SITE VERIFICATION AND COMPLIANCE STATEMENT REPORT FOR THE PROPOSED UPGRADE OF A SEWERAGE PIPELINE IN GREAT BRAK, WESTERN CAPE

Terrestrial Biodiversity

Date:	**17 August 2025**
Version:	Final
Author:	JA van der Walt (Pr. Sci.Nat: 116549)
EAP:	Sharples Environmental Services
Applicant:	Mossel Bay Municipality

ADVANCED ENVIRONMENTAL CORPORATION

EXECUTIVE SUMMARY

VEGETATION UNITS	**National:** Groot Brak Dune Strandveld (CR) **Vlok Veg Map**: Brandwag Fynbos Renosterveld Thicket and Groot Brak River Saltmarsh. The original vegetation has been almost fully transformed into roads, pavements, and lawns. The remaining natural vegetation is dominated by non-native species, with no intact plant communities remaining.
DEVELOPMENT FOOTPRINT SIZE AND LEVEL OF TRANSFORMATION	No intact communities of natural vegetation remain in the proposed development footprint, which is approximately 2,100 m long and 5 m wide.
LANDUSE PLANNING	Smaller sections of the proposed development footprint fall within a CBA wetland and estuary, but these areas are transformed/degraded and mostly dominated by non-native plant species.
CONNECTIVITY	Portions of the proposed development footprint can be regarded as a buffer for the Groot Brak estuary.
PLANT SPECIES OF CONSERVATION CONCERN	No plant species of conservation concern were recorded in the proposed development footprint
ANIMAL SPECIES OF CONSERVATION CONCERN	No animal species of conservation concern were recorded in the proposed development footprint
WATER COURSES AND WETLANDS	The proposed pipeline crosses artificial drainage ditches created to direct stormwater into low-lying areas between the Groot Brak estuary and the urban development along Lang Street.
MAIN CONCLUSIONS	The site has been assessed as having **low** sensitivity from a terrestrial biodiversity perspective, contrary to the very high rating assigned in the Environmental Screening Tool. This determination is supported by the absence of intact natural and threatened vegetation due to urban transformation. The CBAs in the proposed development footprint will not be significantly impacted and should return to their current state within two years.

DECLARATION OF INDEPENDENCE IN TERMS OF CHAPTER 5 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT (NEMA), ACT 107 OF 1998:

I, Johannes Adriaan van der Walt, ID: 6706225172085, declare that:

• I act as the independent environmental specialist in this report;

• I will perform the work relating to the report objectively, 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 environmental impact assessments and specialist reports, 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 do not have and will not have any vested interest (either business, financial, personal, or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations

ENVIRONMENTAL SPECIALIST:

Johannes Adriaan van der Walt

Tel: +27 (82) 305 8945

Email: admin@aecorp.co.za

Signature **Date:** 17 August 2025

Abridged Curriculum Vitae – Johannes Adriaan van der Walt

PROFESSIONAL REGISTRATION

Professional Natural Scientist: South African Council for Natural Science Professionals (SACNASP) nr116549

QUALIFICATIONS

MTech Nature Conservation (cum laude) 2014, CPUT

BTech Nature Conservation (cum laude) 2012, CPUT

NDip Nature Conservation (cum laude) 1994, CPUT

LANGUAGES

English – fluent
Afrikaans – fluent

EXPERIENCE

37 years of biodiversity conservation and botanical experience in the Fynbos and Succulent Karoo Biomes

EMPLOYMENT

1988 – 2006 CapeNature

2007 – 2010 Botanical Insight cc

2010 - 2017 CapeNature

2017 – present: Director at Advanced Environmental Corporation (Pty) Ltd and Fynbos Fish Trust trustee

BOTANICAL, ANIMAL, AND BIODIVERSITY EXPERTISE WAS GAINED THROUGH:

- Employment as a nature conservationist with CapeNature for 25 years;
- biodiversity assessments (including botanical, animal species, and biodiversity) since 1994;
- participating as a SANBI-CREW volunteer for botanical assessments for threatened plants;
- participating in the Protea Atlas project as a volunteer;
- contributing as a Red-list assessor for a selection of Fynbos species;
- conservation initiatives for threatened flora with CapeNature;
- compliance monitoring of wildflower shows (Clanwilliam, Leipoldtville, Porterville, Tulbagh, and Darling) between 1994 and 2006;
- compilation of species lists for protected areas;
- compilation of specialist botanical assessments for DEA&DP and private landowners since 2017;
- discovering five new plant species in the CFR since 2019;
- keeping up to date with new plant descriptions and taxonomic revisions in the CFR and
- keeping an extensive private collection of applicable literature, including field guides and other botanical reference books.

PUBLICATIONS:

- Author and co-author of 14 biodiversity conservation and botanical scientific papers

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1. INTRODUCTION

1.1 Background

The Mossel Bay Municipality is in the process of upgrading its sewage system in Groot Brakrivier, and one of these upgrades includes the installation of a new Ø300mm pipeline from Amy Searle Street/Greenhaven, past the cricket field sewerage pump station to Lang Street. The Environmental Assessment Practitioner (EAP) appointed by the municipality is Sharples Environmental Services. The proposed activities trigger environmental regulations promulgated under the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and require environmental authorization.

1.2 Environmental Screening Tool Report

Regulation 16(1)(b)(v) of the Environmental Impact Assessment Regulations requires an applicant for an Environmental Authorisation to submit a report generated by the Environmental Screening Tool as part of their application. This tool, developed by the Department of Forestry, Fisheries, and the Environment (DFFE), became operational on July 5, 2019, as announced in the Government Gazette. The screening tool report will identify the environmental sensitivities that intersect with the proposed development footprint as defined by the applicant, as well as the relevant protocols that the applicant would need to follow. The screening tool is accessible at https://screening.environment.gov.za.

An environmental screening tool report for the proposed development was completed on the 25th of July 2025. A **"Very High"** environmental sensitivity rating was indicated for the Terrestrial Biodiversity theme. As per the procedures for the assessment and minimum criteria for reporting on identified environmental themes (Terrestrial Biodiversity) in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation (October 2020), "*An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of "**very high sensitivity**" for terrestrial biodiversity, must submit either a Terrestrial biodiversity Specialist Assessment Report or a Terrestrial Biodiversity Compliance Statement, depending on the outcome of a site inspection/site sensitivity verification undertaken*".

The site sensitivity verification was conducted on 19 and 20 July 2025, and the outcome, as reported in **Section 7** of this report, indicated a **low sensitivity** towards terrestrial biodiversity and therefore a terrestrial biodiversity compliance statement was compiled and included in this report.

2. TERMS OF REFERENCE

2.1 Site verification

-The assessment must contextualize the study area to provide a baseline description of the ecological system; the terrestrial plant biodiversity and any significant terrestrial features must be provided.

-The assessment must identify the following:

- Terrestrial critical biodiversity areas (CBAs)
- Terrestrial ecological support areas (ESAs)
- Protected areas as defined by the National Environmental Management: Protected Areas Act, 2004
- Priority areas for protected area expansion
- Indigenous forests

-Undertake a site visit and ground-truth biodiversity information. Where required, undertake baseline surveys and/or studies to supplement the information base and inform the assessment.

-Estimate the trajectory of change in the context of the 'No-Go' Alternative due to existing impacts.

-Assessment criteria to be aligned with the promulgated Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes (October 2020).

Following the site verification visit, in which the Specialist confirms the presence, likely presence or confirmed absence of a SCC identified within the site identified as "medium" sensitivity by the screening tool, the Specialist is to confirm the need for a Compliance Statement or a Terrestrial Plant Species Assessment and undertake this report/statement following the Gazetted Protocol (October 2020).

2.2 Compliance statement

The compliance statement must:

- be applicable within the study area;
- confirm that the study area is of "low" sensitivity for terrestrial biodiversity; and
- indicate whether the proposed development will have any impact on the biodiversity feature.

Minimum Requirements Include:

- contact details, relevant experience, and the SACNASP registration number of the specialist preparing the compliance statement, including a curriculum vitae.
- a signed statement of independence by the specialist;

- a statement on the duration, date, and season of the site inspection and the relevance of the season to the outcome of the assessment;
- a description of the methodology used to undertake the site survey and prepare the compliance statement, including equipment and modelling used where relevant;
- in the case of a linear activity, confirmation from the terrestrial biodiversity specialist that, in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase;
- where required, proposed impact management actions and outcomes or any monitoring requirements for inclusion in the EMPr;
- a description of the assumptions made and any uncertainties or gaps in knowledge or data;
- the mean density of observations/ number of sample sites per unit area; and
- any conditions to which the compliance statement is subjected.

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

2.3. Legal requirements applicable to the specialists conducting assessments

The Environmental Impact Assessment Regulations that were published on 4 December 2014 and amended on 7 April 2017, state that:

(1) an EAP and a specialist, appointed in terms of regulation 12(1) or 12(2), must-

(a) be independent;

(b) have expertise in conducting environmental impact assessments or undertaking specialist work as required, including knowledge of the Act, these Regulations, and any guidelines that have relevance to the proposed activity;

(c) ensure compliance with these Regulations;

(d) perform the work relating to the application objectively, even if this results in views and findings that are not favourable to the application;

(e) take into account, to the extent possible, the matters referred to in regulation 18 when preparing the application and any report, plan, or document relating to the application; and

(f) disclose to the proponent or applicant, registered interested and affected parties and the competent authority all material information in the possession of the EAP and, where applicable, the specialist, that reasonably has or may have the potential of influencing-

(i) any decision to be taken concerning the application by the competent authority in terms of these Regulations; or

(ii) the objectivity of any report, plan or document to be prepared by the EAP or specialist, in terms of these Regulations for submission to the competent authority; unless access to that information is protected by law, in which case it

must be indicated that such protected information exists and is only provided to the competent authority.

(2) In the event where the EAP or specialist does not comply with sub-regulation (1)(a), the proponent or applicant must, before conducting public participation as contemplated in chapter 5 of these Regulations, appoint another EAP or specialist to externally review all work undertaken by the EAP or specialist, at the applicant's cost.

(3) An EAP or specialist appointed to externally review the work of an EAP or specialist as contemplated in sub-regulation (2) must comply with sub-regulation (1).

2.4 Report Content Requirements

The following legislation and guideline documents are applicable and were adhered to in compiling this report:

2.4.1 Guidelines documents

a) Department of Environmental Affairs and Development Planning (DEA&DP) Guidelines for Involving Biodiversity Specialists in the EIA Process (Brownlie 2005).

b) Ecosystem Guidelines for Environmental Assessments in the Western Cape (Cadman 2016).

c) The Western Cape Biodiversity Spatial Plan Handbook (Pool-Stanvliet *et al*. 2017)

d) South African National Biodiversity Institute (SANBI), 2020. Species Environmental Assessment Guideline. Guidelines for the implementation of the Terrestrial Fauna and Terrestrial Flora Species Protocols for environmental impact assessments in South Africa. South African National Biodiversity Institute, Pretoria. Version 3.1. 2022.

2.4.2 Legal documents

a) 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 (Act No. 107 of 1998) ("NEMA"), when applying for Environmental Authorisation" ("the Protocols") (GN No. 320 as published in Government Gazette No. 43110 on 20 March 2020) came into effect on 09 May 2020 the Protocol.

b) Appendix 6 of the 2014 EIA Regulations (National Environmental Management Act, 1998 (Act No. 107 of 1998)

3. LIMITATIONS AND ASSUMPTIONS

The field surveys for this report were conducted on July 19 and 20, 2025. The findings from this specialist assessment are based on a two-day site visit, which means some species might not have been recorded. However, the proposed development footprint was highly altered, reducing the likelihood that species were missed. Confidence in the findings is high. It is unlikely that a full terrestrial biodiversity assessment would reveal additional findings that would significantly impact the outcome.

4. STUDY AREA

4.1 Location

Groot Brakrivier is situated on the southern coast of the Western Cape Province, South Africa, as illustrated in **Figure A.** The town is located on both sides of the Groot Brakrivier estuary.

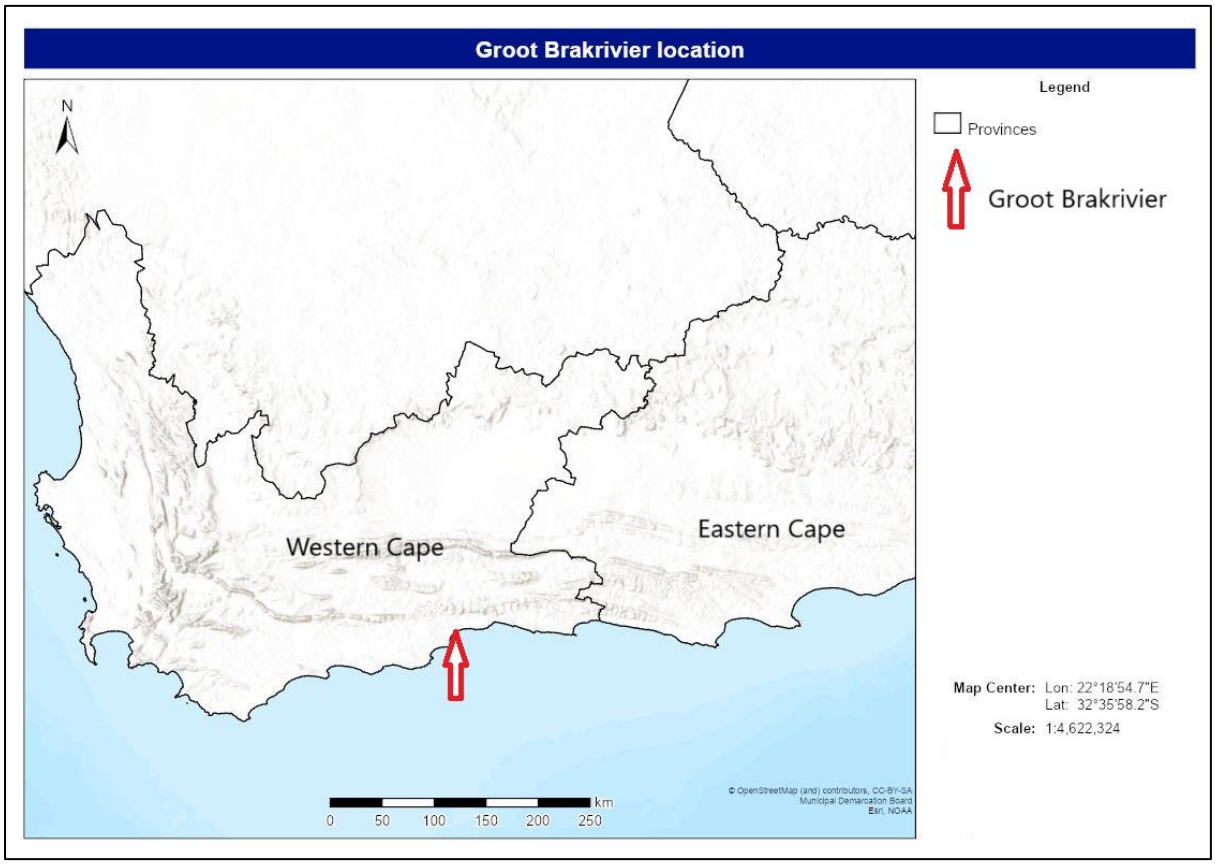


Figure A. Map showing the location of Groot Brakrivier.

4.2 Proposed Development Footprint (PDI) and Project Area of Influence (PAOI)

The proposed development footprint is indicated as a purple polygon in **Figure B**. This purple polygon is the route of the old sewage pipeline that is due for an upgrade. The development footprint will The proposed sewage pipeline earmarked for this upgrade will be approximately 2,1 km in length, with a construction footprint of 5 m in width for installation during the construction phase. The anticipated impacts will mostly occur during the construction phase of the project when the municipality will dig a trench along the proposed development footprint for the replacement of the sewage pipeline. These impacts are not expected to extend beyond the demarcated footprint. The PAOI is therefore treated here as the development footprint within which direct impacts will occur.

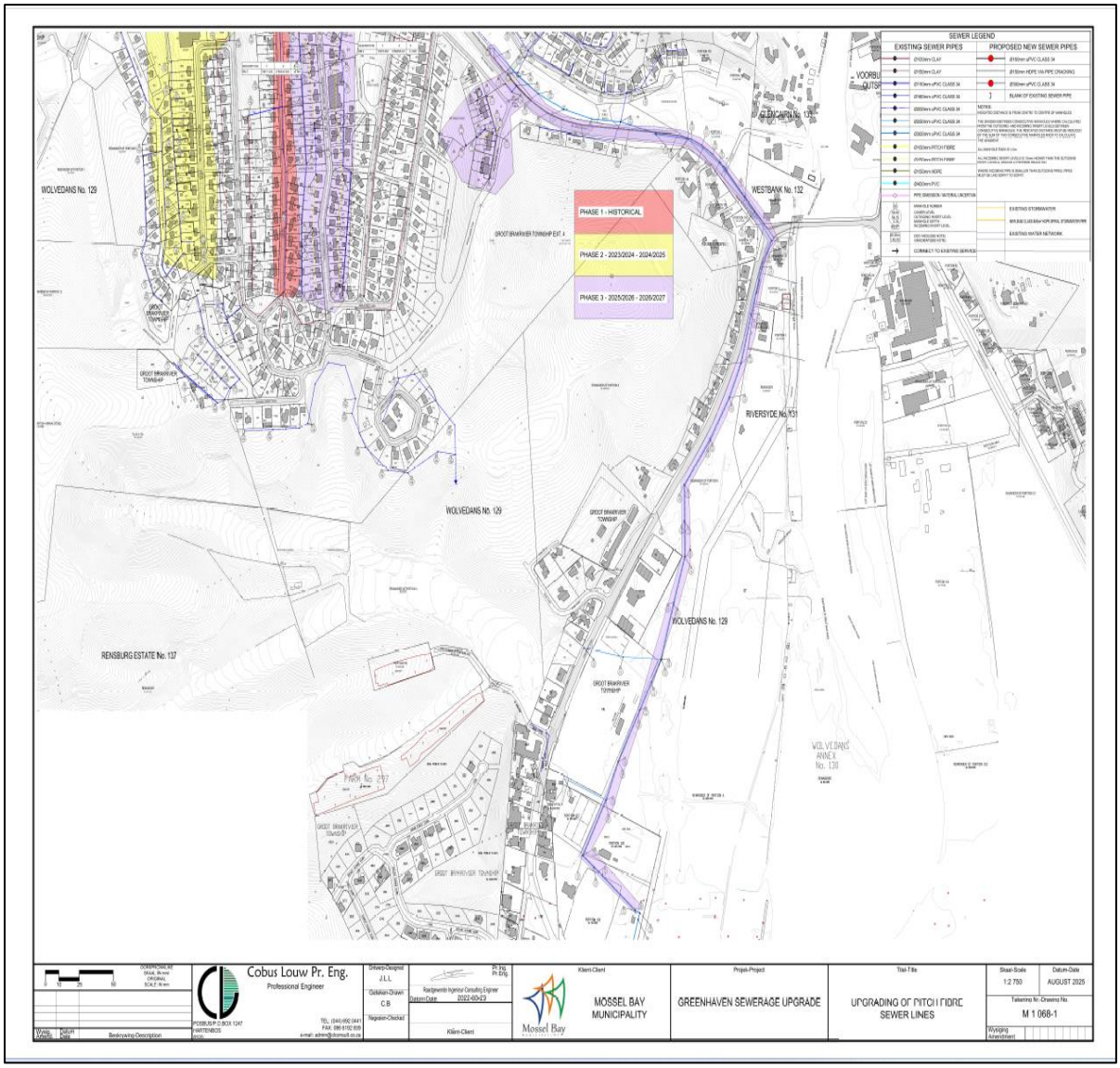


Figure B: The route of the proposed sewage pipeline upgrade is indicated with a purple polygon

5. METHODOLOGY

5.1 Desktop assessment

The specialist used various sources of information to assess the sensitivity of the terrestrial biodiversity within the proposed development footprint.

5.1.1 **The Environmental Screening Tool Report**: The environmental screening tool report indicates the sensitivity of the terrestrial biodiversity theme across the proposed development and lists sensitivity features that could potentially be impacted by the proposed development.

5.1.2 **CapeFarmMapper 3**: The following spatial data were obtained from CapeFarmMapper 3 (CFM 3). CMF 3 is GIS software provided by the Western Cape Department of Agriculture, available at https://gis.elsenburg.com/apps/cfm/.

- Vegetation units
- Vegetation unit threat status
- Spatial planning data: Critical Biodiversity Areas, Ecological Support Areas.

5.1.3 **iNaturalist**: iNaturalist is a crowdsourced species identification system and an organism occurrence recording tool. Sightings are graded, and only research-grade sighting is used in specialist assessments.

5.1.4 **Google Earth**: Google Earth is a web and computer program created by Google that renders a 3D representation of Earth based primarily on satellite imagery but also on street-level views. This imagery is useful when historical aerial imagery is needed of a proposed development footprint. It also gives a good perspective of the level of transformation before a field assessment is undertaken.

5.1.5 **Other sources of data**: Additional data were collected from a range of pertinent sources, including Mucina & Rutherford (2006), the National Vegetation Map (2018), and relevant biodiversity plans (Pool-Stanvliet 2017, SANBI 2021).

5.2 Field assessment

The field assessment was conducted over two days (19 and 20 July 2023). The specialist walked the proposed development footprint from west while collecting data. All plant and tree species were noted, photographed, and identified on-site if possible. Plants and trees that could not be identified during the field survey were later identified using available literature and taxonomic experts. The specialist also took drone imagery to give a better view of the proposed development footprint.

6. RESULTS: DESKTOP ASSESSMENT

6.1 Climate

The Mean Annual Precipitation (MAP) for Groot Brakrivier is approximately 459 mm, with approximately 40% of the rain falling in summer (October–March) and 60% in winter (April–September). Mean daily maximum and minimum temperatures are 26.8°C and 7.7°C for February and July, respectively (Mucina & Rutherford 2006).

6.2 Topography, geology, and soils

The proposed development footprint is located on a relatively flat area with a very slight gradient from west to east. The highest elevation on the proposed pipeline upgrade is at 10 metres above sea level (MASL), while the lowest point is at 1 MASL. The area is mostly underlain by the clastic sedimentary rocks of the Kirkwood Formation (Mesozoic Uitenhage Group). In the east, quartzite, schist, and phyllite of the Kaaimans Group (Namibian Erathem) and Cape Granite (edges of high coastal cliffs) are also present. In parts along the coast, these rocks are covered by the unconsolidated dune sand of the Strandveld. See **Figure C** for a map of the soil types present at the proposed development footprint (Mucina & Rutherford 2006).

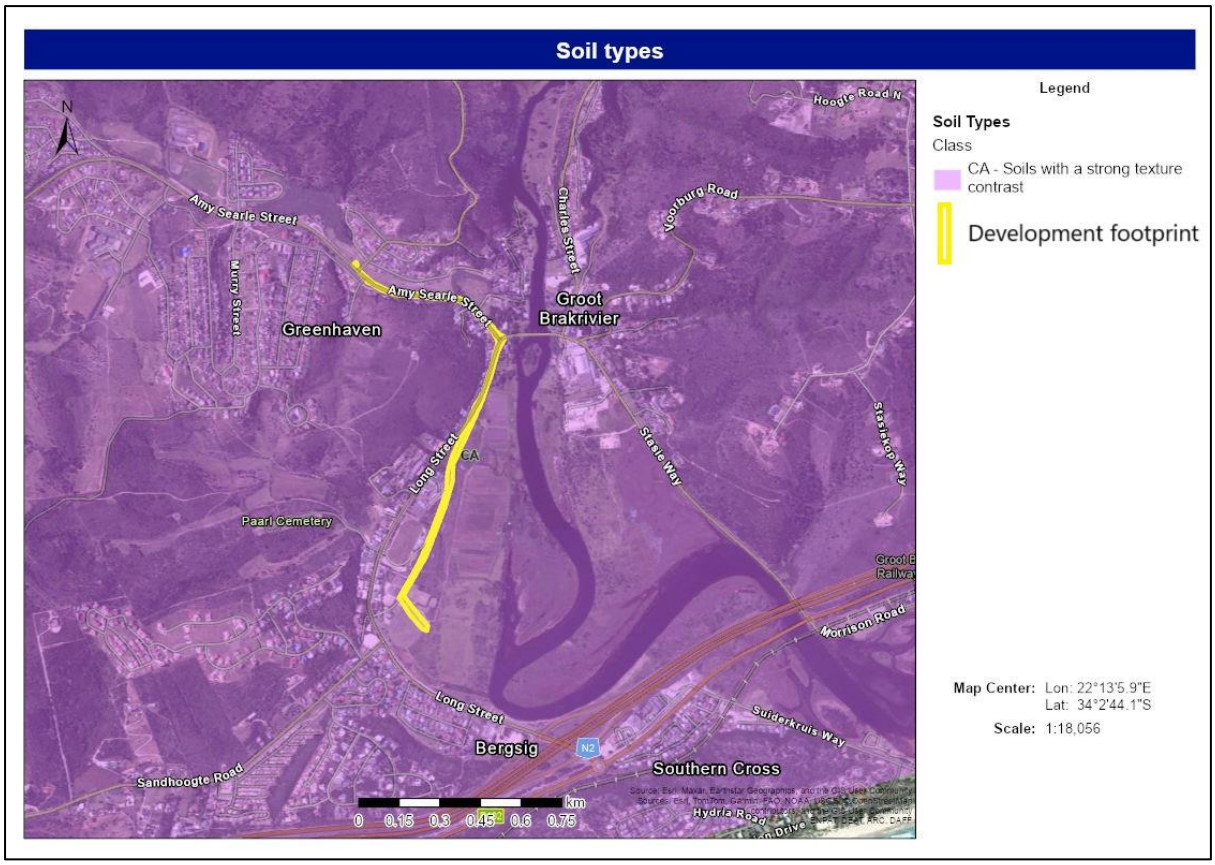


Figure C: Map indicating the different soil types on and near the proposed development footprint

6.3 VEGETATION

6.3.1 General Context

Groot Brakrivier town, where the proposed development is situated, is part of the Cape Floristic Region (CFR). The CFR is renowned for its botanical diversity, containing over 9,000 vascular plant species, 69% of which are endemic (Goldblatt & Manning 2000). The CFR encompasses most of the Cape Fold Mountains and coastal lowlands stretching from Niewoudtville to Gqeberha. The Fynbos Biome consists of three primary vegetation complexes: Fynbos, Renosterveld, and Western Strandveld. The Fynbos complex is the most extensive, covering 67% of the Fynbos Biome, while Western Strandveld covers the smallest area within the Fynbos Biome. The proposed development site is located within this Western Strandveld complex. The Western Strandveld complex is subdivided into nine different vegetation units, of which one, Groot Brak Dune Strandveld, is the mapped vegetation unit across the proposed development footprint.

6.3.2 Local vegetation context

Groot Brak Dune Strandveld (**Figure D**) is listed as Critically Endangered (CR), with a Target of 36%. None of it is protected in statutory conservation areas, and only about 1% is safeguarded in private reserves (George, Kanon, Blydskap, Kwelanga). Nearly half of the region has been transformed for agriculture, through road construction or coastal settlement development. Erosion levels vary, ranging from moderate to high, with some areas classified as low. In 1990, 53% of the original extent of this vegetation was still present, and in 2018, this had declined to 45%, placing the ecosystem type at risk of collapse.

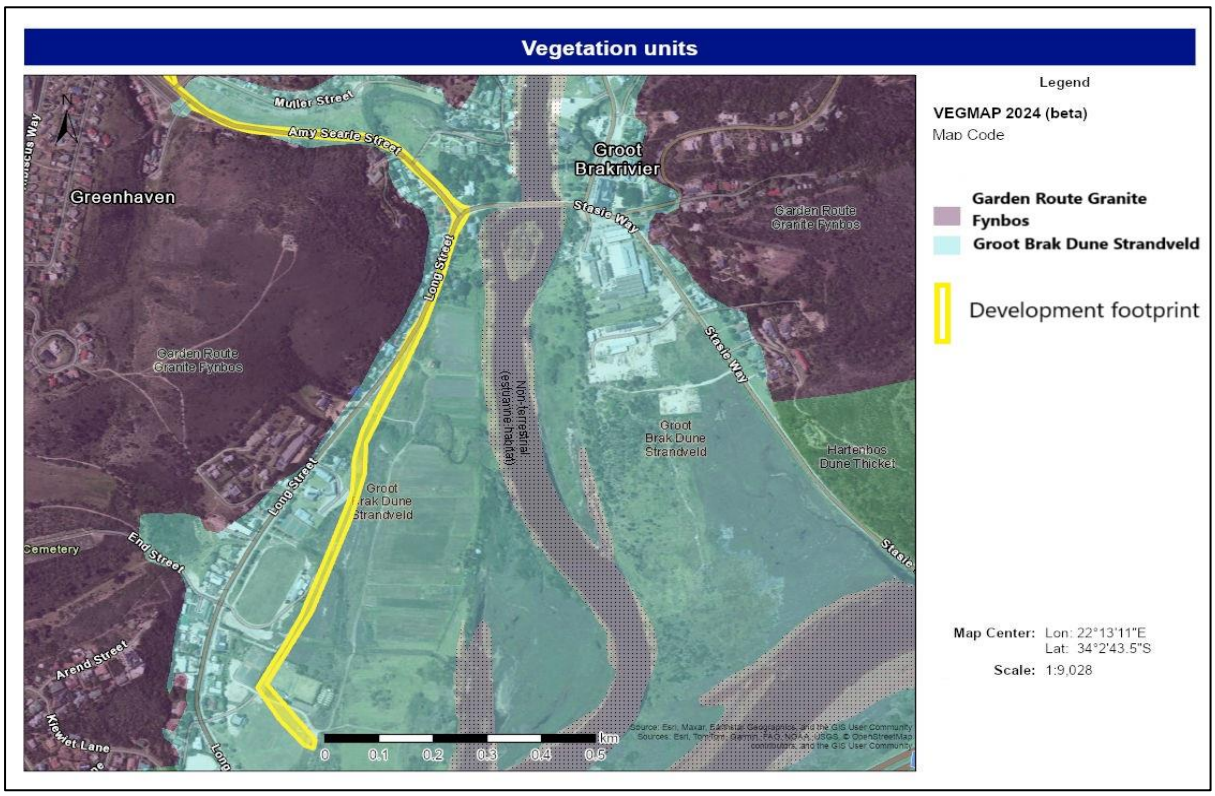


Figure D: Vegetation unit map for the proposed development footprint

6.3.3 Vlok Vegmap

The Vlok Vegmap composite vegetation map of the Riversdale, Little Karoo, Swartberg, and Garden Route regions of the Southern Cape, as classified by Jan Vlok, was mapped at a scale of 1:50,000 for various projects and combined into one continuous layer. The Vlok Vegmap mapped the vegetation unit along Amy Searle Street as Brandwag Fynbos Renosterveld Thicket and the section along Lang Street as Groot Brak River Saltmarsh, as displayed in **Figure E.** There is no conservation statuses linked to the vegetation units as mapped by the Vlok Vegmap.

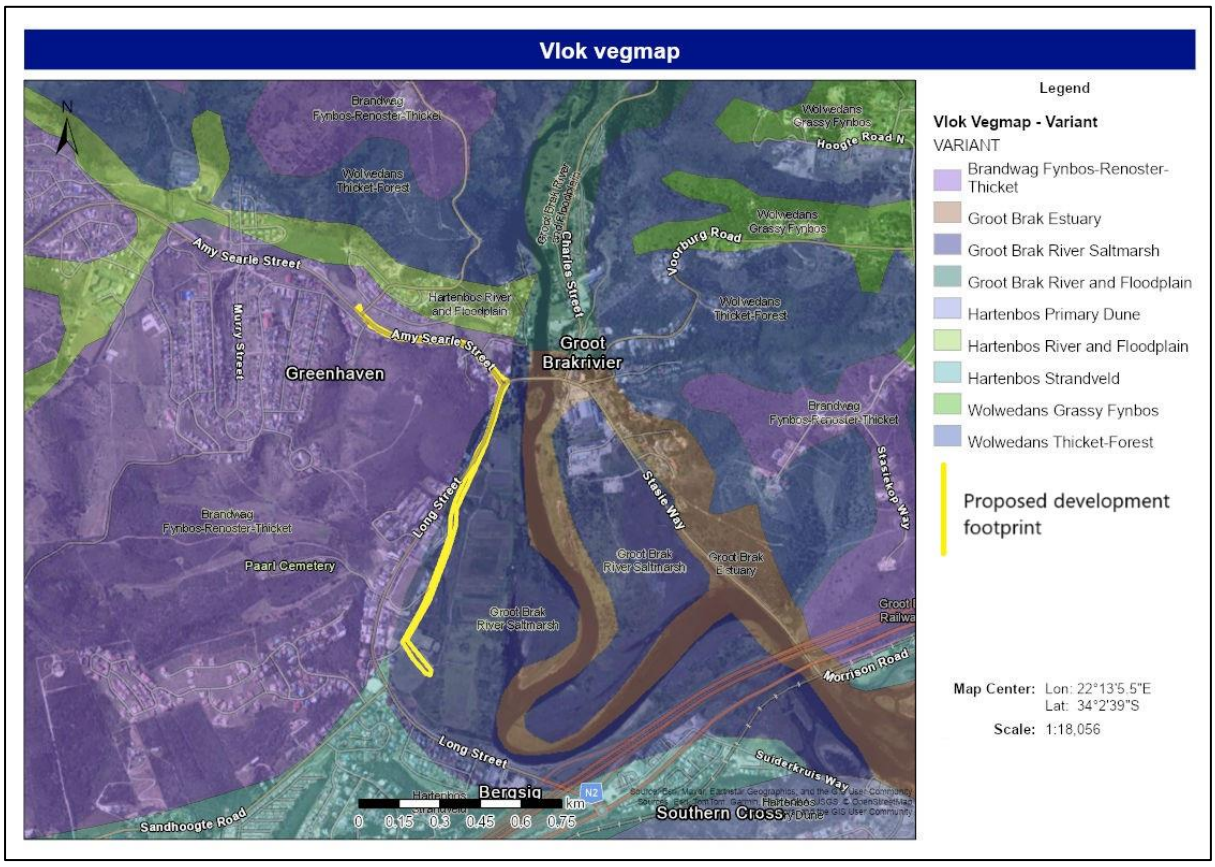


Figure E: The Vlok Vegmap for the proposed development footprint

6.4 Plant species

According to Mucina & Rutherford (2006), important taxa in Groot Brak Dune Strandveld include: **Important Taxa** Small Trees: *Chionanthus foveolatus*, *Clausena anisata*. Tall Shrubs: *Azima tetracantha*, *Cussonia thyrsiflora*, *Diospyros dichrophylla*, *Euclea racemosa* subsp. *racemosa*, *Grewia occidentalis*, *Gymnosporia buxifolia*, *Maytenus procumbens*, *Metalasia muricata*, *Morella cordifolia*, *Myrsine africana*, *Mystroxylon aethiopicum*, *Olea exasperata*, *Pterocelastrus tricuspidatus*, *Putterlickia pyracantha*, *Rhus crenata*, *R. glauca*, *R. longispina*, *R. lucida*, *Schotia afra* var. *afra*, *Sideroxylon inerme*, *Tarchonanthus littoralis*. Low Shrubs: *Asparagus suaveolens*, *Ballota africana*, *Carissa bispinosa* subsp. *bispinosa*, *Chironia baccifera*, *Clutia daphnoides*, *Eriocephalus africanus* var. *africanus*, *Helichrysum teretifolium*, *Lauridia tetragona*, *Phylica axillaris*, *Polygala myrtifolia*. Succulent Shrubs: *Aloe arborescens* (d), *Cotyledon orbiculata* var. *dactylopsis*, *Crassula perforata*, *C. pubescens* subsp. *pubescens*, *Euphorbia burmannii*, *E. mauritanica*, *Tetragonia fruticosa*, *Zygophyllum morgsana*. **Biogeographically Important Taxa**

(both South Coast endemics) Herb: Indigofera tomentosa. Geophytic Herb: Freesia alba (Mucina & Rutherford 2006).

6.5 Environmental Screening Tool results

Regulation 16(1)(b)(v) of the Environmental Impact Assessment Regulations requires an applicant for an Environmental Authorisation to submit a report generated by the Environmental Screening Tool as part of their application. This tool became operational on 5 July 2019, as announced in the Government Gazette. The screening tool report will identify the environmental sensitivities that intersect with the proposed development footprint, as defined by the applicant, as well as the relevant protocols that the applicant must follow. The screening tool is accessible at https://screening.environment.gov.za. The Environmental Screening Tool Report rated the terrestrial biodiversity theme as very high sensitivity for the proposed pipeline upgrade. The image from the Environmental Screening Tool Report is displayed in **Figure E.**

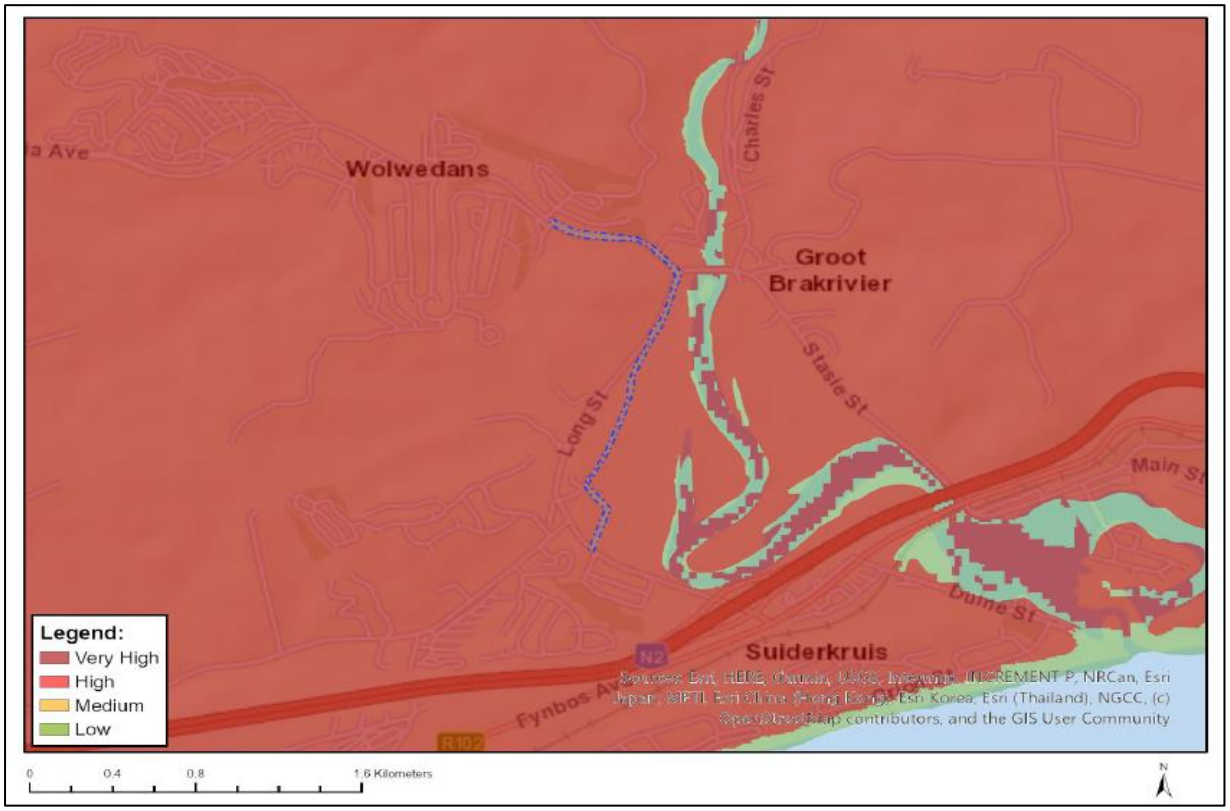


Figure E: Map indicating the terrestrial biodiversity theme sensitivity rating for the proposed development footprint and surrounding areas.

The environmental screening tool also lists the individual features that are responsible for the very high rating of the terrestrial biodiversity theme. These features are listed in **Table 1.**

Table 1: Sensitivity rating of the terrestrial biodiversity features as listed in the environmental screening tool report for the proposed development footprint

Sensitivity rating	Feature	Conservation status
Very High	CBA2: Terrestrial	NA
Very High	Garden Route Granite Fynbos	Critically Endangered
Very High	Groot Brak Dune Strandveld	Critically Endangered

6.6 Spatial Planning

6.6.1 Critical Biodiversity Areas and Ecological Support Areas

Critical Biodiversity Areas (CBAs) are areas that must be safeguarded in their natural or near-natural state because they are essential for conserving biodiversity and maintaining ecosystem functioning. The spatial planning map for Groot Brakrivier (**Figure F**) indicates that the proposed development footprint does not cross over any terrestrial CBA. The footprint does intersect with CBA Wetland and CBA Estuary near Lang Street. **Figure G** provides a zoomed-in version of **Figure F to** show more detail on the CBA Wetland demarcation. No Ecological Support Areas (ESAs) are mapped near the proposed development footprint. ESAs that are not essential for meeting biodiversity targets but play an important role in supporting the functioning of protected areas or critical biodiversity areas are often vital for delivering ecosystem services. The 2023 Western Cape Biodiversity Spatial Plan (WC BSP) was formally adopted into law on the 13th of December 2024 (Gazette Extraordinary 9017) in alignment with the Western Cape Biodiversity Act (No. 6 of 2021). This marks the replacement of the 2017 WC BSP with the 2023 WC BSP.

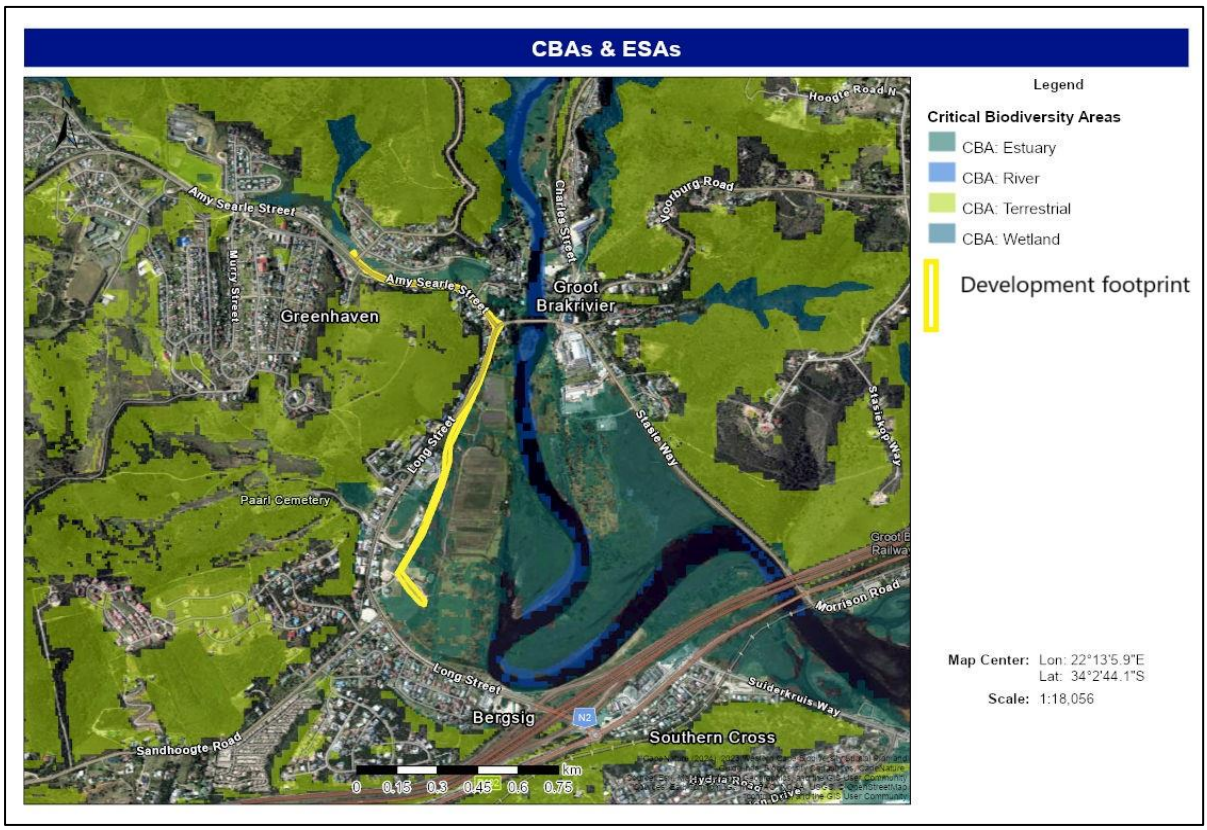


Figure F: Spatial planning map for Groot Brakrivier.

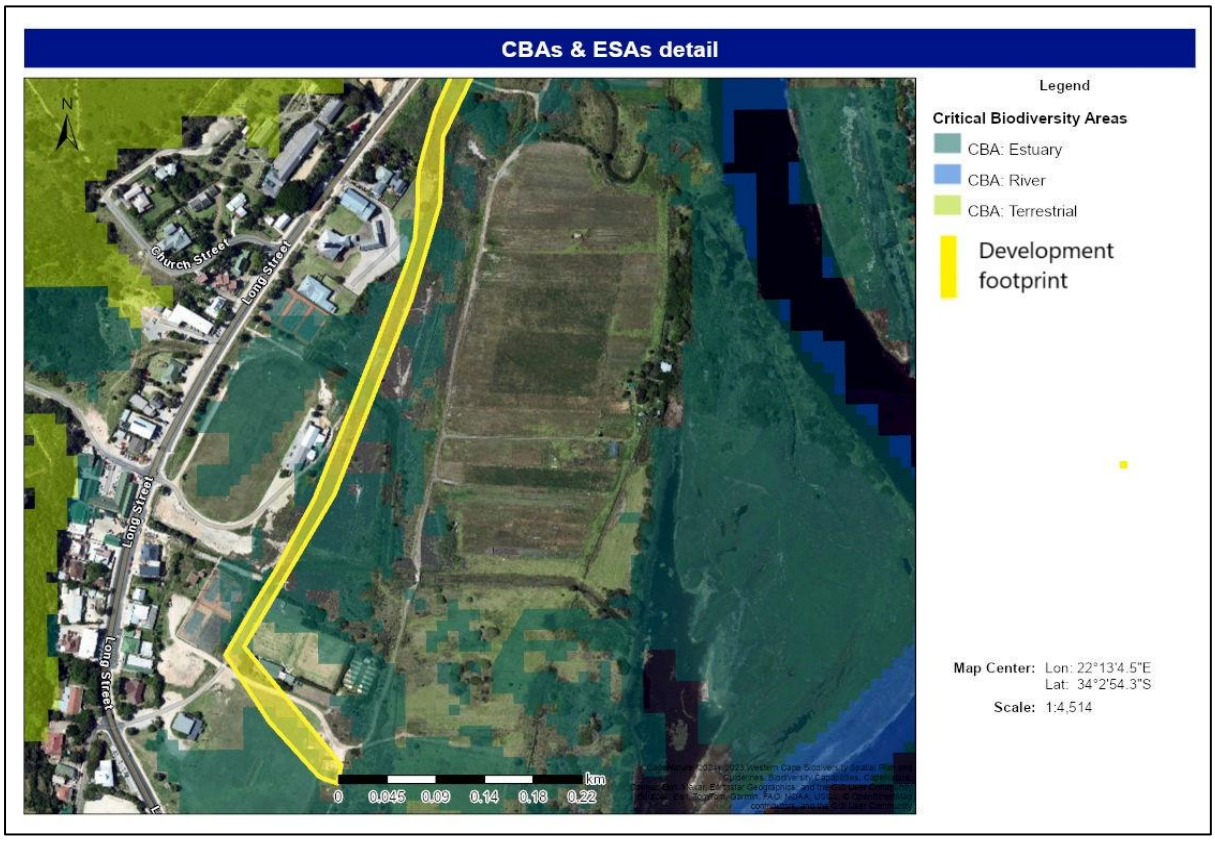


Figure G: Spatial planning map for the southern section of the proposed development footprint

6.6.2 Reasons for CBA status

The Biodiversity Spatial Plan (2017) for the Western Cape provides reasons for the inclusion of areas into CBAs. These reasons for the CBAs at the proposed development footprint are summarized in **Table 3**.

Table 3: Reasons for the inclusion of CBAs at the proposed development footprint

Summary 1:	Climate adaptation corridor (14.28), Ecological processes (8.82), Estuary (14.29), River Type (3.21), SA Vegetation Type (2.32), Threatened SA Vegetation Type (8.13), Threatened Vertebrate (11.4), Water resource protection (7.69)
Feature 1:	Bontebok Extended Distribution Range
Feature 2:	Cape Coastal Lagoons (LT)
Feature 3:	Climate adaptation corridor
Feature 4:	FEPA River Corridor
Feature 5:	Groot Brak Dune Strandveld (EN)
Feature 6:	Groot Brak Estuary
Feature 7:	Southern Coastal Belt Permanent Lowland River
Feature 8:	Watercourse protection- Southern Coastal Belt

6.6.3 Special Habitats, Indigenous Forest, Connectivity, and Corridors

The proposed southern section of the proposed development footprint is close to the Groot Brak estuary. The proposed development footprint is not within the estuary boundaries but part of a buffer zone between the estuary and urban development.

6.6.4 Protected Areas

There are no formally protected areas near the proposed development footprint. Groot Brakrivier does fall in the domain of the Gouritz Cluster Biosphere Reserve as indicated in **Figure H**. The proposed development footprint is also not in an area that forms part of a protected area expansion strategy.

Figure H: Protected areas map for the area that includes Groot Brakrivier

7. RESULTS: FIELD ASSESSMENT

7.1 Vegetation units

The natural vegetation (Groot Brak Dune Strandveld) has been historically transformed for urban development across most of the proposed development footprint. The range of photos and maps covers the proposed development footprint from north to south and is displayed in **Figures 1** to **17**. The yellow shaded area in the maps indicates the area visible in the adjoining photograph. There are small sections that retain elements of the original vegetation, but more than 75% of the area is fully transformed. Large sections are maintained as lawns, and sidewalks that are either paved or tarred. No visible natural plant communities are still intact.

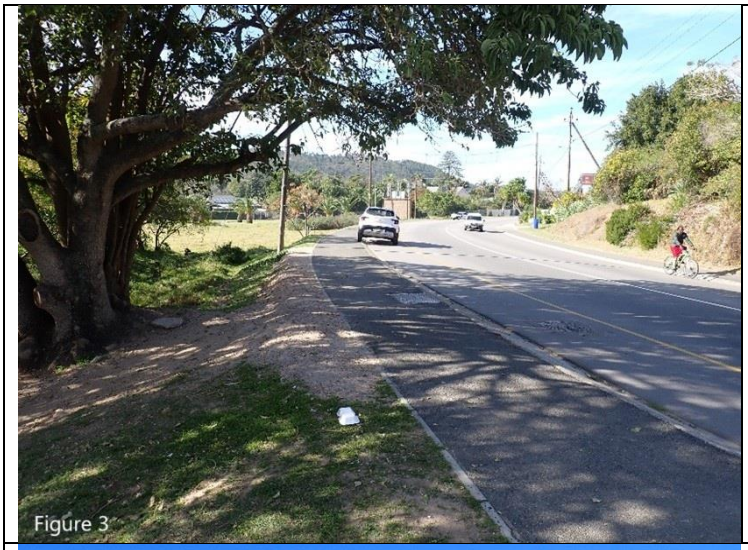


Figure 3

Figure 4

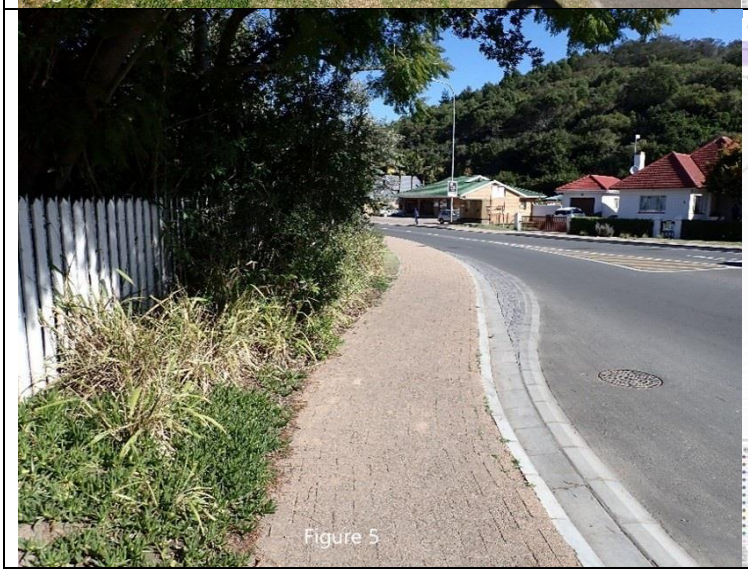


Figure 5

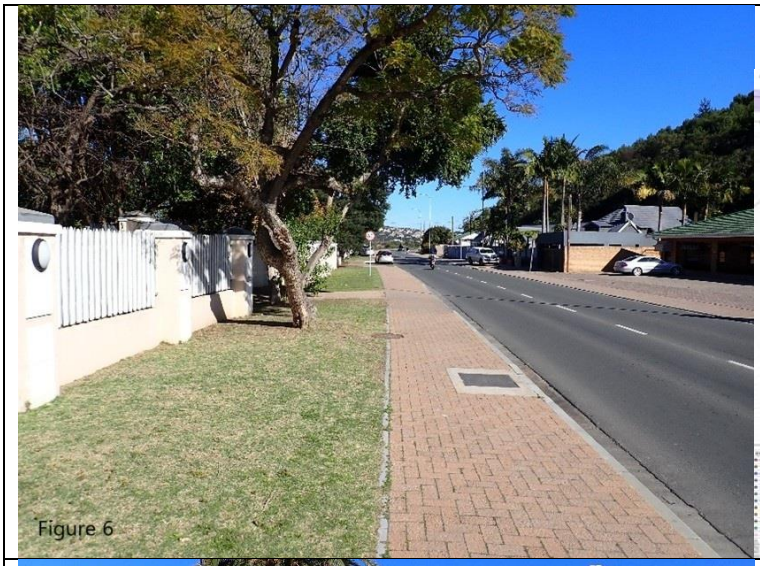
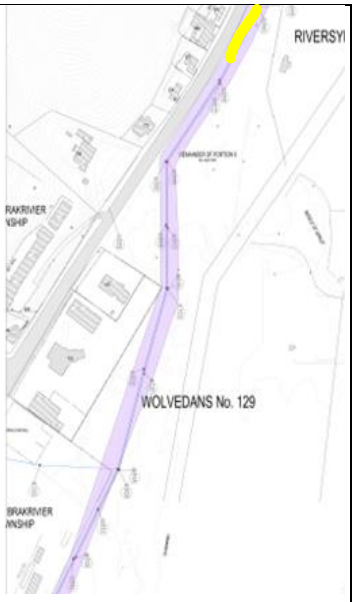


Figure 6

Figure 7

Figure 8


Figure 9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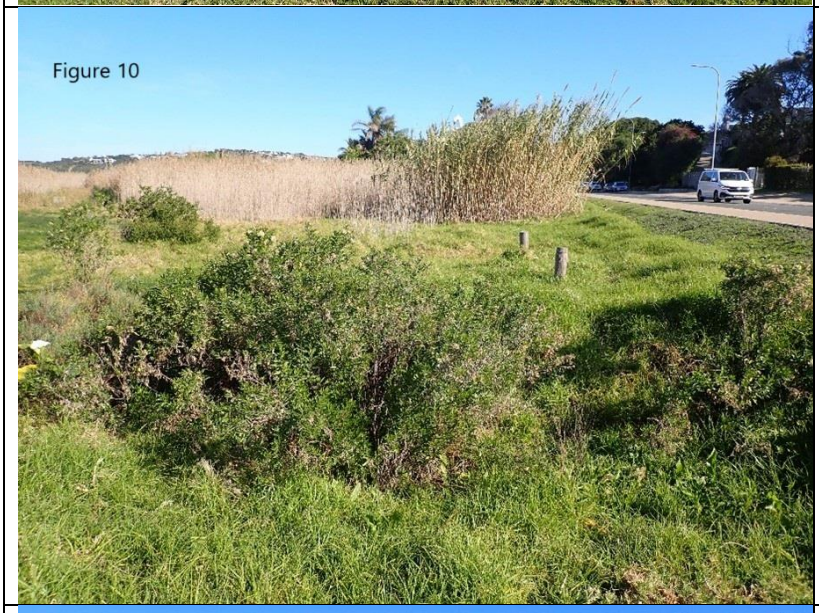
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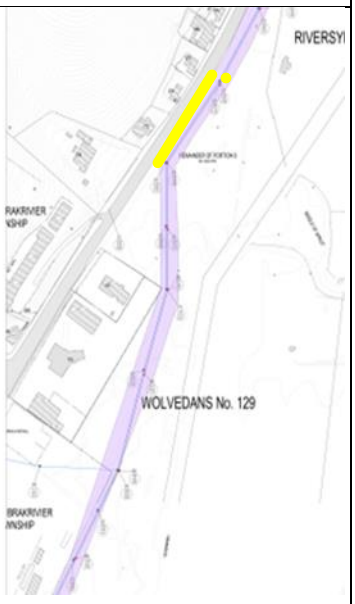
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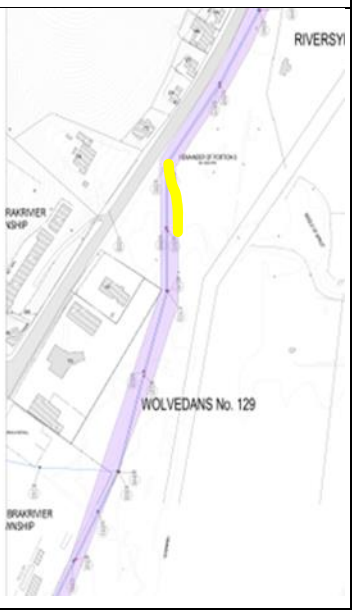
Figure 11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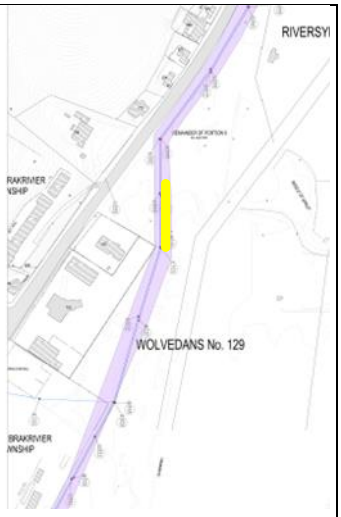
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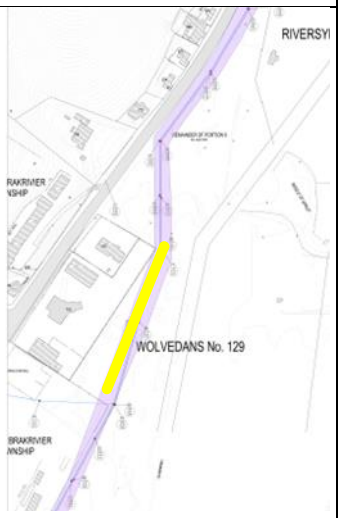
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Figure 14

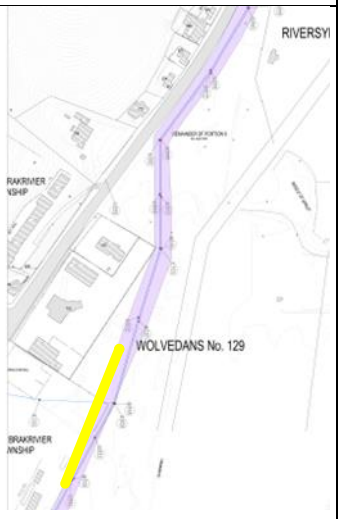
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Figure 15

Figure 16

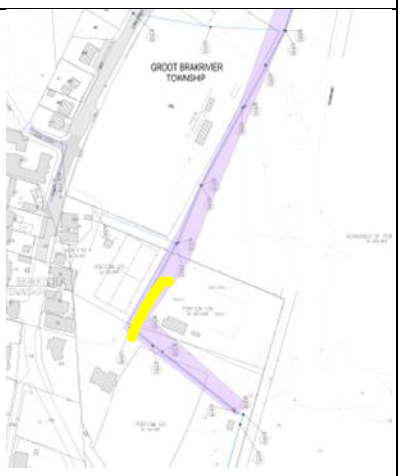

Figure 17

7.2 Critical Biodiversity areas reason verification

Reasons for the CBA status within the proposed development footprint	Comment on the reason
Bontebok Extended Distribution Range	There are no Bontebok habitat within the proposed development footprint.
Cape Coastal Lagoons (LT)	The proposed development will have no impact.
Climate adaptation corridor	The linear activity will temporarily alter the already transformed environment, but the area should return to its current state within two years.
FEPA River Corridor	The linear activity will temporarily alter the already transformed environment, but the area should return to its current state within two years.
Groot Brak Dune Strandveld (EN)	Only a few elements of this vegetation unit exist, as most have been almost completely transformed
Groot Brak Estuary	The activity will not impact the Groot Brak Estuary.
Southern Coastal Belt Permanent Lowland River	The activity will not impact the Groot Brak River.
Watercourse protection- Southern Coastal Belt	The activity will temporarily impact the artificial drainage lines that cross the proposed development footprint.

7.3 Plant species

No plant species of conservation concern were located within the proposed development footprint. More details are contained in the Plant Species Compliance statement.

7.4 Animal species

No animal species of conservation concern were located within the proposed development footprint. More details are contained in the Animal Species Compliance statement.

8. CONCLUSIONS

The site sensitivity is verified to be Low from a terrestrial biodiversity perspective and not Very High as rated in the Environmental Screening Tool. This finding is based on:

- No functional plant communities of the original vegetation unit (Groot Brak Dune Strandveld) remain in the proposed development footprint. The other vegetation unit listed in the environmental screening tool report, Garden Route Granite Fynbos, is not present in the proposed development footprint.
- The Critical Biodiversity Areas that are located within the proposed linear development footprint area are mostly transformed and would also return to their current state within two years.

The specialist therefore recommends that the development proceed as planned from a terrestrial biodiversity perspective if the mitigation measures in **Section 9** are captured in the Environmental Management Plan Report.

9. PROPOSED IMPACT MANAGEMENT OUTCOMES OR ANY MONITORING REQUIREMENTS FOR INCLUSION IN THE ENVIRONMENTAL MANAGEMENT PROGRAM.

- The proposed development footprint should be fully demarcated (stakes and danger tape) during the construction phase, and all construction activities must be done within this demarcated area.
- In the areas as displayed in Figures 11 to 14, the topsoil that is removed during construction must be kept separate from the lower soil and replaced accordingly.
- Alien invasive trees (Acacia spp.) within the proposed development footprint in the section, as displayed in Figures 11 to 14, should be removed.

REFERENCES

Brownlie, S. 2006. Guideline for involving biodiversity specialists in EIA processes: Edition 1. CSIR Report No ENV-S-C 2005 053 C. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs & Development Planning, Cape Town.

Cadman, M. (ed.) 2016. Ecosystem Guidelines for Environmental Assessment in the Western Cape, Edition 2. Fynbos Forum, Cape Town.

DEA 2022. Revised National List of Ecosystems that are threatened and in need of protection. Government Gazette No. 47526. Government Printer, Pretoria.

Manning, J. and Goldblatt, P. 2000. Cape Plants. A conspectus of the Cape Flora of South Africa, *Strelitzia 9*. South African National Biodiversity Institute, Pretoria.

Pence, G. 2017. Western Cape Spatial Biodiversity Plan. CapeNature, Cape Town, South Africa.

Pool-Stanvliet, R., Duffell-Canham, A., Pence, G. & Smart, R. 2017. The Western Cape Biodiversity Spatial Plan Handbook. Stellenbosch: CapeNature.

Rutherford, M.C. and Mucina, L. 2006. Introduction. In: Mucina, L. & Rutherford, M.C. (eds), The vegetation of South Africa, Lesotho, and Swaziland: 3-10. SANBI, Pretoria.

SANBI 2018, Vegetation Map of South Africa, Lesotho, and Swaziland [vector geospatial dataset] 2018. website http://bgis.sanbi.org/

SANBI. 2018. Using CBA Maps to support land-use planning and decision-making. SANBI Factsheet Series. South African National Biodiversity Institute, Pretoria.

SANBI 2021 South Africa's Terrestrial Red List of Ecosystems (RLE): Technical report on the revision of the "List of terrestrial ecosystems that are threatened and in need of protection". Report 7639. South African National Biodiversity Institute, Pretoria, South Africa. http://hdl.handle.net/20.500.12143/7639.

Turner, A.A. (ed) 2017. Western Cape Province State of Biodiversity 2017. CapeNature Scientific Services, Stellenbosch.