

Proposed Residential and  
Commercial Development on  
Portion 11 of Farm No. 1426, Paarl

# SITE SENSITIVITY VERIFICATION REPORT

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**Author:**

Adél Groenewald

[adel@dougjeff.co.za](mailto:adel@dougjeff.co.za)



**DOUGJEFFERY**  
ENVIRONMENTAL CONSULTANTS

High Acres Farm, Simondium Road, Klapmuts

P.O. Box 44, Klapmuts 7625

021 875 5272

[dougjeff.co.za](http://dougjeff.co.za)

## 1. DESCRIPTION OF THE PROPOSED DEVELOPMENT SITE

The proposed site, Portion 11 of Farm No. 1426, Paarl, is located at the intersection of Schuurmansfontein Road and the R301, on Portion 11 of Farm 1426, Paarl (see **Figure 1**).

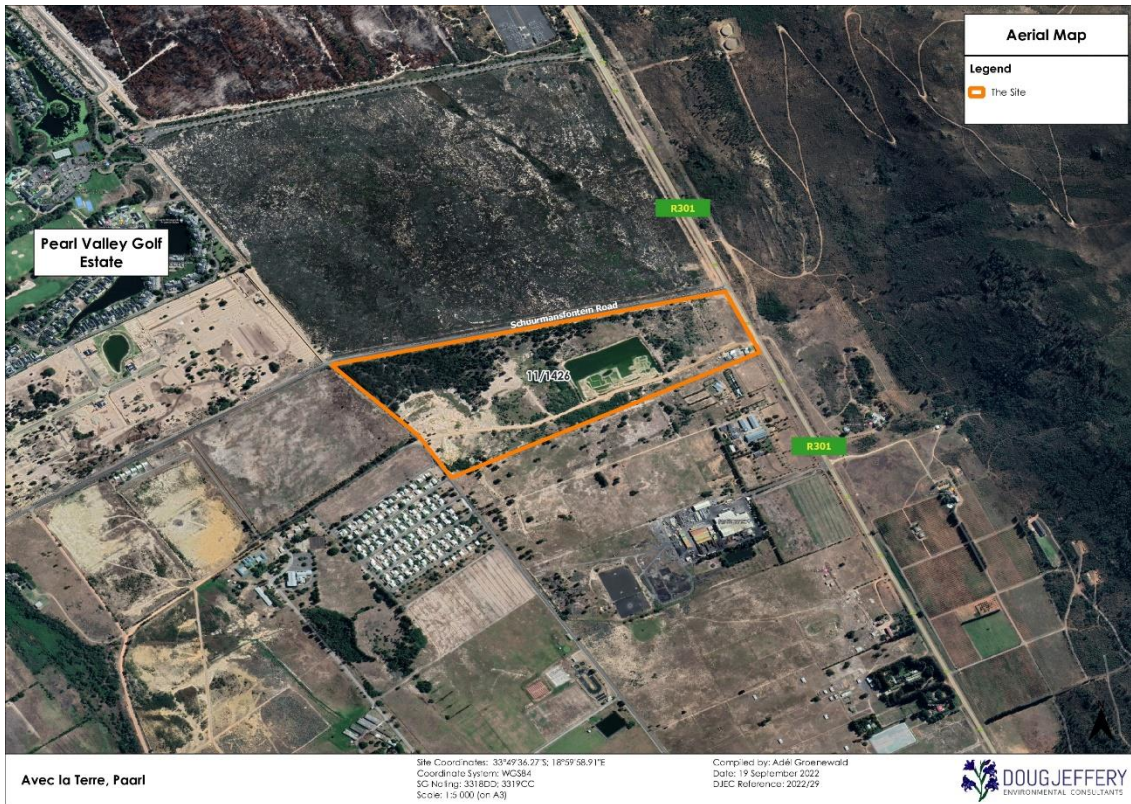


Figure 1: Site location.

The proposed development site is 27.4817 ha in size. The proposed development site is entirely transformed by grazing and past removal of sand and gravel by the former landowner that is now deceased. The excavation has created a dam area in the centre of the proposed development site that is mostly filled with ground water. Large areas of the proposed development site are covered by Bluegum trees. An existing dwelling house is situated in the south-eastern corner of the proposed development site.

## 2. BRIEF DESCRIPTION OF THE PROPOSED DEVELOPMENT

The proposed development entail the rezoning and subdivision of Portion 11 of Farm No. 1426, Paarl to establish a residential development with a commercial component, open spaces, associated roads and services infrastructure.

The proposal will also entail the clearance and levelling of the proposed development site. As a result the vegetation on site will be cleared and wetlands will be filled in.

### 3. SCREENING REPORT SENSITIVITIES

The Screening Report generated on 26 May 2022 identified the sensitive environmental themes based on the proposed development site, Portion 11 of Farm No. 1426, Paarl, which mandates site verifications for each theme.

Table 1: Development site environmental sensitivities is identified

Theme	Sensitivity
Agriculture	Very High
Animal Species	High
Aquatic Biodiversity	Very High
Archaeological and Cultural Heritage Theme	Very High
Civil Aviation Theme	High
Defence Theme	Low
Palaeontology Theme	High
Plant Species Theme	High
Terrestrial Biodiversity Theme	Very High

The following specialist assessments are identified by the Screening Report:

- Landscape / Visual Impact Assessment
- Archaeological and Cultural Heritage Impact Assessment
- Palaeontology Impact Assessment
- Terrestrial Biodiversity Impact Assessment
- Aquatic Biodiversity Impact Assessment
- Socio-Economic Assessment
- Plant Species Assessment
- Animal Species Assessment

#### 1.1. Agriculture Theme & Agriculture Impact Assessment

The Screening Report indicates that the agricultural sensitivity of the proposed development site is **Very High**.

An agricultural and soil specialist has been appointed to do an agricultural assessment in terms of the protocol.

#### 1.2. Animal Species Theme

The Screening Report indicates that the sensitivity of animal species for the proposed development site is **High**.

The Screening Report notes that the proposed development requires an Animal Species Assessment to be undertaken. **Table 2** provides a list of all the potential animal species that could be found on the proposed development site.

Table 2: A list of potential animal species identified in the Screening Report that could potentially be impacted by the proposed development.

Scientific name	Common name	Sensitivity rating
<i>Pelecanus onocrotalus</i>	Great white pelican	High
<i>Hydroprogne caspia</i>	Caspian tern	Medium
<i>Aneuryphymus montanus</i>	Yellow-winged Agile Grasshopper	Medium
<i>Conocephalus peringueyi</i>	Peringuey's Meadow Katydid <sup>1</sup>	Medium
<i>Brinckiella aptera</i>	Mute Winter Katydid <sup>2</sup>	Medium

<sup>1</sup> Orthoptera Species File (Version 5.0/5.0). 2021. [online] Available at: <<https://www.mindat.org/taxon-5095863.html>> [Accessed 20 September 2021].

<sup>2</sup> Mindat.org. 2021. [online] Available at: <<https://www.mindat.org/taxon-5095863.html>> [Accessed 20 September 2021].

**Aves:** *Pelecanus onocrotalus*

According to SANBI<sup>3</sup> the regional population of Great White Pelican *Pelecanus onocrotalus* has been quantified at c. 2 500 pairs, restricted to less than 5 breeding locations, and is vulnerable to short-term human activities and stochastic events. For these reasons, the species is assessed as regionally Vulnerable.

All breeding sites in the region have some form of protection.

Habitat

According to BirdLife International (2022) Species factsheet<sup>4</sup> 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.

The proposed development site is entirely transformed due to disturbance from agricultural, sand and gravel removal activities and does not support the habitat for the Great White Pelican.

Considering the fact that the proposed development site is not located near any habitat or ecological conditions associated with its suitability, it is our professional opinion that the High sensitivity rating for the proposed development site is inaccurate and argues for a Low sensitivity rating for the bird species on this site. As a result, the recommended Animal Species Assessment will not be conducted as part of this Scoping & EIA process and no further assessment is required for the Great White Pelican.

**Aves:** *Hydroprogne caspia*

According to SANBI<sup>5</sup> the regional population of Caspian Tern *Sterna caspia* is estimated to be less than 1 000 mature individuals. In addition, the species has a restricted number of breeding locations leaving it prone to the effects of human activities or stochastic events within a short time period. Accordingly, the species is assessed as regionally Vulnerable.

In 2011 in Western Cape, 69 pairs bred on private property near Velddrif; eight pairs bred at Caspian Island in the southern portion of Langebaan Lagoon; one pair bred on each of Jutten, Meeuw and Schaapen islands in Saldanha Bay; and one pair bred on Robben Island offshore from Cape Town (Crawford et al. 2012). Further east, several pairs breed at De Mond Nature Reserve near Aniston.

Habitat

According to BirdLife International (2022) Species factsheet<sup>6</sup> 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 salt pans, 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). When breeding the species shows a preference for nesting on sandy, shell-strewn or shingle beaches, sand-dunes, flat rock-surfaces, sheltered reefs or islands with sparse vegetation and flat or gently sloping margins surrounded by clear, shallow, undisturbed waters (Flint et al. 1984, Higgins and Davies 1996, del Hoyo et al. 1996, Snow and Perrins 1998). It also forms winter roosts on sandbars, mudflats and banks of shell (del Hoyo et al. 1996).

The proposed development site is entirely transformed due to disturbance from agricultural, sand and gravel removal activities and does not support the habitat for the Caspian Tern.

<sup>3</sup> <http://speciesstatus.sanbi.org/assessment/last-assessment/03118/>

<sup>4</sup> BirdLife International (2022) Species factsheet: *Pelecanus onocrotalus*. Downloaded from <http://www.birdlife.org> on 20/09/2022. Recommended citation for factsheets for more than one species: BirdLife International (2022) IUCN Red List for birds. Downloaded from <http://www.birdlife.org> on 20/09/2022.

<sup>5</sup> <http://speciesstatus.sanbi.org/assessment/last-assessment/03118/>

<sup>6</sup> BirdLife International (2022) Species factsheet: *Hydroprogne caspia*. Downloaded from <http://www.birdlife.org> on 20/09/2022. Recommended citation for factsheets for more than one species: BirdLife International (2022) IUCN Red List for birds. Downloaded from <http://www.birdlife.org> on 20/09/2022.

Considering the fact that the proposed development site is not located near any habitat or ecological conditions associated with its suitability, it is our professional opinion that the Medium sensitivity rating for the proposed development site is inaccurate and argues for a Low sensitivity rating for the bird species on this site. As a result, the recommended Animal Species Assessment will not be conducted as part of this Scoping & EIA process and no further assessment is required for the Caspian Tern.

**Invertebrate:** *Aneuryphymus montanus*

The Yellow-winged Agile Grasshopper has been known to frequent the Cape Region of South Africa<sup>7</sup>. According to the IUCN Red List of Threatened Species, the grasshopper is considered to be a Vulnerable species with a declining population trend. The number of mature individuals is uncertain however the habitat preferred by this species is Shrubland. The possible threat to this species includes agricultural, aquaculture practices and invasive species threatening the habitat these species inhabit.

The proposed development site is entirely transformed due to disturbance from agricultural, sand and gravel removal activities.

Both iNaturalist<sup>8</sup> and iSpot<sup>9</sup> have no documentation for potential sightings of the species on the proposed development site.

Considering the fact that the proposed development site is not located near any habitat or ecological conditions associated with its suitability, it is our professional opinion that the Medium sensitivity rating for the proposed development site is **inaccurate** and argues for a Low sensitivity rating for the grasshopper species on this site. As a result, the recommended Animal Species Assessment will not be conducted as part of this Scoping & EIA process and no further assessment is required for the Yellow-winged Agile Grasshopper.

**Invertebrate:** *Conocephalus peringueyi*

*Conocephalus peringueyi* commonly known as Peringuey Meadow Katydid and frequents the mountains of the southwestern Cape in South Africa at 500 m altitude and above<sup>10</sup>, while the proposed development site is less than 120m in altitude and separated from the Paarl Mountain by a suburb and major highways. According to the IUCN Red List of Threatened Species, the grasshopper is categorised as being Vulnerable and the population trend is unconfirmed.

This grasshopper species is typically found in Shrubland areas and is challenged by threats of Agriculture, aquaculture, and Global Climate Change. The proposed development site is entirely transformed due to disturbance from agricultural, sand and gravel removal activities.

Both iNaturalist<sup>11</sup> and iSpot<sup>12</sup> have no documentation for potential sightings of the species on the proposed development site.

Considering the fact that the proposed development site is not located near any habitat or ecological conditions associated with its suitability, it is our opinion that the Medium sensitivity rating for the proposed development site is **inaccurate** and argues for a Low sensitivity rating for the grasshopper species. As a result, the recommended Animal Species Assessment will not be conducted as part of this Scoping & EIA process and no further assessment is required for the Peringuey Meadow Katydid.

<sup>7</sup> Axel Hochkirch (IUCN SSC Grasshopper Specialist Group / Trier University, G., Group), C. and Assessor), A., 2021. IUCN Red List of Threatened Species: *Aneuryphymus montanus*. [online] IUCN Red List of Threatened Species. Available at: <<https://www.iucnredlist.org/species/116114515/116116590>> [Accessed 20 September 2021].

<sup>8</sup> <https://www.inaturalist.org/search?q=Yellow-winged%20Agile%20Grasshopper>

<sup>9</sup> <https://www.ispotnature.org/search?query=Yellow-winged%20Agile%20Grasshopper>

<sup>10</sup> Group), C. and Group), P., 2021. IUCN Red List of Threatened Species: *Conocephalus peringueyi*. [online] IUCN Red List of Threatened Species. Available at: <<https://www.iucnredlist.org/species/20633594/43266622>> [Accessed 20 September 2021].

<sup>11</sup> <https://www.inaturalist.org/search?utf8=%E2%9C%93&q=Conocephalus+peringueyi&commit=Go>

<sup>12</sup> <https://www.inaturalist.org/search?utf8=%E2%9C%93&q=Conocephalus+peringueyi&commit=Go>

**Invertebrate: *Brinckiella aptera***

*Brinckiella aptera* commonly known as Mute Winter Katydid is an endemic species to the Northern and Western Cape Provinces specifically found in Fynbos and Succulent Karoo biomes. Furthermore, the species are known to occur within protected areas which are locations that are biodiversity hotspots.<sup>13</sup>

These species primarily feed on low, herbaceous shrubs that have narrow elongated leaves. The Mute Winter Katydid is Vulnerable under Category B1 of the IUCN Red List due to its limited occurrences. Therefore, there are no population data available on this species. The principal threat to Mute Winter Katydid is habitat degradation due to cultivation activities such as crops, over-grazing, urban development or alien species invasion. The ongoing threat of Global Climate Change would also likely affect the distribution and presence of the Mute Winter Katydid.

Therefore, iNaturalist<sup>14</sup> indicated five sightings of the species which have been noted to be far from the proposed development site. Since the proposed development site does not contain the habitat preferred by Mute Winter Katydid, it is our professional opinion that the Medium sensitivity rating for this species is inaccurate. As a result, we are that a Low sensitivity rating for the Mute Winter Katydid and no Animal Species Assessment will be undertaken for the proposed development.

**1.3. Aquatic Biodiversity Theme**

The Screening Report indicates the proposed development site consists of a **Very High sensitivity** rating for the Aquatic Biodiversity Theme. Additionally, the Screening Report notes that the proposed development requires an **Aquatic Biodiversity Impact Assessment** to be undertaken.

Ms. Antonia Belcher will be conducting an assessment in terms of the protocol.

**1.4. Archaeological and Cultural Heritage and Palaeontology Theme**

According to the Screening Report, the Archaeological and Cultural and Heritage Theme sensitivity is **Very High sensitivity**, and the Paleontological Theme sensitivity is **Medium sensitivity rating**. Additionally, the Screening Report notes that the proposed development requires an Archaeological and Cultural Heritage Impact Assessment and Palaeontology Impact Assessment to be undertaken.

Heritage Western Cape (HWC) commented on the Notice of Intent to Develop (NID) and stated that there is no reason to believe that the proposed development will impact on any heritage resources, and no further action under Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) [NHRA] is required. Therefore no further assessment will be undertaken in terms of the NHRA.

**1.5. Civil Aviation Theme**

According to the Screening Report, the proposed development site is of **High sensitivity** from a Civil Aviation perspective. According to the Protocols since the rating is “High” sensitivity for civil aviation a Compliance Statement is required. The following (**Table 3**) was also stipulated in the Screening Report with regards to the Civil Aviation theme:

Table 3: The sensitivity features stipulated in the Screening Report for the proposed development site.

Sensitivity	Feature
High	Within 8 km of other civil aviation aerodrome

<sup>13</sup> Speciesstatus.sanbi.org. 2022. SANBI. [online] Available at: <<http://speciesstatus.sanbi.org/assessment/last-assessment/4298/>> [Accessed 2 September 2022]

<sup>14</sup> [https://www.inaturalist.org/observations?nelat=-28.095467556510137&nelng=39.16985024151224&place\\_id=any&subview=table&swlat=-38.19004082816227&swlng=9.528736960262245&taxon\\_id=433307](https://www.inaturalist.org/observations?nelat=-28.095467556510137&nelng=39.16985024151224&place_id=any&subview=table&swlat=-38.19004082816227&swlng=9.528736960262245&taxon_id=433307)

The potential impacts on radar and/or any obstacle to air traffic from the proposed development is the basis for the designation of environmental sensitivity in the Civil Aviation Theme. The impacts on civil aviation infrastructure are likely to arise from any developments impacting features stipulated in **Table 3**.

The proposed development will occur adjacent to farmlands in and around an already developed area which consists of existing buildings and is not more than 2 storeys in height. The development is therefore not expected to interrupt any civil aviation or radar activity since the development proposal entails the conversion of existing buildings and construction of smaller auxiliary infrastructures.

It is therefore not expected that the proposed development will have an impact on any civil aviation aspects. Therefore, the High Civil Aviation sensitivity is **disputed** and argued to be a Low Civil Aviation sensitivity rating. Based on the protocols for the Civil Aviation Theme, no Compliance Statement will be undertaken for the proposed development.

### **1.6. Defence Theme**

The Defence theme sensitivity is noted as **Low** in the Screening Report. The Screening Tool Report does not indicate or reference any metadata used to classify the proposed development under the Defence Theme. According to the protocols, no further assessment or compliance statement is required for the Defence Theme.

### **1.7. Plant Species Theme & Terrestrial Biodiversity Theme**

The Screening Report stipulates that the Plant Species sensitivity is **High Sensitivity rating** and the Terrestrial Biodiversity theme is **Very High Sensitivity rating** for the proposed development site.

Dr Dave McDonald from Bergwind Botanical Surveys & Tours CC will undertake an assessment in terms of the protocol. He will also look at plant species.

### **1.8. Landscape / Visual Impact Assessment**

A Landscaping plan will be compiled by Ms. Rene Brett from Viridian Consulting.

A Visual Impact Assessment will be conducted by Ms. Fi Smit from Filia Visual.

### **1.9. Socio-Economic Assessment**

The Screening Report stipulated a Socio-Economic Impact Assessment to be undertaken for the project. The site is earmarked for "Urban-Infill" purposes in the approved Drakenstein Municipality Spatial Development Framework (2022). The proposed development is considered to be in line with the schematic indications of the spatial concept and proposed land use implications of the Drakenstein Municipality Spatial Development Framework. The proposed development is expected to have socio-economic benefits to the local community, and no negative Socio-Economic impacts are anticipated. A Socio-Economic Assessment will therefore not be conducted as part of the Scoping and EIA process.