



**TERRESTRIAL BIODIVERSITY COMPLIANCE
STATEMENT FOR THE PROPOSED HOUSING
DEVELOPMENT, FARM 1388, KUILS RIVER**

**City of Cape Town Municipality, Western Cape
Province, South Africa**

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Report Name	TERRESTRIAL BIODIVERSITY COMPLIANCE STATEMENT FOR THE PROPOSED HOUSING DEVELOPMENT, FARM 1388, KUILS RIVER	
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Declaration	<p>The Biodiversity Company and its associates operate as independent consultants under the auspice of the South African Council for Natural Scientific Professions. We declare that we have no affiliation with or vested financial interests in the proponent, other than for work performed under the Environmental Impact Assessment Regulations, 2017. We have no conflicting interests in the undertaking of this activity and have no interests in secondary developments resulting from the authorisation of this project. We have no vested interest in the project, other than to provide a professional service within the constraints of the project (timing, time and budget) based on the principals of science.</p>	

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Executive Summary

This report provides an assessment of the potential impacts of a proposed housing development on Farm 1388, Kuils River, Cape Town, with a focus on terrestrial biodiversity (plants and animals). The assessment was conducted by independent specialists and is intended to inform decision-makers as part of the environmental authorisation process.

Key Findings:

- The site is largely degraded due to previous and ongoing human activities, including overgrazing, informal housing, and waste dumping. Most natural vegetation has been lost, and the area is not representative of the original, critically endangered Cape Flats Sand Fynbos ecosystem.
- Field surveys and desktop studies found that the likelihood of encountering plant or animal species of conservation concern is low. Only one plant species of concern was observed, and no animal species of concern were found.
- The site's ecological sensitivity was reassessed as ranging from "Medium" (for some wetland areas) to "Very Low" (for most of the site), which is lower than the "Very High" sensitivity initially indicated by national screening tools.
- The main risks associated with the development are further loss of degraded habitats, introduction of invasive species, and disturbance to remaining wildlife. However, with proper mitigation measures, these risks can be managed.

Recommendations:

- Development should avoid or minimise disturbance to the remaining wetland areas and the single plant species of concern. If removal is necessary, appropriate permits must be obtained.
- An alien invasive plant management plan and a rehabilitation plan should be implemented to restore areas not developed and prevent further spread of invasive species.
- Construction activities should be carefully managed to limit dust, noise, and disturbance, and to protect any remaining wildlife.
- The project should be carried out in conjunction with recommendations from the accompanying wetland specialist report.

Conclusion: Given the current degraded state of the site, the proposed development is unlikely to cause significant additional loss of biodiversity if the recommended mitigation measures are followed. The specialists conclude that the project can proceed, provided all environmental management recommendations are implemented.

1 Introduction

1.1 Background

The Biodiversity Company was appointed to undertake a terrestrial biodiversity, plant and animal species assessment for a proposed housing development, located on Farm 1388, Kuils River, Western Cape Province.

The proposed development area is referred to as the Project Area of Influence (PAOI) from hereon. A map illustrating the regional locality of the PAOI is depicted in Figure 1-1, and a site locality illustrated in Figure 1-2.

A field survey for the general area was undertaken on the 18th of August 2025 (Wet season survey) in order to determine the presence of any additional fauna, flora and SCCs that may have been missed during the first survey, to determine the presence of flora, fauna and vegetation of the PAOI, as well as likelihood of Species of Conservation Concern (SCC) occurring within the PAOI. Both the desktop assessment and field surveys involved the detection, identification, and description of any locally relevant sensitive receptors. The potential risks that the proposed development would have on the sensitive features was also investigated.

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment Regulations, 2014 (No. 326, 7 April 2017) of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998). The approach has taken cognisance of the recently published Government Notice 320 in terms of NEMA dated 20 March 2020 as well as the Government Notice 1150 in terms of NEMA dated 30 October 2020: "Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation".

The National Web-based Environmental Screening Tool has characterised the theme sensitivities of the PAOI as:

- Terrestrial Biodiversity Theme sensitivity is Very High;
- Plant Species Theme sensitivity is Medium; and
- Animal Species Theme sensitivity is Medium.

The purpose of conducting the specialist study is to provide relevant input into the Environmental Authorisation application process, with a focus on the proposed activities and the impacts associated with the project. This report, after taking into consideration the findings and recommendations provided by the specialist stipulated herein, should inform, and guide the Registered Environmental Assessment Practitioner (EAP) and regulatory authorities, enabling informed decision making as to the ecological viability of the proposed project.

Proposed Housing Development

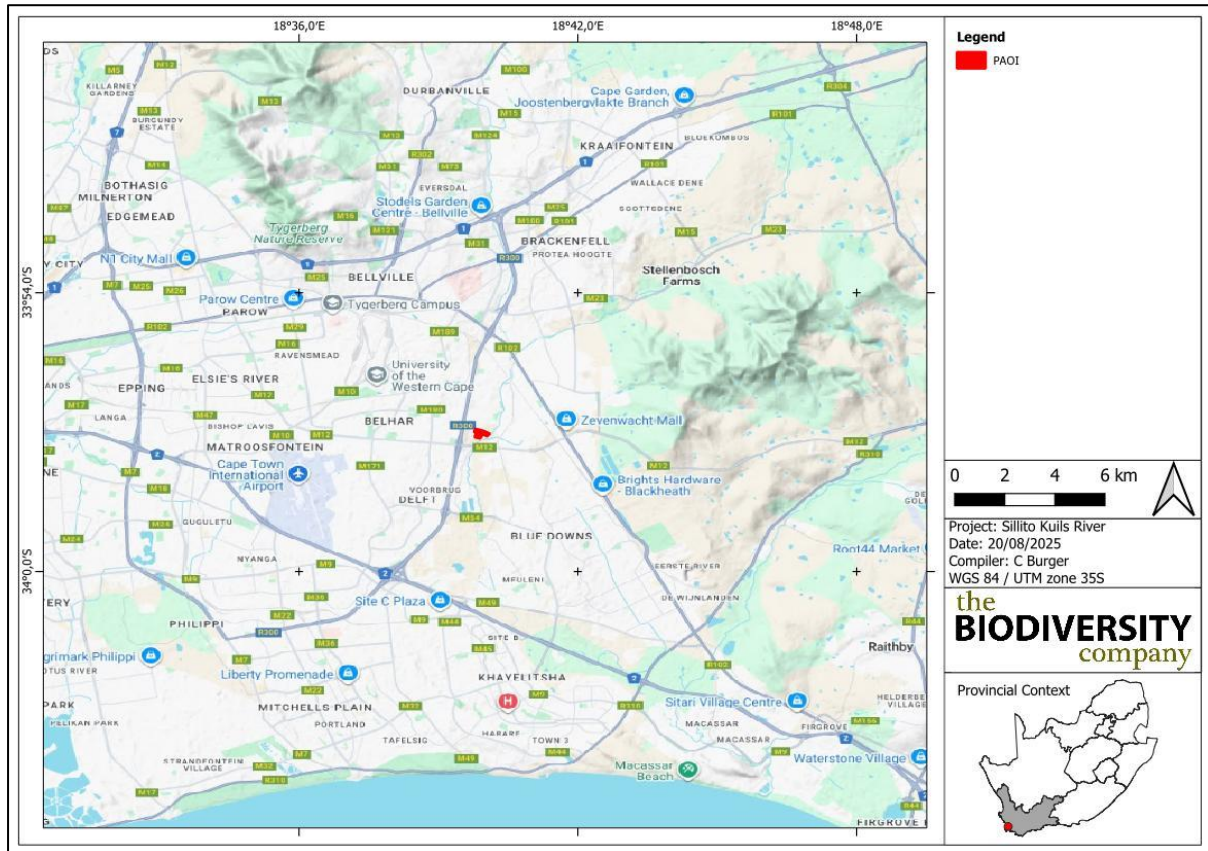


Figure 1-1 Map depicting the regional context of the Project Area of Influence (PAOI).

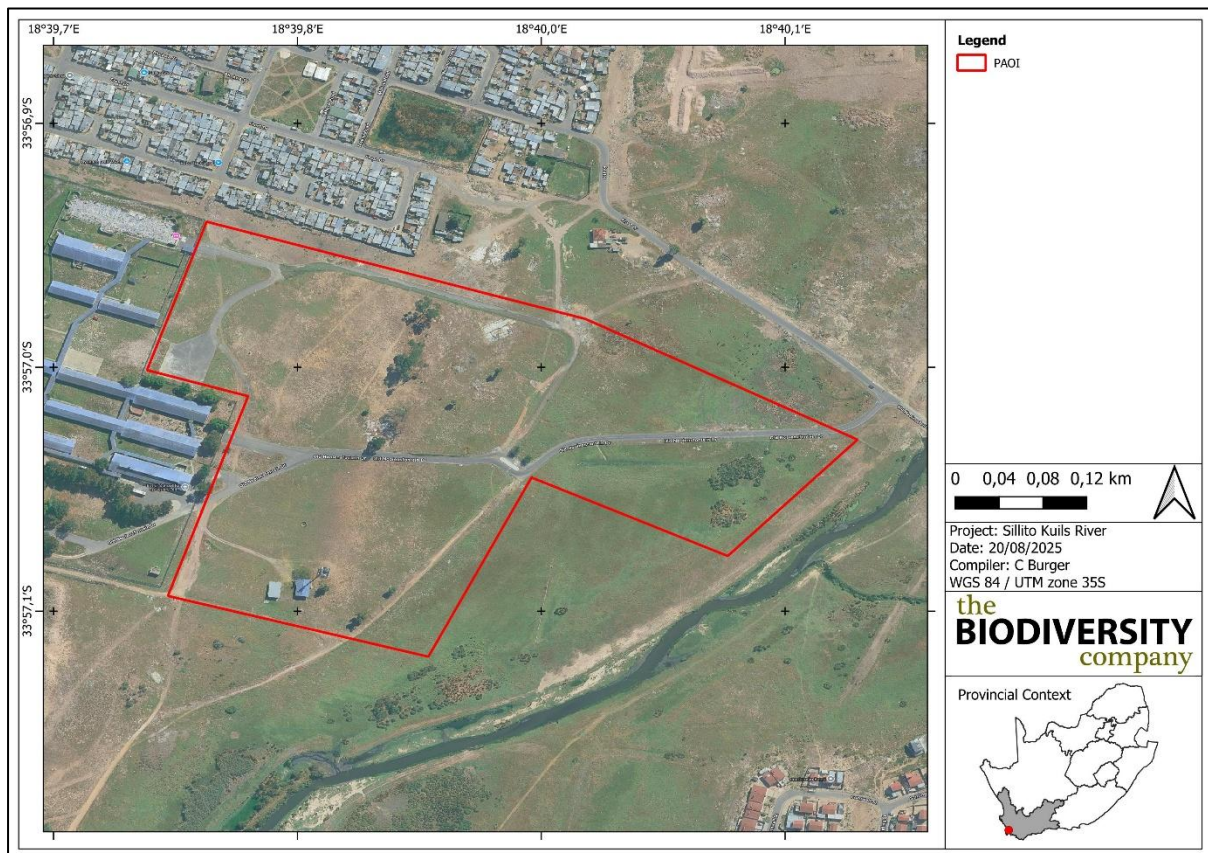


Figure 1-2 Map depicting the local context of the Project Area of Influence (PAOI).

1.2 Project Description and Technical Information

The following information is as provided by Sillito (2025):

The proposed residential development on Farm 1388 is strategically positioned along the western bank of the Kuils River, north of Wesbank and east of Belhar in Cape Town, Western Cape. The project aims to create a well-integrated residential community, offering 436 Single Residential (SR1) erven, two General Residential sites spanning 0.63 hectares (with an estimated yield of 50 units), and a 0.58-hectare General Business site to support local commercial needs. The development will feature a thoughtfully designed layout that ensures efficient service delivery, incorporating roads, stormwater drainage, water supply, and sanitation systems to meet the needs of future residents.

Located within a growing urban corridor, the development aligns with regional planning objectives by expanding housing availability while integrating sustainable infrastructure solutions. The site benefits from proximity to existing municipal services; however, upgrades and extensions will be necessary to accommodate the proposed density. Primary access to the development will be established through a south-westward extension of Reuter Street, with Old Nooiensfontein Road serving as a secondary entry point.

Farm 1388 is bordered by an existing residential area to the north and the Kuils River to the east, with the Betel Primary School centrally located within the site, effectively dividing it into two sections. Of the total site area, 12.15 hectares are allocated for housing development. The terrain is relatively flat, with a gentle west-to-east slope toward the river. Currently, the site is largely

undeveloped, featuring grass, scattered trees, and small wetland/marshy areas in the lower-lying eastern portion. Basic municipal infrastructure exists to support the Betel Primary School, including temporary roads, sewer, water, and stormwater services.

Sanitation infrastructure includes a 200mm sewer line running along the northeastern boundary, flowing southeast toward the Nooiensfontein Pump Station. A temporary 160mm sewer line serves the school, connecting to a 200mm collector at Old Nooiensfontein Drive. Wastewater from the development will fall within the Bellville Wastewater Treatment Works (WWTW) catchment, which has sufficient treatment capacity. Regarding water supply, limited-service information is available, with a 160mm reticulation line at Dorothy Street and a 110mm line at Bhokwe Road, both northwest of the site. Larger distribution mains, including a 700mm and 800mm main along Stellenbosch Arterial and a 450mm main along the R300 highway, are located farther away. The existing stormwater network consists of a 525mm pipeline along the northeastern section, discharging into a 600mm pipeline that flows into the Kuils River, supplemented by a 375mm pipe network servicing the school.

Access to the site is currently restricted to Old Nooiensfontein Road, which connects to Betel Primary School Road via a low bridge crossing over the Kuils River. However, this segment of Old Nooiensfontein Road requires realignment to fall within the designated road reserve. Additionally, Betel Primary School Road, currently serving as temporary access, will be demolished, and a new access route for the school will be incorporated into the proposed road network. As per the Traffic Impact Assessment (TIA), the primary access point for the development will be via Reuter Street's south-westward extension, with Old Nooiensfontein Road acting as a secondary access route.

1.3 Scope of Work

The aim of the biodiversity assessment was to provide information to guide the risk of the proposed development on the current state of the associated ecosystems within the PAOI. This was achieved through the following:

- Desktop assessment to identify the ecologically important terrestrial biodiversity features within the PAOI;
- Desktop assessment to identify possible Flora and Fauna Species of Conservation Concern (SCC) that may occur within the PAOI;
- Field survey to identify flora and fauna species, (especially SCC) within the PAOI;
- Determine the Site Ecological Importance (SEI), also commonly referred to as the sensitivity of the PAOI;
- Identify the manner that the proposed development impacts the features and evaluate the level of risk of these potential impacts; and
- The prescription of mitigation measures for identified risks associated with the proposed development.

1.4 Assumptions and Limitations

The following assumptions and limitations are applicable for this assessment:

- It is assumed that all information received from the client is accurate;
- All datasets accessed and utilised for this assessment are considered to be representative of the most recent and suitable data for the intended purposes;
- Insects and invertebrates do not form part of the scope of work for this assessment;
- The assessment area (PAOI) was based on the footprint areas as provided by the client, and any alterations to the area and/or missing Geographic Information System (GIS) information pertaining to the assessment area would have affected the area surveyed and hence the results of this assessment;
- The project description was based on information provided by the client, and any alterations to the area and/or missing data pertaining to the development would have affected the area surveyed and hence the results of this assessment;
- Whilst every effort was made to cover as much of the PAOI as possible, representative sampling was completed. Consequently, it is possible that some fauna and flora species present within the PAOI may have not been recorded during the field survey; and
- The GPS used in the assessment has an accuracy of 5 m and consequently any spatial features may be offset by up to 5 m.

1.5 Legislative Framework

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial biodiversity, as per Government Notice 320 published in terms of NEMA, dated 20 March 2020 and 30 October 2020: “Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation” – section 3, subsection 1:

- An applicant intending to undertake an activity identified in the scope of the protocol, on a site identified by The Screening Tool as being of a ‘Very High’ terrestrial biodiversity sensitivity, is required to submit a Terrestrial Biodiversity Specialist Assessment; however
- Where the information gathered from the site sensitivity verification differs from the designation of ‘Very High’ terrestrial biodiversity sensitivity on the screening tool and is instead found to be of a ‘Low’ sensitivity, then a Terrestrial Biodiversity Compliance Statement must be submitted.

The information obtained from a site sensitivity verification, which involved both a desktop assessment as well as a two field surveys, confirmed that the proposed PAOI is of a ‘Medium’ to ‘Very Low’ sensitivity. Therefore, this report constitutes a Compliance Statement¹. As per sections 2 and 3 of the protocol discussed above, a Compliance Statement must contain the information as presented in Table 1-1 below.

Table 1-1 Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.

Information to be Included (as per GN 320, 20 March 2020 and GN 1150, 30 October 2020)	Report Section
Methodology used to undertake the site assessment and survey, and prepare the compliance statement, including relevant equipment and modelling used	7.1
Description of the assumptions and any uncertainties or gaps in knowledge or data	1.4
A baseline profile description of biodiversity and ecosystems of the site	3.2 and 3.2
Site sensitivity verification: Desktop Analysis using satellite imagery and available information	3.1.1
A statement on the duration, date, and season of the site inspection	2
Site sensitivity verification: Onsite inspection, including a description of current land use and vegetation found on-site	3.3
Site sensitivity verification: Photographs/evidence of environmental sensitivity	3.2
Screening tool confirmation/dispute: The assessment must verify the “Low” sensitivity of the site, in terms of plant, animal, and terrestrial biodiversity themes	3.3.2
Proposed impact management outcomes or monitoring requirements for inclusion in the EMPr	4
Indicate whether the proposed development will have any impact on the terrestrial environment, animals and/or plants	5
A signed statement of independence by the specialist	7.3
Specialist details, including a CV	7.4

2 Fieldwork

2.1 Field Assessment

A field survey for the general area was undertaken on the 18th of August 2025 (Wet season survey). Effort was made to cover all the different habitat types within the PAOI, within the limits of time, access, and security (Figure 2-1).

¹ A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

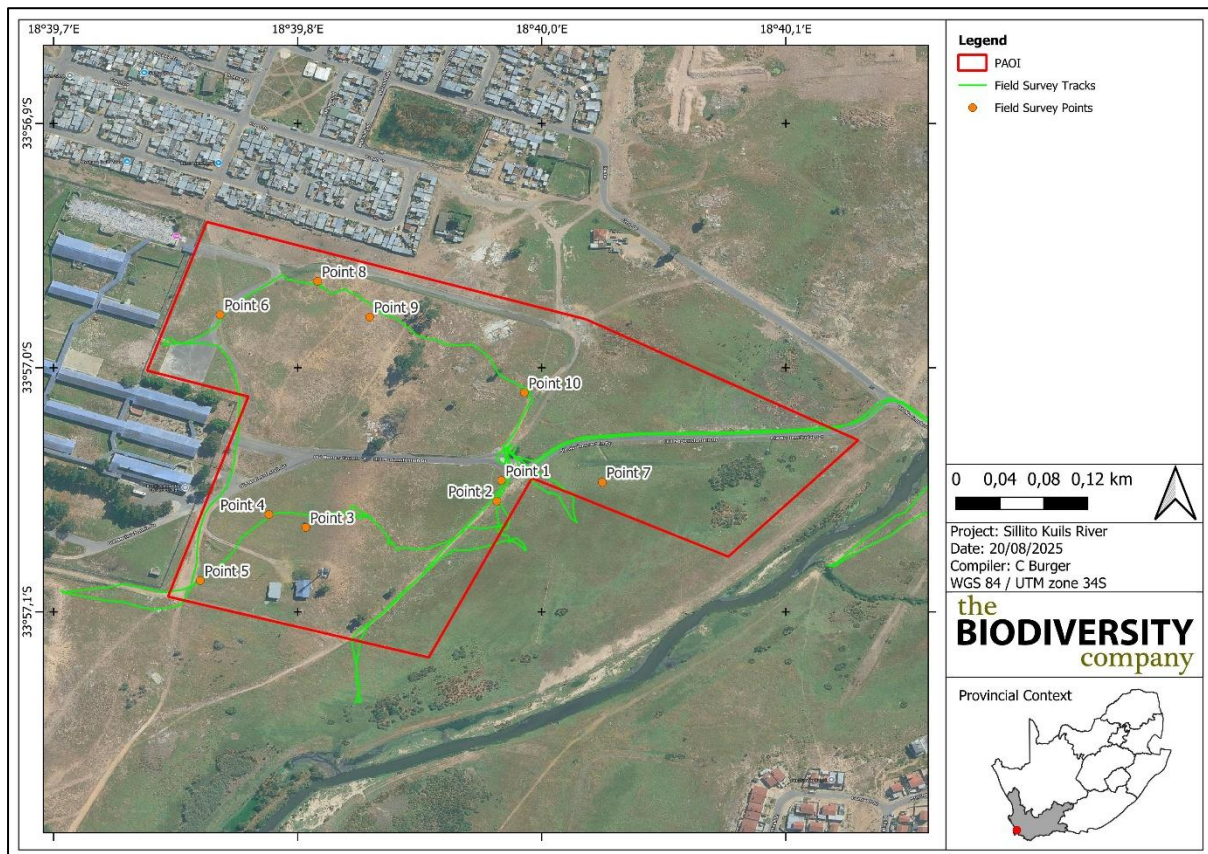


Figure 2-1 Map depicting the survey points and field tracks within the entire PAOI.

3 Results & Discussion

3.1 Desktop Baseline

3.1.1 Ecologically Important Landscape Features

Table 3-1 below has been produced because of the spatial data collected and analysed (as provided by various sources such as the national and provincial environmental authorities and SANBI). It presents a summative breakdown of the ecological boundaries considered and the associated relevance that each has to the region or PAOI. Where a feature is regarded as relevant it is considered an ecologically important landscape feature and discussed further as part of the sub-sections that follow.

Table 3-1 Summary of relevance of the proposed project to ecologically important landscape features

Desktop Information Considered	Relevance	Reasoning
Provincial Conservation Plan	Irrelevant	The PAOI does not overlap with any conservation areas.
Ecosystem Threat Status (Red list of Ecosystems (RLE), 2021)	Relevant	The PAOI falls within an 'Critically Endagred' (CR) ecosystem.
Ecosystem Protection Level (NBA, 2018)	Relevant	The PAOI overlaps with a 'Not Protected' (NP) ecosystem.
National Protected Areas Expansion Strategy (NPAES) (2018)	Irrelevant	The PAOI does not overlap with any NPAES areas.
South African Protected and Conservation Areas Databases (2024) (SAPAD & SACAD)	Relevant	The POAI is located within 5 km of the Driftsands Nature Reserve and the Cape Flats Private Nature Reserve. The Cape Winelands Biosphere Reserve Conservation Area is located 6 km to the east.
Key Biodiversity Areas (KBA, 2024)	Relevant	The PAOI overlaps with the False Bay Coast KBA.
Strategic Water Source Areas (SWSA) (2021)	Relevant	The PAOI overlaps with the Cape Peninsula and Cape Flats Groundwater Strategic Water Source Areas.
South African Inventory of Inland Aquatic Ecosystems (SAIAE) (2018)	Relevant	The PAOI overlaps with Endangered (EN) and Vulnerable (VU) wetlands and the Critically Endagred (CR) Kuils Rivier is located directly east of the PAOI.
National Freshwater Priority Areas (NFEPA) (2011)	Relevant	The PAOI overlaps with a non-priority wetland and the Class D: Largely Modified Kuils River is located directly east of the PAOI.

3.1.2 Flora Species of Conservation Concern

The Screening Tool indicates that 138 flora SCC are predicted to occur within the PAOI. Most species have an overall low likelihood of occurring within the area due to the absence of suitable habitat. (Table 3-3). Further, none of these listed fauna SCC below were confirmed during the site survey.

Please note that the Screening Tool report includes lists of bird, mammal, reptile, amphibian, butterfly, and plant species of conservation concern known or expected to occur on the proposed development footprint. Some of these SCC are sensitive to illegal harvesting. Such species have had their names obscured and are listed as sensitive plant unique number / sensitive animal unique number. As per the best practise guideline that accompanies the protocol and screening tool, please, the name of the sensitive species may not appear in the final EIA report nor any of the specialist reports released into the public domain. It should be referred to as *sensitive plant* or *sensitive animal* and its threat status may be included, e.g. *critically endangered sensitive plant* or *endangered sensitive animal*.

Table 3-2 *List of Flora SCC that are expected within the PAOI CR = Critically Endagred, EN = Endangered, LC = Least Concern, NT = Near Threatened, VU = Vulnerable and NE = Not Assessed.*

Family	Scientific Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
			Regional	Global		
Aizoaceae	<i>Lampranthus amoenus</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Lampranthus filicaulis</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Lampranthus leptaleon</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Lampranthus scaber</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Lampranthus spiniformis</i>	Medium	LC	LC	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Lampranthus stenopetalus</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Lampranthus stenus</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Lampranthus tenuifolius</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Antimima aristulata</i>	Medium	EN	NE	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Erepsia dunensis</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Cleretum clavatum</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Ruschia geminiflora</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Drosantheum hispifolium</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Lessertia argentea</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Amphithalea ericifolia subsp. erecta</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed

Family	Scientific Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
			Regional	Global		
Fabaceae	<i>Psoralea glaucina</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Liparia splendens subsp. splendens</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Indigofera psoraloides</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Aspalathus globulosa</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Aspalathus muraltioides</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Aspalathus retroflexa subsp. bicolor</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Rafnia angulata subsp. humilis</i>	Medium	CR	NE	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Lebeckia plukenetiana</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Podalyria argentea</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Podalyria sericea</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Santalaceae	<i>Thesium ecklonianum</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Leucadendron cinereum</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Leucadendron coniferum</i>	Medium	NT	NT	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Leucadendron floridum</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Leucadendron lanigerum var. lanigerum</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Leucadendron levisanus</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed

Family	Scientific Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
			Regional	Global		
Proteaceae	<i>Leucadendron linifolium</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Leucospermum hypophyllocarpodendron subsp. canaliculatum</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Leucospermum hypophyllocarpodendron subsp. hypophyllocarpodendron</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Protea burchellii</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Diastella proteoides</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Serruria aemula</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Serruria brownii</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Scrophulariaceae	<i>Microdon capitatus</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Poaceae	<i>Pentameris bachmannii</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Poaceae	<i>Pentameris pholiuroides</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Poaceae	<i>Ehrharta setacea subsp. uniflora</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Rubiaceae	<i>Anthospermum ericifolium</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Boraginaceae	<i>Echiostachys incanus</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Boraginaceae	<i>Echiostachys spicatus</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Iridaceae	<i>Geissorhiza brehmii</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed

Family	Scientific Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
			Regional	Global		
Iridaceae	<i>Geissorhiza humilis</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Hypoxidaceae	<i>Pauridia alba</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Hypoxidaceae	<i>Pauridia canaliculata</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Hypoxidaceae	<i>Pauridia pygmaea</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Oxalidaceae	<i>Oxalis natans</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
Ericaceae	<i>Erica bolusiae</i> var. <i>bolusiae</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
Ericaceae	<i>Erica capillaris</i> var. <i>capillaris</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Gentianaceae	<i>Sebaea rara</i>	Medium	NT	NT	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Tetragonia caesia</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Molluginaceae	<i>Adenogramma rigida</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Haemodraceae	<i>Wachendorfia brachyandra</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Amaryllidaceae	<i>Hessea cinnamomea</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Isoetaceae	<i>Isoetes capensis</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Cyperaceae	<i>Isolepis inconspicua</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Cyperaceae	<i>Isolepis venustula</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Cyperaceae	<i>Trianoptiles solitaria</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed

Family	Scientific Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
			Regional	Global		
Cyperaceae	<i>Ficinia elatior</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Cannomois arenicola</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Elegia prominens</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Restio duthieae</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Restio micans</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Restio sabulosus</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Restio impolitus</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Restio papillosus</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Restio pratensis</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Apocynaceae	<i>Cynanchum zeyheri</i>	Medium	LC	LC	Low	Habitat largely modified and heavily overgrazed
Orchidaceae	<i>Acrolophia bolusii</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Orchidaceae	<i>Pterygodium cruciferum</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Orchidaceae	<i>Pterygodium microglossum</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Thymelaeaceae	<i>Gnidia spicata</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Thymelaeaceae	<i>Passerina paludosa</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Thymelaeaceae	<i>Lachnaea uniflora</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed

Family	Scientific Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
			Regional	Global		
Asteraceae	<i>Poecilolepis maritima</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Asteraceae	<i>Steirodiscus tagetes</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Asteraceae	<i>Cotula eckloniana</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Asteraceae	<i>Arctotis angustifolia</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
Asteraceae	<i>Arctotheca forbesiana</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Rutaceae	<i>Diosma dichotoma</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Rutaceae	<i>Agathosma corymbosa</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Rutaceae	<i>Adenandra villosa</i> subsp. <i>biseriata</i>	Medium	LC	LC	Low	Habitat largely modified and heavily overgrazed
Rutaceae	<i>Macrostylis cassiopoides</i> subsp. <i>dregeana</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Rutaceae	<i>Macrostylis villosa</i> subsp. <i>villosa</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Rosaceae	<i>Cliffortia ericifolia</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Rosaceae	<i>Cliffortia hirta</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Rosaceae	<i>Cliffortia longifolia</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Rosaceae	<i>Cliffortia marginata</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Plumbaginaceae	<i>Limonium purpuratum</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Polygalaceae	<i>Muraltia brevicornu</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed

Family	Scientific Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
			Regional	Global		
Polygalaceae	<i>Muraltia macropetala</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Polygalaceae	<i>Muraltia mitior</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Colchicaceae	<i>Wurmbea inusta</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Rhamnaceae	<i>Phylica dioica</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Rhamnaceae	<i>Phylica harveyi</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Rhamnaceae	<i>Phylica plumosa var. squarrosa</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Rhamnaceae	<i>Phylica strigulosa</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Rhamnaceae	<i>Phylica thunbergiana</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Skiatophytum skiatophytoides</i>	Medium			Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Lampranthus debilis</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Aizoaceae	<i>Lampranthus glaucus</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Argyrolobium velutinum</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Xiphotheca reflexa</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Psoralea alata</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Aspalathus lebeckioides</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Fabaceae	<i>Aspalathus recurva</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed

Family	Scientific Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
			Regional	Global		
Fabaceae	<i>Aspalathus tyloides</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Leucospermum rodolentum</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Proteaceae	<i>Protea scolymocephala</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Elegia verreauxii</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Restio paludosus</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Restionaceae	<i>Restio rigoratus</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
Thymelaeaceae	<i>Lachnaea capitata</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Thymelaeaceae	<i>Lachnaea grandiflora</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
Asteraceae	<i>Cotula pusilla</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 533</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 878</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 881</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 683</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 830</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 298</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 863</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed

Family	Scientific Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
			Regional	Global		
	<i>Sensitive species 493</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 133</i>	Medium	VU	NE	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 985</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 120</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 214</i>	Medium	CR	CR	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 158</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 1265</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 599</i>	Medium	NT	NT	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 500</i>	Medium	EN	EN	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 53</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 654</i>	Medium	VU	VU	Low	Habitat largely modified and heavily overgrazed
	<i>Sensitive species 1225</i>	Medium	LC	LC	Low	Habitat largely modified and heavily overgrazed

3.1.3 Fauna Species of Conservation Concern

The Screening Tool indicates that one (1) avifauna SCC are predicted to occur within the PAOI (Table 3-3). Further, none of these listed fauna SCC below were confirmed during the site survey.

Table 3-3 *List of mammal SCC that are expected within the PAOI EN = Endangered, LC = Least Concern.*

Group	Scientific Name	Common Name	Screening Tool	Red List		Likelihood of Occurrence	Reason
				Regional	Global		

Proposed Housing Development

Avifauna	<i>Circus ranivorus</i>	African Marsh Harrier	Medium	EN	LC	Low	Habitat suitability is low; anthropogenic disturbance intensity is high.
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3.1.4 Desktop Ecological Sensitivity

The following is deduced from the National Web-based Environmental Screening Tool Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended):

- Terrestrial Biodiversity Theme sensitivity is 'Very High' for the PAOI due to it overlapping with the Critically Endangered Cape Flats Sand Fynbos vegetation type (Figure 3-1);
- Plant Species Theme sensitivity is 'Medium' for the PAOI owing to the potential occurrence of 138 Medium sensitivity species (Figure 3-2); and
- Animal Species Theme sensitivity is 'Medium' for the PAOI owing to the potential occurrence of four (4) Medium sensitivity species (Figure 3-3).

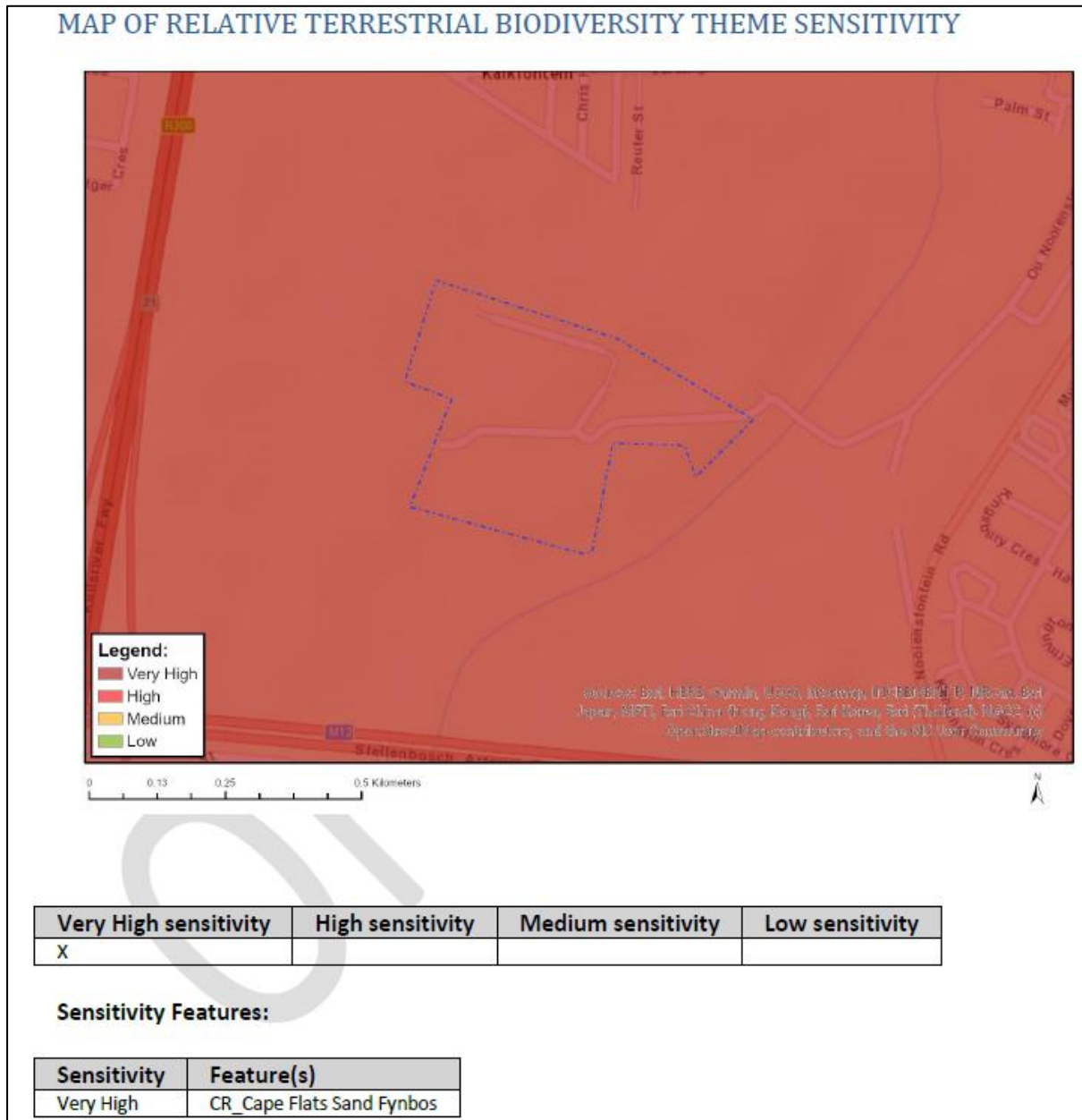
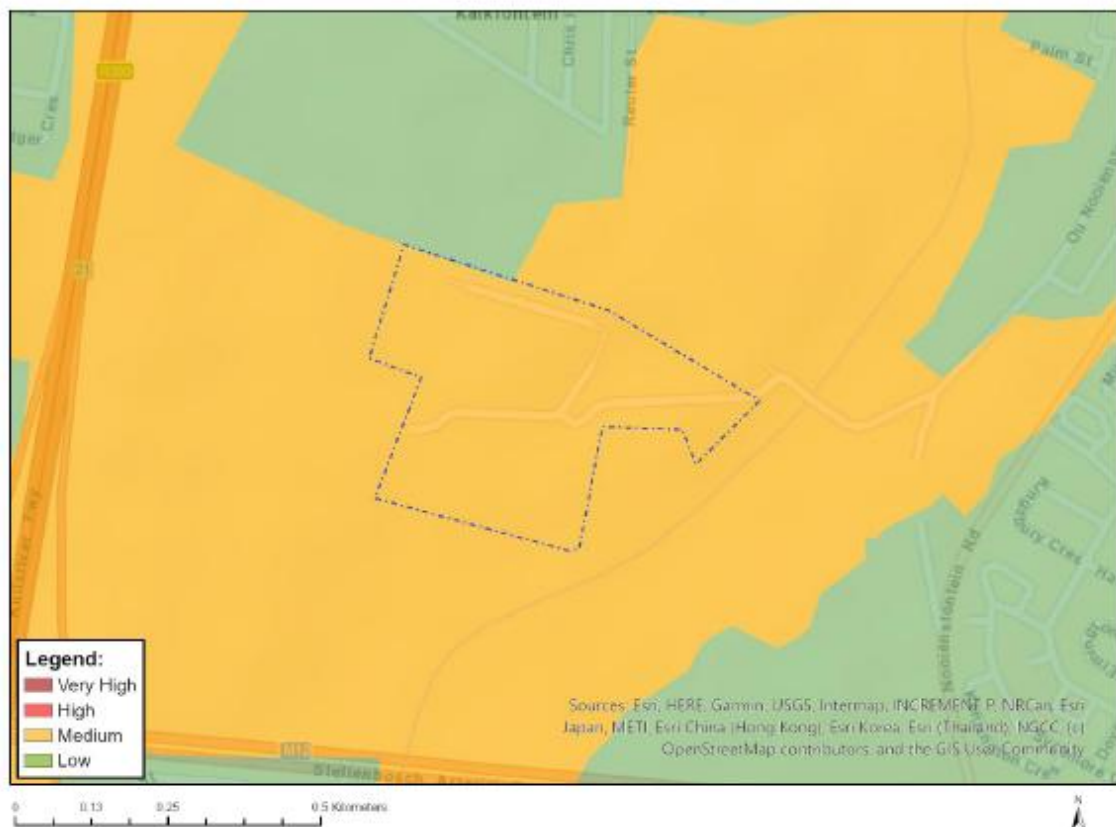


Figure 3-1 Map depicting the relative terrestrial biodiversity theme sensitivity for the PAOI.

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Lampranthus amoenus
Medium	Lampranthus filicaulis
Medium	Lampranthus leptaleon
Medium	Lampranthus scaber
Medium	Lampranthus spiniformis
Medium	Lampranthus stenopetalus
Medium	Lampranthus stenus
Medium	Lampranthus tenuifolius
Medium	Antimima aristulata
Medium	Erepsia dunensis
Medium	Cleretum clavatum
Medium	Ruschia geminiflora

Medium	<i>Drosanthemum hispidifolium</i>
Medium	<i>Lessertia argentea</i>
Medium	<i>Amphithalea ericifolia</i> subsp. <i>erecta</i>
Medium	<i>Psoralea glaucina</i>
Medium	<i>Liparia splendens</i> subsp. <i>splendens</i>
Medium	<i>Indigofera psoraloides</i>
Medium	<i>Aspalathus globulosa</i>
Medium	<i>Aspalathus muraltioides</i>
Medium	<i>Aspalathus retroflexa</i> subsp. <i>bicolor</i>
Medium	<i>Rafnia angulata</i> subsp. <i>humilis</i>
Medium	<i>Lebeckia plukenetiana</i>
Medium	<i>Podalyria argentea</i>
Medium	<i>Podalyria sericea</i>
Medium	<i>Thesium ecklonianum</i>
Medium	<i>Leucadendron cinereum</i>
Medium	<i>Leucadendron coniferum</i>
Medium	<i>Leucadendron floridum</i>
Medium	<i>Leucadendron lanigerum</i> var. <i>lanigerum</i>
Medium	<i>Leucadendron levisanus</i>
Medium	<i>Leucadendron linifolium</i>
Medium	<i>Leucospermum hypophyllocarpodendron</i> subsp. <i>canaliculatum</i>
Medium	<i>Leucospermum hypophyllocarpodendron</i> subsp. <i>hypophyllocarpodendron</i>
Medium	<i>Protea burchellii</i>
Medium	<i>Diastella proteoides</i>
Medium	<i>Serruria aemula</i>
Medium	<i>Serruria brownii</i>
Medium	<i>Microdon capitatus</i>
Medium	<i>Pentameris bachmannii</i>
Medium	<i>Pentameris pholiuroides</i>
Medium	<i>Ehrharta setacea</i> subsp. <i>uniflora</i>
Medium	<i>Anthospermum ericifolium</i>
Medium	<i>Echiostachys incanus</i>
Medium	<i>Echiostachys spicatus</i>
Medium	Sensitive species 533
Medium	Sensitive species 878
Medium	<i>Geissorhiza brehmii</i>
Medium	<i>Geissorhiza humilis</i>
Medium	Sensitive species 881
Medium	Sensitive species 683
Medium	Sensitive species 830
Medium	Sensitive species 298
Medium	Sensitive species 863
Medium	<i>Pauridia alba</i>
Medium	<i>Pauridia canaliculata</i>
Medium	<i>Pauridia pygmaea</i>
Medium	<i>Oxalis natans</i>
Medium	<i>Erica bolusiae</i> var. <i>bolusiae</i>
Medium	<i>Erica capillaris</i> var. <i>capillaris</i>
Medium	<i>Sebaea rara</i>
Medium	Sensitive species 493
Medium	<i>Tetragonia caesia</i>
Medium	<i>Adenogramma rigida</i>
Medium	<i>Wachendorfia brachyandra</i>
Medium	<i>Hessea cinnamomea</i>
Medium	<i>Isoetes capensis</i>
Medium	Sensitive species 133
Medium	<i>Isolepis inconspicua</i>
Medium	<i>Isolepis venustula</i>
Medium	<i>Trianoptiles solitaria</i>
Medium	<i>Ficinia elatior</i>

Medium	<i>Cannomois arenicola</i>
Medium	<i>Elegia prominens</i>
Medium	<i>Restio duthieae</i>
Medium	<i>Restio micans</i>
Medium	<i>Restio sabulosus</i>
Medium	<i>Restio impolitus</i>
Medium	<i>Restio papillosus</i>
Medium	<i>Restio pratensis</i>
Medium	<i>Cynanchum zeyheri</i>
Medium	Sensitive species 985
Medium	Sensitive species 120
Medium	<i>Acrolophia bolusii</i>
Medium	<i>Pterygodium cruciferum</i>
Medium	<i>Pterygodium microglossum</i>
Medium	<i>Gnidia spicata</i>
Medium	<i>Passerina paludosa</i>
Medium	<i>Lachnaea uniflora</i>
Medium	<i>Poecilolepis maritima</i>
Medium	<i>Steirodiscus tagetes</i>
Medium	<i>Cotula eckloniana</i>
Medium	<i>Arctotis angustifolia</i>
Medium	<i>Arctotheca forbesiana</i>
Medium	<i>Diosma dichotoma</i>
Medium	<i>Agathosma corymbosa</i>
Medium	<i>Adenandra villosa</i> subsp. <i>biseriata</i>
Medium	<i>Macrostylis cassiopoides</i> subsp. <i>dregeana</i>
Medium	<i>Macrostylis villosa</i> subsp. <i>villosa</i>
Medium	<i>Cliffortia ericifolia</i>
Medium	<i>Cliffortia hirta</i>
Medium	<i>Cliffortia longifolia</i>
Medium	<i>Cliffortia marginata</i>
Medium	<i>Limonium purpuratum</i>
Medium	<i>Muraltia brevicornu</i>
Medium	<i>Muraltia macropetala</i>
Medium	<i>Muraltia mitior</i>
Medium	Sensitive species 214
Medium	Sensitive species 158
Medium	Sensitive species 1265
Medium	<i>Wurmbea inusta</i>
Medium	<i>Phylica dioica</i>
Medium	<i>Phylica harveyi</i>
Medium	<i>Phylica plumosa</i> var. <i>squarrosa</i>
Medium	<i>Phylica strigulosa</i>
Medium	<i>Phylica thunbergiana</i>
Medium	<i>Skiatophytum skiatophytoides</i>
Medium	<i>Lampranthus debilis</i>
Medium	<i>Lampranthus glaucus</i>
Medium	<i>Argyrolobium velutinum</i>
Medium	<i>Xiphotheca reflexa</i>
Medium	<i>Psoralea alata</i>
Medium	<i>Aspalathus lebeckioides</i>
Medium	<i>Aspalathus recurva</i>
Medium	<i>Aspalathus tyloides</i>
Medium	<i>Leucospermum rodolentum</i>
Medium	<i>Protea scolymocephala</i>
Medium	Sensitive species 599
Medium	<i>Elegia verreauxii</i>
Medium	<i>Restio paludosus</i>
Medium	<i>Restio rigoratus</i>
Medium	Sensitive species 500

Medium	Sensitive species 53
Medium	Sensitive species 654
Medium	Lachnaea capitata
Medium	Lachnaea grandiflora
Medium	Cotula pusilla
Medium	Sensitive species 1225

Figure 3-2 Map depicting the relative plant species theme sensitivity for the PAOI.

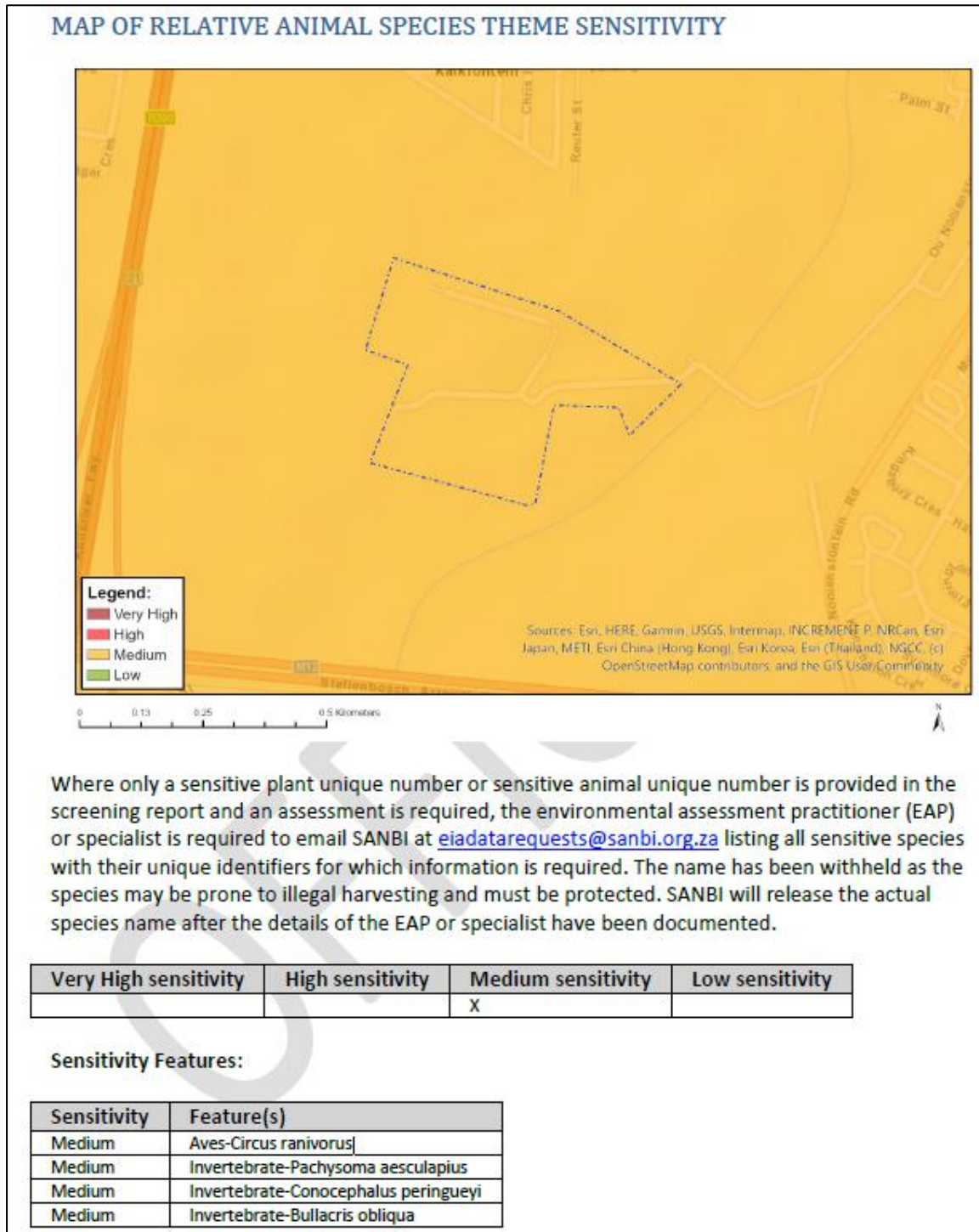


Figure 3-3 Map depicting the relative animal species theme sensitivity for the PAOI.


3.2 Biodiversity Field Survey

3.2.1 Field points

The following sections discuss the results from the two field surveys that were conducted for the proposed project. Habitats observed at certain field points are described in Table 3-4.

Table 3-4 Sensitivity summary of the habitat types delineated within the PAOI.

Survey Point	Habitat	SEI	Photograph
<p>Site GPS Reference: Point 2 Date: 18/08/2025 GPS Coordinates: 33°57'3.93"S 18°39'56.28"E</p>	<p>Water Resource: This habitat unit comprised of degraded wetland margins embedded within informal housing, dominated by disturbance-tolerant hydrophytes and ruderal species with extensive alien/invasive cover. System is altered by stormwater, greywater, and chronic sewage leakage, with trampling and dumping impacts. No SCC were recorded, and the likelihood of occurrence is low, though the unit still provides limited stormwater attenuation, sediment trapping, and bank stabilisation. See wetland specialist report (TBC, 2025) for delineation and condition details.</p>	Medium	
<p>Site GPS Reference: Point 3 Date: 18/08/2025 GPS Coordinates: 33°57'4.71"S 18°39'50.64"E</p>	<p>Modified: This habitat unit consists of areas where natural vegetation has been almost entirely lost, mainly due to intensive human activities. The land has been heavily grazed by large numbers of cattle, resulting in very little remaining indigenous plant life. Informal housing is also present in parts of this area, further contributing to the disturbance.</p> <p>Because of these significant changes, the habitat no longer supports its original ecological functions or provides meaningful ecosystem services. No SCC either plant or animal were observed here, and none are expected to occur given the current condition of the habitat.</p>	Very Low	

Survey Point	Habitat	SEI	Photograph
<p>Site GPS Reference: Point 6 Date: 18/08/2025 GPS Coordinates: 33°56'58.44"S 18°39'48.11"E</p>	<p>Modified: This habitat unit consists of areas where natural vegetation has been almost entirely lost, mainly due to intensive human activities. The land has been heavily grazed by large numbers of cattle, resulting in very little remaining indigenous plant life. Informal housing is also present in parts of this area, further contributing to the disturbance.</p> <p>Because of these significant changes, the habitat no longer supports its original ecological functions or provides meaningful ecosystem services. No SCC either plant or animal were observed here, and none are expected to occur given the current condition of the habitat.</p>	<p>Very Low</p>	
<p>Site GPS Reference: Point 7 Date: 18/08/2025 GPS Coordinates: 33°57'3.38"S 18°39'59.39"E</p>	<p>Water Resource: This habitat unit comprised of degraded wetland margins embedded within informal housing, dominated by disturbance-tolerant hydrophytes and ruderal species with extensive alien/invasive cover. System is altered by stormwater, greywater, and chronic sewage leakage, with trampling and dumping impacts. No SCC were recorded, and the likelihood of occurrence is low, though the unit still provides limited stormwater attenuation, sediment trapping, and bank stabilisation. See wetland specialist report (TBC, 2025) for delineation and condition details.</p>	<p>Medium</p>	

3.2.2 Habitat Assessment

Two (2) main habitat types were identified across the PAOI and include:

- Modified; and
- Water resources.

The habitat units for the PAOI can be seen delineated in Figure 3-4 and a description of the habitat units can be found in Table 3-5.

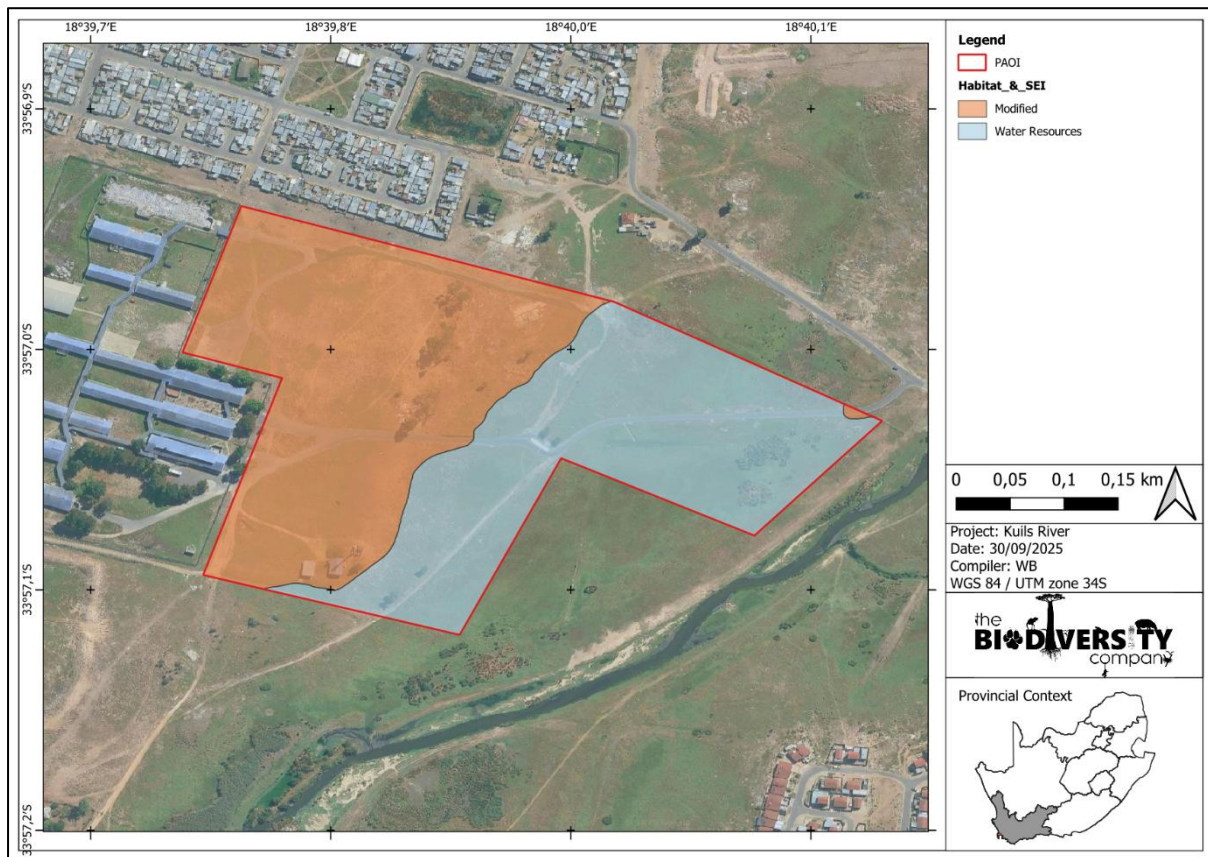


Figure 3-4 Habitats identified within the PAOI

Table 3-5 Table providing descriptions of the habitat types delineated for the PAOI

Habitat	Description and Condition
Modified	<p>The modified areas have lost most, if not all, of their natural vegetation due to ongoing and intensive disturbances, particularly heavy cattle grazing and the presence of informal housing. These areas remain in a persistently degraded state and are unable to recover to a more natural condition because of continuous impacts. As a result, this habitat is no longer representative of the Cape Flats Sand Fynbos (CR vegetation type) it originally overlapped with.</p> <p>The ecological services provided by this habitat are extremely limited, as the loss of indigenous vegetation and soil disturbance have significantly reduced its capacity to support biodiversity or contribute to ecosystem functioning. While some sections may still be used as movement corridors by common, adaptable fauna, the overall habitat value is very low.</p> <p>No fauna or flora species of conservation concern were observed, and none are expected to occur in this habitat unit.</p>
Water Resources	<p>This unit comprises degraded wetland margins embedded within informal housing and associated paths/clearings. Vegetation is dominated by disturbance-tolerant hydrophytes and ruderal terrestrial species, with cover of alien and invasive plants along margins and stormwater flow paths. The system is altered by concentrated stormwater, greywater inputs, and chronic sewage leakage from the adjacent settlement, producing persistently saturated patches, localised surface scouring, sediment deposition, and areas of rubble infill. Trampling, informal tracks, and dumping drive soil compaction, reduced infiltration, and a simplified vegetation structure.</p> <p>No SCC were recorded during the survey, and the likelihood of occurrence is low given the degree of disturbance and habitat modification. Despite its degraded condition, the unit retains limited ecosystem-service value, including local stormwater attenuation, sediment trapping, and bank stabilisation. Delineation, hydrogeomorphic classification, and condition metrics are provided in the accompanying wetland specialist report (TBC, 2025).</p>

3.2.3 Flora Species of Conservation Concern

One floral SCC's namely *Aspalathus ternate* was recorded within the PAOI during the field survey period (Table 3-6). These species are not to be disturbed in any way. Should they need to be removed, the appropriate permits must be procured prior to the relocation or removal of this species.

Table 3-6 Summary of flora SCC recorded within the PAOI during the field survey period.

Scientific Name	Conservation Status and Criteria	Ecology and Threats
<i>Aspalathus ternate</i>	Near Threatened A2c	It grows in lowland sand fynbos. This species is threatened by habitat loss to urban expansion on the Cape Flats and along the West Coast, as well as habitat loss to expanding crop cultivation, particularly in the Sandveld, where there has been rapid, recent expansion of potato and rooibos tea cultivation. Many subpopulations are also threatened by competition from alien invasive plants, particularly on the sandy lowlands between Malmesbury and Durbanville (Helme <i>et al.</i> , 2012).

Scientific Name

Conservation Status and Criteria

Ecology and Threats



3.3 Site Sensitivity Verification

3.3.1 Habitats and Site Ecological Importance (SEI)

Based on the criteria provided in Appendix B of this report, the habitat within the PAOI was assigned a sensitivity category, i.e., a SEI category. The habitat within the PAOI was classified SEI (Table 3-7 and Figure 3-5). The findings of this assessment therefore contradict the findings set forth by the Screening Tool with regards to the combined Terrestrial Biodiversity Theme Sensitivity.

Table 3-7 Summary of habitat types and associated SEIs delineated within the PAOI.

Habitat Type	Conservation Importance	Functional Integrity	Biodiversity Importance	Receptor Resilience	Site Ecological Importance Guidelines
Modified	Low	Very Low	Very Low	Very High	Very Low
	< 50% of receptor contains natural habitat with limited potential to support SCC.	Several major current negative ecological impacts.		Habitat that can recover rapidly (~ less than 5 years) to restore > 75% of the original species composition and functionality of the receptor functionality.	Minimisation and mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.
Water Resources	Medium	Medium	Medium	Medium	Medium
	> 50% of receptor contains natural habitat with potential to support SCC.	Only narrow corridors of good habitat connectivity or larger areas of poor habitat connectivity and a busy used road network between intact habitat patches.		Will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality.	Minimisation and restoration mitigation – development activities of medium impact acceptable followed by appropriate restoration activities.

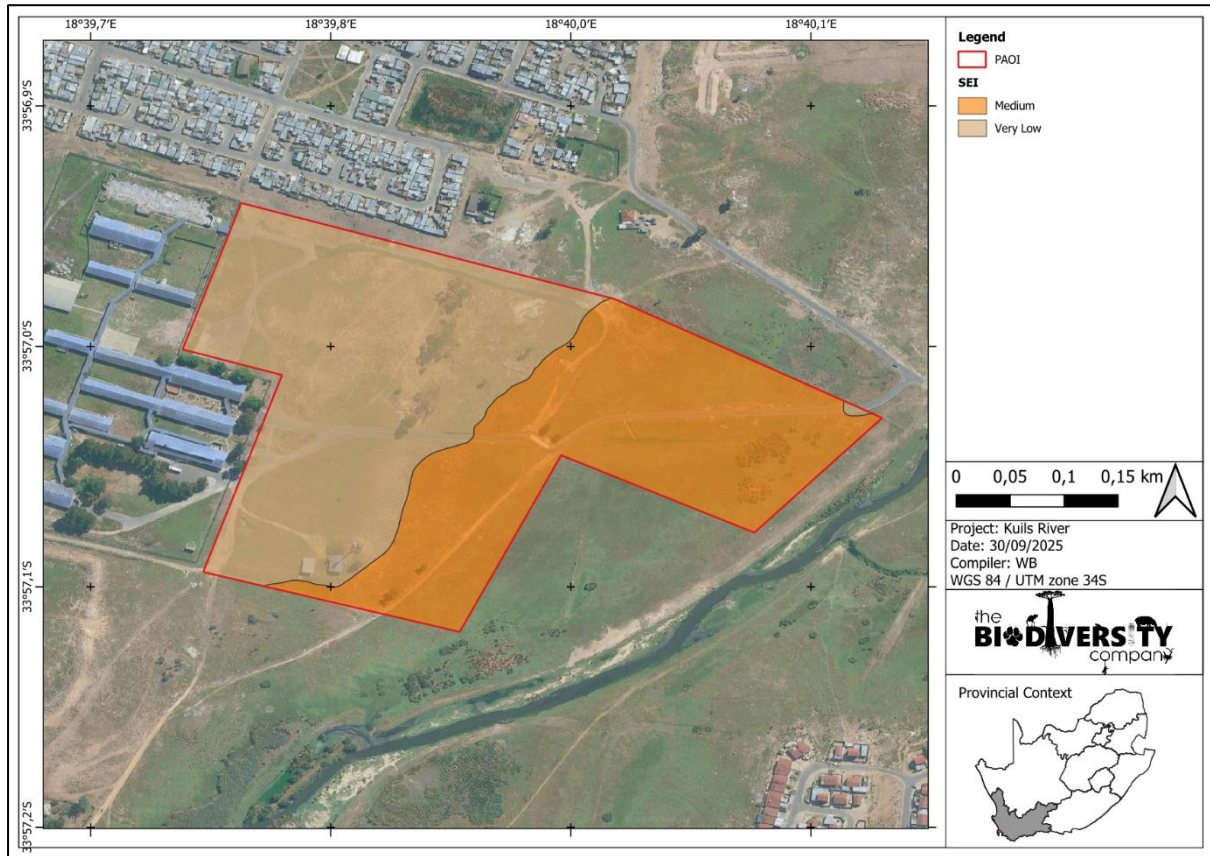


Figure 3-5 Map depicting the Site Ecological Importance (SEI) sensitivity for the PAOI.

3.3.2 Screening Tool Comparison

The allocated sensitivities for each of the relevant themes are either disputed or validated in Table 3-8 below. A summative explanation for each result is provided as relevant. The specialist-assigned sensitivity ratings are based largely on the SEI process followed in the previous section, and consideration is given to any observed or likely presence of SCC species.

Table 3-8 Summary of the screening tool vs specialist assigned sensitivities.

Screening Tool Theme	Screening Tool	Habitat	Specialist	Tool Validated or Disputed by Specialist - Reasoning
Terrestrial Theme	Very High	Modified	Very Low	Disputed – These areas have been modified and have little natural vegetation left.
		Water Resources	Medium	Disputed – Even though disturbed, the ecological integrity, importance and functioning of these areas play a role as a water resource system locally and regionally, and a habitat for common fauna and flora.
Animal Theme	Medium	N/A	Low	Disputed – No SCC were observed, moreover, some fauna SCC may potentially move through the area sporadically, but it is unlikely that they will remain within the area.
Plant Theme	Medium	N/A	Low	Disputed – One SCCs observed but habitat is largely modified and heavily overgrazed.

4 Impact Management and Mitigation Plan

The aim of the management outcomes is to present mitigation actions in such a way that they can be incorporated into the Environmental Management Programme (EMPr), and possible biodiversity management programme, for the project, which should in turn allow for a more successful implementation and auditing of the mitigations and monitoring guidelines. Table 4-1 presents the project specific, non-negotiable mitigation measures relative to the terrestrial assessment. Table 4-2 presents general mitigation measures.

The focus of mitigation measures is to reduce the significance of the likely impacts associated with the development, and thereby:

- Prevent the further loss and fragmentation of indigenous vegetation communities within the ecosystem within and around the PAOI;
- Reduce the negative fragmentation effects of the development and facilitate the safe movement of fauna species;
- Prevent the direct and indirect loss and disturbance of flora and fauna species and communities; and
- Adequately follow the guidelines for interpreting the SEI ratings assigned to the PAOI.

4.1 Project Specific Mitigation

Table 4-1 Project specific mitigation measures for the project.

Anticipated Impact	Destruction, further loss and fragmentation of the of habitats, ecosystems and vegetation community
Mitigation Objective	Avoidance / minimisation of the disturbance and degradation of vegetation and ecosystems
Mitigation: Action/control	
<ul style="list-style-type: none"> Development in Medium SEI habitats must be minimised, considering project feasibility and the accompanying wetland report. The upgrade of existing services i.e. roads, powerlines and stormwater infrastructure within Medium SEI habitats is permissible. Flora SCC recorded should be avoided as far as possible. Should they need to be removed, the appropriate permits must be procured prior to the relocation or removal of this species. Vehicles and personnel must make use of authorised access routes only. Conduct follow-up rehabilitation and re-vegetation of any bare areas with local indigenous grasses, shrubs, and trees. 	
Anticipated Impact	Introduction of alien and invasive species, especially plants
Activity/risk source	Land clearing, fire and dust.
Mitigation Objective	Avoidance / minimisation of the disturbance and degradation of vegetation and ecosystems
Mitigation: Action/control	
<ul style="list-style-type: none"> Compile and implement an alien vegetation management plan from the onset of construction. The plan must identify areas for action (if any) and prescribe the necessary removal methods and frequencies to be applied. This plan must also include a monitoring plan and be updated as/when new data is collated. Implement a stormwater management plan for all developable areas. Temporary storage of domestic waste shall be in covered waste skips. Removal of domestic waste on a regular basis, no overspill is permitted 	
Anticipated Impact	Displacement of faunal community due to habitat loss, direct mortalities and disturbance (road collisions, noise, dust, vibration and poaching)
Activity/risk source	Land clearing, Fire and human presence as well as roads.
Mitigation Objective	Avoidance / minimisation of the disturbance and mortality of fauna
Mitigation: Action/control	
<ul style="list-style-type: none"> Clearly mark construction zones to prevent impact on surrounding areas, using physical barriers like safety tape and signs instead of painted lines. Schedule activities and operations during least sensitive period; <ul style="list-style-type: none"> Construction and driving on roads at night close to water resources should be restricted in order to reduce or prevent wildlife road mortalities which occur more frequently during this period Prior to vegetation clearing activities, the area to be cleared should be walked on foot by 1-2 individuals to create a disturbance in order for fauna to move off. Disturbance must occur as soon before vegetation clearing as possible and no unnecessary disturbance to the area is permitted <ul style="list-style-type: none"> Any fauna threatened by the construction activities should be removed safely by an appropriately qualified environmental officer or removal specialist. Construction should take place during the dry season as much is feasible, especially considering the fauna and their movement. Limit construction vehicle speeds to 40 km/h to prevent accidents and install appropriate speed control measures and signage. <ul style="list-style-type: none"> Driving on access roads at night should be restricted to maximum 20 km/h to reduce or prevent wildlife road mortalities which occur more frequently during this period. Minimize the time between clearing an area and starting development to prevent wildlife from returning to disturbed sites. Conduct excavations progressively and cover any open holes overnight to prevent wildlife from falling in. Inspect these areas before backfilling. Focus work on one area at a time to reduce the extent of on-site activities, allowing wildlife to relocate as the project progresses. This helps smaller animals find refuge in nearby undisturbed areas. Implement noise and light mitigation measures for any nighttime construction activities to minimise disturbances to nocturnal species expected in the area. Provide all personnel and contractors to undergo Environmental Awareness Training to all personnel and contractors. A signed register of attendance must be kept for proof. 	

- Training and must include awareness about not harming or collecting species.

4.2 General mitigation

Table 4-2 General mitigation measures for the project.

Mitigation: Action/control
<ul style="list-style-type: none"> • Demarcate work areas during the construction phase to avoid affecting outside areas. Use physical barriers e.g., safety tape, not painted lines, and use signage. • All activities must make use of existing roads and tracks as far as practically and feasibly possible. No new roads or servitudes should be constructed where existing infrastructure can be used. • Do not clear areas of indigenous vegetation outside of the direct project footprint. • Minimise vegetation clearing to the minimum required. • Compile and implement a rehabilitation plan from the onset of the project, make use of indigenous vegetation. • Rehabilitate areas as soon as they are no longer impacted by construction. <ul style="list-style-type: none"> ○ The rehabilitated areas must be revegetated with indigenous vegetation. • Environmental Officer (EO) to provide supervision and oversight of vegetation clearing activities. • Dust-reducing mitigation measures must be put in place and must be strictly adhered to, for all roads and bare (unvegetated) areas. <ul style="list-style-type: none"> ○ Reduce the dust generated by operational vehicles and earth moving machinery, through wetting the soil surface and putting up signs to enforce speed limits to enforce reduced speeds. ○ No non-environmentally friendly suppressants may be used as this could result in pollution of water sources. • Infrastructure must be consolidated where possible in order to minimise the amount of ground and air space used. • Cement must be mixed in a designated area on a liner away from water sources and buffers and that successful rehabilitation of the construction areas can take place. • Leaking equipment and vehicles must be repaired immediately or be removed from project area to facilitate repair. • A hydrocarbon spill management plan must be put in place to ensure that should there be any chemical spill out or over that it does not run into the surrounding areas. The Contractor shall be in possession of an emergency spill kit that must always be complete and available on site. <ul style="list-style-type: none"> ○ Drip trays or any form of oil absorbent material must be placed underneath vehicles/machinery and equipment when not in use. ○ No servicing of equipment on site unless necessary. ○ All contaminated soil / yard stone shall be treated in situ or removed and be placed in containers. ○ Appropriately contain any generator diesel storage tanks, machinery spills (e.g., accidental spills of hydrocarbons oils, diesel etc.) in such a way as to prevent them from leaking and entering the environment. ○ Construction activities and vehicles could cause spillages of lubricants, fuels and waste material negatively affecting the functioning of the ecosystem. All vehicles and equipment must be maintained, and all re-fuelling and servicing of equipment is to take place in demarcated areas outside of the PAOI.

4.3 Cumulative Impacts

The quantitative impact of the proposed project in isolation on terrestrial biodiversity is anticipated to be “low” due to the expected adherence to mitigation. The cumulative impact of the proposed project on habitats, plants and animals is anticipated to be “low”. The PAOI has undergone historic and current disturbance, like the disturbances that the local area has undergone.

After implementation of the mitigation measures as stipulated above the integrity and functionality of the natural habitat is not expected to deteriorate further as a result of the proposed development and no irreplaceable loss of terrestrial biodiversity is anticipated.

Table 4-3 Cumulative Impacts associated with the proposed project

Nature of the Impact	Status	Impact Rating	Can impact be mitigated?	Is the impact acceptable?	Proposed Mitigation Measures
Vegetation clearance as part of the construction phase activities.	Impact in isolation	Negative Low	Yes	Yes	Areas of indigenous vegetation, even secondary communities outside of the direct project footprint, should under no circumstances be fragmented or disturbed further. It is recommended that areas to be developed be specifically demarcated so that during the construction phase, only the demarcated areas be impacted upon.
	Cumulative impact	Negative Low			An Alien Invasive Plant (AIP) Management Plan must be compiled and implemented. This should regularly be updated to reflect the annual changes in AIP composition.

5 Conclusion

The PAOI is in a predominantly modified state due to multiple anthropogenic impacts from the surrounding urban environment, including waste dumping, cattle overgrazing, and sewage leaks. Without active rehabilitation, this habitat is unlikely to recover and will likely persist in its current degraded condition or deteriorate further. This terrestrial biodiversity assessment disputes the 'Very High' Terrestrial Biodiversity Theme Sensitivity indicated by the National Environmental Screening Tool. Based on site-specific evidence, the habitat sensitivity is reassessed as ranging from 'Medium' to 'Very Low', and the site is not considered representative of the Critically Endangered (CR) Cape Flats Sand Fynbos vegetation type.

Plant Species Theme sensitivity is 'Medium' for the PAOI as allocated by the National Environmental Screening Tool, which was disputed as 'Low'.

The Animal Species Theme sensitivity is 'Medium' for the PAOI as allocated by the National Environmental Screening Tool, which was disputed as 'Low'.

5.1 Impact Statement

The location, state and size of the ecosystem suggests that it is unlikely that any functional habitat will be lost because of the impacts arising from the proposed activities.

It is the opinion of the specialists that the project may be favourably considered provided that the mitigation measures presented in this report are implemented correctly, along with the recommendations below.

5.2 Specialist Opinion and Layout Approval

An AIP management plan must be implemented as a priority to prevent the further spread and proliferation of AIP species to the surrounding areas. A rehabilitation plan must be compiled and implemented upon completion of construction activities so that all areas that were not part of development may be returned to a natural state. Should landscaping be performed within the Project Area, only species of plants indigenous to the region may be used.

This report must be considered in conjunction with the accompanying wetland report and all management outcomes and put forward by the wetland specialist must be implemented.

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7 Appendix Items

7.1 Appendix A – Methods

7.1.1 Desktop Dataset Assessment

7.1.1.1 Ecologically Important Landscape Features

Existing ecologically relevant data layers were incorporated into a GIS to establish how the proposed development might interact with any ecologically important entities. Emphasis was placed around the following spatial datasets:

- National Biodiversity Assessment 2018 (Skowno et al, 2019) - The purpose of the National Biodiversity Assessment (NBA) is to assess the state of South Africa's biodiversity based on best available science, with a view to understanding trends over time and informing policy and decision-making across a range of sectors. The NBA deals with all three components of biodiversity: genes, species and ecosystems; and assesses biodiversity and ecosystems across terrestrial, freshwater, estuarine and marine environments. The two headline indicators assessed in the NBA are:
 - Ecosystem Threat Status – indicator of an ecosystem's wellbeing, based on the level of change in structure, function or composition. Ecosystem types are categorised as Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT) or Least Concern (LC), based on the proportion of the original extent of each ecosystem type that remains in good ecological condition. Red List of Ecosystems (RLE) 2021 – The list was first published in 2011 and has since been substantially revised by authors Dr Andrew Skowno and Mrs Maphale Monyeki (SANBI, 2022). This list is based on assessments that followed the International Union for Conservation of Nature (IUCN) Red List of Ecosystems Framework (version 1.1) and covers all 456 terrestrial ecosystem types described in South Africa by Mucina and Rutherford (2006). A total of 120 of the 456 terrestrial ecosystem types assessed are categorised as threatened and together make up approximately 10% of the remaining natural habitat in the country. Of these 120 ecosystem types, 55 are Critically Endangered (CR), 51 Endangered (EN) and 14 are Vulnerable (VU). The remainder are categorised as Least Concern (LC) (SANBI, 2022; Skowno & Monyeki, 2021).
 - Ecosystem Protection Level – indicator of the extent to which ecosystems are adequately protected or under-protected. Ecosystem types are categorised as Well Protected (WP), Moderately Protected (MP), Poorly Protected (PP), or Not Protected (NP), based on the proportion of the biodiversity target for each ecosystem type that is included within one or more protected areas. Not Protected, Poorly Protected or Moderately Protected ecosystem types are collectively referred to as under-protected ecosystems.
- Protected areas:
 - South Africa Protected Areas Database (SAPAD) and South Africa Conservation Areas Database (SACAD) (DFFE, 2024a) – The South African Protected Areas Database (SAPAD) and South Africa Conservation Areas Database (SACAD) contains spatial data for the conservation of South Africa. It includes spatial and attribute information for both formally protected areas and areas that have less formal protection. The database is updated on a continuous basis and forms the basis for the Register of Protected Areas which is a legislative requirement under the National Environmental Management: Protected Areas Act, Act 57 of 2003.

- National Protected Areas Expansion Strategy (NPAES) (DFFE, 2022b) – The National Protected Area Expansion Strategy (NPAES) provides spatial information on areas that are suitable for terrestrial ecosystem protection. These focus areas are large, intact and unfragmented and are therefore, of high importance for biodiversity, climate resilience and freshwater protection.
- The Western Cape CBA classified areas within the province on the basis of its contribution to reach the conservation targets within the province. The C-Plan uses the following terms to categorise the various land used types according to their biodiversity and environmental importance:
 - Critical Biodiversity Area (CBA);
 - Ecological Support Area (ESA);
 - Other Natural Area (ONA); and
 - Protected Area (PA).

Critical Biodiversity Areas (CBAs) are terrestrial and aquatic areas of the landscape that need to be maintained in a natural or near-natural state to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services. CBAs are areas of high biodiversity value and need to be kept in a natural state, with no further loss of habitat or species. Thus, if these areas are not maintained in a natural or near natural state then biodiversity targets cannot be met. Maintaining an area in a natural state can include a variety of biodiversity compatible land uses and resource uses (SANBI-BGIS, 2017).

Ecological Support Areas (ESAs) are not essential for meeting biodiversity targets but play an important role in supporting the ecological functioning of Critical Biodiversity Areas and/or in delivering ecosystem services. Critical Biodiversity Areas and Ecological Support Areas may be terrestrial or aquatic (SANBI-BGIS, 2017).

Other Natural Areas (ONAs) consist of all those areas in good or fair ecological condition that fall outside the protected area network and have not been identified as CBAs or ESAs. A biodiversity sector plan or bioregional plan must not specify the desired state/management objectives for ONAs or provide land-use guidelines for ONAs (SANBI-BGIS, 2017).

- Key Biodiversity Areas (KBAs) (SANBI, 2024) – KBAs are identified using the Global Standard for the Identification of KBAs, developed by the International Union for the Conservation of Nature (IUCN). The standard involves applying five criteria to gauge an area's importance for biodiversity. These criteria consider the presence of threatened species or ecosystems, species with limited global distributions, pristine wilderness, significant biological processes, or irreplaceable biodiversity. Each criterion has specific quantitative thresholds to determine if they are met. As of 2023, over 16,000 KBAs have been identified globally, covering more than 20 million square kilometres. South Africa completed its first comprehensive national assessment in 2023, evaluating over 9,900 species or ecosystem types and identifying 260+ individual KBAs; and
- Freshwater Ecology:
 - Strategic Water Source Areas (SWSAs) (Le Maitre et al, 2018) – SWSAs are defined as areas of land that supply a quantity of mean annual surface water runoff in relation to their size and therefore, contribute considerably to the overall water supply of the country. These are key ecological infrastructure assets and the effective protection of

surface water SWSAs areas is vital for national security because a lack of water security will compromise national security and human wellbeing.

- South African Inventory of Inland Aquatic Ecosystems (SAIIAE) (Van Deventer et al, 2018) – A South African Inventory of Inland Aquatic Ecosystems (SAIIAE) was established during the National Biodiversity Assessment of 2018. It is a collection of data layers that represent the extent of river and inland wetland ecosystem types as well as pressures on these systems.
- National Freshwater Ecosystem Priority Area (NFEPA) (Nel et al., 2011) – The NFEPA database provides strategic spatial priorities for conserving the country’s freshwater ecosystems and associated biodiversity as well as supporting sustainable use of water resources.

7.2 Appendix B – Terrestrial Site Ecological Importance

The different habitat types within the PAOI were delineated and identified based on observations made during the field survey, and information from available satellite imagery. These habitat types were assigned Ecological Importance (EI) categories based on their ecological integrity, conservation value, the presence of SCC and their ecosystem processes.

Site Ecological Importance (SEI) is a function of the Biodiversity Importance (BI) of the receptor (e.g., SCC, the vegetation/fauna community or habitat type present in the Project Area) and Receptor Resilience (RR) (its resilience to impacts).

BI is a function of Conservation Importance (CI) and the Functional Integrity (FI) of the receptor. The criteria for the CI and FI ratings are provided in Table 7-1 and Table 7-2 respectively.

Table 7-1 Summary of Conservation Importance (CI) criteria

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

Table 7-2 Summary of Functional Integrity (FI) criteria

Functional Integrity	Fulfilling Criteria
Very High	Very large (> 100 ha) intact area for any conservation status of ecosystem type or > 5 ha for CR ecosystem types. High habitat connectivity serving as functional ecological corridors, limited road network between intact habitat patches. No or minimal current negative ecological impacts, with no signs of major past disturbance.
High	Large (> 20 ha but < 100 ha) intact area for any conservation status of ecosystem type or > 10 ha for EN ecosystem types. Good habitat connectivity, with potentially functional ecological corridors and a regularly used road network between intact habitat patches. Only minor current negative ecological impacts, with no signs of major past disturbance and good rehabilitation potential.
Medium	Medium (> 5 ha but < 20 ha) semi-intact area for any conservation status of ecosystem type or > 20 ha for VU ecosystem types. Only narrow corridors of good habitat connectivity or larger areas of poor habitat connectivity and a busy used road network between intact habitat patches.

Proposed Housing Development

	Mostly minor current negative ecological impacts, with some major impacts and a few signs of minor past disturbance. Moderate rehabilitation potential.
Low	Small (> 1 ha but < 5 ha) area. Almost no habitat connectivity but migrations still possible across some modified or degraded natural habitat and a very busy used road network surrounds the area. Low rehabilitation potential. Several minor and major current negative ecological impacts.
Very Low	Very small (< 1 ha) area. No habitat connectivity except for flying species or flora with wind-dispersed seeds. Several major current negative ecological impacts.

BI can be derived from a simple matrix of CI and FI as provided in Table 7-3.

Table 7-3 Matrix used to derive Biodiversity Importance (BI) from Functional Integrity (FI) and Conservation Importance (CI)

Biodiversity Importance		Conservation Importance				
		Very High	High	Medium	Low	Very Low
Functional Integrity	Very High	Very High	Very High	High	Medium	Low
	High	Very High	High	Medium	Medium	Low
	Medium	High	Medium	Medium	Low	Very Low
	Low	Medium	Medium	Low	Low	Very Low
	Very Low	Medium	Low	Very Low	Very Low	Very Low

The fulfilling criteria to evaluate RR are based on the estimated recovery time required to restore an appreciable portion of functionality to the receptor, as summarised in Table 7-4.

Table 7-4 Summary of Receptor Resilience (RR) criteria

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

After the determination of BI and RR, the SEI can be ascertained using the matrix as provided in Table 7-5.

Table 7-5 Matrix used to derive Site Ecological Importance from Receptor Resilience (RR) and Biodiversity Importance (BI)

Site Ecological Importance	Biodiversity Importance				
	Very High	High	Medium	Low	Very Low

Proposed Housing Development

Receptor Resilience	Very Low	Very High	Very High	High	Medium	Low
	Low	Very High	Very High	High	Medium	Very Low
	Medium	Very High	High	Medium	Low	Very Low
	High	High	Medium	Low	Very Low	Very Low
	Very High	Medium	Low	Very Low	Very Low	Very Low

Interpretation of the SEI in the context of the proposed project is provided in Table 7-6.

Table 7-6 *Guideline for interpreting Site Ecological Importance in the context of proposed activities*

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

The SEI evaluated for each taxon can be combined into a single multi-taxon evaluation of SEI for the assessment area. Either a combination of the maximum SEI for each receptor should be applied, or the SEI may be evaluated only once per receptor but for all necessary taxa simultaneously. For the latter, justification of the SEI for each receptor is based on the criteria that conforms to the highest CI and FI, and the lowest RR across all taxa.

7.3 Appendix C – Specialist Declaration of Independence

I, Wesley Black, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



Wesley Black

Terrestrial Ecologist

The Biodiversity Company

June 2025

I, Carami Burger, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



Carami Burger

Ecologist

The Biodiversity Company

August 2025

7.4 Appendix D – Specialist CVs

Wesley Black

MAgric Wildlife and Grassland Science

Pri Sci Nat: reg no: 147190

Cell: +27 72 242 3979

Email: wesley@thebiodiversitycompany.com or wesremus@yahoo.com

Identity Number: 9102215272084

Date of birth: 21 February 1991



Profile Summary

Working experience throughout Africa but especially West Africa, Central and Southern Africa as well as the middle east.

Specialist experience in mining, agriculture, protected areas, conservation, private sector and land use planning.

Specialist expertise includes Botany, Terrestrial Ecology, Wildlife Management and Agroecology.

Country Experience

South Africa
Lesotho
Mozambique
Zambia
Namibia
United Arab Emirates
Angola
Sierra Leone
Botswana

Key Experience

- Rehabilitation Plans and Monitoring
- Farm Plans
- Grazing and Fire Management
- Biodiversity Assessments
- Environmental, Social and Health Impact Assessments (ESHIA)
- IFC performance standards
- Environmental Management Programmes (EMP)
- Botany.
- Veld management and Veld condition
- Remote sensing and GIS
- Ecological monitoring
- Habitat suitability for livestock and wildlife
- Carbon stock estimations

Areas of interest

- Agriculture, Conservation, Mining and Sustainability.

Nationality

South African

Languages

English – Proficient
Afrikaans – Proficient

Qualifications

- Masters in Agriculture (Wildlife Management and Grassland Sciences), University of the Free State.
- B Agric (Hons) – Wildlife Management (Cum Laude): University of the Free State.
- B-Tech in Nature Conservation, Tshwane University of Technology, Pretoria, South Africa.
- National Diploma in Nature Conservation, Tshwane University of Technology, Pretoria, South Africa.
- GIS short course – University of the Free State
- Snake identification and Snake handling (2013) (2020)

Carami Burger

B.Sc. Honours – Ecological Interactions and Ecosystem Resilience (Cum Laude)

(Pr Sci Nat)

Cell: +27 83 630 9077

Email: Carami@thebiodiversitycompany.com

Identity Number: 9606250185084

Date of birth: 25 June 1996



Profile Summary

Working experience in South Africa and Mozambique.

Specialist experience with infrastructure development, road development, renewable energy, mining and prospecting.

Specialist expertise include terrestrial ecology, wetland resources, rehabilitation and management plans, environmental compliance and monitoring.

Areas of Interest

Renewable Energy & Bulk Services Infrastructure Development, Mining, Farming, Sustainability and Conservation.

Key Experience

- Environmental Impact Assessments (EIA)
- Basic Assessments
- Terrestrial Ecological Assessments
- Wetland Delineation and Ecological Assessments
- Environmental Management Programmes (EMPr)
- Rehabilitation Plans
- Invasive Species Plans
- Search and Rescue Plans
- Environmental Compliance Audits
- Water Use License Applications
- Dust Fallout Monitoring
- Water Quality Monitoring

Countries worked in

South Africa
Mozambique
Zambia
Angola
Sierra Leone

Nationality

South African

Languages

English – Proficient

Afrikaans – Proficient

Qualifications

- BSc Hons Ecological Interactions and Ecosystem Resilience.
- BSc Botany and Zoology.
- Pr Sci Nat (121757)