Botanical Specialist

Terrestrial Plant Compliance Statement

for the farm Brakkloof (farm, 443/59, 62 & 63)

in the Plettenberg Bay district,

Western Cape.

This report was prepared during March2026 by:

Regalis Environmental Services CC
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INTRODUCTION

Regalis Environmental Services CC was appointed during 2009 to provide a specialist botanical report regarding the potential impact of development on the farm Brakkloof (farm 443, portions 59, 62 & 63) in the Plettenberg Bay district. A copy of my original report is appended for easy reference.

A development layout plan has subsequently been developed for these properties and Regalis Environmental Services was appointed to provide comments on the potential impact following the current format required by the authorities.

METHODOLOGY, UNCERTAINTY AND ASSUMPTIONS

During the 2009 survey the three properties were surveyed on foot to determine if any rare and threatened plants are present, the plant communities present and the ecological condition of the natural vegetation. The survey was conducted during November, which is an ideal time to investigate the vegetation in the affected area.

To determine if the status of the vegetation, especially regarding areas that were mapped as severely transformed in 2009, the 2026 Google Earth image was used to investigate the current condition of the affected vegetation. To determine if the boundaries of the local Critical Biodiversity Areas has changed, I used the current data from Cape Farm Mapper.

To the best of my knowledge, I have no uncertainties and assumptions to declare regarding the findings and recommendations in this report.

STUDY RESULTS

In my 2009 study I did not question the presence of Knysna Grassy Fynbos on the properties as it was not relevant at the time. Currently most of the lower section of the properties is mapped as Knysna Grassy Fynbos. This is undoutably incorrect as the substrate does not consists of deep sandy soil, but rather shallow sandy soils with a high percentage of rocky outcrops. The species present in the two communities identified in 2009 also do not fit those listed for Knysna Grassy Fynbos (please see species lists in Appendix 1).

The only area in which the edaphic conditions are more suitable for Knysna Grassy Fynbos is the northernmost section of portion 59, but here the national vegetation map, 2024 indicate the vegetation as South Outeniqua Sandstone Fynbos. It is impossible to reconstruct the natural vegetation in this area as it consists of old ploughed agricultural lands. The vegetation there consists of only a few early and secondary pioneer plants. The original natural vegetatation will never recover here as there are no propagules in this rather isolated area that can colonise from the adjacent environment. To my opinion all of the the vegetation on the three properties should rather be regarded as South Outeniqua Sandstone Fynbos as the structure of the vegetation and the species listed during the 2009 survey fits the description of South Outeniqua Sandstone Fynbos best. The South Outeniqua Sandstone Fynbos has currenty a conservation status of Least Concerened, whilst it was regarded as Vulnerable in 2009.

Within the proposed development area on portion 59 only the northern tip is currently mapped as a Critical Biodiversity Area (CBA). I believe this is a mistake due to the coarseness of the boundaries of the CBA map. This area forms part of the old ploughed agricultural land and can at most act as a Ecological Support area, but even this is unlikely as it is an isolated tip in an area that is already developed. The small CBA area at the southern boundary of portion has not been earmarked for development as it forms part of a wetland area.

The areas that are allocated to parking and an amphitheater are located in the area I mapped as severely transormed. It is not possible to establish what the land use of this area was as it was densely invaded by alien vegetation (mostly with *Acacia cyclops*), with no or very little indigenous plants still present.

None of the species listed in the plants of special concern in the SANBI screening tool were found during the 2009 survey, or are suspected to occur within the proposed development areas. The only probable species is *Disa hallackii*, but this species will not occur in the severely transformed areas in which the proposed development is located. As no species of special concern are present or may occur within the proposed development area, I disagree that the sensitivity of the proposed development noted as medium by the SANBI screening tool, I rather believe that it should be regarded as low.

I similarly disagree with the SANBI screening tool's indication that the terrestrial biodiversity classification is very high for the proposed development areas. This classification is due to the presence of Knysna Grassy Fynbos and a CBA. As noted above the vegetation does not consist of Knysna Grassy Fynbos and the small CBA was incorrectly mapped. I thus believe that the terrestrial biodiversity classification for the proposed development areas should be regarded as low.

CONCLUSIONS AND RECOMMENDATIONS

For the proposed development areas indicated on the current layout plan I disagree with the SANBI screening tool's classification for plants as medium and for the terrestrial biodiversity as very high. In both cases I believe the classification should be low.

There is no indication that the currently proposed developments will negatively affect any threatened species, vegetation type or important ecological processes, such as the occurrence of fire. The proposed development areas are located along the outer edges of the properties and will not interfere with a pragmatic fire management plan for the properties.

Mitigation measures proposed for the proposed development are as follows:

1. Retain disturbance to the currently proposed development areas. The boundaries of these areas should be clearly marked as "No Go' areas before the construction period.
2. An alien vegetation eradication management plan and a fire management plan should be developed and implemented for the undeveloped areas on the properties. In the case of the latter I suggest that the fire breaks should be widened from 5 m to 8 m. Such a fire freak will not stop a fire, but at least afford a reasonable width to fight a fire from.
3. The undeveloped areas on the properties should be mapped and formally incorporated in the Robberg Conservation Corridor.

If the above recommendations are followed, I believe that the proposed development will not have any negative impact on the local biodiversity or ecological processes. When these recommendations are followed, I believe that the proposed development may have a positive impact on the local environment and I hence fully support the proposed development as I cannot foresee any direct or indirect negative impacts on the local environment due to the proposed development.

Appendage One: Previous report

SPECIALIST BOTANICAL REPORT

FOR THE PROPOSED

DEVELOPMENT OF

PORTIONS 59.62 & 63

OF THE FARM BRAKKLOOF

(FARM 443, KNYSNA).

This report was prepared during December 2009 by:

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INTRODUCTION

To ensure that an environmentally sensitive development layout plan can be prepared Regalis Environmental Services was requested to survey and prepare a specialist botanical report for the portions 59, 62 and 63 of the farm Brakkloof (farm 443, Knysna).

The assignment for this study was;

1. To survey the properties to determine if rare and endangered species and/or plant communities are present;
2. To investigate the local and regional conservation status of the affected vegetation following the principles of de Villiers *et al* (2005) and
3. To provide a recommendation regarding the botanical sensitivity of the site in terms of the future development of the properties.

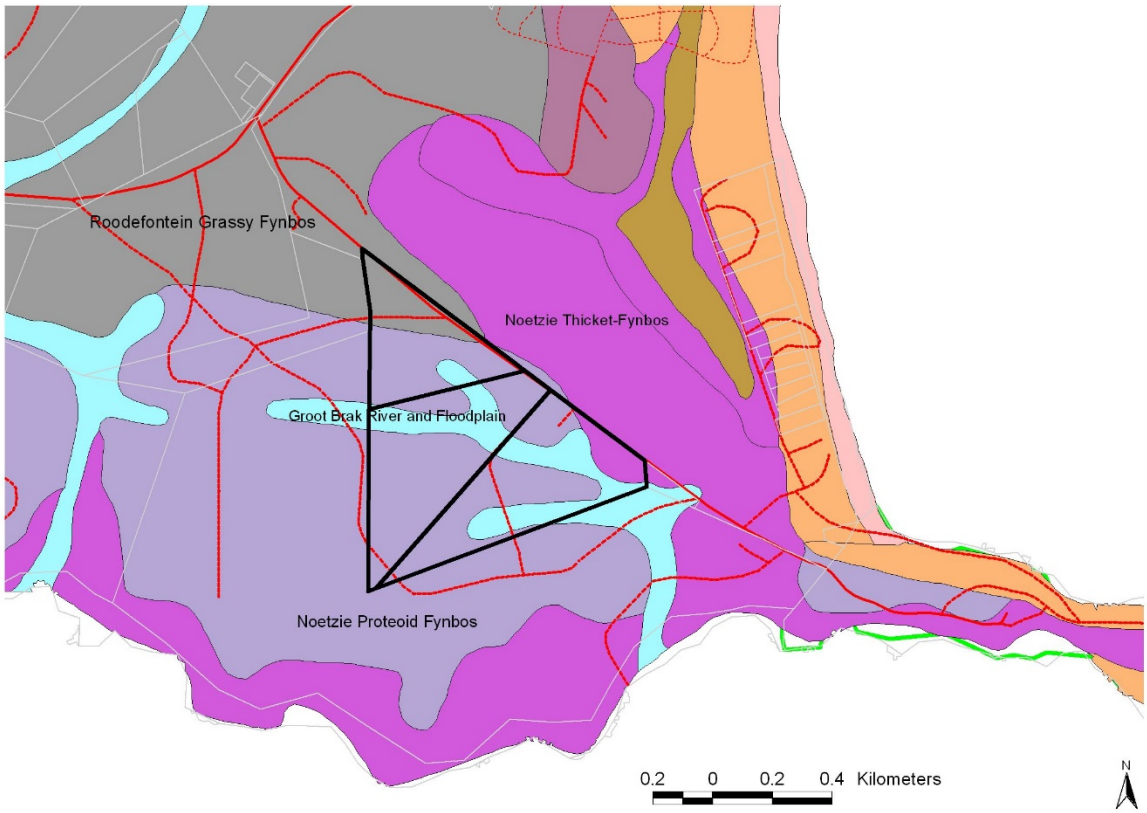
The site was surveyed by Jan Vlok of Regalis Environmental Services during November 2009 and the results of this survey are provided in this report.

RESULTS OF STUDY

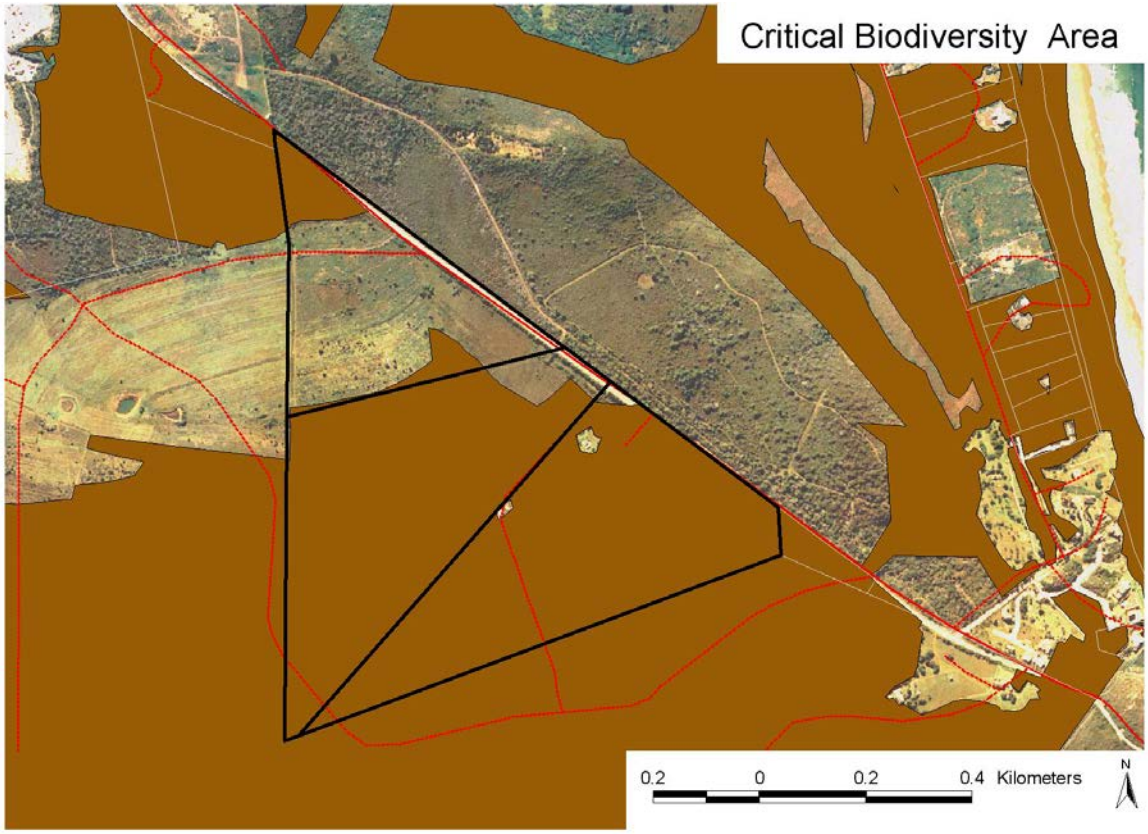
Regional Conservation Status of the Affected Environment

The vegetation of the affected area has been mapped as " South Outeniqua Sandstone Fynbos" and "Knysna Sand Fynbos" by Mucina *et al* (2005). The national conservation status of the former is Vulnerable and the latter is Endangered. In a more fine-scale study Vlok *et al* (2008) mapped the vegetation as " Noetzie Protea Fynbos" and "Roodefontein Grassy Fynbos", with the aquatic vegetation mapped as "Groot Brak River & floodplain" (See Map 1). Almost the entire area has been mapped by Holness *et al* (2009) as a Critical Biodiversity Area (see map Photo 2).

The national and fine-scale studies have thus indicated that the affected vegetation is threatened and of high conservation value.



Map 1. Vegetation of the affected property following Vlok *et al* (2008).



Map 2. Conservation status of the land following Holness *et al* (2009).

The Plant Communities within the affected area

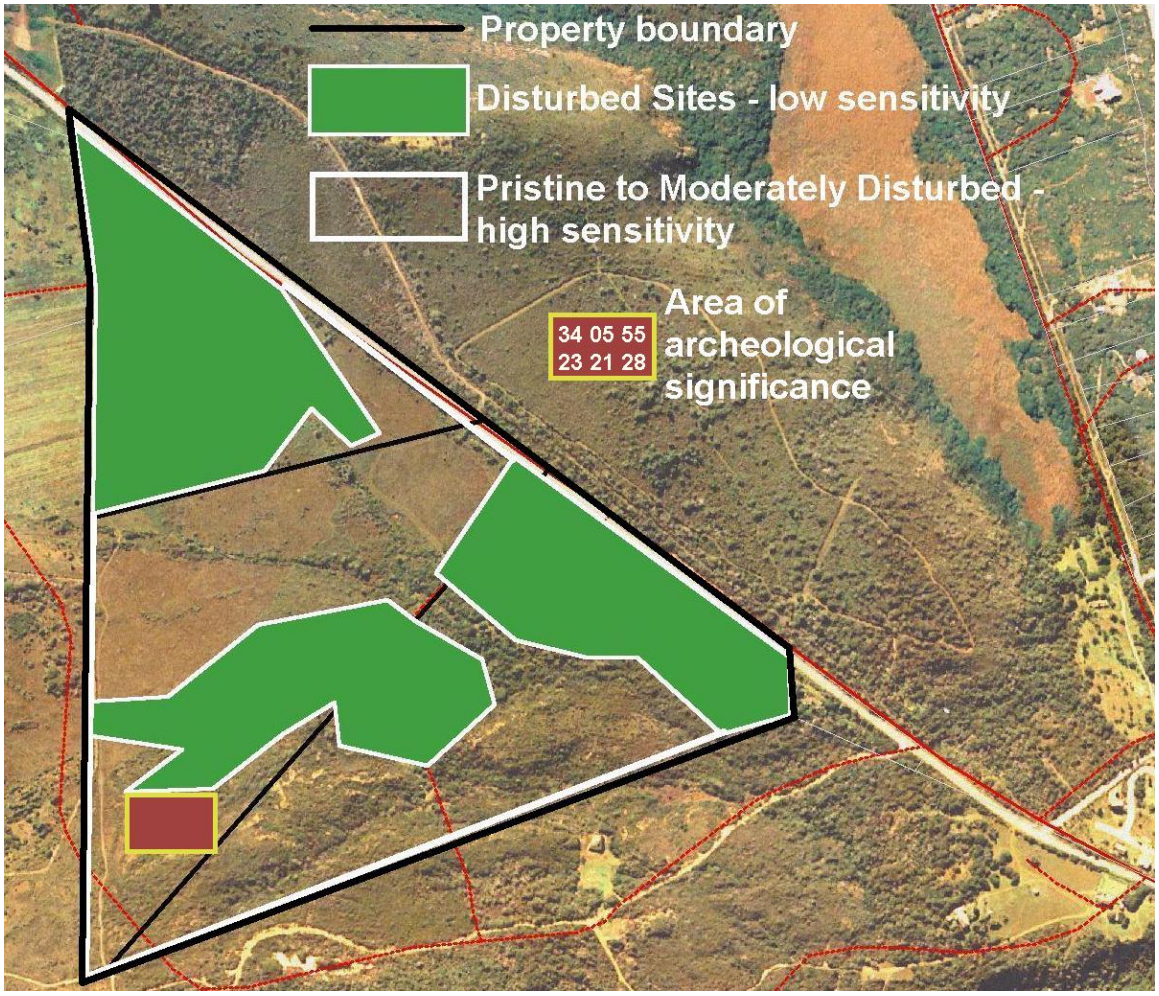
Two distinct plant communities occur on the affected land.

The most extensive occurs on deeper loamy soils on south- and west-facing slopes, in which species such as *Relhania calycina* and *Passerina vulgaris* are abundant and dominant. During the survey the vegetation was at its pyric-climax and a total of only 40 species were found here (see Appendix One). Some disturbed areas along the main access road indicated that several geophyte (and other short-lived) species would appear after a fire. So, the total species richness could be considerably higher when a full survey can be conducted over the entire pyric succession process. None of the species recorded during the survey are endangered (following Raimondo *et al*, 2009). To my experience I doubt that many (if any) rare and threatened will be found during a more extensive survey of this community. This does, however, not lower the conservation value of the affected community *per se*.

The second community occurs on shallow, sandy soils on north facing slopes. Here I only found a total of six species (see Appendix One), despite a fairly thorough search. The paucity of species in this community is probably quite natural and not an artifact of recent transformation. These rather rocky outcrops still provide a haven for fire-sensitive species such as *Protea neriifolia*.

The natural vegetation on the affected land has been severely transformed on several portions. Some parts were ploughed for agricultural use, mined (probably sand and gravel), homesteads were erected on two areas and some areas have been severely affected by dense alien vegetation (mostly *Acacia* species over several fire intervals). The biodiversity of these areas have been decimated to a point where the land serves little point of conserving, except to allow larger ecological processes to continue. Old agricultural lands may, for instance, serve perfectly well as a feeding area for certain bird species that are required to retain the biodiversity and ecological integrity of the area.

Although noted as the terms of reference for this site, the discovery of an archeological site that many well be of particular significance should also be noted. This site is immediately adjacent to a highly transformed area (old mined area), and on the plant species impoverished northern-slopes. International and local archeological scientists have already indicated that the site may be of particular value for current research programs. This site is indicated on Map 3.



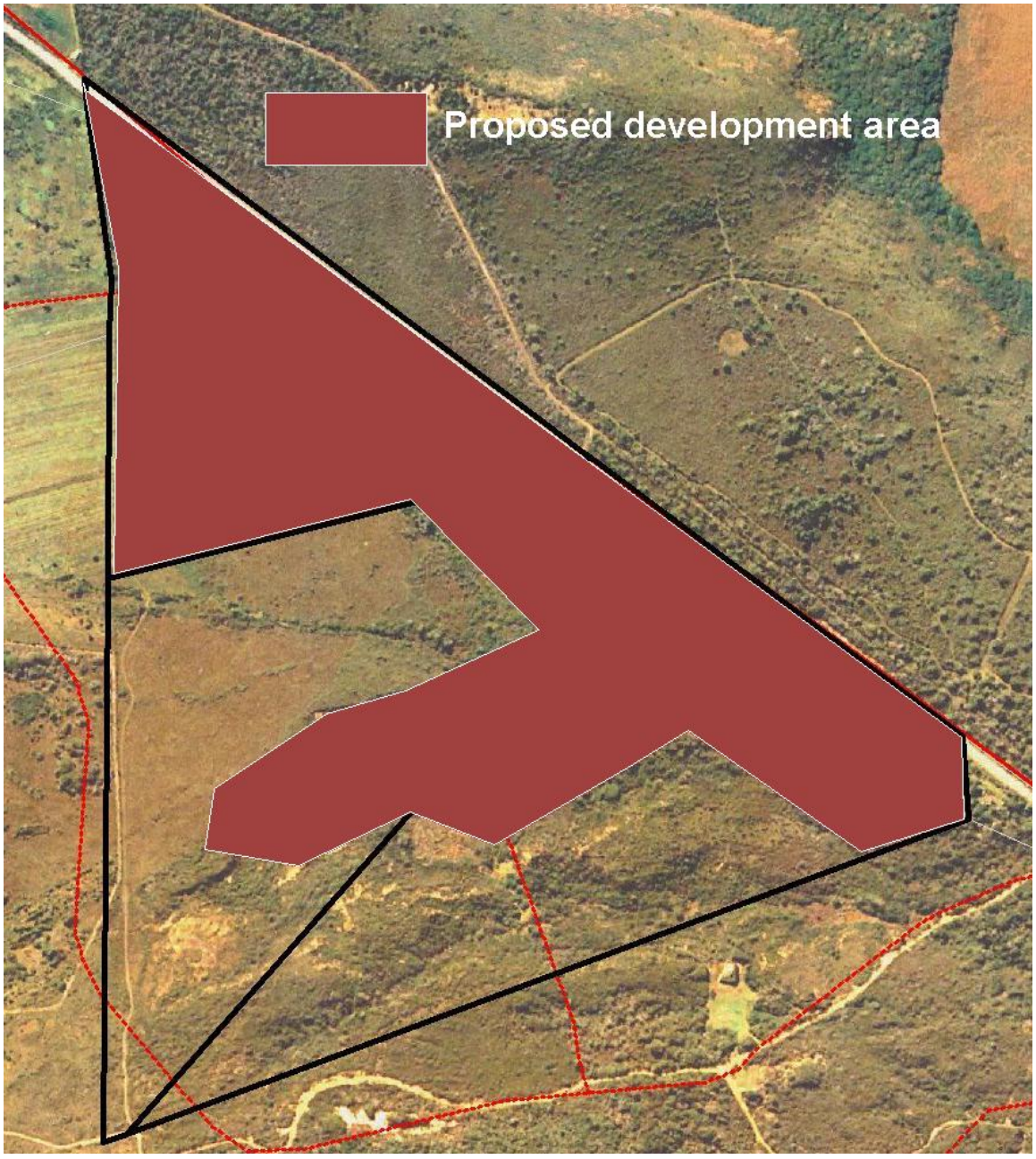
Map 3. Ecological sensitivity of the Brakkloof affected properties.

CONCLUSION AND RECOMMENDATIONS

The affected properties occur within a very sensitive zone, seen at a national and at a region scale. All the scientific analyses available indicate that whatever development occurs on the property needs to be very carefully planned. All the areas that are indicated as 'Pristine to Moderately disturbed' on Map 3 should not be negatively affected by the development. A more detailed archeological survey will also have to be conducted to ensure that valuable archeological sites are not disrupted.

The potential development sites are, however dispersed. This will affect the long-term pragmatic management of the local and adjoining properties as a conservation entity. The remaining natural Fynbos will have to be burned periodically to retain the ecological integrity of this vegetation. If all the already disturbed sites are developed, it will be hard (if not impossible) to implement a fire management plan. Any proposed development plan will have to consider fire management, both in terms of fire protection of the infrastructure and the biodiversity needs.

I propose a potential development zone on Map 4. This is the absolute maximum area that could be considered for developed without having a significant negative impact on the biophysical environment. At least 5 meters on either side of the water drainage line that intersects the proposed development area must also be excluded from development. I did not indicate this water drainage line on Map 4, as it will be hard to draw it accurately on this initial crude map. Please note that this map only considers biophysical sensitivity and not potential impacts on archeological sites, apart from the one indicated on Map 3.



Map 4. Proposed maximum development area following biophysical sensitivity and initial fire management considerations.

REFERENCES:

De Villiers C.C., Driver A., Brownlie S., Clark B., Day E.G., Euston-Brown D.I.W., Helme N.A., Holmes P.M., Job N. and Rebelo A.B. 2005. **Fynbos Forum Ecosystem Guidelines for Environmental Assessment in the Western Cape**. Fynbos Forum, Kirstenbosch, Cape Town.

Mucina, L., Rutherford, M.C. and Powrie, L.W. (eds.), 2005. **Vegetation Map of South Africa, Lesotho and Swaziland**. 1:1 000 000 scale sheet maps. SANBI, Pretoria.

Raimondo, D., *et al*, 2009. Threatened Plant Species of South Africa. **Strelitzia** (in press).

Vlok, J.H.J., Euston-Brown D.I.W. & Wolf, T. 2008. **A vegetation map for the Garden Route Initiative.** Unpublished 1:50 000 maps and report supported by CAPE FSP task team.

APPENDIX 1: Plant species on the Brakkloof property

South-facing slope community (40 species):
Anthospermum aethiopicum, Aristea pusilla, Aspalathus angustifolius, Aspalathus kougaensis, Aspalathus nigra, Babiana fourcadei, Brachiaria serrata, Chaetacanthus setiger, Chironia tetragona, Cliffortia linearifolia, Clutia polifolia, Corymbium africanum, Eragrostis capensis, Erica formosa, Erica peltata, Erica sparsa, Erica versicolor, Eriospermum capense, Ficinia oligantha, Helichrysum cymosum, Hermannia flammea, Heteropogon contortus, Hibiscus aethiopicus, Leucadendron salignum, Metalasia trivialis, Passerina vulgaris, Podalyria cuneifolia, Polygala ericaefolia, Plecostachys polifolia, Ornithogalum dubium, Osteospermum moniliferum, Oxalis sp., Restio triticeus, Sebaea aurea, Syncarpha paniculata, Schizaea pectinata, Sporobolus africanus, Tetraria cuspidata, Themeda triandra and *Ursinia anethoides*.

North-facing slope community (6 species):

Agathosma apiculata, Agathosma ovata, Erica versicolor, Ficinia oligantha, Protea neriifolia and *Relhania calycina*.

APPENDAGE 2: *CV* OF CONSULTANT.

Johannes Hendrik Jacobus Vlok

Biographical Information

Birth: 6th December 1957, Calvinia, South Africa.
Identity Number: 571206 5133 089
Criminal Record: None.
Married to Anne Lise Schutte-Vlok and we have one daughter, Marianne Helena Vlok.

Education

1975 Matriculated at Bellville High School.
1982 Diploma in Forestry, Saasveld Forestry College.
1997 MSc (*Cum Laude*), University of Natal.

Employment

1982-1990. Department of Forestry (later Water Affairs, Forestry and Environmental Affairs), as research technician.
1990-1997. Cape Nature Conservation, as regional botanist.
1997-present. Self employed as environmental advisor (Regalis Environmental Services).

Research Output

One book and more than 50 scientific and popular articles published in international & national journals as primary or as co-author. Delivered several keynote and >20 other verbal papers at scientific forums on ecological and floristic studies. Delivered >300 presentations to civil society (public meetings, radio, newspaper and television) on plant ecology and conservation. Current ResearchGate rating > 26 and has > 1 700 citations.

Awards

2003. Leslie Hill medal. **Succulent Society of South Africa**.
2006. Gold award. **C.A.P.E.**
2006. Certificate of Appreciation. **Western Cape Conservation Stewardship Association**.
2008. Special Award. **CapeNature**
2010. Marloth medal. **Botanical Society of South Africa**.

Consultation & Advisory Capacity

Consultant to WWF-SA, Cape Nature and SANPARKS to determine conservation status of land. Several of the studies resulted in the purchase of the properties, now amounting to a value of >R30 million.

Consultant to National, Provincial and private institutions for vegetation restoration projects, environmental impact assessment and environmental management plans. Some of these assignments won national awards.
Referee for international and national scientific articles and donor funded grants.
Classified, described and mapped Forest, Subtropical Thicket, Fynbos and Succulent Karoo vegetation units in four major donor funded projects.
Expert witness in Magistrate and Supreme Court cases.
Research associate of Nelson Mandela University (Saasveld campus).

Professional Membership

Registered at South African Council for Natural Scientific Professions (SACNASP) as botanical scientist with membership number 130942.

APPENDAGE 3: Declaration of Independance

The specialist appointed in terms of the Regulations_

I, J.H.J. Vlok , 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 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 48 and is punishable in terms of section 24F of the Act.

Signature of the specialist:

Regalis Environmental Services CC

Name of company (if applicable):

15/03/2026

Date: