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**TERRESTRIAL BIODIVERSITY ASSESSMENT  
ASSOCIATED PROPOSED ARLINGTON  
MULTIPLE-USE DEVELOPMENT ON ERVEN 3988,  
4195 AND 6991, GQEBERHA, NELSON MANDELA  
BAY MUNICIPALITY, EASTERN CAPE**

**Version – final**

**March 2024**

**GCS Project Number: 24-0003**

**Client Reference:**



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**TERRESTRIAL BIODIVERSITY ASSESSMENT ASSOCIATED PROPOSED ARLINGTON  
MULTIPLE-USE DEVELOPMENT ON ERVEN 3988, 4195 AND 6991, GQEBERHA,  
NELSON MANDELA BAY MUNICIPALITY, EASTERN CAPE**

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## Declaration

I, Magnus van Rooyen, in my capacity as a specialist consultant, hereby declare that I:

- Act as an independent consultant;
- Do not have any financial interest in the undertaking of the activity, other than remuneration for the work performed in terms of the National Environmental Management Act (Act No. 107 of 1998);
- Have and will not have vested interest in the proposed activity proceeding;
- Have no, and will not engage in, conflicting interests in the undertaking of the activity;
- Undertake to disclose, to the competent authority, any material information that has 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 National Environmental Management Act (Act No. 107 of 1998);
- As a registered member of the South African Council for Natural Scientific Professions, will undertake my profession in accordance with the Code of Conduct of the Council, as well as any other societies to which I am a member;
- Based on information provided to me by the project proponent and in addition to information obtained during the course of this study, have presented the results and conclusion within the associated document to the best of my professional ability; and
- Reserve the right to modify aspects pertaining to the present investigation should additional information become available through ongoing research and/or further work in this field.



Magnus van Rooyen (Pr.Sci.Nat)  
SACNASP reg. no. [REDACTED]

March 2024  
Date

# **TERRESTRIAL BIODIVERSITY ASSESSMENT ASSOCIATED PROPOSED ARLINGTON MULTIPLE-USE DEVELOPMENT ON ERVEN 3988, 4195 AND 6991, GQEBERHA, NELSON MANDELA BAY MUNICIPALITY, EASTERN CAPE**

## **1 INTRODUCTION**

Ecolink South Africa has been appointed by JG Afrika (Pty) Ltd to conduct a Terrestrial Biodiversity Assessment associated with the proposed Arlington Multipurpose Development on Erven 3988, 4195 and 6991, Gqeberha, Nelson Mandela Bay Municipality, in the Eastern Cape Province.

## **2 PROJECT BACKGROUND**

### **2.1 Location**

The proposed development site is located approximately 6.5km to the southwest of the Gqeberha CBD. The site is accessed via an access road off Victoria Drive. The location and extent of the erven is provided in Figure 2-1 and Figure 2-2.

### **2.2 Project description**

The proposed project makes provision for the establish of a multiple-use development, comprising of 25 clusters as well as an internal road network, on erven 3988, 4195 and 6991, along Glendore Road in Walmer. The consolidated development footprint will be 614 409m<sup>2</sup> (61,4ha) in extent.

Approximately 3 000 residential units are proposed which will be divided amongst nine (9) clusters designated for General Residential Zone 2 and General Residential Zone 4. In addition, 13 clusters designated for both Business Zone 1 and Business Zone 2 are planned, as well as one (1) cluster for Community Purposes and two (2) clusters for Special Purposes Infrastructure (solar power and wastewater treatment).

The development in its entirety will include the following components:

- a) Retail/Business Infrastructure.
- b) Office/Storage Facilities.
- c) Medical Use/Office Facilities.
- d) Special Use High Tech Industrial facility/infrastructure.

- e) Warehouse Facilities.
- f) Community Zone (i.e., child aftercare facilities).
- g) Mixed-residential Housing Units including Social Housing – approximately 3000 units are proposed.
- h) Club House and Sport Facilities.
- i) A Business Incubator / Substation Area.
- j) Parking/Solar Charging Stations.
- k) Special Purposes Infrastructure – solar photovoltaic power park & wastewater treatment plant.
- l) Open spaces.
- m) Installation of internal infrastructure services, such as water, sanitation, irrigation, stormwater, roads, and electricity, to service the proposed infrastructure. See further details below; and
- n) Installation of external infrastructure services, such as stormwater and sanitation connection lines as well as a pedestrian walkway along Racecourse Road and two traffic circles along Glendore Road. An additional road will be constructed between the south-western corner of the site and the northern circle.

The proposed development layout is provided in Figure 2-3.



Figure 2-1: Location of the proposed Arlington Multipurpose Development in relation to the Gqeberha CBD





Figure 2-2: Extent of the development site

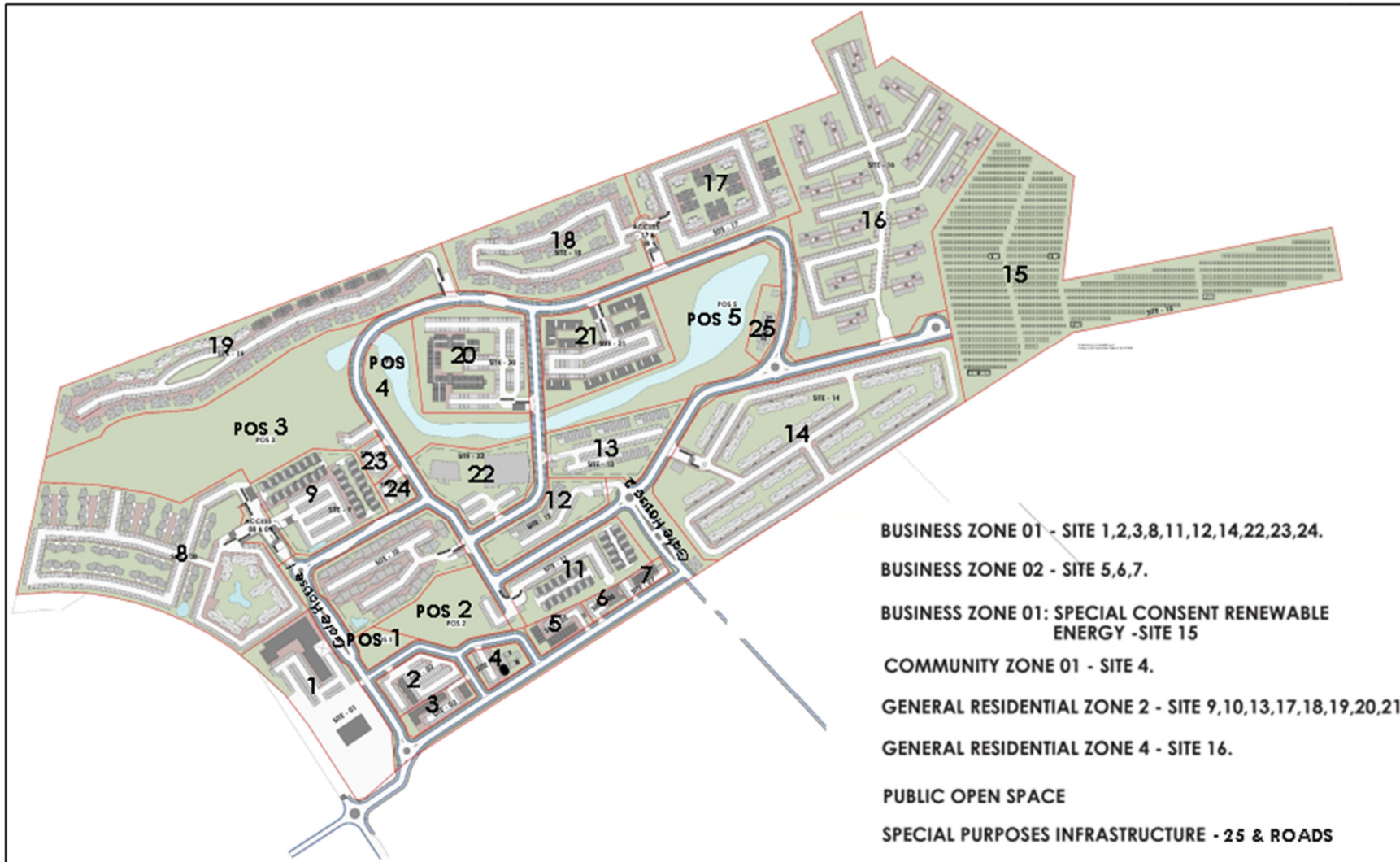


Figure 2-3: Proposed Arlington Multipurpose Development layout and zoning plan (source, JG Afrika (Pty) Ltd)

### 3 SCOPE OF WORK

This report will be submitted in support of the Application for Environmental Authorisation in accordance with the requirements of the National Environmental Management Act (Act No. 107 of 1998): Environmental Impact Assessment Regulations (2014), as amended. As such, the scope of works associated with this report makes provision for compliance with the requirements of these regulations.

The results for the two properties from the Department of Forestry, Fisheries and Environment's (DFFE) online Screening Tool are provided in the table below.

**Table 2-1: Result of the DFFE online Screening Tool**

| Theme                                      | Very high sensitivity | High sensitivity | Medium sensitivity | Low sensitivity |
|--|-----------------------|------------------|--------------------|-----------------|
| Agriculture theme                          | X                     |                  |                    |                 |
| Animal species theme                       |                       | X                |                    |                 |
| Aquatic biodiversity theme                 | X                     |                  |                    |                 |
| Archaeological and cultural heritage theme | X                     |                  |                    |                 |
| Civil aviation theme                       | X                     |                  |                    |                 |
| Defence theme                              | X                     |                  |                    |                 |
| Palaeontology theme                        | X                     |                  |                    |                 |
| Plant species theme                        |                       |                  | X                  |                 |
| Terrestrial biodiversity theme             | X                     |                  |                    |                 |

From the above, it is clear that the Terrestrial Biodiversity Theme is classified as “very high” for both of the properties, while the Animal and Plant Species Theme is classified as “high” and the Plant Species Theme is classified as medium”. This Terrestrial Biodiversity Assessment for the project will use this classification and associated information as a starting point in the assessment.

As such, the protocol requires the completion of a Site Sensitivity Verification before conducting a specialist assessment. The minimum requirements associated with the Site Sensitivity Verification is as follows:

1. The Site Sensitivity Verification must be undertaken by a specialist.
2. The site sensitivity verification must be undertaken through the use of:
  - a) A desktop analysis, using satellite imagery;
  - b) A preliminary on-site inspection; and
  - c) Any other available and relevant information.
3. The outcome of the site sensitivity verification must be recorded in the form of a report that:
  - a) confirms or disputes the current use of the land and environmental sensitivity as identified by the screening tool;

- b) contains a motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity; and
- c) is submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations.

To this end, the first step in the Scope of Works is to complete the Site Sensitivity Verification.

- The outcome of this verification will guide the next step in the assessment process. If the outcome of the verification is that the sensitivities identified in the screening tool are relevant provision will be made to conduct an assessment in accordance with the requirements of the specified protocol, which makes provision for the following:
- The assessment must provide a baseline description of the site which includes, as a minimum, the following aspects:
  - A description of the ecological drivers or processes of the system and how the proposed development will impact these;
  - Ecological functioning and ecological processes (e.g. fire, migration, pollination, etc. that operate within the preferred site;
  - The ecological corridors that the proposed development would impede including migration and movement of flora and fauna;
  - The description of any significant terrestrial landscape features (including rare or important flora-faunal associations, presence of strategic water source areas (SWSAs) or freshwater ecosystem priority area (FEPA) sub catchments;
  - A description of terrestrial biodiversity and ecosystem on the preferred site, including: (a) main vegetation types; (b) threatened ecosystems, including listed ecosystems as well as locally important habitat types identified; (c) ecological connectivity, habitat fragmentation, ecological processes and fine scale habitats; and (d) species, distribution, important habitats (e.g. feeding grounds, nesting sites, etc.) and movement patterns identified;
  - The assessment must identify any alternative development footprints within the preferred site which would be of a “low” sensitivity as identified in the screening tool and verified through the site sensitivity verification; and
  - The assessment must be based on the results of a site inspection undertaken on the preferred site and must identify:
    - ✓ Terrestrial critical biodiversity areas (CBAs),

- ✓ Terrestrial ecological support areas (ESAs),
- ✓ Protected areas as defined by the National Environmental Management: Protected Areas Act (Act No. 57 of 2003),
- ✓ Priority areas for protected area expansion,
- ✓ Strategic Water Source Areas (SWSAs),
- ✓ FEPA sub catchments, and
- ✓ Indigenous forests.

#### **4 ASSUMPTIONS AND KNOWLEDGE GAPS**

The following are assumptions made in the completion of the report:

- The assessment of the potential impacts of the proposed development is based on the terrestrial biodiversity features on the development site is based on the development layout that has been provided. If the development layout is amended, the impact identification and assessment contained in this report may also change.
- The findings of the report are limited to a single day long site visits conducted on 28 February 2022 and 7 February 2024 which is considered to be mid-summer. No provision has been made for seasonal visits to the site and is not considered a shortcoming of the report.
- The following standardised and accepted methods to determine the various aspects of the study were used:
  - Electronic biodiversity databases managed by the South African National Biodiversity Institute (SANBI);
  - Available provincial electronic biodiversity databases;
  - South African Bird Atlas 2; and
  - Information from the Virtual Museum managed by the Percy Fitzpatrick Institute.

It is important to note that the assessment will be limited to the development footprint of the Arlington Multipurpose Development.

#### **5 REPORTING CONDITIONS**

The following conditions apply to the report in part or as a whole:

- The findings and conclusion of this report are based on the author's scientific and professional knowledge as well as available information at the time of the assessment. In addition, the recommendations made are considered to be the best, implementable actions that can be taken to alleviate the identified impacts.
- As such, the author accepts no liability for any actions, claims, demands, losses, liabilities, costs, damages, and expenses that may arise from or in connection with the services rendered, and by any use of the information contained in this document.
- No part of this report may be amended without written consent from the author.

## **6 SITE SENSITIVITY VERIFICATION**

The Site Sensitivity Verification was initiated by conducting a desktop assessment of the proposed development site. The desktop assessment made use of the following available information:

- Information contained in the DFFE Screening Tool Report;
- Current and historical aerial imagery of the area;
- Biodiversity databases available on the SANBI Website;
- 1 in 50 000 topographical map sheet for the area;
- Recent aerial imagery for the site;
- South African Bird Atlas 2; and
- Information from the Virtual Museum managed by the Percy Fitzpatrick Institute.

The site assessments associated with the Site Sensitivity Verification were conducted on 28 February 2022 and 7 February 2024 by Mr Magnus van Rooyen of GCS Water and Environment (Pty) Ltd. The seasonality of the assessment is not considered to compromise the out of the sensitivity verification. The site assessment consisted of a site walkover to identify any possible terrestrial biodiversity features that require investigation and assessment. The assessment also had as a goal to verify the information findings of the desktop assessment.

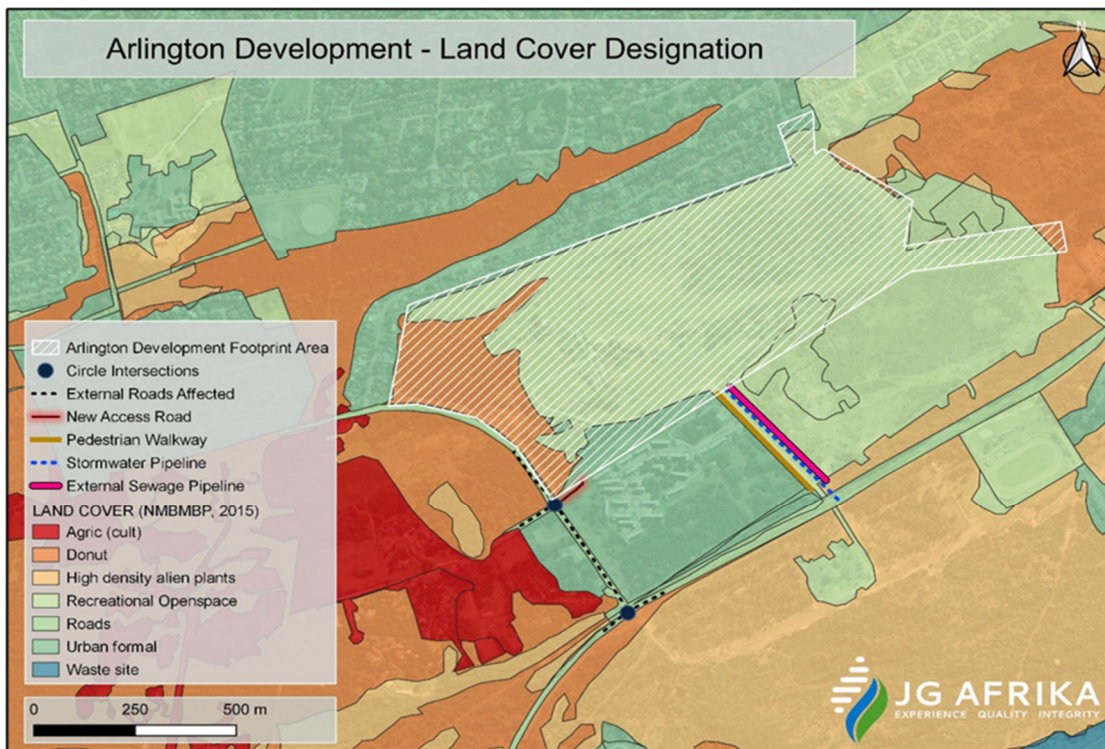
The following findings were made during the Site Sensitivity Verification.

## 6.1 Desktop findings

### 6.1.1 Current and Historic Land Use

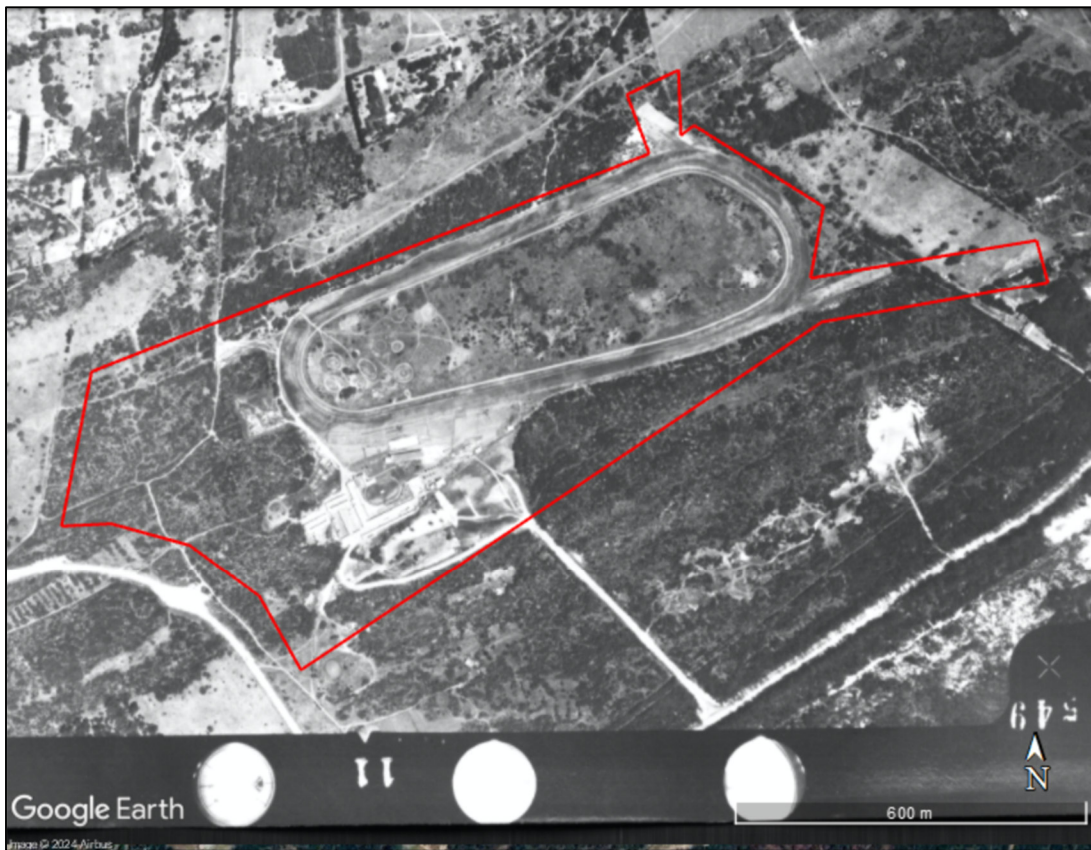
The Arlington Development site is situated on the old Arlington Racecourse, within the residential area of Walmer, Gqeberha. The adjacent properties are mainly designated as urban formal, including the residences in the area of Walmer Heights, Beethoven Avenue and the plots along Glendore Road (which include Welbedacht Estate). To the south of the project footprint lies the Milkwoods Social Housing Development.

In terms of the Nelson Mandela Bay Metro Biodiversity Plan (NMBMBP) (2015), the land cover designated to the study area falls primarily under Recreational Open Space, with a portion of the western edge of the site being designated as DONUT – this indicates that the area is open land/space that is undeveloped. A small portion south of the site is designated as urban formal, adjacent to the Milkwoods Social Housing Development. Refer to the NMBMBP Land Cover Map provided in Figure 6-1.



**Figure 6-1: Land Cover Designation for Arlington Development area and surrounds (NMBMBP, 2015) (courtesy of JG Afrika)**

The current land use on the development site is one of vacant land. Historically, the property was used as an equestrian racecourse with associated facilities (stables, training areas, etc.) Historical images of the development site indicate the presence of the racecourse from 1950 to 2013.



**Figure 6-2: Historic land use (1965) showing the presence of the Arlington Racecourse**

Prior to the development site being used for the establishment of the Arlington Racecourse, large parts of the development site were used for agricultural activities. These were likely the planting of crops or grazing for livestock. These disturbances are shown in the 1935 aerial image of the site in Figure 6-3.





**Figure 6-3: Historic aerial image of the development site dated 1935**

### **6.1.2 Climate**

The Port Elizabeth Airport is the nearest Weather Station to the Arlington Development for which weather data could be freely obtained. Port Elizabeth experiences short, warm summers and long, cool winters. The temperatures typically range from 9°C to 25°C.

The average maximum and minimum temperatures recorded for the months of 2022 are shown in Figure 6-4, as well as the average wind speed, gusts, and dominant wind direction (Figure 6-5).

Wind and Weather Statistics for the Waterkloof Air Force Base (AFB) as obtained from Windfinder: [https://www.windfinder.com/windstatistics/port\\_elizabeth](https://www.windfinder.com/windstatistics/port_elizabeth)



Figure 6-4: Average maximum and minimum temperatures recorded monthly for Port Elizabeth Airport (Windfinder, 2023)

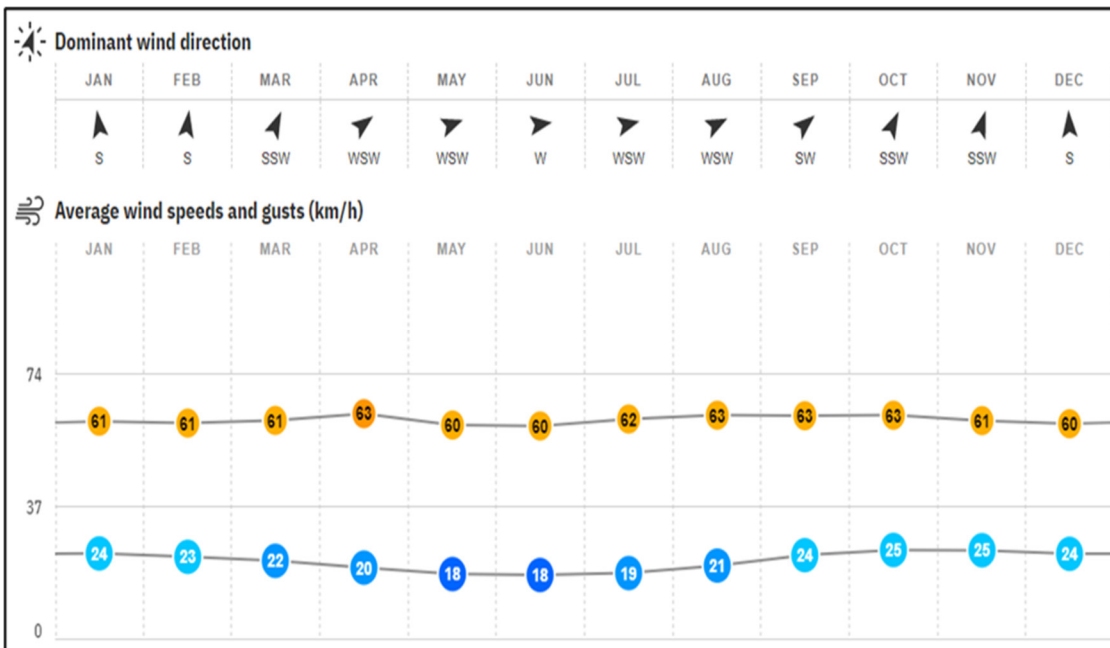


Figure 6-5: Dominant wind direction and average wind speeds and gusts (in km/h) recorded at Port Elizabeth Airport (Windfinder, 2023)

### 6.1.3 Department of Forestry, Fisheries and Environment online Screening Tool

The results of the **DFFE online Screening Tool** as it relates to the terrestrial biodiversity features of the sites is provided in the table below.

**Table 6-1: Summary of the terrestrial biodiversity feature results as per the DFFE Screening Tool**

| Theme                          | Sensitivity rating |
|--------------------------------|--------------------|
| Animal species theme           | High               |
| Plant species theme            | Medium             |
| Terrestrial biodiversity theme | Very high          |

The protocol requires the completion of a Site Sensitivity Verification before conducting a specialist assessment. The information from the screening tool for each of these themes are provided in the table below.

**Table 6-2: Sensitivity features identified for the terrestrial biodiversity, animal and vegetation themes for the development site**

| Sensitivity theme              | Feature   | Sensitivity   |
|--------------------------------|---|---|
| Terrestrial biodiversity theme | <ul style="list-style-type: none"> <li>The development site is located in the Tsitsikamma Strategic Water Supply Area.</li> <li>The development site is located in the Algoa Sandstone Fynbos vegetation type that is classified as Critically Endangered.</li> </ul>   | Very high   |
| Animal species theme           | <p>Aves – <i>Circus ranivorus</i></p> <p>Aves – <i>Circus maurus</i></p> <p>Aves – <i>Neotis Denham</i></p> <p>Aves – <i>Bradypterus sylvaticus</i></p> <p>Aves – <i>Stephanoaetus coronatus</i></p> <p>Aves – <i>Eupodotis senegalensis</i></p> <p>Insecta – <i>Chrysoritis Thisbe white</i></p> <p>Mammalia – <i>Chlorotalpa duthieae</i></p> <p>Sensitive species 8</p> <p>Invertebrate – <i>Aneuryphymus monatus</i></p>  | <p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p>   |
| Plant species theme            | <p>Sensitive species 1252, 991, 588, 657, 670, 448, 654</p> <p><i>Argyrobium crassifolium</i></p> <p><i>Aspalathus recurvispina</i></p> <p><i>Lotononis acuminata</i></p> <p><i>Selago rotundifolia</i></p> <p><i>Erica chloroloma</i></p> <p><i>Erica zeyheriana</i></p> <p><i>Gymnosporia elliptica</i></p> <p><i>Centella tridentata</i> var. <i>hermanniifolia</i></p> <p><i>Rapanea gilliana</i></p> <p><i>Holothrix longicornu</i></p> <p><i>Agathosma gonaquensis</i></p> <p><i>Agathosma stenopetala</i></p> <p><i>Corpuscularia lehmannii</i></p> <p><i>Caputia scaposa</i> var. <i>addoensis</i></p> <p><i>Erica glumiflora</i></p> | <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> |

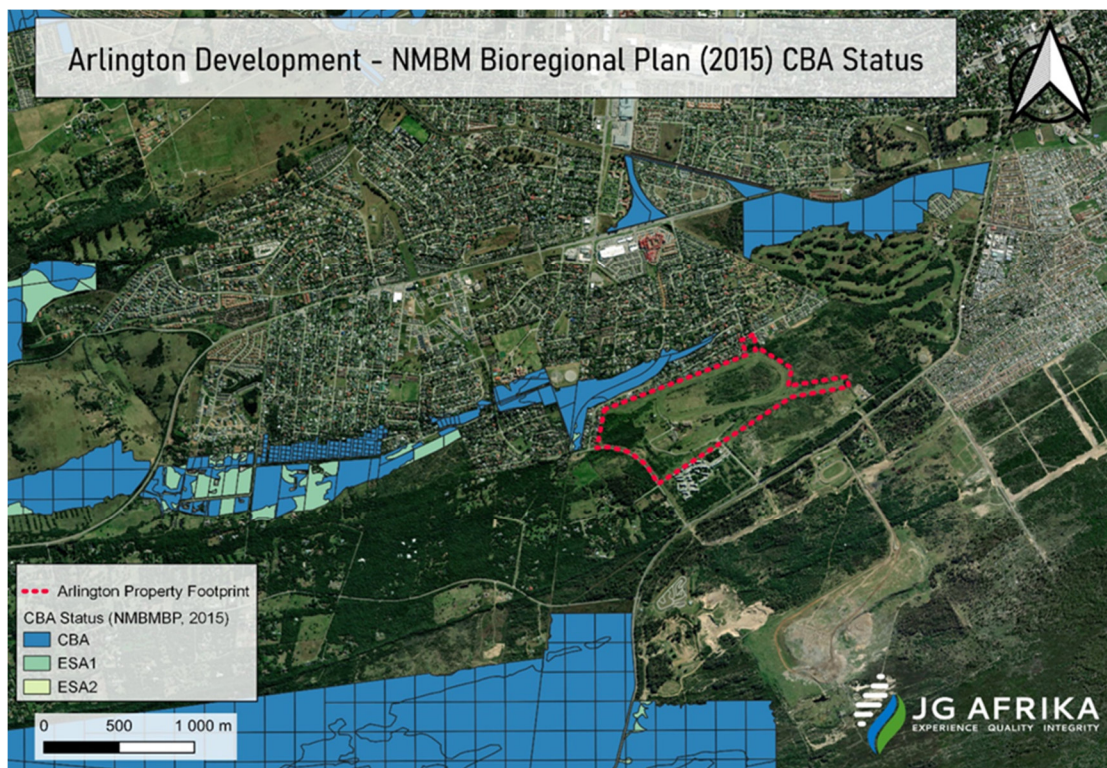
It must be noted that the assessment of the possible species highlighted in the tables above will be limited to the development footprint of the property. Similarly, the assessment of the presence of suitable habitat for these species to be present will be limited to the development footprint.

#### 6.1.4 Critical Biodiversity Area and Ecological Support Areas

Critical Biodiversity Areas (CBAs) are areas required to meet biodiversity targets for ecosystems, species, and ecological processes, as identified in a systematic biodiversity plan and/or bioregional plan.

As indicated in the Critical Biodiversity Map (Figure 6-6), a CBA is located less than 65m northwest of the proposed site footprint, according to the Nelson Mandela Bay Municipality's Bioregional Plan (2015). Ecological Support Areas (ESAs) also play an important role in supporting the ecological functioning of Critical Biodiversity Areas and/or in delivering ecosystem services. As shown in the Ecological Support Areas Map (Figure 6-6), there are a few ESAs surrounding the proposed development, however, none of them are within critical proximity to the proposed development.

The study area does not intersect with any Critical Biodiversity Areas, or Ecological Support Areas, as designated in the Eastern Cape Biodiversity Conservation Plan (2019) or the NMBMBP (2015).



**Figure 6-6: Map indicating the CBAs and ESAs in relation to the development site (courtesy of JG Afrika)**

### 6.1.5 South African Bird Atlas (SABA2) and Important Bird Areas

The South African Bird Atlas 2 (SABA2) has indicated the potential presence of some 215 bird species in the pentab (3400\_2530) that covers the study site. The full species list generated by the SABA2 is provided in Appendix C. It is worthwhile to note that of the bird species identified in the DFFE Screening Tool, *Circus ranivorus* (African Marsh Harrier) and *Bradypterus sylvaticus* (Knysna Warbler) have been identified in the SABA2 species list. However, it is unlikely that this species is present on the study site as there is no suitable habitat present that can accommodate these species either from a nesting or foraging point of view. In addition, the land uses surrounding the properties are that of dense residential areas which will result in a constant disturbance to any species present on the properties.

The study site does not overlap with any Important Bird Areas (IBAs).

### 6.1.6 Species data from the Virtual Museum ([www.vmus.adu.org.za](http://www.vmus.adu.org.za))

The following species data was generated through the interrogation of the various species lists for the map reference of the study site.

### Mammals

The data from the Virtual Museum has indicated that 48 mammal species occur within the locus 3325DC in which the study site is located. The list of these species is provided in the table below. All these species have either not been classified or has a “least concern” classification in terms of the South African Red Data List.

**Table 6-3: Mammal species identified by the Virtual Museum to be potentially present within the study site**

| Scientific name               | Common name               | Red list category    |
|-------------------------------|---------------------------|----------------------|
| <i>Cryptomys hottentotus</i>  | Southern African Mole-rat | Least Concern (2016) |
| <i>Georchus capensis</i>      | Cape Mole-rat             | Least Concern (2016) |
| <i>Philantomba monticola</i>  | Blue Duiker               | Vulnerable (2016)    |
| <i>Raphicerus melanotis</i>   | Cape Grysbok              | Least Concern (2016) |
| <i>Redunca fulvorufula</i>    | Mountain Reedbuck         | Least Concern        |
| <i>Tragelaphus scriptus</i>   | Bushbuck                  | Least Concern        |
| <i>Canis mesomelas</i>        | Black-backed Jackal       | Least Concern (2016) |
| <i>Papio ursinus</i>          | Chacma Baboon             | Least Concern (2016) |
| <i>Amblysomus hottentotus</i> | Hottentot Golden Mole     | Least Concern (2016) |
| <i>Chlorotalpa duthieae</i>   | Duthie's Golden Mole      | Vulnerable (2016)    |
| <i>Caracal caracal</i>        | Caracal                   | Least Concern (2016) |
| <i>Felis silvestris</i>       | Wildcat                   | Least Concern (2016) |
| <i>Panthera pardus</i>        | Leopard                   | Vulnerable (2016)    |

| Scientific name                  | Common name                             | Red list category      |
|----------------------------------|---|------------------------|
| <i>Atilax paludinosus</i>        | Marsh Mongoose                          | Least Concern (2016)   |
| <i>Cynictis penicillata</i>      | Yellow Mongoose                         | Least Concern (2016)   |
| <i>Herpestes pulverulentus</i>   | Cape Gray Mongoose                      | Least Concern (2016)   |
| <i>Elephantulus rupestris</i>    | Western Rock Elephant Shrew             | Least Concern (2016)   |
| <i>Aethomys namaquensis</i>      | Namaqua Rock Mouse                      | Least Concern          |
| <i>Desmodillus auricularis</i>   | Cape Short-tailed Gerbil                | Least Concern (2016)   |
| <i>Gerbilliscus paeba</i>        | Paeba Hairy-footed Gerbil               | Least Concern (2016)   |
| <i>Lemniscomys rosalia</i>       | Single-Striped Lemniscomys              | Least Concern (2016)   |
| <i>Mastomys coucha</i>           | Southern African Mastomys               | Least Concern (2016)   |
| <i>Mastomys natalensis</i>       | Natal Mastomys                          | Least Concern (2016)   |
| <i>Mus (Nannomys) minutoides</i> | Southern African Pygmy Mouse            | Least Concern          |
| <i>Mus musculus musculus</i>     |   | Least concern          |
| <i>Myomyscus verreauxi</i>       | Verreaux's Mouse                        | Least Concern          |
| <i>Otomys irroratus</i>          | Southern African Vlei Rat (Fynbos type) | Least Concern (2016)   |
| <i>Otomys saundersiae</i>        | Saunders' Vlei Rat                      | Least Concern          |
| <i>Otomys unisulcatus</i>        | Karoo Bush Rat                          | Least Concern (2016)   |
| <i>Rattus norvegicus</i>         | Brown Rat                               | Least Concern          |
| <i>Rattus rattus</i>             | Roof Rat                                | Least Concern          |
| <i>Rhabdomys pumilio</i>         | Xeric Four-striped Grass Rat            | Least Concern (2016)   |
| <i>Aonyx capensis</i>            | African Clawless Otter                  | Near Threatened (2016) |
| <i>Poecilogale albinucha</i>     | African Striped Weasel                  | Near Threatened (2016) |
| <i>Dendromus melanotis</i>       | Gray African Climbing Mouse             | Least Concern (2016)   |
| <i>Dendromus mesomelas</i>       | Brants's African Climbing Mouse         | Least Concern (2016)   |
| <i>Saccostomus campestris</i>    | Southern African Pouched Mouse          | Least Concern (2016)   |
| <i>Nycteris thebaica</i>         | Egyptian Slit-faced Bat                 | Least Concern (2016)   |
| <i>Epomophorus crypturus</i>     | Epomophorus crypturus                   | Least Concern (2016)   |
| <i>Epomophorus wahlbergi</i>     | Wahlberg's Epauletted Fruit Bat         | Least Concern (2016)   |
| <i>Rhinolophus capensis</i>      | Cape Horseshoe Bat                      | Least Concern (2016)   |
| <i>Rhinolophus clivosus</i>      | Geoffroy's Horseshoe Bat                | Least Concern (2016)   |
| <i>Myosorex varius</i>           | Forest Shrew                            | Least Concern (2016)   |
| <i>Suncus infinitesimus</i>      | Least Dwarf Shrew                       | Least Concern (2016)   |
| <i>Potamochoerus porcus</i>      | Red River Hog                           |                        |

| Scientific name                | Common name                           | Red list category    |
|--------------------------------|---------------------------------------|----------------------|
| <i>Miniopterus fraterculus</i> | Lesser Long-fingered Bat              | Least Concern (2016) |
| <i>Neoromicia capensis</i>     | Cape Serotine                         | Least Concern (2016) |
| <i>Genetta tigrina</i>         | Cape Genet (Cape Large-spotted Genet) | Least Concern (2016) |

The list highlights the possible presence of the following species that are classified as “near threatened” and “vulnerable” within the locus 3325DC: *Philantomba monticola* (Blue Duiker), *Chlorotalpa duthieae* (Duthie's Golden Mole), *Panthera pardus* (Leopard), *Aonyx capensis* (African Clawless Otter) and *Poecilogale albinucha* (African Striped Weasel). Of all these species only *Philantomba monticola* (Blue Duiker) is likely to visit the site, albeit it a very low likelihood due to the limited numbers of the species that may occur in the area due to the land uses surrounding the development site.

### Reptiles

The data from the Virtual Museum has indicated the possible presence of 58 reptile species within the locus 3325DC in which the study site is located. Two species occurring on the list are classified as “near threatened”, one as “endangered” and one as “vulnerable”.

**Table 6-4: Reptile species identified by the Virtual Museum to be potentially present within the study site**

| Scientific name                    | Common name                  | Red list category            |
|------------------------------------|------------------------------|------------------------------|
| <i>Agama atra</i>                  | Southern Rock Agama          | Least Concern (SARCA 2014)   |
| <i>Bradypodion taeniabronchum</i>  | Elandsberg Dwarf Chameleon   | Endangered (SARCA 2014)      |
| <i>Bradypodion ventrale</i>        | Eastern Cape Dwarf Chameleon | Least Concern (SARCA 2014)   |
| <i>Caretta caretta</i>             | Loggerhead Turtle            | Vulnerable (SARCA 2014)      |
| <i>Chelonia mydas</i>              | Green Turtle                 | Near Threatened (SARCA 2014) |
| <i>Eretmochelys imbricata</i>      | Hawksbill Turtle             | Near Threatened (SARCA 2014) |
| <i>Lepidochelys olivacea</i>       | Olive Ridley Turtle          | Data Deficient (SARCA 2014)  |
| <i>Crotaphopeltis hotamboeia</i>   | Red-lipped Snake             | Least Concern (SARCA 2014)   |
| <i>Dasypeltis scabra</i>           | Rhombic Egg-eater            | Least Concern (SARCA 2014)   |
| <i>Dispholidus typus typus</i>     | Boomslang                    | Least Concern (IUCN 2021)    |
| <i>Philothamnus hoplogaster</i>    | South Eastern Green Snake    | Least Concern (IUCN 2021)    |
| <i>Philothamnus occidentalis</i>   | Western Natal Green Snake    | Least Concern (IUCN 2022)    |
| <i>Philothamnus semivariegatus</i> | Spotted Bush Snake           | Least Concern (IUCN 2021)    |

| Scientific name                           | Common name                   | Red list category                    |
|---|-------------------------------|--------------------------------------|
| <i>Chamaesaura anguina anguina</i>        | Cape Grass Lizard             | Least Concern (SARCA 2014)           |
| <i>Cordylus cordylus</i>                  | Cape Girdled Lizard           | Least Concern (SARCA 2014)           |
| <i>Dermochelys coriacea</i>               | Leatherback Turtle            | Endangered (SARCA 2014)              |
| <i>Aspidelaps lubricus lubricus</i>       | Coral Shield Cobra            | Not classified                       |
| <i>Hemachatus haemachatus</i>             | Southern Rinkhals             | Least Concern (IUCN 2022)            |
| <i>Hydrophis platurus</i>                 | Yellow-bellied Sea Snake      | Least Concern (SARCA 2014)           |
| <i>Naja nivea</i>                         | Cape Cobra                    | Least Concern (SARCA 2014)           |
| <i>Hemidactylus mabouia</i>               | Common Tropical House Gecko   | Least Concern (SARCA 2014)           |
| <i>Pachydactylus maculatus</i>            | Spotted Gecko                 | Least Concern (SARCA 2014)           |
| <i>Pachydactylus mariquensis</i>          | Marico Gecko                  | Least Concern (SARCA 2014)           |
| <i>Gerrhosaurus flavigularis</i>          | Yellow-throated Plated Lizard | Least Concern (SARCA 2014)           |
| <i>Tetradactylus fitzsimonsi</i>          | FitzSimons' Long-tailed Seps  | Vulnerable (SARCA 2014)              |
| <i>Nucras lalandii</i>                    | Delalande's Sandveld Lizard   | Least Concern (SARCA 2014)           |
| <i>Pedioplanis lineocellata pulchella</i> | Common Sand Lizard            | Least Concern (SARCA 2014)           |
| <i>Boaedon capensis</i>                   | Brown House Snake             | Least Concern (SARCA 2014)           |
| <i>Duberria lutrix lutrix</i>             | South African Slug-eater      | Least Concern (IUCN 2021, sp. level) |
| <i>Homoroselaps lacteus</i>               | Spotted Harlequin Snake       | Least Concern (SARCA 2014)           |
| <i>Lamprophis aurora</i>                  | Aurora House Snake            | Least Concern (SARCA 2014)           |
| <i>Lycodonomorphus inornatus</i>          | Olive House Snake             | Least Concern (SARCA 2014)           |
| <i>Lycodonomorphus laevisissimus</i>      | Dusky-bellied Water Snake     | Least Concern (SARCA 2014)           |
| <i>Lycodonomorphus rufulus</i>            | Brown Water Snake             | Least Concern (SARCA 2014)           |
| <i>Lycophidion capense capense</i>        | Cape Wolf Snake               | Least Concern (SARCA 2014)           |
| <i>Prosymna sundevallii</i>               | Sundevall's Shovel-snout      | Least Concern (SARCA 2014)           |
| <i>Psammophis crucifer</i>                | Cross-marked Grass Snake      | Least Concern (SARCA 2014)           |
| <i>Psammophis notostictus</i>             | Karoo Sand Snake              | Least Concern (SARCA 2014)           |
| <i>Psammophylax rhombeatus</i>            | Spotted Grass Snake           | Least Concern (SARCA 2014)           |
| <i>Pseudaspis cana</i>                    | Mole Snake                    | Least Concern (SARCA 2014)           |
| <i>Leptotyphlops nigricans</i>            | Black Thread Snake            | Least Concern (IUCN 2022)            |
| <i>Pelomedusa galeata</i>                 | South African Marsh Terrapin  | Least Concern (IUCN 2018)            |



| Scientific name                        | Common name                    | Red list category          |
|--|--------------------------------|----------------------------|
| <i>Acontias lineicauda</i>             | Algoa Bay Legless Skink        | Least Concern (SARCA 2014) |
| <i>Acontias meleagris</i>              | Cape Legless Skink             | Least Concern (SARCA 2014) |
| <i>Acontias orientalis</i>             | Eastern Legless Skink          | Least Concern (SARCA 2014) |
| <i>Scelotes anguinus</i>               | Algoa Dwarf Burrowing Skink    | Least Concern (SARCA 2014) |
| <i>Trachylepis capensis</i>            | Cape Skink                     | Least Concern (SARCA 2014) |
| <i>Trachylepis homalocephala</i>       | Red-sided Skink                | Least Concern (SARCA 2014) |
| <i>Trachylepis varia sensu stricto</i> | Common Variable Skink          | Not classified             |
| <i>Chersina angulata</i>               | Angulate Tortoise              | Least Concern (SARCA 2014) |
| <i>Homopus areolatus</i>               | Parrot-beaked Tortoise         | Least Concern (SARCA 2014) |
| <i>Stigmochelys pardalis</i>           | Leopard Tortoise               | Least Concern (SARCA 2014) |
| <i>Afrotyphlops bibronii</i>           | Bibron's Blind Snake           | Least Concern (IUCN 2022)  |
| <i>Rhinotyphlops lalandei</i>          | Delalande's Beaked Blind Snake | Least Concern (SARCA 2014) |
| <i>Varanus albigularis albigularis</i> | Rock Monitor                   | Least Concern (SARCA 2014) |
| <i>Varanus niloticus</i>               | Water Monitor                  | Least Concern (SARCA 2014) |
| <i>Bitis arietans arietans</i>         | Puff Adder                     | Least Concern (IUCN 2014)  |
| <i>Causus rhombeatus</i>               | Rhombic Night Adder            | Least Concern (IUCN 2021)  |

The species that is classified as “endangered”, *Dermochelys coriacea* (Leatherback Turtle) and the two species classified as “near threatened”, *Chelonia mydas* (Green Turtle) and *Eretmochelys imbricata* (Hawksbill Turtle) are species of marine sea turtle that will not occur or nest on the site as the habitat is not suitable. The species that is classified as “vulnerable”, *Tetradactylus fitzsimonsi* (FitzSimons’ Long-tailed Seps) favours natural grass- and shrubland habitat.

### Frogs

The information from the Virtual Museum indicated the likely presence of 14 frog species within the locus 3325DC in which the study site is located. The details of these species are provided in the table below. It must be noted that both these species are classified as “least concern” in the South African Red Data List.

**Table 6-5: Frog species identified by the Virtual Museum to be potentially present within the study site**

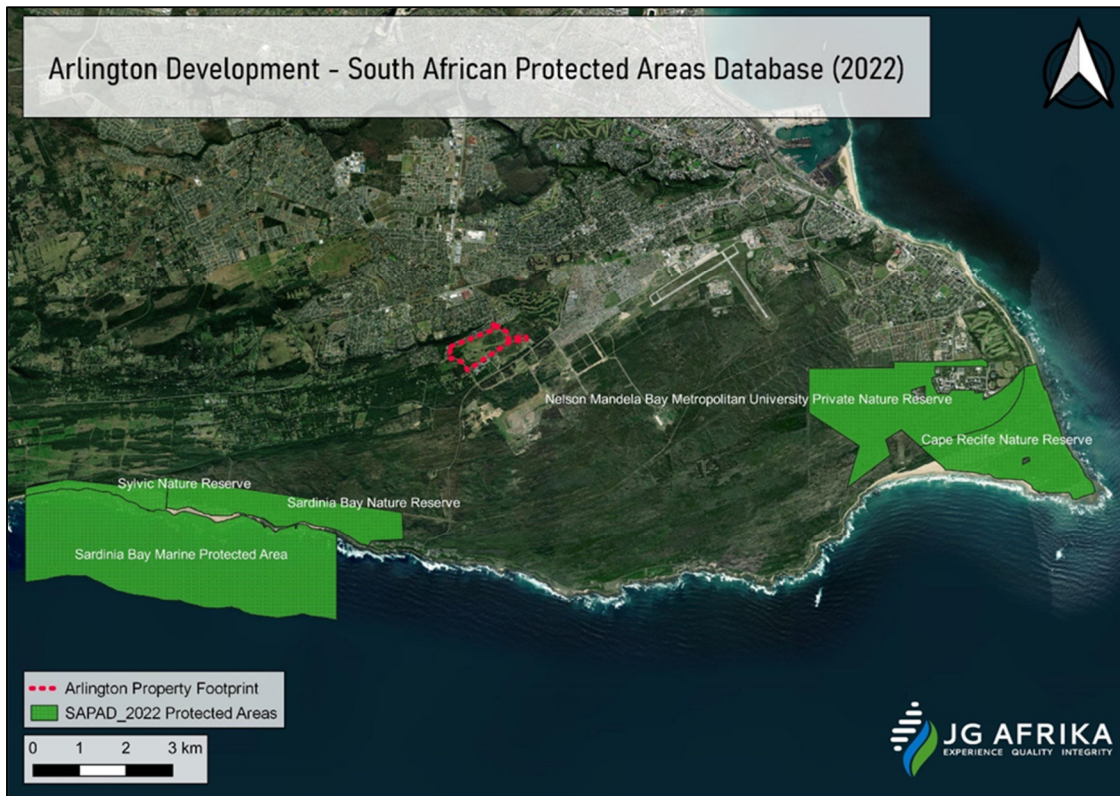
| Scientific name           | Common name            | Red list category |
|---------------------------|------------------------|-------------------|
| <i>Breviceps pentheri</i> | Eastern Cape Rain Frog | No data available |

| Scientific name               | Common name             | Red list category         |
|-------------------------------|-------------------------|---------------------------|
| <i>Sclerophrys capensis</i>   | Raucous Toad            | Least Concern             |
| <i>Sclerophrys pardalis</i>   | Eastern Leopard Toad    | Least Concern             |
| <i>Hyperolius marmoratus</i>  | Painted Reed Frog       | Least Concern (IUCN 2013) |
| <i>Hyperolius semidiscus</i>  | Yellowstriped Reed Frog | Least Concern             |
| <i>Semnodactylus wealii</i>   | Rattling Frog           | Least Concern             |
| <i>Xenopus laevis</i>         | Common Platanna         | Least Concern (IUCN 2020) |
| <i>Amietia delalandii</i>     | Delalande's River Frog  | Least Concern (2017)      |
| <i>Amietia fuscigula</i>      | Cape River Frog         | Least Concern (2017)      |
| <i>Cacosternum boettgeri</i>  | Common Caco             | Least Concern (2013)      |
| <i>Cacosternum nanum</i>      | Bronze Caco             | Least Concern (2013)      |
| <i>Strongylopus fasciatus</i> | Striped Stream Frog     | Least Concern             |
| <i>Strongylopus grayii</i>    | Clicking Stream Frog    | Least Concern             |
| <i>Tomopterna delalandii</i>  | Cape Sand Frog          | Least Concern (IUCN 2013) |

#### **6.1.7 National Environmental Management: Protected Areas Act (Act No. 57 of 2003)**

The proposed development site is located approximately 3 km from the Sardinia Bay Nature Reserve towards the southwest and approximately 8 km the Nelson Mandela Bay Metropolitan University Private Nature Reserve towards the southeast (Figure 6-7). These are protected areas identified by the South African Protected and Conservation Areas Database (SAPCAD) (2022) in accordance with the National Environmental Management: Protected Areas Act (NEMPAA - Act 57 of 2003).

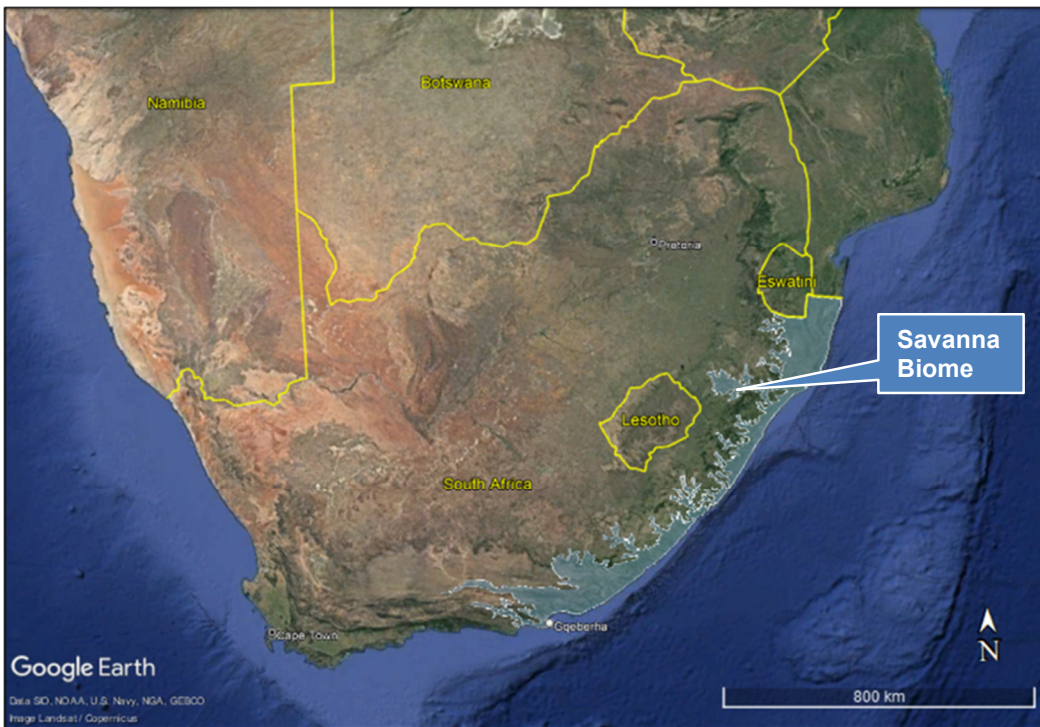
No formal or informal conservation or protected area boundaries overlap with the boundaries of the study site.



**Figure 6-7: Protected Areas in relation to the proposed sites as identified by the SAPCAD (2022) in accordance with the NEMPAA (2003) (courtesy of JG Afrika)**

### 6.1.8 Vegetation and Ecoregion

The study site is located in the Savanna Biome that extends along the east and south coast of South Africa. This biome is approximately 83 820km<sup>2</sup> and extends from the eSwatini border in the north to approximately Humansdorp in the south. The extent of this biome is provided in Figure 6-8.



**Figure 6-8: Location and extent of the Savanna Biome in which the study site is located**

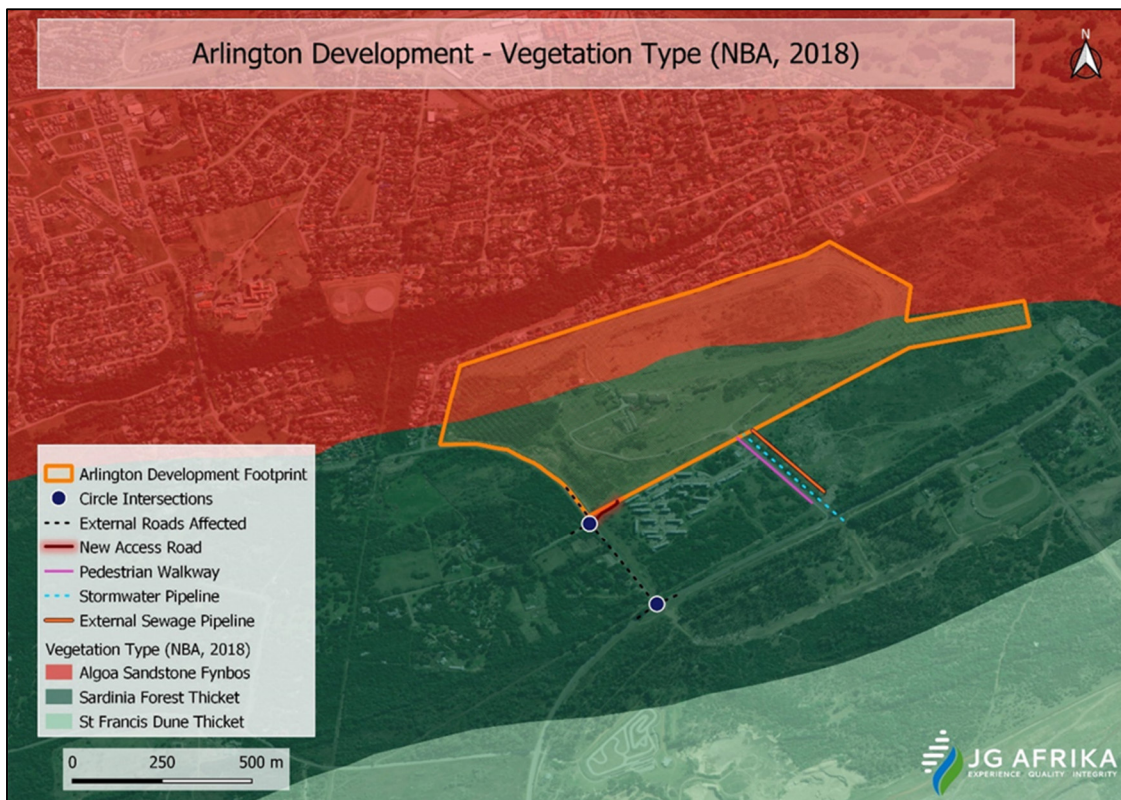
The ecoregion associated with the study site has been identified as the South Eastern Coastal Belt EcoRegion. This region is approximately 7150km<sup>2</sup> in size and is limited to the Eastern Cape Province between Port Alfred in the east to the Gamtoos River in the west and Kirkwood in the north. The location and extent of this ecoregion is provided in Figure 6-9.



**Figure 6-9: Location and extent of the North Eastern Uplands EcoRegion**

According to the National Biodiversity Assessment (2018), the study area is comprised of two vegetation types: Algoa Sandstone Fynbos, and Sardinia Forest Thicket. The location and extent of these vegetation types is provided in Figure 6-10).

According to the most recent version of the National Biodiversity Assessment (2022), Algoa Sandstone Fynbos is designated a status of “critically endangered”, whereas Sardinia Forest Thicket has a status of “least concern”. The status of Algoa Sandstone Fynbos indicates that less than 20% of the original natural habitat remains. As for Sardinia Forest Thicket, its status indicates that more than 80% of the original habitat remains and/or is largely intact.



**Figure 6-10: Vegetation Type within the study area (NBA, 2018).**

The Alga Sandstone Fynbos vegetation type covers an area of approximately 340km<sup>2</sup> (see Figure 6-11 for location and extent) and is located in an area that extends from the City of Gqeberha in the east to the town of Thornhill in the west, the northern extent of the vegetation type is to the southeast of the town of Rocklands. These areas have undergone large scale disturbance due to the development and expansion of the City of Gqeberha as well as transformation as a result of agricultural activities. Due to the establishment of the Arlington Race Course and associated equestrian activities, little or no vegetation resembling the vegetation type is present on the development site.

Sardinia Forest Thicket vegetation type covers an area of approximately 130km<sup>2</sup> (see Figure 6-11 for location and extent) and is located largely along the southern seaboard of the Nelson Mandela Bay Metro from Cape Recife in east to the settlement of Beachview in the west. Due to the establishment of the Arlington Race Course and associated equestrian activities, little or no vegetation resembling the vegetation type is present on the development site.

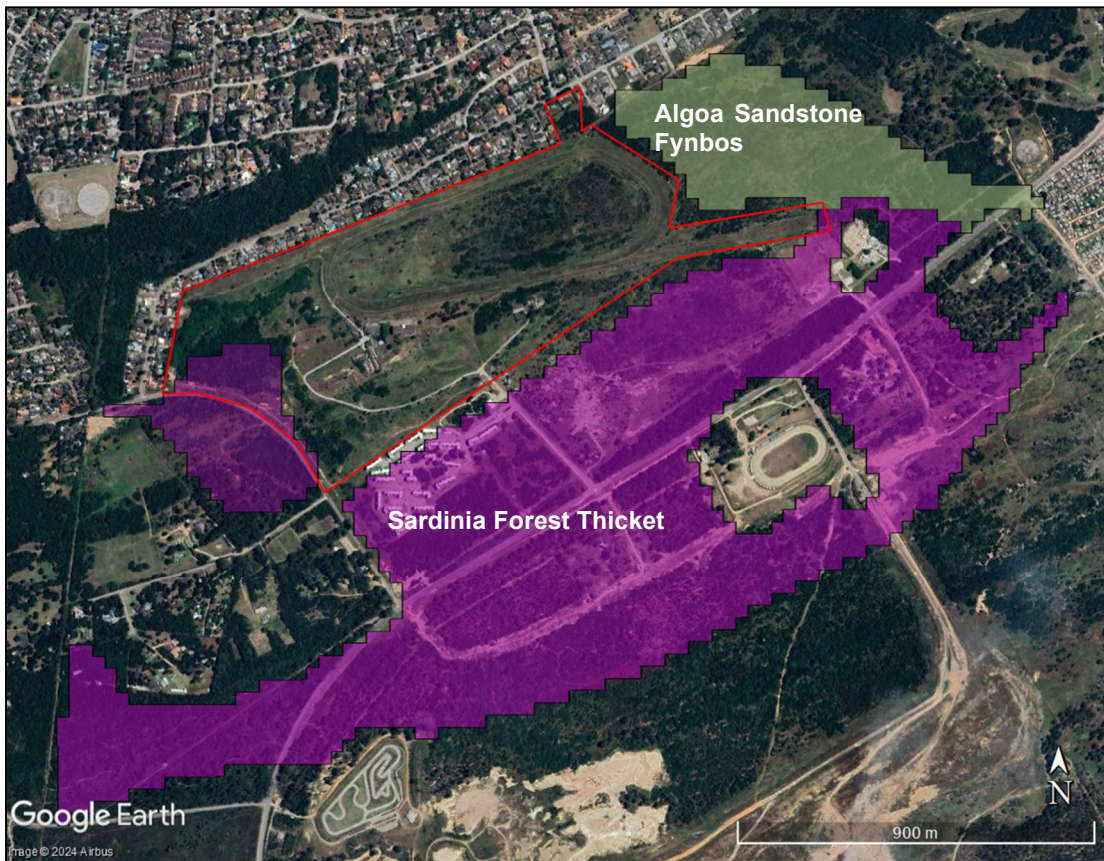


**Figure 6-11: Location and extent of the two vegetation types present on the proposed development site**

#### **6.1.9 Red Listed Ecosystems (2022) dataset**

The 2022 revised list of threatened terrestrial ecosystems. Including Critically Endangered, Endangered and Vulnerable terrestrial ecosystem types for South Africa. Based on the IUCN Red List of Ecosystems framework and published in Government Gazette 47526 (Notice 2747) on 18th November 2022. This data set replaces the 2011 list of ecosystems.

The dataset has indicated the presence of a remnant stand of Sardinia Forest Thicket, classified as “least concern”, in the south-western portion of the development site while the same feature is present along the entire south-eastern boundary of the site. A patch of Algoa Sandstone Fynbos that is classified as “critically endangered” is located along the north-eastern boundary of the site, but does not extend on to the site. The location and extent of these features are shown in Figure 6-12.



**Figure 6-12: The location and remaining extent of the Sardinia Forest Thicket (in purple) and the Algoa Sandstone Fynbos (in light yellow) Ecosystems associated with the study site**

#### **6.1.10 Topography**

The Nelson Mandela Bay Region has a generally low elevation profile with some elevation northwest of the study area. When observing the topography and elevation of the study area, it is generally flat to slightly undulating landscape falling in a southerly direction from the northern boundary of the site. The highest elevation on the site is approximately 120m and located along the northern boundary (see Figure 6-13).

The topography of the site has been altered to accommodate the presence of the Arlington Racecourse and associated activities. The old pavilion and associated buildings are built on a low ridgeline that was likely part of a dune field in the area.



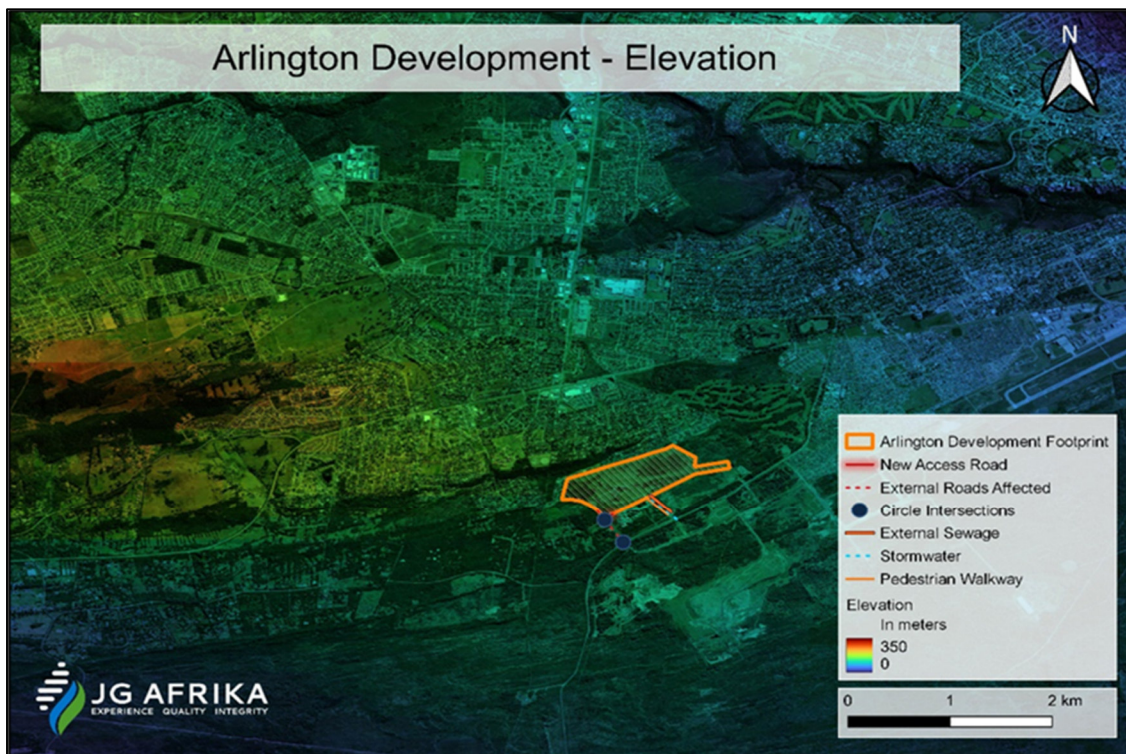


Figure 6-13: Elevation of the study area and surroundings from 0m to 350mm (blue to red) (courtesy of JG Afrika)

## 6.2 Site assessment findings

The site assessment has as a goal to verify the findings of the desktop assessment discussed above. The site assessments were conducted on 28 February 2022 and 7 February 2024, which is considered to be mid-summer. The seasonality of the assessment is not considered to compromise the findings of the assessment.

### 6.2.1 Vegetation

The vegetation species that were identified in the DFFE Screening Assessment were not found to be present on the development site. This is due to the high level and long duration of anthropogenic disturbances that has occurred on the site. Similarly, no pristine stands of the Algoa Sandstone Fynbos are present within the boundaries of the site. A secondary stand of vegetation is located in the south-western extent of the site contains small elements of vegetation that resemble Sardinia Forest Thicket (see Figure 6-14). However, this stand of vegetation is still considered secondary in nature due to the historic disturbances to the vegetation that occurred in this area. This area has been included in the Site Development Plan as an area that has been identified for public open space (see Figure 2-3) and earmarked for conservation.



**Plate 6-1: View of the secondary stand of Sardinia Forest Thicket**



**Figure 6-14: Location and extent of the secondary stand of Sardinia Forest Thicket, shown in yellow**

Furthermore, the site assessments confirmed that the vegetation on the development site has been largely transformed as a result of the long-term presence of the Arlington Racecourse and associated activities and infrastructure.

This has resulted in the dominant grass species on the site consisting of *Stenotaphrum secundatum* (Buffalo Grass) while the woody component mainly consists of *Vachellia karroo* (Sweet Thorn). The presence of these species confirms the disturbed nature of the vegetation on the site as both these species are typical pioneer species that will establish and flourish on disturbed areas. Prominent alien invasive species that occur on the site included *Acacia saligna* (Port Jackson) and *Ricinus communis* (Castor Oil Bush). Both these species are also species typical to disturbed areas.



**Plate 6-2: View of the grass component consisting of *Stenotaphrum secundatum* (Buffalo Grass)**



**Plate 6-3: View of the woody component present on the development site consisting of indigenous *Vachellia karroo* (Sweet Thorn) and alien invasive *Acacia saligna* (Port Jackson)**

### 6.2.2 Mammals

Of the list of 58 mammal species that have been identified in the map reference associated with the development site, it is likely that the small rodents are likely to be present on the development site. No signs of any of these rodents were observed during the site assessment. It is worthwhile noting that none of these species are considered “critically endangered” or “endangered”.

As mentioned earlier, the list highlights the possible presence of the following species that are classified as “near threatened” and “vulnerable” within the locus 3325DC: *Philantomba monticola* (Blue Duiker), *Chlorotalpa duthieae* (Duthie's Golden Mole), *Panthera pardus* (Leopard), *Aonyx capensis* (African Clawless Otter) and *Poecilogale albinucha* (African Striped Weasel). *Philantomba monticola* (Blue Duiker) may visit the site, albeit it a very low likelihood due to the limited numbers of the species that may occur in the area due to the land uses surrounding the development site.

*Chlorotalpa duthieae* (Duthie's Golden Mole) is highlighted in the DFFE Online Screening Tool as likely present on the site. It is worthwhile to note that this species is classified as of “medium” sensitivity by the online tool. The presence of this species could not be confirmed during the site assessment as no trapping was done, however, a number of mole hills were viewed during the site assessment, which may be as a result of this species. Consideration therefore must be given to possible relocation of these species before construction can commence.



**Plate 6-4: View of some of the mole hills seen on site that may confirm the presence of *Chlorotalpa duthieae* (Duthie's Golden Mole) as identified in the DFFE Online Screening Tool**

### 6.2.3 Reptiles

No reptiles were identified in the DFFE Online Screening Tool as sensitive, however, the information from the Virtual Museum provided earlier makes provision for one species that is classified as “endangered” and two species that are classified as “near threatened”. All three these species are sea turtles which makes their presence on the development site impossible as there is no suitable marine habitat on the site.

*Tetradactylus fitzsimonsi* (FitzSimons’ Long-tailed Seps) favours natural grass- and shrubland habitat. This habitat is present on the development site, albeit it in a very disturbed condition. Due to the high level of disturbance of the habitat on the development site and the presence of suitable habitat to the west and south of the site, the likelihood of this species being present on the site is considered to be low. No sign of this reptile species was observed during the site assessment.

### 6.2.4 Frogs

The frog species that may occur on the study site are all classified as “least threatened”. In the absence of any aquatic habitat on the development site, the presence of any frog species is highly unlikely.

No frogs or signs of frogs were observed during the site assessment.

It is important to note, that the establishment of any aquatic features within the development site may attract frogs from the surrounding areas and may settle in these features.

### 6.2.5 Birds

The site assessment focussed on the identification of any signs (direct observation and nesting sites) of the bird species identified in the DFFE Online Screening Tool. These species included *Circus ranivorus* (African Marsh Harrier), *Circus maurus* (Black Harrier), *Neotis denham* (Denham’s Bustard), *Bradypterus sylvaticus* (Knysna Warbler), *Stephanoaetus coronatus* (Crowned Eagle) and *Eupodotis senegalensis* (White-bellied Bustard). The first three species were classified as “high” sensitivity while the last three as “medium” sensitivity.

No signs of any of these species were observed during the site assessment. This is not unexpected, particularly in the case of *Circus ranivorus* (African Marsh Harrier), *Circus maurus* (Black Harrier) and *Stephanoaetus coronatus* (Crowned Eagle) as no suitable habitat is present for these species. The former are species that prefer marshy habitat, which is absent on the site, while the latter favours high trees in which to nest and roost which are also absent from the development site.

In the case of the two bustard species, the high level of disturbance on and in the surrounding areas prevents these species from visiting or nesting on the site.

No signs of *Bradypterus sylvaticus* (Knysna Warbler) observed during the site assessment, however, the small patch of Sardinia Forest Thicket identified in the south-western corner of the development site could form suitable habitat for this species. As previously mentioned, this is one of the key motivations to the developer to exclude development from this area and to designate it as public open space within the layout (see Figure 6-14).

### 6.2.6 Outcome of the Site Sensitivity Verification

The outcome of the Site Sensitivity Verification based on the information generated during the desktop and site assessment of the property and is summarised in the table below.

| Sensitivity theme       | Feature   | Sensitivity |
|-------------------------|---|-------------|
| Plant species theme     | Sensitive species 1252, 991, 588, 657, 670, 448, 654  | Medium      |
|                         | <i>Argyrobium crassifolium</i>                        | Medium      |
|                         | <i>Aspalathus recurvispina</i>                        | Medium      |
|                         | <i>Lotononis acuminata</i>                            | Medium      |
|                         | <i>Selago rotundifolia</i>                            | Medium      |
|                         | <i>Erica chloroloma</i>                               | Medium      |
|                         | <i>Erica zeyheriana</i>                               | Medium      |
|                         | <i>Gymnosporia elliptica</i>                          | Medium      |
|                         | <i>Centella tridentata</i> var. <i>hermanniifolia</i> | Medium      |
|                         | <i>Rapanea gilliana</i>                               | Medium      |
|                         | <i>Holothrix longicornu</i>                           | Medium      |
|                         | <i>Agathosma gonaquensis</i>                          | Medium      |
|                         | <i>Agathosma stenopetala</i>                          | Medium      |
|                         | <i>Corpuscularia lehmannii</i>                        | Medium      |
|                         | <i>Caputia scaposa</i> var. <i>addoensis</i>          | Medium      |
| <i>Erica glumiflora</i> | Medium  |             |

The classification Aquatic Biodiversity Theme in the DFFE Online Screening Tool of “very high” sensitivity is related to the development site’s presence in the Tsitsikamma SWSA.

The

**Table 6-6: Site sensitivity findings**

| DFFE Screening Tool Theme      | DFFE Screening Tool sensitivity rating | Site Sensitivity Verification findings | Discussion  |
|--------------------------------|--|--|---|
| Terrestrial Biodiversity Theme | Very high sensitivity                  | Low sensitivity                        | <p>The theme is determined to be of “very high” sensitivity due to the development site’s location in the Tsitsikamma SWSA and in the Algoa Sandstone Fynbos vegetation type that has a “critically endangered” classification.</p> <p>In the case of the Tsitsikamma SWSA, it is believed that the nature of the development will not impact on the SWSA’s status as it will not result in the impeding of any surface runoff into the localized groundwater regime, and it will not influence the amount of water that is currently provided by the development through runoff and seepage. As such, the “very high” sensitivity of the development site is considered to be “low”.</p> <p>In the case of the presence of the Algoa Sandstone Fynbos vegetation type, the desktop findings contained in the assessment (Red Listed Ecosystems, 2022) confirms the absence of the vegetation type on the development site which was confirmed by the site assessment. This is due to the historic and current disturbances associated with the land uses on the development site.</p> <p>As such, the sensitivity of the Terrestrial Biodiversity on the proposed development sites, is considered to be of Low Sensitivity.</p> |
| Animal Theme                   | High sensitivity                       | Low sensitivity                        | <p>The High Sensitivity rating of this theme is based on the site being located in the distribution area of a several bird species that have high conservation value. None of these species were identified on the development site.</p> <p>As such, the sensitivity of the Animal Theme associated with the proposed development site, is considered to be of Low Sensitivity.</p>   |
| Plant Theme                    | Medium sensitivity                     | Low sensitivity                        | <p>The Site Sensitivity Verification has found that the vegetation on the study site has been significantly transformed from the natural state. As such, the species identified in the DFFE Screening Tool is unlikely to be present on the study site due to the absence of suitable habitat for these species and the historic and ongoing disturbance of the study site. In addition, none of these species were identified during the site assessment.</p> <p>As such, the sensitivity of the Plant Theme associated with the study site, is considered to be of Low Sensitivity.</p>   |



## **7 IMPACT IDENTIFICATION AND ASSESSMENT**

The likely impacts associated with the proposed development on the identified terrestrial biodiversity baseline have been identified through the undertaking of desktop assessment, site visit, consultation with published information and comments from relevant stakeholders (where applicable).

The identified impacts as well as the proposed management and mitigation measures for inclusion into the Environmental Management Programme is provided in Table 7-1.

**Table 7-1: Management and mitigation measures to be included in the Environmental Management Programme for the construction and operational phase**

| Nature of the impact                       | Impact summary  | Proposed management and mitigation measures   |
|--|---|---|
| <b>Construction phase</b>                  |   |   |
| Loss of indigenous vegetation              | Even though the vegetation on the study site is considered to be degraded and secondary in nature, the vegetation meets the definition of "indigenous vegetation" as per the NEMA EIA Regulations (2014), as amended. | The areas that will require the clearance of vegetation must be limited to as small a footprint within the road reserve as possible.  |
|  |   | The footprint must be surveyed and clearly demarcated to ensure that the area to be cleared will be limited to the area required. No operations must be allowed outside of the demarcated areas.            |
|  |   | The areas that have been cleared of vegetation during the implementation of the project must be revegetated with grasses that occur naturally in the area.  |
| Spreading of alien invasive plant species. | Alien invasive plant species are already present in the development site. As such, the clearance of areas for construction will result in bare areas into which these species can spread.                             | The disturbance of the vegetative cover during the construction phase of the development will provide an opportunity for the establishment of alien invasive species on these areas.                        |
|  |   | To prevent this from happening, an Alien Invasive Plant Management Plan must be implemented for the duration of the construction phase of the development. This plan must make provision for the following: |
|  |   | <ul style="list-style-type: none"> <li>• The construction footprint must be clearly surveyed and demarcated before any construction of the components of the development is to commence.</li> </ul>         |
|  |   | <ul style="list-style-type: none"> <li>• This must be done to ensure that areas to be cleared are limited to only the areas that are necessary.</li> </ul>  |
|  |   | <ul style="list-style-type: none"> <li>• The cleared areas must be regularly monitored for the establishment of alien plant species. These must be cleared when they appear.</li> </ul>                     |

| Nature of the impact                                  | Impact summary  | Proposed management and mitigation measures   |
|---|---|---|
| <b>Construction phase</b>                             |   |   |
|   |   | <ul style="list-style-type: none"> <li>• Identification and eradication of any alien plant species that establish on the site.</li> </ul> <p>The rehabilitation of these cleared areas must commence as soon as practically possible after construction activities have ceased. This rehabilitation must make use of indigenous vegetation.</p>   |
| Contamination of the area by petrochemical spillages. | The presence of plant and equipment on the construction site that make use of petrochemical substances to operation pose a risk of contamination to the terrestrial biodiversity on the study site. | <p>All plant and equipment that make use of petrochemical substances must be checked leakages on a daily basis before operations commence.</p> <p>All plant and equipment that are found to be leaking must be removed from the site and only returned once the leakages have been addressed.</p> <p>If any petrochemical substances are stored on the site, this storage must be done on an impermeable surface in a bunded area that makes provision for 110% of volume of the substances that are stored.</p> <p>All refuelling of plant and equipment must be conducted over a drip-tray.</p> <p>If any plant or equipment is to be parked on the site, these must be parked within the demarcated construction footprint that has been cleared.</p> <p>If any spillages from plant or equipment occur, the spill must be contained immediately, the contaminated soils must be collected and bagged in impermeable bags and stored on site to be removed and disposed of by a registered service provider.</p> |

| Nature of the impact                             | Impact summary  | Proposed management and mitigation measures  |
|--|---|--|
| <b>Construction phase</b>                        |   |  |
| Contamination of the area by construction waste. | The construction activities will generate an amount of construction waste (wood off-cuts, waste concrete, waste cement, etc.) on the site.                    | <p>Skips must be made available on-site into which all construction waste can be discarded.</p> <p>All construction waste must be cleared from the site on a daily basis and placed in these skips.</p> <p>The capacity of these skips must be monitored on a daily basis to ensure that a replacement skip can be arranged on the same day as the filled skips are removed.</p> <p>The disposal of the content of these skips must be done at a municipal landfill site.</p> <p>No dumping of construction waste on open areas on the property will be allowed.</p> |
| Contamination of the area by domestic waste.     | The presence of a labour force associated with the construction will generate an amount of domestic waste (food wrapping, plastic bottles, etc.) on the site. | <p>A designated eating area must be established within the construction site.</p> <p>Covered domestic waste bins must be present at the eating area to receive all the domestic waste generated by the labour.</p> <p>The capacity of these domestic waste bins must be monitored on a daily basis to ensure that they are emptied timeously.</p> <p>The domestic waste from these waste bins must be removed off site and disposed of at a municipal landfill site on a weekly basis or more regularly if the bins fill up quicker.</p>                             |
|  |   | Only portable chemical toilets with a sealed reservoir will be allowed on site.  |

| Nature of the impact   | Impact summary  | Proposed management and mitigation measures  |
|--|---|--|
| <b>Construction phase</b>  |   |  |
| Contamination of the area as a result of leaking portable toilet facilities. | Portable toilet facilities will be present on the property to service the labour associated with the construction. These toilets will pose a risk of leakages and spillages which may impact on the terrestrial biodiversity on the site. | All portable chemical toilets must be located further than 30m away from the delineated edges of any aquatic feature.  |
|  |   | The capacity of the reservoirs in the portable chemical toilets must be monitored on a daily basis to ensure that they can be serviced timeously.  |
|  |   | All removal of the collected sewage waste from the portable chemical toilets must be conducted by a registered service provider for disposal at a municipal wastewater treatment facility.   |
| <b>Operational phase</b>   |   |  |
| Indigenous vegetation  | The loss of indigenous vegetation can be compensated for by the use of indigenous vegetation in the landscaping of the public open space areas within the development   | All Land Scaping within the public open space areas within the development must make use of the establishment of indigenous vegetation.<br><br>This indigenous vegetation must be endemic to the area.                                   |
| Alien invasive plant species   | Alien invasive plant species may settle on the development site during operations.  | An Alien Invasive Plant Management Plan must be compiled for the development to manage the possible proliferation of these species during the operations of the development. The plan must make provision for the following key aspects: |
|  |   | <ul style="list-style-type: none"> <li>• Provision for the identification of the specific alien invasive plant species on the site.</li> </ul>   |
|  |   | <ul style="list-style-type: none"> <li>• Identification of the appropriate control measures for each of the identified alien invasive plant species.</li> </ul>  |

| Nature of the impact                        | Impact summary  | Proposed management and mitigation measures  |
|---|---|--|
| <b>Construction phase</b>                   |   |  |
|   |   | <ul style="list-style-type: none"> <li>• Schedule monitoring of the success of the management of the alien invasive plant species.</li> <li>• Schedule review of the applicability of the plan.</li> </ul>   |
| Conservation of the Sardinia Forest Thicket | The conservation of the secondary Sardinia Forest Thicket fragment will result in the creation of bird habitat. | <p>The Conservation Management Plan must be in-place at the commencement of the operation of the first phase of the development and must make provision for the following:</p> <ul style="list-style-type: none"> <li>• Formal inclusion of the area into the Open Space Layout Plan for the development.</li> <li>• Conservation measures to improve the vegetative biodiversity within the stand (removal of alien plant species, replacement with appropriate indigenous species, etc.). This should be informed by a qualified Botanist.</li> <li>• Management measures particularly along the edges of the stand to prevent the establishment of alien invasive plant species along these edges.</li> </ul> |

## 8 CONCLUSION

The findings of this report have indicated that the terrestrial biodiversity (fauna and flora) on the development site has been historically degraded with all the vegetative aspects on the site being secondary in nature. As such, the Animal and Plants Species Theme as well as the Terrestrial Biodiversity Theme on the site is considered to be LOW which is in contradiction with the findings of the DFFE Screening Tool.

The assessment of the potential impacts on the terrestrial biodiversity (fauna and flora) features has indicated that severity of these impacts on the ecology can all be mitigated with the implementation of the management and mitigation measures provided in this report.

As such, it is the specialist's opinion that with the implementation of the management and mitigation measures contained in this assessment, there are not fatal flaws associated with the aquatic ecological baseline that will prevent the application from being authorised.

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**APPENDIX A**  
**SPECIALIST CURRICULUM VITAE**



**APPENDIX B**  
**FULL BIRD SPECIES LIST AS PER THE SOUTH AFRICAN BIRD ATLAS**

### South African Bird Atlas Species List

| Common species  | Genus                 | Species               |
|-----------------|-----------------------|-----------------------|
| Bokmakierie     | <i>Telophorus</i>     | <i>zeylonus</i>       |
| Hamerkop        | <i>Scopus</i>         | <i>umbretta</i>       |
| Hybrid Mallard  | <i>Anas</i>           | <i>hybrid</i>         |
| Mallard         | <i>Anas</i>           | <i>platyrhynchos</i>  |
| Neddicky        | <i>Cisticola</i>      | <i>fulvicapilla</i>   |
| Sanderling      | <i>Calidris</i>       | <i>alba</i>           |
| Bar-throated    | <i>Apalis</i>         | <i>thoracica</i>      |
| Yellow-breasted | <i>Apalis</i>         | <i>flavida</i>        |
| Acacia Pied     | <i>Tricholaema</i>    | <i>leucomelas</i>     |
| Black-collared  | <i>Lybius</i>         | <i>torquatus</i>      |
| Cape            | <i>Batis</i>          | <i>capensis</i>       |
| Chinspot        | <i>Batis</i>          | <i>molitor</i>        |
| Southern Red    | <i>Euplectes</i>      | <i>orix</i>           |
| Yellow          | <i>Euplectes</i>      | <i>capensis</i>       |
| Southern        | <i>Laniarius</i>      | <i>ferrugineus</i>    |
| Terrestrial     | <i>Phyllastrephus</i> | <i>terrestris</i>     |
| Cape            | <i>Pycnonotus</i>     | <i>capensis</i>       |
| Dark-capped     | <i>Pycnonotus</i>     | <i>tricolor</i>       |
| Olive           | <i>Chlorophoneus</i>  | <i>olivaceus</i>      |
| Common          | <i>Buteo</i>          | <i>buteo</i>          |
| Forest          | <i>Buteo</i>          | <i>trizonatus</i>     |
| Jackal          | <i>Buteo</i>          | <i>rufofuscus</i>     |
| Green-backed    | <i>Camaroptera</i>    | <i>brachyura</i>      |
| Brimstone       | <i>Crithagra</i>      | <i>sulphurata</i>     |
| Cape            | <i>Serinus</i>        | <i>canicollis</i>     |
| Forest          | <i>Crithagra</i>      | <i>scotops</i>        |
| Yellow          | <i>Crithagra</i>      | <i>flaviventris</i>   |
| Yellow-fronted  | <i>Crithagra</i>      | <i>mozambica</i>      |
| Cloud           | <i>Cisticola</i>      | <i>textrix</i>        |
| Grey-backed     | <i>Cisticola</i>      | <i>subruficapilla</i> |
| Lazy            | <i>Cisticola</i>      | <i>aberrans</i>       |
| Levaillant's    | <i>Cisticola</i>      | <i>tinniens</i>       |
| Wailing         | <i>Cisticola</i>      | <i>lais</i>           |
| Zitting         | <i>Cisticola</i>      | <i>juncidis</i>       |
| Red-knobbed     | <i>Fulica</i>         | <i>cristata</i>       |
| Cape            | <i>Phalacrocorax</i>  | <i>capensis</i>       |
| Reed            | <i>Microcarbo</i>     | <i>africanus</i>      |
| White-breasted  | <i>Phalacrocorax</i>  | <i>lucidus</i>        |
| Burchell's      | <i>Centropus</i>      | <i>burchellii</i>     |
| Black           | <i>Zapornia</i>       | <i>flavirostra</i>    |
| Cape            | <i>Corvus</i>         | <i>capensis</i>       |
| Pied            | <i>Corvus</i>         | <i>albus</i>          |
| Black           | <i>Cuculus</i>        | <i>clamosus</i>       |
| Diederik        | <i>Chrysococcyx</i>   | <i>caprius</i>        |
| Jacobin         | <i>Clamator</i>       | <i>jacobinus</i>      |

| Common species               | Genus                  | Species                         |
|------------------------------|------------------------|---------------------------------|
| Klaas's                      | <i>Chrysococcyx</i>    | <i>klaas</i>                    |
| Red-chested                  | <i>Cuculus</i>         | <i>solitarius</i>               |
| Black                        | <i>Campephaga</i>      | <i>flava</i>                    |
| African                      | <i>Anhinga</i>         | <i>rufa</i>                     |
| Cape Turtle                  | <i>Streptopelia</i>    | <i>capicola</i>                 |
| Emerald-spotted Wood         | <i>Turtur</i>          | <i>chalcospilos</i>             |
| Laughing                     | <i>Spilopelia</i>      | <i>senegalensis</i>             |
| Lemon                        | <i>Columba</i>         | <i>larvata</i>                  |
| Namaqua                      | <i>Oena</i>            | <i>capensis</i>                 |
| Red-eyed                     | <i>Streptopelia</i>    | <i>semitorquata</i>             |
| Rock                         | <i>Columba</i>         | <i>livia</i>                    |
| Tambourine                   | <i>Turtur</i>          | <i>tympanistria</i>             |
| Fork-tailed                  | <i>Dicrurus</i>        | <i>adsimilis</i>                |
| Hybrid                       | <i>Anas</i>            | <i>hybrid</i>                   |
| Hybrid Mallard/Yellow-billed | <i>Anas</i>            | <i>platyrhynchos x undulata</i> |
| Yellow-billed                | <i>Anas</i>            | <i>undulata</i>                 |
| African Fish                 | <i>Haliaeetus</i>      | <i>vocifer</i>                  |
| Long-crested                 | <i>Lophaetus</i>       | <i>occipitalis</i>              |
| Spotted                      | <i>Bubo</i>            | <i>africanus</i>                |
| Little                       | <i>Egretta</i>         | <i>garzetta</i>                 |
| Western Cattle               | <i>Bubulcus</i>        | <i>ibis</i>                     |
| Lanner                       | <i>Falco</i>           | <i>biarmicus</i>                |
| Peregrine                    | <i>Falco</i>           | <i>peregrinus</i>               |
| African                      | <i>Lagonosticta</i>    | <i>rubricata</i>                |
| Southern                     | <i>Lanius</i>          | <i>collaris</i>                 |
| African Dusky                | <i>Muscicapa</i>       | <i>adusta</i>                   |
| African Paradise             | <i>Terpsiphone</i>     | <i>viridis</i>                  |
| Blue-mantled Crested         | <i>Trochocercus</i>    | <i>cyanomelas</i>               |
| Fiscal                       | <i>Melaenornis</i>     | <i>silens</i>                   |
| Cape                         | <i>Morus</i>           | <i>capensis</i>                 |
| Domestic                     | <i>Anser</i>           | <i>anser</i>                    |
| Egyptian                     | <i>Alopochen</i>       | <i>aegyptiaca</i>               |
| Spur-winged                  | <i>Plectropterus</i>   | <i>gambensis</i>                |
| African                      | <i>Accipiter</i>       | <i>tachiro</i>                  |
| Pale Chanting                | <i>Melierax</i>        | <i>canorus</i>                  |
| Cape                         | <i>Sphenoecus</i>      | <i>afer</i>                     |
| Little                       | <i>Tachybaptus</i>     | <i>ruficollis</i>               |
| Sombre                       | <i>Andropadus</i>      | <i>importunus</i>               |
| Crested                      | <i>Guttera</i>         | <i>pucherani</i>                |
| Helmeted                     | <i>Numida</i>          | <i>meleagris</i>                |
| Grey-headed                  | <i>Chroicocephalus</i> | <i>cirrocephalus</i>            |
| Hartlaub's                   | <i>Chroicocephalus</i> | <i>hartlaubii</i>               |
| Kelp                         | <i>Larus</i>           | <i>dominicanus</i>              |
| African Marsh                | <i>Circus</i>          | <i>ranivorus</i>                |
| African                      | <i>Polyboroides</i>    | <i>typus</i>                    |
| Black-crowned Night          | <i>Nycticorax</i>      | <i>nycticorax</i>               |

| Common species | Genus               | Species               |
|----------------|---------------------|-----------------------|
| Black-headed   | <i>Ardea</i>        | <i>melanocephala</i>  |
| Goliath        | <i>Ardea</i>        | <i>goliath</i>        |
| Grey           | <i>Ardea</i>        | <i>cinerea</i>        |
| Purple         | <i>Ardea</i>        | <i>purpurea</i>       |
| Greater        | <i>Indicator</i>    | <i>indicator</i>      |
| Lesser         | <i>Indicator</i>    | <i>minor</i>          |
| African        | <i>Upupa</i>        | <i>africana</i>       |
| Crowned        | <i>Lophoceros</i>   | <i>alboterminatus</i> |
| African Sacred | <i>Threskiornis</i> | <i>aethiopicus</i>    |
| Hadada         | <i>Bostrychia</i>   | <i>hagedash</i>       |
| Parasitic      | <i>Stercorarius</i> | <i>parasiticus</i>    |
| Rock           | <i>Falco</i>        | <i>rupicolus</i>      |
| Brown-hooded   | <i>Halcyon</i>      | <i>albiventris</i>    |
| Giant          | <i>Megaceryle</i>   | <i>maxima</i>         |
| Malachite      | <i>Corythornis</i>  | <i>cristatus</i>      |
| Pied           | <i>Ceryle</i>       | <i>rudis</i>          |
| Black-winged   | <i>Elanus</i>       | <i>caeruleus</i>      |
| Yellow-billed  | <i>Milvus</i>       | <i>aegyptius</i>      |
| Black-winged   | <i>Vanellus</i>     | <i>melanopterus</i>   |
| Blacksmith     | <i>Vanellus</i>     | <i>armatus</i>        |
| Crowned        | <i>Vanellus</i>     | <i>coronatus</i>      |
| Cape           | <i>Macronyx</i>     | <i>capensis</i>       |
| Bronze         | <i>Spermestes</i>   | <i>cucullata</i>      |
| Brown-throated | <i>Riparia</i>      | <i>paludicola</i>     |
| Rock           | <i>Ptyonoprogne</i> | <i>fuligula</i>       |
| Common         | <i>Gallinula</i>    | <i>chloropus</i>      |
| Red-faced      | <i>Urocolius</i>    | <i>indicus</i>        |
| Speckled       | <i>Colius</i>       | <i>striatus</i>       |
| Fiery-necked   | <i>Caprimulgus</i>  | <i>pectoralis</i>     |
| Black-headed   | <i>Oriolus</i>      | <i>larvatus</i>       |
| Western Barn   | <i>Tyto</i>         | <i>alba</i>           |
| African        | <i>Haematopus</i>   | <i>moquini</i>        |
| Indian         | <i>Pavo</i>         | <i>cristatus</i>      |
| African        | <i>Spheniscus</i>   | <i>demersus</i>       |
| White-chinned  | <i>Procellaria</i>  | <i>aequinoctialis</i> |
| African Green  | <i>Treron</i>       | <i>calvus</i>         |
| Speckled       | <i>Columba</i>      | <i>guinea</i>         |
| African        | <i>Anthus</i>       | <i>cinnamomeus</i>    |
| Plain-backed   | <i>Anthus</i>       | <i>leucophrys</i>     |
| Three-banded   | <i>Charadrius</i>   | <i>tricoloris</i>     |
| White-fronted  | <i>Charadrius</i>   | <i>marginatus</i>     |
| Karoo          | <i>Prinia</i>       | <i>maculosa</i>       |
| Black-backed   | <i>Dryoscopus</i>   | <i>cubla</i>          |
| Common         | <i>Coturnix</i>     | <i>coturnix</i>       |
| Red-billed     | <i>Quelea</i>       | <i>quelea</i>         |
| White-necked   | <i>Corvus</i>       | <i>albicollis</i>     |

| Common species           | Genus                | Species                      |
|--------------------------|----------------------|------------------------------|
| Cape                     | <i>Cossypha</i>      | <i>caffa</i>                 |
| Common                   | <i>Actitis</i>       | <i>hypoleucos</i>            |
| Black (Southern Africa)  | <i>Psalidoprocne</i> | <i>pristoptera holomelas</i> |
| Brown Scrub              | <i>Cercotrichas</i>  | <i>signata</i>               |
| Karoo                    | <i>Cercotrichas</i>  | <i>coryphoeus</i>            |
| White-browed             | <i>Cercotrichas</i>  | <i>leucophrys</i>            |
| Streaky-headed           | <i>Crithagra</i>     | <i>gularis</i>               |
| Sooty                    | <i>Ardenna</i>       | <i>grisea</i>                |
| Cape                     | <i>Spatula</i>       | <i>smithii</i>               |
| Cape                     | <i>Passer</i>        | <i>melanurus</i>             |
| House                    | <i>Passer</i>        | <i>domesticus</i>            |
| Southern Grey-headed     | <i>Passer</i>        | <i>diffusus</i>              |
| Black                    | <i>Accipiter</i>     | <i>melanoleucus</i>          |
| Little                   | <i>Accipiter</i>     | <i>minullus</i>              |
| Rufous-breasted          | <i>Accipiter</i>     | <i>rufiventris</i>           |
| African                  | <i>Platalea</i>      | <i>alba</i>                  |
| Red-necked               | <i>Pternistis</i>    | <i>afer</i>                  |
| Black-bellied            | <i>Notopholia</i>    | <i>corusca</i>               |
| Cape                     | <i>Lamprotornis</i>  | <i>nitens</i>                |
| Common                   | <i>Sturnus</i>       | <i>vulgaris</i>              |
| Red-winged               | <i>Onychognathus</i> | <i>morio</i>                 |
| Wattled                  | <i>Creatophora</i>   | <i>cinerea</i>               |
| African                  | <i>Saxicola</i>      | <i>torquatus</i>             |
| White                    | <i>Ciconia</i>       | <i>ciconia</i>               |
| Amethyst                 | <i>Chalcomitra</i>   | <i>amethystina</i>           |
| Collared                 | <i>Hedydipna</i>     | <i>collaris</i>              |
| Greater Double-collared  | <i>Cinnyris</i>      | <i>afer</i>                  |
| Grey                     | <i>Cyanomitra</i>    | <i>veroxii</i>               |
| Malachite                | <i>Nectarinia</i>    | <i>famosa</i>                |
| Southern Double-collared | <i>Cinnyris</i>      | <i>chalybeus</i>             |
| Barn                     | <i>Hirundo</i>       | <i>rustica</i>               |
| Greater Striped          | <i>Cecropis</i>      | <i>cucullata</i>             |
| Lesser Striped           | <i>Cecropis</i>      | <i>abyssinica</i>            |
| Pearl-breasted           | <i>Hirundo</i>       | <i>dimidiata</i>             |
| White-throated           | <i>Hirundo</i>       | <i>albigularis</i>           |
| African Black            | <i>Apus</i>          | <i>barbatus</i>              |
| African Palm             | <i>Cypsiurus</i>     | <i>parvus</i>                |
| Common                   | <i>Apus</i>          | <i>apus</i>                  |
| Horus                    | <i>Apus</i>          | <i>horus</i>                 |
| Little                   | <i>Apus</i>          | <i>affinis</i>               |
| White-rumped             | <i>Apus</i>          | <i>caffer</i>                |
| Southern                 | <i>Tchagra</i>       | <i>tchagra</i>               |
| Red-billed               | <i>Anas</i>          | <i>erythrorhyncha</i>        |
| Antarctic                | <i>Sterna</i>        | <i>vittata</i>               |
| Arctic                   | <i>Sterna</i>        | <i>paradisaea</i>            |
| Caspian                  | <i>Hydroprogne</i>   | <i>caspia</i>                |

| Common species  | Genus               | Species               |
|-----------------|---------------------|-----------------------|
| Common          | <i>Sterna</i>       | <i>hirundo</i>        |
| Damara          | <i>Sternula</i>     | <i>balaenarum</i>     |
| Greater Crested | <i>Thalasseus</i>   | <i>bergii</i>         |
| Roseate         | <i>Sterna</i>       | <i>dougallii</i>      |
| Sandwich        | <i>Thalasseus</i>   | <i>sandvicensis</i>   |
| Spotted         | <i>Burhinus</i>     | <i>capensis</i>       |
| Water           | <i>Burhinus</i>     | <i>vermiculatus</i>   |
| Olive           | <i>Turdus</i>       | <i>olivaceus</i>      |
| Red-fronted     | <i>Pogoniulus</i>   | <i>pusillus</i>       |
| Knysna          | <i>Tauraco</i>      | <i>corythaix</i>      |
| Ruddy           | <i>Arenaria</i>     | <i>interpres</i>      |
| Palm-nut        | <i>Gypohierax</i>   | <i>angolensis</i>     |
| Cape            | <i>Motacilla</i>    | <i>capensis</i>       |
| Common Reed     | <i>Acrocephalus</i> | <i>baeticatus</i>     |
| Knysna          | <i>Bradypterus</i>  | <i>sylvaticus</i>     |
| Lesser Swamp    | <i>Acrocephalus</i> | <i>gracilirostris</i> |
| Little Rush     | <i>Bradypterus</i>  | <i>baboecala</i>      |
| Common          | <i>Estrilda</i>     | <i>astrild</i>        |
| Swee            | <i>Coccygia</i>     | <i>melanotis</i>      |
| Cape            | <i>Ploceus</i>      | <i>capensis</i>       |
| Dark-backed     | <i>Ploceus</i>      | <i>bicolor</i>        |
| Southern Masked | <i>Ploceus</i>      | <i>velatus</i>        |
| Spectacled      | <i>Ploceus</i>      | <i>ocularis</i>       |
| Thick-billed    | <i>Amblyospiza</i>  | <i>albifrons</i>      |
| Village         | <i>Ploceus</i>      | <i>cucullatus</i>     |
| Eurasian        | <i>Numenius</i>     | <i>phaeopus</i>       |
| Cape            | <i>Zosterops</i>    | <i>virens</i>         |
| Pin-tailed      | <i>Vidua</i>        | <i>macroura</i>       |
| Green           | <i>Phoeniculus</i>  | <i>purpureus</i>      |
| Cardinal        | <i>Dendropicos</i>  | <i>fuscescens</i>     |
| Knysna          | <i>Campethera</i>   | <i>notata</i>         |
| Olive           | <i>Dendropicos</i>  | <i>griseocephalus</i> |

