



Comprehensive Biodiversity Compliance Statement:

Proposed boundary wall and decked storage area construction on
Erf 3132 Sea Vista, St Francis, Kouga Municipality, Eastern Cape

Report v. 1.1
06 February 2024



Report by:

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Report for:

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1. Introduction

1.1 Background

This comprehensive biodiversity assessment was commissioned by Eco Route Environmental Consulting to inform the Basic Assessment process being undertaken for the proposed development of a boundary wall and decked storage area on Erf 3132 Sea Vista (hereafter “the site”) in St Francis, Kouga Municipality, Eastern Cape Province (Figure 1). The project proponent proposes to construct a boundary wall as well as a storage area with a deck on the eastern section of the site (Figure 2). The site, covering 0.24 ha, is located between Lovemore Crescent, which forms the northern boundary of the site, and the access road to the old harbour, which bounds the site to the east. Residential properties lie to the north and south of the site, while the surrounding landscape comprises mainly coastal residences and semi-natural open spaces. The site occurs within 100 m of the littoral active zone, which occurs to the east, hence the need for a Basic Assessment.

This assessment will address the environmental themes, as identified by the National Web-Based Environmental Screening Tool (<https://screening.environment.gov.za>) (hereafter “the Screening Tool”), that are relevant to the freshwater and terrestrial environment, i.e. the *Aquatic Biodiversity*, *Terrestrial Biodiversity*, *Plant Species* and *Animal Species* themes. The environmental sensitivity of the site with respect to each of these themes, as per the Screening Tool, is summarized in Table 1. The assessment has further been conducted in line with the protocols for the assessment and minimum reporting requirements for each of these themes, as gazetted in terms of the National Environmental Management Act 107 of 1998 (NEMA) Environmental Impact Assessment (EIA) Regulations (Notice No. 320, Government Gazette 43110, 20 March 2020). The assessment further follows practices outlined in the *Species Environmental Assessment Guideline* (SANBI, 2020) and the *Environmental Assessment Guideline for Ecosystems* (SANBI, 2022).

Table 1: The environmental sensitivity of Erf 3132 Sea Vista identified by the National Web-based Environmental Screening Tool for the environmental themes assessed in this report.

Theme	Sensitivity
Aquatic Biodiversity	LOW
Terrestrial Biodiversity	VERY HIGH
Animal Species	MEDIUM
Plant Species	MEDIUM

1.2 Terms of Reference

The scope of work included the following tasks within the proposed development site as per Figure 1:

1. A desktop assessment of available information to identify:
 - a. The freshwater and terrestrial ecosystems and associated threat statuses and protection levels, in terms of applicable regional biodiversity assessments (2011 National Freshwater Ecosystem Priority Areas, National Spatial Biodiversity Assessment 2018, draft 2019 Eastern Cape Biodiversity Conservation Plan).
 - b. Plant and animal Species of Conservation Concern (SCC) likely to occur on site.

- c. Critical Biodiversity Areas (CBA) and Ecological Support Areas (ESA), in terms of applicable regional conservation planning frameworks (2010 Garden Route Biodiversity Sector Plan, draft 2019 Eastern Cape Biodiversity Conservation Plan).
 - d. Protected Areas and Focus Areas for Protected Area Expansion, in terms of the South African Protected Area Database and National Protected Area Expansion Strategy.
2. A site inspection to verify and describe:
 - a. The distribution and ecological state of freshwater and terrestrial ecosystems, supported by relevant photographs.
 - b. The likely occurrence or distribution and estimated abundances of animal and plant SCC, supported by relevant photographs.
 - c. The overall sensitivity of the site in terms of the *Aquatic Biodiversity*, *Terrestrial Biodiversity*, *Plant Species* and *Animal Species* themes.
 3. Based on the findings of the desktop assessment and site inspection, prepare a compliance statement for the *Aquatic Biodiversity*, *Terrestrial Biodiversity*, *Plant Species* and *Animal Species* themes.



2. Methodology

2.1 Desktop Study

Terrestrial ecosystems and freshwater ecosystems were identified from the following sources:

- The vegetation map for the Garden Route Initiative (Vlok et al., 2008);
- The Vegetation Map of South Africa, Lesotho and Swaziland 2018 version (VEGMAP; SANBI, 2006–2018, 2018a), which reflects important recent updates for the region under study (Dayaram et al., 2019);
- The 2011 National Freshwater Ecosystem Priority Areas (NFEPAs; Nel et al., 2011) atlas;
- The 2018 South African Inventory of Inland Aquatic Ecosystems (SAIIAE; Van Deventer et al., 2018).

Ecosystem threat statuses and protection levels were identified from

- The 2018 National Biodiversity Assessment (SANBI, 2018b; Skowno et al., 2019);
- The draft 2019 ECBCP.

Plant SCC that could occur at the site were identified from the following sources:

- The Screening Tool;
- The online Red List of South African Plants v. 2020 (SANBI, 2012–2020) (<http://redlist.sanbi.org>);
- The Custodians of Rare and Endangered Wildflowers (CREW) Eastern Cape database (V. Zikishe, pers. comm.);
- Observations submitted to the iNaturalist online biodiversity database (<https://www.inaturalist.org>);
- The Botanical Database of Southern Africa (<http://posa.sanbi.org/>).

Animal SCC that could occur at the site were identified from the following sources:

- The Screening Tool;
- The Red List of South African Species (<http://speciesstatus.sanbi.org/>);

- Observations submitted to the iNaturalist online biodiversity database (<https://www.inaturalist.org>).

Regional conservation priority areas were identified from the following sources:

- The 2010 Garden Route Biodiversity Sector Plan (GRBSP; Vromans et al., 2010)
- The draft 2019 Eastern Cape Biodiversity Conservation Plan (ECBCP; Eastern Cape Department: Economic Development, Environmental Affairs and Tourism, 2020)
- The 2017 National Protected Areas Expansion Strategy (NPAES; Government of South Africa, 2016).
- The latest versions of the South African Protected Areas Database (SAPAD 2023 Q2) and the South African Conservation Areas Database (SACAD 2023 Q2) (https://egis.environment.gov.za/protected_and_conservation_areas_database)

Historical aerial and satellite imagery were used to investigate the landuse history of the site and were obtained from the following sources:

- Google Earth Pro version 7.3.6.9345;
- The Chief Directorate: National Geo-Spatial Information data portal (<http://cdngiportal.co.za>).

2.2 Site Inspection

Areas of suspected intact habitat, previously identified using Google Earth, were the focus of the inspection as these areas were most likely to harbour SCC. However, the entire site was inspected due to its small surface area. During the survey, habitats were assessed for their ecological condition and surveyed for their dominant and typical component plant species. All habitats were photographed using an Olympus TG-6 camera. Georeferenced photographs of all recorded species were submitted to the iNaturalist online biodiversity database and are viewable at the following web address: https://www.inaturalist.org/observations?q=Erf3132_SeaVista. Further details of the site inspection for this study are provided in Table 2.

Table 2: Site inspection details for Erf 3132 Sea Vista in St Francis, Kouga Municipality, Eastern Cape.

Date:	27 September 2023
Duration:	1 hour
Season:	Spring
Season Relevance:	As the site falls in the coastal, temperate climate, year-round rainfall zone, seasonality is muted and thus the phenology of plants and vegetation is also muted in comparison with more seasonal regions. The spring sampling is considered appropriate as most plant species were identifiable. Spring is also an optimal season for plant sampling in the local bioregion (SANBI, 2022).

2.3 Assumptions and Limitations

The following assumptions and limitations apply to the findings of this investigation:

- It is assumed that all third-party information used (e.g., spatial data, satellite imagery) was correct at the time of generating this report;
- The site inspection was restricted to a single season, namely spring, but due to this season being optimal for sampling in the local bioregion, no additional seasonal samplings are deemed necessary.



Figure 1: The location on Erf 3132 Sea Vista (the site) in St Francis, Kougga Municipality, Eastern Cape. Inset shows the proposed construction area and representative sites (see Table 3).



3. Results

3.1 Ecosystems

3.1.1 Freshwater Ecosystems

No important freshwater ecosystems were identified near the site by the 2011 NFEPA or the 2018 SAIIAE. The absence of freshwater ecosystems at the site was verified during the site inspection.

3.1.2 Terrestrial Ecosystems

Terrestrial ecosystems that historically occurred at the site, as identified by various mapping projects, are indicated in Table 3.

Table 3: Historical terrestrial ecosystems identified at the site by various vegetation mapping projects.

Source	Ecosystem name	Threat status	Protection level
GRI vegetation map	Inland Primary Dune	Vulnerable	–
VEGMAP 2018	St Francis Dune Thicket	Least Concern	Poorly Protected
2019 ECBCP	Algoa Dune Thicket	Near Threatened	–

Based on historical aerial imagery (Appendix 1) and the findings of the site verification (Table 3), it is most likely that the site would historically have supported a primary dune ecosystem rather than dune thicket (or a mosaic of dune thicket and dune fynbos like St Francis Dune Thicket). At present, the site comprises a landscaped garden fronted by a small patch of primary dune on the east (Table 3), but which has been subject to significant historical disturbance for more than 50 years (Appendix 1).

3.2 Species of Conservation Concern

3.2.1 Animal SCC

Animal SCC identified during the desktop assessment as well as their likelihood to occur on site, based on the findings of the site inspection, are indicated in Table 4. Note that these species were not recorded during the site inspection, and no suitable habitat for these species occur on site (see Table 6).

Table 4: Animal species of conservation concern (SCC) with possible occurrence near Erf 3132 Sea Vista.

Species	Status	Likelihood	Justification
<i>Stephanoaetus coronatus</i> (bird)	Vulnerable	Low	No suitable habitat.
<i>Aneuriphymus montanus</i> (invertebrate)	Vulnerable	Low	No suitable habitat.

3.2.2 Plant SCC

Plant SCC identified during the desktop assessment as well as their likelihood to occur on site, based on the findings of the site inspection, are indicated in Table 5. Note that these species were not recorded during the site inspection, and no suitable habitat for these species occur on site (see Table 6). Recent

botanical surveys in nearby habitat similar to that found at the current site (Grobler, 2022a, 2022b, 2023) also showed that plant SCC are unlikely to occur here.

Table 5: Plant species of conservation concern (SCC) with possible occurrence near Erf 3132 Sea Vista.

Species	Status	Likelihood	Justification
<i>Agathosma stenopetala</i>	Vulnerable	Low	No suitable habitat; high sampling effort without detection.
<i>Aspalathus recurvispina</i>	Critically Endangered	Low	No suitable habitat; high sampling effort without detection.
<i>Capeochloca cincta</i> subsp. <i>sericea</i>	Vulnerable	Low	No suitable habitat; high sampling effort without detection.
<i>Centella tridentata</i> var. <i>hermanniifolia</i>	Rare	Low	No suitable habitat; high sampling effort without detection.
<i>Cotyledon adscendens</i>	Endangered	Low	No suitable habitat; high sampling effort without detection.
<i>Erica chloroloma</i>	Vulnerable	Low	No suitable habitat; high sampling effort without detection.
<i>Erica glandulosa</i> subsp. <i>fourcadei</i>	Vulnerable	Low	No suitable habitat; high sampling effort without detection.
<i>Erica glumiflora</i>	Vulnerable	Low	No suitable habitat; high sampling effort without detection.
<i>Hyobanche robusta</i>	Vulnerable	Low	No suitable habitat; high sampling effort without detection.
<i>Lebeckia gracilis</i>	Endangered	Low	No suitable habitat; high sampling effort without detection.
<i>Rapanea gilliana</i>	Endangered	Low	No suitable habitat; high sampling effort without detection.
<i>Syncarpha sordescens</i>	Vulnerable	Low	No suitable habitat; high sampling effort without detection.
Sensitive species 78	–	Low	No suitable habitat; high sampling effort without detection.
Sensitive species 308	–	Low	No suitable habitat; high sampling effort without detection.
Sensitive species 448	–	Low	No suitable habitat; high sampling effort without detection.
Sensitive species 588	–	Low	No suitable habitat; high sampling effort without detection.
Sensitive species 657	–	Low	No suitable habitat; high sampling effort without detection.
Sensitive species 1032	–	Low	No suitable habitat; high sampling effort without detection.
Sensitive species 1192	–	Low	No suitable habitat; high sampling effort without detection.

3.3 Other Listed Species

3.3.1 Protected Species

Protected plant species recorded on site are indicated in Table 6.

Table 6: Protected plant species, listed in terms of the Cape Environmental and Nature Conservation Ordinance 19 of 1974 (ENCO) and National Forests Act 84 of 1998 (NFA), that were recorded on Erf 3132 Sea Vista.

Species	Category	Abundance
<i>Cynanchum obtusifolium</i>	ENCO Schedule 4	Low
<i>Carpobrotus deliciosus</i>	ENCO Schedule 4	Low
<i>Sideroxylon inerme</i>	NFA	Low

3.3.2 Alien Invasive Species

Alien invasive plant species recorded on site are indicated in Table 7.

Table 7: Alien invasive plant species, listed in terms of the National Environmental Management: Biodiversity Act 10 of 2004 (NEMBA), that were recorded on Erf 3132 Sea Vista.

Species	Category	Abundance
<i>Acacia cyclops</i>	NEMBA Category 1b	Moderate
<i>Acacia saligna</i>	NEMBA Category 1b	Low

3.4 Priority Conservation Areas

3.4.1 Critical Biodiversity Areas

2010 Garden Route Biodiversity Sector Plan

The 2010 GRBSP did not identify any Critical Biodiversity Area (CBA) near the site.

2019 Eastern Cape Biodiversity Conservation Plan

No freshwater CBA was identified near the site by the 2019 ECBCP.

The 2019 ECBCP identifies the eastern portion of the site as a terrestrial CBA (Figure 2). This CBA, classified as CBA 2, is associated with the following terrestrial biodiversity features:

- Occurs within 500 m of an important bird area (expert mapped);
- Contributes to conservation target for 'Algoa Dune Thicket' vegetation type (based on "best design" principle);
- Habitat for plant SCC (expert mapped and locality data).

Note, however, that historical aerial imagery (Appendix 1) and the site inspection (Table 3) indicate that the site should **NOT be considered a CBA** as it has existed in a transformed state for more than 50 years, does not contribute to conservation of dune thicket vegetation, and does not provide habitat to plant SCC.

3.4.2 Ecological Support Areas

2010 Garden Route Biodiversity Sector Plan

The 2010 GRBSP did not identify any Ecological Support Area (ESA) near the site.

2019 Eastern Cape Biodiversity Conservation Plan

The 2019 ECBCP places a freshwater ESA, classified as ESA 1, about 160 m north of the site, although no ESA is found at the site (Figure 2).

3.4.3 Protected Areas

According to the SAPAD, no protected areas occur near the site, while the NPAES does not identify any focus areas for protected area expansion in the surrounding landscape. However, it should be noted that the SACAD places the site and its surrounding landscapes in the Garden Route Biosphere Reserve.

Table 8: Descriptions of the terrestrial ecosystems observed on Erf 3132 Sea Vista during the site inspection.





Representative site	Ecosystem description	Biodiversity priority	SCC likelihood	Photo
Site 1	Landscaped garden comprising mainly a hedge of the non-native <i>Brachylaena discolor</i> fringed with a herbaceous layer of <i>Senecio angulatus</i> , as well as a single <i>Rapanea melanophloeos</i> tree (likely planted). The lawn fronting the hedge and garden bed is dominated by <i>Cynodon dactylon</i> .	Low	Animal – Low Plant – Low	
Site 2	A small patch of dune scrub comprising <i>Searsia crenata</i> , <i>Osteospermum moniliferum</i> , <i>Carpobrotus deliciosus</i> and the alien invasive <i>Acacia cyclops</i> . The edge of this patch has likely been landscaped, with the introduction of native species like <i>Carissa bispinosa</i> and <i>Polygala myrtifolia</i> (these may also have regenerated naturally, but have the appearance of horticultural stock rather than wild plants). This site fringes on the primary dune slope of Site 4, and is fronted by a lawn that comprises a mix of <i>Cynodon dactylon</i> and <i>Stenotaphrum secundatum</i> .	Low	Animal – Low Plant – Low	
Site 3	Landscaped garden comprising native species like <i>Carissa bispinosa</i> , <i>Colpoon compressum</i> and <i>Dimorphotheca fruticosa</i> (these shrubs may be natural remnants, but have the appearance of horticultural stock rather than wild plants and seem to be pruned). A single individual of the alien invasive <i>Acacia saligna</i> also occurs here. The surrounding lawn comprises a mix of <i>Cynodon dactylon</i> and <i>Stenotaphrum secundatum</i> .	Low	Animal – Low Plant – Low	
Site 4	A previously disturbed primary dune slope that has since been colonised by a mix of alien and native species. The alien invasive <i>Acacia cyclops</i> is locally abundant, while native species are typical dune pioneers like <i>Ehrharta villosa</i> , <i>Osteospermum moniliferum</i> , <i>Metalasia muricata</i> , <i>Passerina rubra</i> and <i>Tetragonia decumbens</i> . A single wind-pruned individual of the protected tree <i>Sideroxylon inerme</i> occurs here. The mowed strip between the dune slope and road is dominated by <i>Stenotaphrum secundatum</i> .	Low	Animal – Low Plant – Low	



Figure 2: Critical Biodiversity Areas (CBA) and Ecological Support Areas (ESA) identified by the 2019 Eastern Cape Biodiversity Conservation Plan (ECBCP). Inset shows the location of protected plant species on site (see Table 6 for details): *Cynanchum obtusifolium*, white triangle; *Carpobrotus deliciosus*, yellow triangle; *Sideroxylon inerme*, red triangle.



4. Site Sensitivity Verification

The environmental sensitivities of the site, as informed by the desktop assessment and site verification, are indicated in Table 9.

Table 9: The environmental sensitivity of Erf 3132 Sea Vista based on the findings of the desktop study and site inspection.

Theme	Sensitivity	Justification
Aquatic Biodiversity	LOW	No aquatic biodiversity priority areas present.
Terrestrial Biodiversity	LOW	No terrestrial biodiversity priority areas present.
Animal Species	LOW	Low likelihood of supporting animal SCC.
Plant Species	LOW	Low likelihood of supporting plant SCC.



5. Impact Management Actions

The following management actions are proposed to limit and mitigate ecological impacts of the development:

- In accordance with the ENCO, a permit for the destruction of protected plant species listed in Table 6 must be procured from the relevant authorities before construction commences.
- In accordance with the NEMBA, alien invasive species listed in Table 7 must be eradicated from the site and a plan for their ongoing control should be included in the environmental management plan of the development.
- Disturbance to the primary dune vegetation on the eastern boundary of the site should be kept to a minimum so as to minimize risks of wind and water erosion of the underlying dune sand. The placement of netting around cleared areas will further mitigate this risk.



6. Conclusion

This compliance statement is applicable to the site as described in the Basic Assessment documentation and shown in Figures 1 and 2 of this report. Due to the historical transformation of terrestrial ecosystems and the low likelihood of animal and plant SCC occurring here, the site is generally of low sensitivity the construction of a boundary wall and decked storage area is unlikely to have a significant negative impact on aquatic and terrestrial biodiversity or animal and plant SCC. Implementation of impact management actions outlined in Section 5 will further mitigate impacts on the local environment.



References

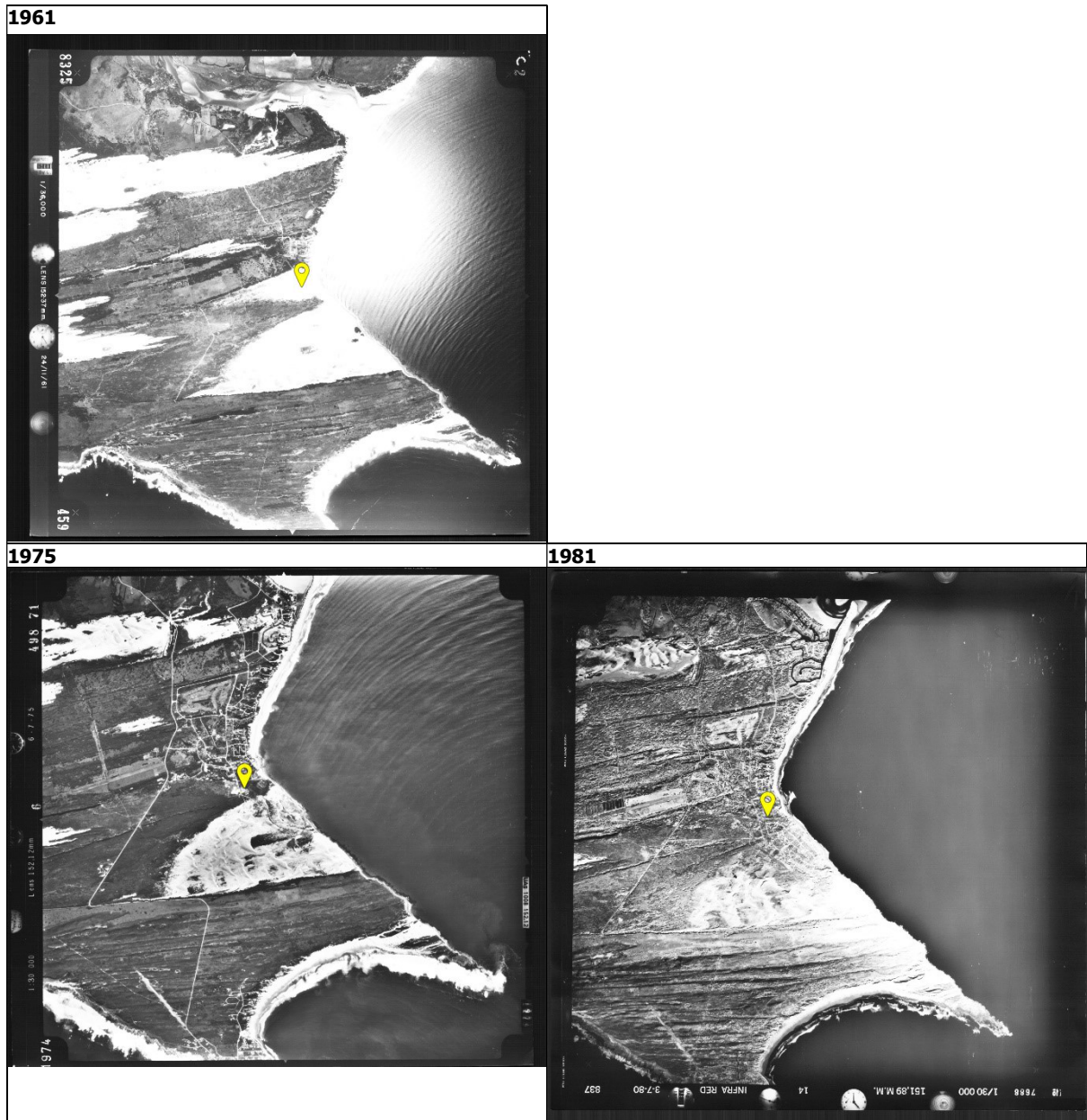
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Appendix 1

Historical aerial imagery showing the original primary dune ecosystem that occurred in the landscapes surrounding the site, followed by dune stabilization and construction of residences since the 1970s.





Appendix 2

Specialist declaration



DETAILS OF SPECIALIST AND DECLARATION OF INTEREST IN TERMS OF REGULATIONS 12 AND 13 OF THE AMENDMENTS TO THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 AS AMENDED.

(For official use only)

File Reference Number:

NEAS Reference Number:

Date Received:

Application for environmental authorization in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Amendments to the Environmental Impact Assessment Regulations, 2014. This form is valid as of 6 January 2021.

PROJECT TITLE

Construction of a boundary wall and decked storage area on Erf 3132 Sea Vista.

SPECIALIST ¹

Contact person:

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Postal code:

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Samantha Teeluckdhari		
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	Cell:	072 773 5397
Postal code: 6573		
Telephone: E-mail: Samantha@ecoroute.co.za	Fax:	—

4.2 The SPECIALIST

I, Barend Adriaan Grobler, declare that -

General declaration:

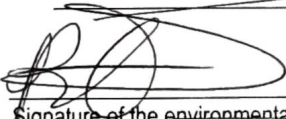
- I act as the independent Specialist in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, 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 will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- 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;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by

interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;

- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

- 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 Amendments to Environmental Impact Assessment Regulations, 2014 as amended.
- ~~I have a vested interest in the proposed activity proceeding, such vested interest being:~~



Signature of the environmental assessment practitioner - specialist:

Name of company:

3 October 2023

Date:

Signature of the Commissioner of Oaths:



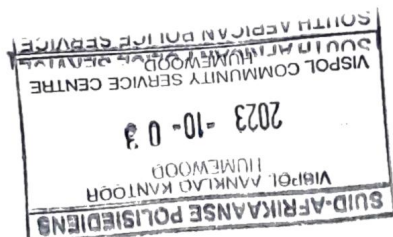
Date: 2023-10-03

Sergeant¹

Designation:

¹ Curriculum Vitae (CV) attached

Official stamp (below).



Annexure 1

CV

CURRICULUM VITAE

Barend Adriaan Grobler, Pr.Sci.Nat.
Botanical and Ecological Specialist

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EDUCATION

- 2018** **PhD in Botany**
Nelson Mandela University, Port Elizabeth
Dissertation title: "Roads and their effects in fynbos of the southeastern Cape: implications for management and conservation of road verge vegetation"
- 2012** **MSc in Botany**
Nelson Mandela Metropolitan University, Port Elizabeth
Dissertation title: "A systematic conservation assessment and plan for the Baakens River Valley, Port Elizabeth"
- 2010** **BSc Honours in Botany**
Nelson Mandela Metropolitan University, Port Elizabeth
Specialization: Conservation Biology
- 2009** **BSc in Environmental Science**
Nelson Mandela Metropolitan University, Port Elizabeth
Majors: Botany and Environmental Geography

EMPLOYMENT

- Jan 2012 – Present** **Botanical and Ecological Specialist**
Independent Consultant
Independent specialist consultant conducting botanical and ecological impact assessments and biodiversity surveys in the Eastern and Western Cape provinces.
- Jan 2021 – Dec 2022** **Postdoctoral Research Fellow**
African Centre for Coastal Palaeoscience, Nelson Mandela University
African Centre for Coastal Palaeoscience postdoctoral fellowship (2021–2022), working on project "Last Glacial Maximum vegetation patterns in the Greater Cape Floristic Region".
- Jan 2019 – Dec 2020** **Postdoctoral Research Fellow**
African Centre for Coastal Palaeoscience, Nelson Mandela University
DSI-NRF Innovation Postdoctoral Fellowship (2019–2020), working on the project "Plant Evolution on the Palaeo-Agulhas Plain: A Coastal Adaptation in the Cape Flora".

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- Apr 2018 – Dec 2018** **Postdoctoral Fellow**
African Centre for Coastal Palaeoscience, Nelson Mandela University
Nelson Mandela University Postdoctoral Fellowship (2018), working on the project "Inventory of the Flora and Vegetation of the Calcareous Dunes of the Cape South Coast".
- Feb 2018 – Nov 2018** **Research Lead**
Botany Department, Nelson Mandela University
Coordinated the Thicket-Biome update for Vegetation Map of South Africa 2018, acting as liaison between Nelson Mandela University, South African National Biodiversity Institute and other project stakeholders.
- Dec 2016 – Mar 2017** **Research Assistant**
Custodians of Rare and Endangered Wildflowers (Threatened Species Programme), South African National Biodiversity Institute
Field botanist conducting plant surveys and monitoring populations of rare and threatened plant species in the Eastern Cape.
- Jan 2014 – Mar 2016** **Research Assistant**
Ria Olivier Herbarium, Nelson Mandela University
Multiple short-term appointments, processing and identifying plant specimens collected throughout South Africa.

RECENT PUBLICATIONS

- 2023** Turner, R.C., Midgley, J.J., **Grobler, B.A.** 2023. Sympatric speciation in *Erica mammosa* (Ericaceae): Resprouters versus seeders and the roles of pollinators, moisture availability and fire. *South African Journal of Botany* 161: 333-346.
- Kraaij, T., Baard, J., **Grobler, B.A.** and Miles, B. 2023. Effects of *Acacia melanoxylon*, an alien tree species to South Africa, on Afrotemperate forest tree sapling composition. *Southern Forests: A Journal of Forest Science* 85: 1–10.
- Strydom, T., Kraaij, T., **Grobler, B.A.** and Cowling, R.M. 2023. Effects of simulated severe fire and extreme browsing on the resprouting of subtropical dune thicket species in the southeastern Cape Floristic Region. *Plant Ecology*.
- 2022** **Grobler, B.A.** and Campbell, E.E. 2022. Road and landscape-context impacts on bird pollination in fynbos of the southeastern Cape Floristic Region. *South African Journal of Botany* 146: 676–684.
- Grobler, B.A.** and Cowling, R.M. 2022. Which is the richest of them all? Comparing area-adjusted plant diversities of Mediterranean- and tropical-climate regions. *Frontiers of Biogeography* 14: e56241.
- Strydom, T., Kraaij, T., **Grobler, B.A.**, Cowling, R.M. 2022. Canopy plant composition and structure of Cape subtropical dune thicket are predicted by the levels of fire exposure. *PeerJ* 10:e14310
- Quick, L., Chase, B., Carr, A., Chevalier, M., **Grobler, B.A.** and Meadows, M. 2021. A 25,000 year record of climate and vegetation change from the southwestern Cape coast, South Africa. *Quaternary Research* 105: 82-99.
- 2021** **Grobler, B.A.** and Cowling, R.M. 2021. The composition, geography, biology and assembly of the coastal flora of the Cape Floristic Region. *PeerJ* 9: e11916. <https://doi.org/10.7717/peerj.11916>

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- Strydom, T., **Grobler, B.A.**, Kraaij, T. and Cowling, R.M. 2021. Pre-and post-fire architectural guilds of subtropical dune thicket species in the southeastern Cape Floristic Region. *Journal of Vegetation Science* 32: e13079.
- 2020** **Grobler, B.A.** and Campbell, E.E. 2020. Pollinator activity and the fecundity of a rare and highly threatened honeybush species along a highway in the Cape Floristic Region. *International Journal of Plant Sciences* 181: 581–593.
- Grobler, B.A.**, Cawthra, H.C., Potts, A.J. and Cowling, R.M. 2020. Plant diversity of Holocene dune landscapes in the Cape Floristic Region: The legacy of Pleistocene sea-level dynamics. *Quaternary Science Reviews* 235: 106058.
- 2019** Cowling, R.M., Logie, C., Brady, J., Middleton, M. and **Grobler, B.A.** 2019. Taxonomic, biological and geographical traits of species in a coastal dune flora in the southeastern Cape Floristic Region: regional and global comparisons. *PeerJ* 7: e7336
- Dayaram, A., Harris, L.R., **Grobler, B.A.**, Van der Merwe, S., Rebelo, A.G., Powrie, L.W., Vlok, J.H.J, Desmet, P.G., Qabaqaba, M., Hlahane, K.M. and Skowno, A.L. 2019. Vegetation Map of South Africa, Lesotho and Swaziland 2018: A description of changes since 2006. *Bothalia—African Biodiversity & Conservation* 49: 1–11.

RECENT PROJECT EXPERIENCE

- 2023** **Grobler, B.A.** 2023. *Baseline survey and delineation of forest vegetation on Portion 3 of Farm 18 Goedemoeds Fontein, Colleen Glen, Nelson Mandela Bay Municipality, Eastern Cape.* Report to Celon Engineering
- Grobler, B.A.** 2023. *Baseline flora and vegetation survey of proposed planting areas for spekboom restoration on four properties in the Jansenville–Steytlerville region, Sarah Baartman District Municipality, Eastern Cape.* Report to NatCarbon Africa.
- Grobler, B.A.** and Landman, M. 2023. *Terrestrial Biodiversity and Plant Species Assessment: Amendment Application for Expansion of the Freshmark Shoprite Checkers Distribution Centre, Wells Estate, Nelson Mandela Bay Municipality, Eastern Cape.* Report to PHS Consulting.
- Grobler, B.A.** 2023. *Rapid Flora and Vegetation Survey: Kuzuko Private Game Reserve, Eastern Cape.* Report prepared for AfriCarbon.
- 2022** **Grobler, B.A.** and De Kock, R. 2022. *Terrestrial Biodiversity and Plant Species Assessment: Proposed construction of a residential dwelling on Erf 8 Konkiebaai (Portion 53 of Eersterivier 626), Kou-Kamma Municipality, Eastern Cape.* Report prepared for Eco Route Environmental Consulting.
- Potts, A.J. and **Grobler, B.A.** 2022. *Clearing of forest and large-scale changes to topography and soil structure at Duineplaas (Duinbaai Portion 5 of Farm Matjiesfontein No. 495, Thornhill, Kouga Municipality).* Report prepared for Province of the Eastern Cape: Department of Economic Development, Environmental Affairs and Tourism.
- Grobler, B.A.** and De Kock, R. 2022. *Terrestrial Biodiversity and Plant Species Compliance Statement: Erf 1510, Sea Vista, St Francis Bay, Kouga Municipality, Eastern Cape.* Report prepared for Eco Route Environmental Consulting.

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- Grobler, B.A.** 2022. *Vegetation Survey: Erf 3485 Kenton-on-Sea, Ndlambe Municipality, Eastern Cape.* Report prepared for Hortcuture Landscape Architects & Planning.
- Grobler, B.A.** and De Kock, R. 2022. *Terrestrial Biodiversity and Plant Species Assessment: Shoprite Checkers Freshmark Distribution Centre, Wells Estate, Nelson Mandela Bay Municipality, Eastern Cape.* Report prepared for PHS Consulting.
- Grobler, B.A.** and De Kock, R. 2022. *Terrestrial Biodiversity and Plant Species Assessment: Erf 1118 Paradysstrand, Kouga Municipality, Eastern Cape.* Report prepared for HabitatLink Consulting.
- Grobler, B.A.** 2022. *Botanical Survey: Crossways Airstrip, Crossways Farm Village, Kouga Municipality, Eastern Cape.* Report prepared for Crossways Ventures (Pty) Ltd.
- Grobler, B.A.** and De Kock, R. 2022. *Terrestrial Biodiversity and Plant Species Assessment: Indlovu Sand Prospecting Right Application, Oyster Bay and Thysbaai Dunefields, Kouga Municipality, Eastern Cape.* Report prepared for Algoa Consulting Mining Engineers.
- Grobler, B.A.** and De Kock, R. 2022. *Terrestrial Biodiversity and Plant Species Compliance Statement: Erf 3420, Sea Vista, St Francis Bay, Kouga Municipality, Eastern Cape.* Report prepared for Eco Route Environmental Consulting.
- 2021** **Grobler, B.A.** 2021. *Biodiversity Assessment: VWSA Vehicle Test Track, Uitenhage, Nelson Mandela Bay Municipality, Eastern Cape.* Report prepared for Volkswagen Group South Africa.
- Grobler, B.A.** 2021. *Botanical Impact Amendment Report: Intsomi citrus development, Sundays River Valley Municipality, Eastern Cape.* Report prepared for Public Process Consultants.
- Grobler, B.A.** 2021. *Botanical Impact Assessment Report: Tango citrus development, Sundays River Valley Municipality, Eastern Cape.* Report prepared for Public Process Consultants.
- Grobler, B.A.** 2021. *Coastal Dune Rehabilitation: 11 Uys Street, Jeffreys Bay, Kouga Local Municipality, Eastern Cape Province.* Report prepared for HabitatLink Consulting.
- Grobler, B.A.** and Landman, M. 2021. *Botanical Impact Amendment Report: Intsomi goat-breeding facility development, Sundays River Valley Municipality, Eastern Cape.* Report prepared for Public Process Consultants.
- 2020** **Grobler, B.A.** 2020. *Botanical Impact Assessment Report: Eindelik and Rebelsvlei citrus expansion, Sundays River Valley, Eastern Cape.* Report prepared for East Cape Diverse Consultants.
- 2019** **Grobler, B.A.** 2019. *Botanical Assessment of 'Hemelsigt' (Portion 29 of Farm Maitland Mines No. 478), Nelson Mandela Bay Municipality.* Report prepared for Eco-Route Environmental Consultancy.
- Grobler, B.A.** 2019. *Botanical Assessment of the Moregrove cluster drought-relief borehole sites in Port Elizabeth, Nelson Mandela Bay Municipality, Eastern Cape Province.* Report prepared for SRK Consulting.
- Grobler, B.A.** 2019. *Botanical Impact Assessment for the proposed residential development at Rocky Coast Farm (Portions 78 and 79 of the Farm Ongegund Vryheid No. 746), Cape St Francis, Kouga Municipality.* Report prepared for Public Process Consultants.

OTHER ACTIVITIES

- Apr 2023 – Present** **Research Associate**
Botany Department & African Centre for Coastal Palaeoscience, NMU
Conducting research related to plant biodiversity and ecology in the Greater Cape Floristic Region.
- Jan 2019 – Present** **Director, Vice Chair**
Fynbos Forum NPC
Affiliation that meets annually to discuss the collaborative production of knowledge that underpins regional conservation efforts in the Fynbos Biome (committee member since January 2019; director, vice chair since September 2021).
- Jul 2009 – Present** **Society Committee Member**
Botanical Society of South Africa (Algoa Branch)
Committee member of the regional branch (inactive from 2016–2019).
- Jul 2009 – Present** **Volunteer**
Custodians of Rare and Endangered Wildflowers (Port Elizabeth Group)
Citizen science programme to collect distribution and demographic data on rare and threatened plant species.

PROFESSIONAL REGISTRATION & AFFILIATION

- Jun 2023 – Present** **Professional Natural Scientist** (Reg. No. 135960)
South African Council for Natural Scientific Professions
Registered in the fields of Botanical Science and Ecological Science
- Sep 2023 – Present** **Professional Member** (Memb. No. 7454)
International Association for Impact Assessment (South Africa)
Local affiliate of the IAIA representing the interests of environmental practitioners and allied professions.
- Sep 2023 – Present** **Ordinary Member** (Memb. No. 23791)
South African Association of Botanists
Professional association promoting botanical science and protection of plant biodiversity in South Africa.