS.T137321A523186.en>. Accessed on 27 May 2023.
- Ferguson-Lees, J., Christie, D.A. 2001. *Raptors of the world*. Christopher Helm, London.
- del Hoyo, J., Elliot, A., Sargatal, J. 1992. *Handbook of the Birds of the World, Vol. 1: Ostrich to Ducks*. Lynx Edicions, Barcelona, Spain.
- del Hoyo, J., Elliott, A., Sargatal, J. 1996. *Handbook of the Birds of the World, vol. 3: Hoatzin to Auks*. Lynx Edicions, Barcelona, Spain.

- Government Gazette No 34809, 9 December 2011. Department of Environmental Affairs, No. 1002 of 2011. List of Ecosystems that are Threatened and in Need of Protection.
- Government Gazette No. 43110, 20 March 2020. Procedures for the assessment and minimum criteria for reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation.
- Government Gazette No. 43855, 30 October 2020. Procedures for the assessment and minimum criteria for reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation.
- Hockey, P.A.R., Dean, W.R.J., Ryan, P.G. 2005. *Roberts birds of southern Africa*. Trustees of the John Voelcker Bird Book Fund, Cape Town, South Africa.
- Hofmeyr, S.D., Symes, C.T., Underhill, L.G. 2014. Secretarybird *Sagittarius serpentarius* population trends and ecology: insights from South African citizen science data. PLoS ONE 9: e96772
- Kemp, A., Dean, R. 1988. Diet of African Marsh Harriers from pellets. *Gabar* 3: 54-55.
- Kemp, M.I., Kemp, A.C. 1977. *Bucorvus* and *Sagittarius*: two modes of terrestrial predation. In: Kemp, A.C (ed.), Proceedings of the Symposium on African Predatory Birds, Transvaal Museum, Pretoria, 29 August - 1 September 1977, pp. 13-16. Northern Transvaal Ornithological Society, Pretoria.
- McCann, K., Theron, L-J., Morrison, K. 2007. Conservation priorities for the Blue Crane (*Anthropoides paradiseus*) in South Africa - the effects of habitat changes on distribution and numbers. *Ostrich* 78(2): 205-211.
- Taylor, M.R. 2015. Black Harrier *Circus maurus*. In: Taylor, M. R.; Peacock, F.; Wanless, R. M. (ed.), The 2015 *Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland*, pp. 125-127. BirdLife South Africa, Johannesburg, South Africa.
- Urban, E.K., Fry, C.H., Keith, S. 1997. *The birds of Africa vol. V*. Academic Press, London.
- van Velden, J.L., Altwegg, R., Shaw, K., Ryan, P. G. 2017. Movement patterns and survival estimates of Blue Cranes in the Western Cape. *Ostrich* 88: 33-43.

Appendix A

Appendix A Desktop species list of the avifaunal species which have been recorded in the pentad (3345_1830) which overlaps the study area (the South African Bird Atlas Project 2, <https://sabap2.birdmap.africa/>). To create this species list, the species observed in the pentad were noted along with the total number of observations and the latest date the species was recorded (both shown). Furthermore, for each, the common group name, common species name, genus and species is shown. Species in bold represent avifaunal species of conservation concern (SCC).

Avifauna Desktop Species List					
Common group	Common species	Genus	Species	# observations	Latest record
	Bokmakierie	<i>Telophorus</i>	<i>zeylonus</i>	46	2025/03/29
	Hamerkop	<i>Scopus</i>	<i>umbretta</i>	11	2023/01/02
	Mallard	<i>Anas</i>	<i>platyrhynchos</i>	4	2012/08/26
	Neddicky	<i>Cisticola</i>	<i>fulvicapilla</i>	1	2010/05/23
Apalis	Bar-throated	<i>Apalis</i>	<i>thoracica</i>	7	2024/11/24
Avocet	Pied	<i>Recurvirostra</i>	<i>avosetta</i>	1	2022/08/07
Barbet	Acacia Pied	<i>Tricholaema</i>	<i>leucomelas</i>	57	2025/03/29
Batis	Cape	<i>Batis</i>	<i>capensis</i>	15	2023/09/08
Bee-eater	European	<i>Merops</i>	<i>apiaster</i>	14	2023/11/13
Bishop	Yellow	<i>Euplectes</i>	<i>capensis</i>	52	2025/10/27
Bittern	Little	<i>Ixobrychus</i>	<i>minutus</i>	4	2025/10/27
Boubou	Southern	<i>Laniarius</i>	<i>ferrugineus</i>	3	2021/01/30
Bulbul	Cape	<i>Pycnonotus</i>	<i>capensis</i>	66	2025/11/16
Bunting	Lark-like	<i>Emberiza</i>	<i>impetuani</i>	1	2009/11/21
Buzzard	Common	<i>Buteo</i>	<i>buteo</i>	30	2024/11/24
Buzzard	Jackal	<i>Buteo</i>	<i>rufofuscus</i>	83	2025/11/16
Canary	Brimstone	<i>Crithagra</i>	<i>sulphurata</i>	12	2023/09/17
Canary	Cape	<i>Serinus</i>	<i>canicollis</i>	112	2025/11/16
Canary	White-throated	<i>Crithagra</i>	<i>albogularis</i>	3	2020/05/16
Canary	Yellow	<i>Crithagra</i>	<i>flaviventris</i>	12	2023/01/05
Chat	Familiar	<i>Oenanthe</i>	<i>familiaris</i>	31	2025/11/16
Cisticola	Cloud	<i>Cisticola</i>	<i>textrix</i>	3	2020/05/01
Cisticola	Grey-backed	<i>Cisticola</i>	<i>subruficapilla</i>	28	2025/03/29
Cisticola	Levaillant's	<i>Cisticola</i>	<i>tinniens</i>	88	2025/11/16
Cisticola	Zitting	<i>Cisticola</i>	<i>juncidis</i>	24	2024/11/24
Coot	Red-knobbed	<i>Fulica</i>	<i>cristata</i>	90	2025/11/16
Cormorant	Cape	<i>Phalacrocorax</i>	<i>capensis</i>	1	2018/01/04
Cormorant	Reed	<i>Microcarbo</i>	<i>africanus</i>	88	2025/11/16
Cormorant	White-breasted	<i>Phalacrocorax</i>	<i>lucidus</i>	49	2025/09/25
Coucal	Burchell's	<i>Centropus</i>	<i>burchellii</i>	2	2025/10/27
Crake	Baillon's	<i>Zaporrina</i>	<i>pusilla</i>	1	2020/05/21

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Crake	Black	<i>Zaporina</i>	<i>flavirostra</i>	5	2021/05/01
Crane	Blue	<i>Grus</i>	<i>paradisea</i>	36	2025/10/27
Crombec	Long-billed	<i>Sylvietta</i>	<i>rufescens</i>	14	2023/10/21
Crow	House	<i>Corvus</i>	<i>splendens</i>	10	2009/12/28
Crow	Pied	<i>Corvus</i>	<i>albus</i>	152	2025/12/15
Cuckoo	Diederik	<i>Chrysococcyx</i>	<i>caprius</i>	3	2019/10/26
Cuckoo	Klaas's	<i>Chrysococcyx</i>	<i>klaas</i>	10	2023/09/26
Darter	African	<i>Anhinga</i>	<i>rufa</i>	56	2025/03/29
Dove	Laughing	<i>Spilopelia</i>	<i>senegalensis</i>	102	2025/11/16
Dove	Namaqua	<i>Oena</i>	<i>capensis</i>	5	2009/12/05
Dove	Red-eyed	<i>Streptopelia</i>	<i>semitorquata</i>	115	2025/11/16
Dove	Ring-necked	<i>Streptopelia</i>	<i>capicola</i>	57	2025/11/16
Dove	Rock	<i>Columba</i>	<i>livia</i>	93	2025/11/16
Drongo	Fork-tailed	<i>Dicrurus</i>	<i>adsimilis</i>	35	2025/09/25
Duck	African Black	<i>Anas</i>	<i>sparsa</i>	2	2015/01/04
Duck	White-backed	<i>Thalassornis</i>	<i>leuconotus</i>	4	2015/07/18
Duck	White-faced Whistling	<i>Dendrocygna</i>	<i>viduata</i>	1	2021/05/01
Duck	Yellow-billed	<i>Anas</i>	<i>undulata</i>	83	2025/11/16
Eagle	Booted	<i>Hieraaetus</i>	<i>pennatus</i>	14	2023/01/02
Eagle	Martial	<i>Polemaetus</i>	<i>bellicosus</i>	1	2016/04/24
Eagle-Owl	Spotted	<i>Bubo</i>	<i>africanus</i>	4	2021/11/26
Egret	Intermediate [x]	<i>Ardea</i>	<i>intermedia</i>	8	2020/05/11
Egret	Little	<i>Egretta</i>	<i>garzetta</i>	33	2023/11/20
Egret	Western Cattle	<i>Bubulcus</i>	<i>ibis</i>	117	2025/11/16
Falcon	Lanner	<i>Falco</i>	<i>biarmicus</i>	17	2023/09/26
Falcon	Peregrine	<i>Falco</i>	<i>peregrinus</i>	30	2023/10/21
Fiscal	Southern	<i>Lanius</i>	<i>collaris</i>	94	2025/11/16
Fish Eagle	African	<i>Haliaeetus</i>	<i>vocifer</i>	27	2025/10/27
Flamingo	Greater	<i>Phoenicopterus</i>	<i>roseus</i>	5	2025/10/27
Flufftail	Red-chested	<i>Sarothrura</i>	<i>rufa</i>	1	2020/05/06
Flycatcher	African Dusky	<i>Muscicapa</i>	<i>adusta</i>	5	2024/11/24
Flycatcher	African Paradise	<i>Terpsiphone</i>	<i>viridis</i>	4	2023/09/17
Flycatcher	Fairy	<i>Stenostira</i>	<i>scita</i>	1	2017/08/22
Flycatcher	Fiscal	<i>Melaenornis</i>	<i>silens</i>	59	2025/03/29
Flycatcher	Spotted	<i>Muscicapa</i>	<i>striata</i>	1	2022/02/06
Francolin	Grey-winged	<i>Scleroptila</i>	<i>afra</i>	1	2020/05/21
Goose	Egyptian	<i>Alopochen</i>	<i>aegyptiaca</i>	125	2025/11/16
Goose	Spur-winged	<i>Plectropterus</i>	<i>gambensis</i>	90	2025/11/16
Goshawk	African	<i>Accipiter</i>	<i>tachiro</i>	3	2021/05/01
Grassbird	Cape	<i>Sphenoeacus</i>	<i>afer</i>	1	2024/11/24
Grebe	Great Crested	<i>Podiceps</i>	<i>cristatus</i>	1	2010/05/23
Grebe	Little	<i>Tachybaptus</i>	<i>ruficollis</i>	57	2025/11/16
Greenshank	Common	<i>Tringa</i>	<i>nebularia</i>	2	2020/05/01
Guineafowl	Helmeted	<i>Numida</i>	<i>meleagris</i>	93	2025/11/16
Gull	Grey-headed	<i>Chroicocephalus</i>	<i>cirrocephalus</i>	25	2023/10/02
Gull	Hartlaub's	<i>Chroicocephalus</i>	<i>hartlaubii</i>	120	2025/12/15

Gull	Kelp	<i>Larus</i>	<i>dominicanus</i>	124	2025/12/15
Harrier	African Marsh	<i>Circus</i>	<i>ranivorus</i>	16	2025/03/29
Harrier	Black	<i>Circus</i>	<i>maurus</i>	2	2020/03/27
Harrier-Hawk	African	<i>Polyboroides</i>	<i>typus</i>	7	2023/08/28
Heron	Black-headed	<i>Ardea</i>	<i>melanocephala</i>	83	2025/11/16
Heron	Grey	<i>Ardea</i>	<i>cinerea</i>	63	2025/11/16
Heron	Purple	<i>Ardea</i>	<i>purpurea</i>	22	2025/10/27
Honeybird	Brown-backed	<i>Prodotiscus</i>	<i>regulus</i>	2	2020/05/01
Honeyguide	Greater	<i>Indicator</i>	<i>indicator</i>	21	2023/12/02
Honeyguide	Lesser	<i>Indicator</i>	<i>minor</i>	2	2020/05/21
Hoopoe	African	<i>Upupa</i>	<i>africana</i>	16	2023/09/19
House Martin	Common	<i>Delichon</i>	<i>urbicum</i>	1	2025/09/25
Ibis	African Sacred	<i>Threskiornis</i>	<i>aethiopicus</i>	150	2025/11/16
Ibis	Glossy	<i>Plegadis</i>	<i>falcinellus</i>	25	2025/10/27
Ibis	Hadada	<i>Bostrychia</i>	<i>hagedash</i>	121	2025/11/16
Kestrel	Lesser	<i>Falco</i>	<i>naumanni</i>	1	2018/02/09
Kestrel	Rock	<i>Falco</i>	<i>rupicolus</i>	97	2025/11/16
Kingfisher	Giant	<i>Megaceryle</i>	<i>maxima</i>	5	2017/09/16
Kingfisher	Malachite	<i>Corythornis</i>	<i>cristatus</i>	7	2025/03/29
Kingfisher	Pied	<i>Ceryle</i>	<i>rudis</i>	8	2021/05/01
Kite	Black	<i>Milvus</i>	<i>migrans</i>	1	2020/04/16
Kite	Black-winged	<i>Elanus</i>	<i>caeruleus</i>	66	2025/04/25
Kite	Yellow-billed	<i>Milvus</i>	<i>aegyptius</i>	78	2025/11/16
Lapwing	Blacksmith	<i>Vanellus</i>	<i>armatus</i>	101	2025/11/16
Lapwing	Crowned	<i>Vanellus</i>	<i>coronatus</i>	27	2023/10/11
Lark	Large-billed	<i>Galerida</i>	<i>magnirostris</i>	10	2020/03/22
Lark	Red-capped	<i>Calandrella</i>	<i>cinerea</i>	36	2025/03/29
Longclaw	Cape	<i>Macronyx</i>	<i>capensis</i>	24	2023/10/26
Mallard	Hybrid	<i>Anas</i>	<i>hybrid</i>	1	2019/12/08
Martin	Banded	<i>Neophedina</i>	<i>cincta</i>	3	2009/12/05
Martin	Brown-throated	<i>Riparia</i>	<i>paludicola</i>	64	2025/10/27
Martin	Rock	<i>Ptyonoprogne</i>	<i>fuligula</i>	18	2025/03/29
Moorhen	Common	<i>Gallinula</i>	<i>chloropus</i>	63	2025/10/27
Mousebird	Red-faced	<i>Urocolius</i>	<i>indicus</i>	64	2025/10/27
Mousebird	Speckled	<i>Colius</i>	<i>striatus</i>	1	2007/11/07
Mousebird	White-backed	<i>Colius</i>	<i>colius</i>	39	2025/10/27
Night Heron	Black-crowned	<i>Nycticorax</i>	<i>nycticorax</i>	17	2025/11/16
Nightjar	Fiery-necked	<i>Caprimulgus</i>	<i>pectoralis</i>	4	2023/01/02
Ostrich	Common	<i>Struthio</i>	<i>camelus</i>	1	2015/01/04
Owl	Western Barn	<i>Tyto</i>	<i>alba</i>	4	2021/11/27
Pelican	Great White	<i>Pelecanus</i>	<i>onocrotalus</i>	106	2025/11/16
Pigeon	Speckled	<i>Columba</i>	<i>guinea</i>	112	2025/11/16
Pipit	African	<i>Anthus</i>	<i>cinnamomeus</i>	43	2025/10/27
Pipit	Nicholson's	<i>Anthus</i>	<i>nicholsoni</i>	1	2016/04/24
Pipit	Plain-backed	<i>Anthus</i>	<i>leucophrys</i>	1	2017/04/16
Plover	Common Ringed	<i>Charadrius</i>	<i>hiaticula</i>	1	2009/11/21

Plover	Kittlitz's	<i>Charadrius</i>	<i>pecuarius</i>	4	2022/02/06
Plover	Three-banded	<i>Charadrius</i>	<i>tricoloris</i>	34	2024/11/24
Pochard	Southern	<i>Netta</i>	<i>erythrophthalma</i>	2	2020/05/01
Prinia	Karoo	<i>Prinia</i>	<i>maculosa</i>	84	2025/11/16
Quail	Common	<i>Coturnix</i>	<i>coturnix</i>	1	2009/10/06
Rail	African	<i>Rallus</i>	<i>caerulescens</i>	7	2021/01/17
Raven	White-necked	<i>Corvus</i>	<i>albicollis</i>	32	2025/09/25
Red Bishop	Southern	<i>Euplectes</i>	<i>orix</i>	115	2025/11/16
Robin-Chat	Cape	<i>Cossypha</i>	<i>caffra</i>	87	2025/11/16
Sandpiper	Curlew	<i>Calidris</i>	<i>ferruginea</i>	1	2025/11/16
Sandpiper	Wood	<i>Tringa</i>	<i>glareola</i>	1	2015/04/13
Saw-wing	Black	<i>Psalidoprocne</i>	<i>pristoptera</i>	1	2019/10/26
Scrub Robin	Karoo	<i>Cercotrichas</i>	<i>coryphoeus</i>	24	2025/03/29
Seedeater	Streaky-headed	<i>Crithagra</i>	<i>gularis</i>	2	2020/05/06
Shelduck	South African	<i>Tadorna</i>	<i>cana</i>	1	2008/03/23
Shoveler	Cape	<i>Anas</i>	<i>smithii</i>	58	2025/10/27
Snipe	African	<i>Gallinago</i>	<i>nigripennis</i>	7	2021/01/17
Sparrow	Cape	<i>Passer</i>	<i>melanurus</i>	110	2025/11/16
Sparrow	House	<i>Passer</i>	<i>domesticus</i>	100	2025/11/16
Sparrow	Southern Grey-headed	<i>Passer</i>	<i>diffusus</i>	35	2023/10/21
Sparrowhawk	Black	<i>Accipiter</i>	<i>melanoleucus</i>	25	2024/10/20
Sparrowhawk	Rufous-breasted	<i>Accipiter</i>	<i>rufiventris</i>	1	2019/09/09
Spoonbill	African	<i>Platalea</i>	<i>alba</i>	31	2025/10/27
Spurfowl	Cape	<i>Pternistis</i>	<i>capensis</i>	55	2025/11/16
Starling	Common	<i>Sturnus</i>	<i>vulgaris</i>	124	2025/11/16
Starling	Pied	<i>Lamprotornis</i>	<i>bicolor</i>	3	2009/01/24
Starling	Red-winged	<i>Onychognathus</i>	<i>morio</i>	42	2025/09/25
Stilt	Black-winged	<i>Himantopus</i>	<i>himantopus</i>	24	2021/08/29
Stint	Little	<i>Calidris</i>	<i>minuta</i>	2	2020/03/22
Stonechat	African	<i>Saxicola</i>	<i>torquatus</i>	69	2025/09/25
Stork	Marabou	<i>Leptoptilos</i>	<i>crumenifer</i>	1	2009/01/24
Stork	White	<i>Ciconia</i>	<i>ciconia</i>	60	2025/06/21
Sugarbird	Cape	<i>Promerops</i>	<i>cafer</i>	1	2017/04/28
Sunbird	Amethyst	<i>Chalcomitra</i>	<i>amethystina</i>	2	2023/10/09
Sunbird	Malachite	<i>Nectarinia</i>	<i>famosa</i>	59	2025/09/25
Sunbird	Southern Double-collared	<i>Cinnyris</i>	<i>chalybeus</i>	82	2025/11/16
Swallow	Barn	<i>Hirundo</i>	<i>rustica</i>	41	2025/11/16
Swallow	Greater Striped	<i>Cecropis</i>	<i>cucullata</i>	74	2025/11/16
Swallow	Pearl-breasted	<i>Hirundo</i>	<i>dimidiata</i>	26	2025/11/16
Swallow	White-throated	<i>Hirundo</i>	<i>albigularis</i>	45	2025/10/27
Swamphen	African	<i>Porphyrio</i>	<i>madagascariensis</i>	13	2021/05/01
Swift	African Black	<i>Apus</i>	<i>barbatus</i>	45	2025/11/16
Swift	African Palm	<i>Cypsiurus</i>	<i>parvus</i>	6	2023/09/19
Swift	Alpine	<i>Tachymarptis</i>	<i>melba</i>	35	2024/04/27
Swift	Common	<i>Apus</i>	<i>apus</i>	1	2020/04/01

Swift	Little	<i>Apus</i>	<i>affinis</i>	71	2025/11/16
Swift	White-rumped	<i>Apus</i>	<i>caffer</i>	45	2025/11/16
Teal	Cape	<i>Anas</i>	<i>capensis</i>	15	2023/05/01
Teal	Red-billed	<i>Anas</i>	<i>erythrorhyncha</i>	51	2025/10/27
Tern	Caspian	<i>Hydroprogne</i>	<i>caspia</i>	2	2014/10/26
Tern	Whiskered	<i>Chlidonias</i>	<i>hybrida</i>	1	2014/10/26
Tern	White-winged	<i>Chlidonias</i>	<i>leucopterus</i>	1	2008/03/23
Thick-knee	Spotted	<i>Burhinus</i>	<i>capensis</i>	57	2023/11/20
Thick-knee	Water	<i>Burhinus</i>	<i>vermiculatus</i>	2	2025/11/16
Thrush	Karoo	<i>Turdus</i>	<i>smithi</i>	1	2023/07/22
Thrush	Olive	<i>Turdus</i>	<i>olivaceus</i>	42	2025/08/30
Wagtail	Cape	<i>Motacilla</i>	<i>capensis</i>	113	2025/11/16
Warbler	African Reed [x]	<i>Acrocephalus</i>	<i>baeticatus</i>	10	2021/01/30
Warbler	Chestnut-vented	<i>Curruca</i>	<i>subcoerulea</i>	3	2021/01/17
Warbler	Common Reed	<i>Acrocephalus</i>	<i>scirpaceus</i>	4	2024/11/24
Warbler	Lesser Swamp	<i>Acrocephalus</i>	<i>gracilirostris</i>	68	2025/10/27
Warbler	Little Rush	<i>Bradypterus</i>	<i>baboecala</i>	58	2025/10/27
Waxbill	Common	<i>Estrilda</i>	<i>astrild</i>	76	2025/11/16
Waxbill	Swee	<i>Coccyzygia</i>	<i>melanotis</i>	1	2014/11/23
Weaver	Cape	<i>Ploceus</i>	<i>capensis</i>	103	2025/11/16
Weaver	Southern Masked	<i>Ploceus</i>	<i>velatus</i>	98	2025/10/27
Wheatear	Capped	<i>Oenanthe</i>	<i>pileata</i>	21	2024/11/24
Wheatear	Mountain	<i>Myrmecocichla</i>	<i>monticola</i>	1	2016/03/05
White-eye	Cape	<i>Zosterops</i>	<i>virens</i>	105	2025/11/16
Whydah	Pin-tailed	<i>Vidua</i>	<i>macroura</i>	58	2025/10/27
Woodpecker	Cardinal	<i>Dendropicos</i>	<i>fuscescens</i>	12	2023/10/26

Appendix B

Appendix B Species list of the faunal species recovered within the study area during the field survey. For each, the taxonomic Order, Family, species binomial name and species common name are shown, along with the current IUCN Red List classification of the species, and the number of records of the species during the surveying period.

Mammals					
Order	Family	Species	Common name	IUCN status	Number of observations
Afrosoricida	Chrysochloridae	<i>Chrysochloris asiatica</i>	Cape Golden Mole	Least Concern	11
Artiodactyla	Bovidae	<i>Sylvicapra grimmia</i>	Common Duiker	Least Concern	6
Carnivora	Felidae	<i>Felis silvestris</i>	African Wild Cat	Least Concern	1
Rodentia	Bathyergidae	<i>Bathyergus suillus</i>	Cape Dune Mole-rat	Least Concern	30
		<i>Cryptomys hottentotus</i>	African Mole-rat	Least Concern	1
	Hystricidae	<i>Hystrix africaeaustralis</i>	Cape Porcupine	Least Concern	1
	Muridae	<i>Gerbilliscus afra</i>	Cape Gerbil	Least Concern	32
		<i>Rhabdomys pumilio</i>	Four-striped Grass Mouse	Least Concern	10
Reptiles					
Order	Family	Species	Common name	Status	Number of observations
Testudines	Testudinidae	<i>Chersina angulata</i>	Angulate Tortoise	Least Concern	6
Squamata	Scincidae	<i>Trachylepis capensis</i>	Cape Skink	Least Concern	1
Avifauna					
Order	Family	Species	Common name	Status	Number of observations
Accipitriformes	Accipitridae	<i>Milvus aegyptius</i>	Yellow-billed Kite	Least Concern	3
Anseriformes	Anatidae	<i>Alopochen aegyptiaca</i>	Egyptian Goose	Least Concern	2
Caprimulgiformes	Caprimulgidae	<i>Caprimulgus pectoralis</i>	Fiery-necked Nightjar	Least Concern	1
Coliiformes	Coliidae	<i>Colius colius</i>	White-backed Mousebird	Least Concern	1
Columbiformes	Columbidae	<i>Streptopelia semitorquata</i>	Red-eyed Dove	Least Concern	8

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		<i>Spilopelia senegalensis</i>	Laughing Dove	Least Concern	1
Galliformes	Numididae	<i>Numida meleagris</i>	Helmeted Guineafowl	Least Concern	1
Passeriformes	Cisticolidae	<i>Cisticola subruficapilla</i>	Grey-backed Cisticola	Least Concern	2
		<i>Cisticola tinniens</i>	Levaillant's Cisticola	Least Concern	1
		<i>Prinia maculosa</i>	Karoo Prinia	Least Concern	3
	Corvidae	<i>Corvus albus</i>	Pied Crow	Least Concern	3
	Estrildidae	<i>Estrilda astrild</i>	Common Waxbill	Least Concern	1
	Fringillidae	<i>Serinus canicollis</i>	Cape Canary	Least Concern	2
	Hirundinidae	<i>Hirundo rustica</i>	Barn Swallow	Least Concern	3
	Laniidae	<i>Lanius collaris</i>	Southern Fiscal	Least Concern	1
	Malaconotidae	<i>Telophorus zeylonus</i>	Bokmakierie	Least Concern	1
	Muscicapidae	<i>Cossypha caffra</i>	Cape Robin-Chat	Least Concern	2
	Nectariniidae	<i>Cinnyris chalybeus</i>	Southern Double-collared Sunbird	Least Concern	4
		<i>Nectarinia famosa</i>	Malachite Sunbird	Least Concern	1
	Platysteiridae	<i>Batis capensis</i>	Cape Batis	Least Concern	1
	Ploceidae	<i>Ploceus capensis</i>	Cape Weaver	Least Concern	2
		<i>Ploceus velatus</i>	Southern Masked Weaver	Least Concern	1
	Sturnidae	<i>Sturnus vulgaris</i>	Common Starling	Least Concern	1
	Zosteropidae	<i>Zosterops virens</i>	Cape White-eye	Least Concern	3
	Threskiornithidae	<i>Bostrychia hagedash</i>	Hadada Ibis	Least Concern	1
		<i>Threskiornis aethiopicus</i>	African Sacred Ibis	Least Concern	2
Pelecaniformes	Ardeidae	<i>Ardea melanocephala</i>	Black-headed Heron	Least Concern	1

Appendix D

Jacobus Hendrik Visser - Curriculum Vitae

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Qualifications

- PhD (Zoology), University of Johannesburg (2015 - 2017)
- MSc (Zoology), Stellenbosch University (2011 - 2013)
- BSc Honours (Zoology) cum laude, Stellenbosch University (2010)
- BSc (Biodiversity and Ecology) cum laude, Stellenbosch University (2007 - 2009)

Expertise

- 28 years of in-the-field naturalist experience involving a variety of faunal groups (mammals, amphibians, reptiles, avifauna, butterflies, grasshoppers and scorpions)
- Zoologist with 17 years of professional experience
- 14 Peer-reviewed publications in high impact national and international scientific journals
- 5 IUCN Red List assessments
- Over 70 faunal specialist assessments

Accreditation

- Registered Professional Natural Scientist (Zoological Science) with the South African Council for Natural Scientific Practitioners (SACNASP). Registration number: 128018

Scientific publications

- **Visser J.H.** (2013). Gene-flow in the rock hyrax (*Procavia capensis*) at different spatial scales. MSc thesis, Stellenbosch University, Stellenbosch, South Africa.
<https://core.ac.uk/download/pdf/37420485.pdf>
- **Visser J.H.** (2017). Evolution of the South African Bathyergidae: patterns and processes. PhD dissertation, University of Johannesburg, Johannesburg, South Africa.
- **Visser J.H.**, Bennett N.C., Jansen van Vuuren B. (2014). Local and regional scale genetic variation in the Cape dune mole-rat, *Bathyergus suillus*. PLoS ONE 9(9):e107226.
<https://doi.org/10.1371/journal.pone.0107226>
- **Visser J.H.**, Bennett N.C., Jansen van Vuuren B. (2017). Distributional range, ecology and mating system of the Cape mole-rat, *Georychus capensis* family Bathyergidae. Canadian Journal of Zoology 95 (10): 713-726. <https://doi.org/10.1139/cjz-2017-0016>
- **Visser J.H.**, Bennett N.C., Jansen van Vuuren B. (2018). Spatial genetic diversity in the Cape mole-rat, *Georychus capensis*: Extreme isolation of populations in a subterranean environment. PLoS ONE 13(3): e0194165. <https://doi.org/10.1371/journal.pone.0194165>
- **Visser J.H.**, Bennett N.C., Jansen van Vuuren B. (2019). Evolutionary and ecological patterns within the South African Bathyergidae: Implications for taxonomy. Molecular Phylogenetics and Evolution 130, 181-197. <https://doi.org/10.1016/j.ympev.2018.10.017>
- **Visser J.H.**, Bennett N.C., Jansen van Vuuren B. (2019). Phylogeny and biogeography of the African Bathyergidae: a review of patterns and processes. Journal of Biogeography PeerJ 7:e7730. <https://doi.org/10.7717/peerj.7730>
- **Visser J.H.**, Geerts S. (2020). Describing sexual dimorphism and fine scale spatial distributions in the Drab Thick-tail Scorpion, *Parabuthus planicauda*. African Zoology 55 (3): 250-256.
<https://doi.org/10.1080/15627020.2020.1796525>
- **Visser J.H.**, Geerts S. (2021). Static allometry and sexual dimorphism in the Striped Lesser-thicktail Scorpion, *Uroplectes lineatus*. Arachnology 18 (7), 700–707.
<https://doi.org/10.13156/arac.2020.18.7.700>
- **Visser J.H.**, Geerts S. (in review). Sexual dimorphism and static allometry in the burrowing scorpion, *Opisthophthalmus pallipes*. African Zoology.
- **Visser J.H.**, Geerts S. (2021). Sexual dimorphism and static allometry in the South African scorpion *Opisthophthalmus karrooensis*. Arachnology 18 (9), 1057-1063.
- **Visser J.H.**, Geerts S., Jansen van Vuuren B. (2021). Phylogeographic patterns in a semi-lithophilous burrowing scorpion from South Africa, *Opisthophthalmus pallipes*. Zoological Science 38 (1): 36-44. <https://doi.org/10.2108/zs200094>

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- **Visser J.H.**, Robinson T.J., Jansen van Vuuren B. (2020). Spatial genetic structure in the rock hyrax (*Procavia capensis*) across the Namaqualand and western Fynbos areas of South Africa - a mitochondrial and microsatellite perspective. *Canadian Journal of Zoology* 98 (8): 557-571. <https://doi.org/10.1139/cjz-2019-0154>
- Uhrová M., Mikula O., Bennett N.C., Van Daele P., Piálek L., Bryja J., **Visser J.H.**, Jansen van Vuuren B., Šumbera R. (2022). Species limits and phylogeographic structure in two genera of solitary African mole-rats *Georychus* and *Heliophobius*. *Molecular Phylogenetics and Evolution* 167 (2022) 107337

IUCN Red List Assessments

- Bennett N.C., Jarvis J.U.M., **Visser J.H.**, Maree, S. (2016). A conservation assessment of *Georychus capensis*. In: Child M.F., Roxburgh L., Do Linh San E., Raimondo D., Davies-Mostert H.T. (Eds). *The Red List of Mammals of South Africa, Swaziland and Lesotho*. South African National Biodiversity Institute and Endangered Wildlife Trust, South Africa. https://www.ewt.org.za/wp-content/uploads/2019/02/16.-Cape-Mole-rat-Georychus-capensis_LC.pdf
- Bennett N.C., **Visser J.H.**, Maree S., Jarvis J.U.M. (2016). A conservation assessment of *Bathyergus suillus*. In: Child M.F., Roxburgh L., Do Linh San E., Raimondo D., Davies-Mostert H.T. (Eds). *The Red List of Mammals of South Africa, Swaziland and Lesotho*. South African National Biodiversity Institute and Endangered Wildlife Trust, South Africa. https://www.ewt.org.za/wp-content/uploads/2019/02/6.-Cape-Dune-Mole-rat-Bathyergus-suillus_LC.pdf
- Maree S., Jarvis J.U.M., Bennett N.C., **Visser J.H.** (2017). *Bathyergus suillus*. The IUCN Red List of Threatened Species 2017:e.T2620A110017759. <http://dx.doi.org/10.2305/IUCN.Uk.2017-2.RLTS.T2620A110017759.en>.
- Maree S., **Visser J.H.**, Bennett N.C., Jarvis J.U.M. (2017). *Georychus capensis*. The IUCN Red List of Threatened Species 2017:e.T9077A110019425. <http://dx.doi.org/10.2305/IUCN.Uk.2017-2.RLTS.T9077A110019425.en>.
- **Visser J.H.**, Wimberger K. (2016). A conservation assessment of *Procavia capensis*. In: Child M.F., Roxburgh L., Do Linh San E., Raimondo D., Davies-Mostert H.T. (Eds). *The Red List of Mammals of South Africa, Swaziland and Lesotho*. South African National Biodiversity Institute and Endangered Wildlife Trust, South Africa. https://www.ewt.org.za/wp-content/uploads/2019/02/3.-Rock-Hyrax-Procavia-capensis_LC.pdf

List of fauna reports

- **Visser, J.H.** Terrestrial Animal Species Compliance Statement Report For A Portion of Remainder of Farm 630, Rawsonville, Breede Valley Municipality. November 2021. Prepared for inClover Environmental Consulting.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for a Portion of Brazil 329, Nama Khoi Municipality, Namakwa District. April 2022. Prepared for WNel Environmental Consulting Services.
- **Visser, J.H.** Terrestrial Faunal And Avifaunal Species Scoping Report for the Proposed Waste Management Facility at Portions 1 and 6 of Farm 32 Brakkefontein, City of Cape Town. April 2022. Prepared for SLR Consulting.
- **Visser, J.H.** Terrestrial Faunal And Avifaunal Species Impact Assessment Report for a Portion of Riet Valleij (Somerset Vale, Farm Portion RE/150), Estelm Boerdery, Swellendam Municipality, Overberg District. June 2022. Prepared for PHS Consulting.
- **Visser, J.H.** Site Sensitivity Verification Report for Remainder of Farm De Draay No 563, Overstrand Municipality. August 2022. Prepared for PHS Consulting.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Impact Assessment Report for Remainder of Farm Rooilandia No. 472, Breede Valley Municipality. October 2022. Prepared for McGregor Environmental Services.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for Portion 3 of Farm 781, Theewaterskloof Local Municipality. December 2022. Prepared for PHS Consulting.
- **Visser, J.H.** Terrestrial Faunal Species Compliance Statement Report for Farm Portion 49, Hansmoeskraal Farm 202, George Local Municipality. April 2023. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for Farm 153 Vissershok (C1038: Upgrading of TR11/1), City of Cape Town Municipality. May 2023. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for Farm Witteklip 69/123, Vredenburg, Saldanha Bay Municipality. June 2023. Prepared for Ecosense Environmental Consultants.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Greenvalley Mixed-use Development on Portion 28, 31 and 32 of the Farm Wittedrift No. 306, and Associated Bulk Infrastructure, Plettenberg Bay, Bitou Municipality. June 2023. Prepared for Sharples Environmental Services cc (SES).

- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Upgrade of the Schaapkop Sewer Rising Main on Remainder of Erf 464 and Erf 13486, George Local Municipality. July 2023. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Mixed-use Housing Development on Portions 7 and 8 of the Farm Kranshoek No. 432, Plettenberg Bay, Bitou Municipality. July 2023. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Sandmine on Portion 109 of the Farm Zwarte Jongers Fontein No. 489, Hessequa Municipality. August 2023. Prepared for Pro-Earth Consulting.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Upgrading of Herold's Bay Sewer Pump Station and Associated Rising Main on Remainder of Farm Brakfontein 236, Portion 10 of Farm Brakfontein 236 and Erven RE/95 and 116, Herolds Bay, George Municipality. September 2023. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Flood Damage Repairs, Rehabilitation and Other Mitigation Measures in Van Riebeeck Gardens and Camphersdrift, George, George Municipality. September 2023. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Hartenbos Waste Water Treatment Works PV Solar Plant on Remainder of Portion 101 of the Farm Hartenbosch 217, Mossel Bay, Mossel Bay Municipality. September 2023. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Site Sensitivity Verification Report for the Proposed Construction of Tourist Accommodation on Portions 10, 11 and 13 of the Farm Arieskraal A 456, Elgin. September 2023. Prepared for PHS Consulting.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Multifunctional Agricultural Development on Remainder of Farm De Draay No 563, Overstrand Municipality. November 2023. Prepared for PHS Consulting.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Site Sensitivity Verification Report for Portion 7 of the Farm Witteklip No. 123, Saldanha Bay Municipality. November 2023. Prepared for Ecosense Environmental Consultants.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Construction of Two Hard Water Reservoirs and Associated Infrastructure at the Koeberg Nuclear Power Station Located on the Farm Duynefontyn No. 1552, City of Cape Town

Metropolitan Municipality. November 2023. Prepared for Sharples Environmental Services cc (SES).

- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Site Sensitivity Verification Report for Portion 7 of The Farm Hans Moes Kraal No. 202, George Local Municipality. December 2023. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.**, Colville, J.F., McDonald, D., Proposed Low Cost Housing Development on Farm Witteklip 69/123, Vredenburg, Saldanha Bay Municipality - Biodiversity Offset Report. December 2023. Prepared for Ecosense Environmental Consultants.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Construction of a Photovoltaic Solar Plant and Battery Energy Storage System on Remainder of Erf 2018, Riversdale, Hessequa Municipality. February 2024. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Development on Erf 998, Tergniet and Portion 5 of the Farm Zandhoogte No. 139, Mossel Bay Local Municipality. February 2024. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the proposed PV Solar Plant and Two 11kV Cable Routes at the Groot-Brakrivier Waste Water Treatment Works (WWTW) on portion 23 of the Farm Wolwedans No. 129, Mossel Bay Local Municipality. February 2024. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species-, Aquatic Biodiversity- and Terrestrial Biodiversity Compliance Statement Report for the Mining Permit or Mining Right Application for the Existing Stone Crushing Operation on Portion 3 of the Farm Klipfontein No. 275, Still Bay, Hessequa Municipality. March 2024. Prepared for Pro-Earth Consulting.
- **Visser, J.H.** Terrestrial Faunal Assessment for a Potential Faunal Search and Rescue Operation Around the Gamma Substation on Farm Schiekuil No. 3, Murraysburg Region, Western Cape. March 2024. Prepared for CSV Construction (Pty) Ltd.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Mining Permit on Farm Schiekuil No. 3, Murraysburg Region, Western Cape. April 2024. Prepared for WNel Environmental Consulting Services.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Expansion of a Mining Right for Argent Minerals on Farm 120, Caledon, Western Cape. April 2024. Prepared for WNel Environmental Consulting Services.
- Labuschagne, A., **Visser, J.H.** Animal Species Specialist Report: Proposed Agricultural Development of Erf 385, Hoekwil, Garden Route Municipality, Western Cape Province. May 2024. Prepared for Eco Route Environmental Consultants.

- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Development of a Shopping Center and Associated Infrastructure on a Portion of Remainder Erf 666 Hout Bay, City of Cape Town, Western Cape. May 2024. Prepared for MSEC Environmental Consultants.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Agricultural Expansion by Anglo American on Their Farms Demaneng and Lyleveld, Kathu Region, Gamagara Local Municipality, Northern Cape. June 2024. Prepared for Victoria Read Environmental Consulting.
- **Visser, J.H., Berry, M.** Proposed Greenvalley Mixed-use Development on Portion 28, 31 and 32 of the Farm Wittedrift No. 306, Plettenberg Bay, Bitou Municipality - Biodiversity Offset Report. July 2024. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Housing Development on Erven 1217 and 1160, Kranshoek, Bitou Local Municipality, Western Cape. July 2024. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal Species Compliance Statement Report for the Proposed Commercial and Residential Development on Portion 50 of Farm Hansmoeskraal 202, George Local Municipality. August 2024. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal Species and Terrestrial Biodiversity Compliance Statement Report for the Amendment of Amended Appeal Environmental Authorisation for the EA Dated 18 August 2009 for the Proposed Residential Development on a Portion of the Farm Vaale Valley 219, Mossel Bay Municipality. October 2024. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Expansion of the Existing Seed Processing Facility on Paarl Farm 43/728, Joostenberg Vlakte, City of Cape Town. October 2024. Prepared for MSEC Environmental Consultants.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Expansion of Dams, an Existing Borrow Area and Associated Infrastructure on RE/584 and Kruis Rivier 11/206, Hessequa Municipality, Western Cape. October 2024. Prepared for THE ECO BALANCE PLANNING CO.
- **Visser, J.H.** Terrestrial Animal Species Compliance Statement Report For the Proposed Low Cost Housing Development on RE/1212, Strandfontein, City of Cape Town Municipality. November 2024. Prepared for inClover Environmental Consulting.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Assessment Report for the Proposed Updating of the Existing Environmental Management Program of the Buffels Marine Mining

Right, Nama Khoi Municipality. January 2025. Prepared for WNel Environmental Consulting Services.

- **Visser, J.H.** Terrestrial Biodiversity Assessment Report for the Unlawful Commencement of the Unlawful Construction of an Airstrip on Portion 33 of the Farm 499 Vermaaklikheid, Hessequa Municipality. January 2025. Prepared for Kobus Geldenhuys Landscape Architects & Environmental Planners.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Site Sensitivity Verification Report for a Proposed High-Intensity Mixed Use Development on Part of the Remainder of Erf 464, Part of Erf 8259 and Erf 8491, George Local Municipality. January 2025. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Wesco Waste Management Facility on Portion 1 of the Farm Brakkefontein No. 32, City of Cape Town. January 2025. Prepared for SLR Consulting (South Africa) (Pty) Ltd.
- **Visser, J.H.** Terrestrial Biodiversity Assessment Report for the Unlawful Encroachment of a Rock Revetment Within the Coastal Zone on Erf 90, Wilderness, Western Cape. March 2025. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Construction of Tourism Units and a Wastewater Treatment Plant on Portions 38 and 39 of Farm Ruygte Vally No. 205, Goukamma Nature Reserve, Knysna Municipality. March 2025. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Assessment Report for the Unlawful Removal of Vegetation on RE/584 and Kruis Rivier 11/206, Hessequa Municipality. April 2025. Prepared for THE ECO BALANCE PLANNING CO.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Agricultural Expansion, New Drying Rack Area and Two New Water Pipelines on Erven 917, 973, 974 975, 976 and 978, Siyathemba Local Municipality, Northern Cape. April 2025. Prepared for THE ECO BALANCE PLANNING CO.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Enlargement of a Dam on Erf RE/1014, Heidelberg, Hessequa Local Municipality. April 2025. Prepared for McGregor Environmental Services.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Upgrade of the Raw Water Abstraction Works and Pump Station on Portion 15, 24 and 25 of the Farm Klipheuvell, Mossel Bay Local Municipality. May 2025. Prepared for Sharples Environmental Services cc (SES).

- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Residential Development on Erf 1692, Franschhoek, Stellenbosch Local Municipality. May 2025. Prepared for inClover Environmental Consulting.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Site Sensitivity Verification Report for Portion 7 of the Farm Wittedrift No. 306, Plettenberg Bay, Bitou Municipality. June 2025. Prepared for CEN Environmental Management Unit.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for a Proposed PV Solar Plant and Battery Energy Storage System on Either Portion 1 of the Farm 153, or Remainder of Erf 743 and Remainder of Erf 99, Prince Albert, Prince Albert Local Municipality. July 2025. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Expansion of Agricultural Areas on Farm 6/369 and Farm 11/441, Breede Valley Municipality. July 2025. Earth Grace Environmental Consultancy.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Establishment of a Camping Site Near Kleinzee, Nama Khol Municipality. July 2025. Prepared for WNeI Environmental Consulting Services.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Mixed-use Development on Portions 226 and 228 of Farm Kraai Bosch 195, George Municipality. August 2025. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Assessment Report for the Unlawful Removal of Vegetation on Four Properties (Witvlei, De Hoek, De Eelt and Arbeidsgenot), Siyathemba Local Municipality. August 2025. Prepared for THE ECO BALANCE PLANNING CO.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Agricultural Expansion and New Dam on Erven 2194, 2099, 2100, 2176, 2087, 2177 and 2439, Kai !Garib Municipality. August 2025. Prepared for THE ECO BALANCE PLANNING CO.
- **Visser, J.H.** Terrestrial Faunal Species Compliance Statement Report for the Proposed Solar PV Facility on Erf 7900, Ceres, Witzenberg Local Municipality. October 2025. Earth Grace Environmental Consultancy.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Flood Damage Repairs to the Langenhoven Substation, Remainder of Erf 464 and Erf 20781, George, George Municipality. October 2025. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Animal Species Compliance Statement Report For the Proposed Residential Development on Erf 15300, Capri, City of Cape Town Municipality. October 2025. Prepared for inClover Environmental Consulting.

- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species, Botanical and Aquatic Site Sensitivity Verification Report for the Proposed Mixed-use Development on Farm 619, Still Bay, Hessequa Municipality. November 2025. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Site Sensitivity Verification Report for Erf 789, 76 and Portion 4 of the Farm 983, Scarborough, City of Cape Town Metropolitan Municipality. November 2025. Prepared for inClover Environmental Consulting.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Impact Assessment Report for the Proposed Expansion of Cultivation Areas on Farm No. 757 and 758, Scherpenheuvel Valley, Breede Valley Municipality. November 2025. Prepared for inClover Environmental Consulting.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Impact Assessment Report for the Unlawful Expansion of the Murraysburg Cemetery on Remainder of Farm 249, and Proposed New Expansion of the Cemetery, Murraysburg, Beaufort West Local Municipality. December 2025. Prepared for Sharples Environmental Services cc (SES).
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Expansion of Agricultural Areas in the Vicinity of Koekenaap, Matzikama Local Municipality. December 2025. Prepared for THE ECO BALANCE PLANNING CO.
- **Visser, J.H.** Terrestrial Faunal and Avifaunal Species Compliance Statement Report for the Proposed Agricultural Expansion on Farm Welverdiend, Cederberg Municipality. December 2025. Prepared for THE ECO BALANCE PLANNING CO.
- **Visser, J.H.** Avifaunal Species Scoping Report for a Proposed Wind Turbine on Vergenoegd Löw Wine Estate, Stellenbosch Local Municipality. January 2026. Prepared for inClover Environmental Consulting.