

NICK HELME BOTANICAL SURVEYS

PO Box 22652 Scarborough 7975 Ph: 021 780 1420 cell: 082 82 38350 email: botaneek@iafrica.com Pri.Sci.Nat # 400045/08

BOTANICAL ASSESSMENT – FARM 438 STANFORD (STANFORD GREEN DEVELOPMENT), WESTERN CAPE.

Compiled for: Lornay Environmental, Hermanus

Applicant: Omni King Investments

3 March 2025

DECLARATION OF INDEPENDENCE

In terms of Chapter 5 of the National Environmental Management Act of 1998 specialists involved in Impact Assessment processes must declare their independence and include an abbreviated Curriculum Vitae.

I, N.A. Helme, do hereby declare that I am financially and otherwise independent of the client and their consultants, and that all opinions expressed in this document are substantially my own.

malle NA Helme

ABRIDGED CV:

Contact details as per letterhead.

Surname : HELME

First names : NICHOLAS ALEXANDER

Date of birth: 29 January 1969

University of Cape Town, South Africa. BSc (Honours) - Botany (Ecology &

Systematics), 1990.

Since 1997 I have been based in Cape Town, and have been working as a specialist botanical consultant, specialising in the diverse flora of the southwestern Cape. Since the end of 2001 I have been the Sole Proprietor of Nick Helme Botanical Surveys, and have undertaken over 2000 site assessments in this period.

A selection of relevant previous botanical work is as follows:

- Scoping and Constraints studies for Cape Winelands Airport (PHS Consulting 2022-2024)
- Strandfontein Coastal Node IA (Infinity Environmental 2024)
- Romansbaai Ptn 40 of farm 711 (PHS Consulting 2024)
- Romansbaai abalone (Lornay Environmental 2024)
- Hazendal Ptns 31 & 33 (Monique Sham 2024)
- N7 weighbridge IA (SES 2023)
- Macassar WWTW IA (Zutari 2023)
- Botanical assessment of proposed development on Ptn 29 of Farm 410 Caledon (PHS Consulting 2022)

- Botanical assessment of proposed development on Ptn 10 of Broken Hill
 88, Heidelberg (Isikhova 2021)
- Botanical assessment of Ptns 3 & 6 of Farm 563 Kleinmond (Lornay Environmental 2021)
- Botanical assessment of Ptn 9 of Farm 429 Gabrielskloof, Caledon (Infinity Environmental 2021)
- Baseline ecological assessment of Karwyderskraal 584, Caledon (Terramanzi 2021)
- Botanical impact assessment of proposed development of Ptn 29 of Farm 410, Caledon (PHS Consulting 2021)
- Botanical assessment of proposed new cultivation on Welbedacht farm, Tra
 Tra Mountains (Footprint Environmental 2020)
- Biodiversity Compliance Statement Philippi erf 1/1460 (Infinity Environmental 2020)
- Botanical assessment of Kleinmond WWTW expansion (Aurecon 2020)
- Botanical assessment of Mooreesburg WWTW expansion (Aurecon 2020)
- Botanical assessment of Struisbaai cemetery sites (Infinity Environmental 2020)
- Botanical assessment of MoPama development site, Swellendam (Landscape Dynamics 2020)
- Botanical assessment of Ptn of Rem of Erf 1 Caledon (Theewaterskloof Municipality 2019)
- Botanical assessment of proposed new cultivation on Portion of Wittewater 148, Piketberg (Cornerstone Environmental 2019)
- Botanical assessment of Droogerivier farm Leipoldtville (Footprint Environmental 2018)
- Botanical assessment of Sebulon farm, Redelinghuys (Natura Libra Environmental Services 2018)
- Botanical assessment of proposed new cultivation on Ptn 2 of farm Groenevalley 155, Piketberg (Cederberg Environmental Assessment Practise 2017)
- Botanical assessment of proposed new cultivation on farm Rosendal, Koue Bokkeveld (Cederberg Environmental Assessment Practise 2016)
- Botanical assessment of proposed cultivation on farm Kransvlei,
 Clanwilliam (Cederberg Environmental Assessment Practise 2016)

CONDITIONS RELATING TO THIS REPORT:

The methodology, findings, results, conclusions and recommendations in this report are based on the author's best scientific and professional knowledge, and on referenced material and available knowledge. Nick Helme Botanical Surveys and its staff reserve the right to modify aspects of the report, including the recommendations and conclusions, if and when additional relevant information becomes available.

This report may not be altered or added to without the prior written consent of the author, and this also applies to electronic copies of this report, which are supplied for purposes of inclusion in other reports, including in the report of EAPs. Any recommendations, statements or conclusions drawn from or based on this report must cite this report, and should not be taken out of context, and may not change, alter or distort the intended meaning of the original in any way. If these extracts or summaries form part of a main report relating to this study or investigation this report must be included in its entirety as an appendix or separate section to the main report.

TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	TERMS OF REFERENCE	2
3.	LIMITATIONS, ASSUMPTIONS AND METHODOLOGY	3
4.	REGIONAL CONTEXT OF THE VEGETATION	4
5.	THE VEGETATION	5
6.	IMPACT ASSESSMENT	12
7.	REQUIRED MITIGATION	15
8.	CONCLUSIONS	16
9.	REFERENCES	16

1. INTRODUCTION

This botanical assessment was requested to inform the environmental authorisation process being followed for the proposed residential development of Farm 438, just outside Stanford (Caledon district), in the Western Cape (Figure 1), to be known as Stanford Green Eco Lifestyle Estate. The property is 5.2ha in extent, and the proposed development layout is shown in Figure 2.



Figure 1: Satellite image with the study area property boundary overlaid.



Figure 2: Copy of the preferred development layout

2. TERMS OF REFERENCE

The terms of reference for this study were as follows:

- Undertake a site visit to assess the vegetation on site
- Identify and describe the vegetation in the area
- Provide an overview and map of the botanical conservation significance (sensitivity) of the site (High, Medium and Low); this will essentially be an ecological opportunities and constraints map and will be provided as Google Earth kmz files
- Indicate if more than 300m² of indigenous vegetation is present within the proposed development footprint
- Indicate the acceptability of the development of this area from an ecological perspective
- Indicate how and whether the sensitivity of the vegetation on site differs from any Screening Tool assessment (Medium and Low sensitivity for Vegetation)
- Outline the likely ecological impacts of the proposed development and the likely significance thereof

- Compile a Botanical Compliance Statement or Impact Assessment, depending on perceived level of impact
- Recommend any possible mitigation measures to avoid and/or minimise identified impacts.

3. LIMITATIONS, ASSUMPTIONS AND METHODOLOGY

The site was visited on 16 January 2025. This was outside the optimal winter – spring flowering season in this mostly winter rainfall area, but the area does get some summer rain, and given the nature of the study area (much of it heavily disturbed; woody, perennial vegetation dominant in the rest) the seasonality was not considered an important constraint. The author has undertaken extensive work within the region, which facilitates the making of local and regional comparisons and inferences of habitat quality and conservation value.

The property was walked and all indigenous plant species on site were noted. Photographs of some of the key plant species were made using a Fuji mirrorless slr camera and a Xiaomi cellphone, and have been uploaded to the biodiversity website iNaturalist.org. Google Earth satellite imagery and time series from February 2024 back to 2004 was used for mapping and vegetation interpretation. Polygon areas were calculated using Google Earth.

The botanical sensitivity of a site is a product of plant species diversity, plant community composition, rarity of habitat, degree of habitat degradation, rarity of species, ecological viability and connectivity, restorability of habitat, vulnerability to impacts, and reversibility of threats.

Figure 2 is assumed to be a reasonably accurate representation of the proposed development. In the milkwood area the accommodation pods will be built offsite. There will be no concrete foundations in the milkwood area, with a prefabricated base being used. All services (water reticulation, sewerage and power) in this area are to be housed under the boardwalk connecting the pods and then lead off and connected to the main services along the road network. There will be a full-time estate manager and gardening team on the estate. Nursery facilities will be established for all the required indigenous planting, and the estate team will undertake all clearing of alien vegetation, along with subcontractors as needed. The removal of gums will be outsourced to a community BEE group, and the timber will be sent to the local sawmill for planking. The

finished timbers will be used on-site for boardwalks, bird hides, decks and building timbers.

The meaning of the No Go alternative in this case is assumed to mean no new agricultural or urban development, but could involve raising of livestock, grazing, unmanaged alien invasive vegetation and other impacts.

4. REGIONAL CONTEXT OF THE VEGETATION

The study area is located southwest of the Overberg Ruens region, and is within the Core Cape Subregion (CCR) of the Greater Cape Floristic Region (GCFR; Manning & Goldblatt 2012). The study area is part of the Fynbos biome. The GCFR is one of only six Floristic Regions in the world, and it is also by far the smallest floristic region. The Core Cape Subregion occupies only 0.1% of the world's land surface, and supports about 9400 plant species, almost half of all the plant species in southern Africa, and some 20% of the plant species in sub-Saharan Africa. About 68% of all the species in the CCR do not occur elsewhere, and many have very small home ranges (these are known as narrow endemics). Most of the lowland habitats are under pressure from agriculture, urbanisation and alien plants, and thus many of the range restricted species are also under severe threat of extinction, as habitat is reduced to extremely small fragments. Data from the Red Data Book listing process undertaken for South Africa is that 67% of the threatened plant species in the country occur only in the Fynbos biome, and these total over 1800 species (Raimondo et al 2009)! It should thus be clear that the southwestern Cape is a major national and global conservation priority, and is quite unlike anywhere else in the country in terms of the number of threatened plant species. Developments in this area thus need to take this into account.

The study area could be considered to be part of the Southwest Fynbos bioregion (Mucina & Rutherford 2006). The bioregion is renowned as one of the most biodiverse regions in the country, but is under heavy development pressure, and pressure from invasive alien plants, and virtually all quality remnants support large numbers of threatened plant species (Raimondo *et al* 2009).

The Screening Tool shows Medium plant sensitivity for most of the site, with Low sensitivity in the area used for roll-on grass cultivation in the north. None of the approximately 50 listed plant Species of Conservation Concern in the Screening

5

Tool are likely to occur on site, due to it being mostly heavily disturbed, and lacking the appropriate habitats (most are montane or limestone species).

The CapeNature Spatial Biodiversity Plan (2023) for the area (Figure 3) shows that most of the area is unmapped, with ESA1 (aquatic) along the Mill Stream, and small patches of ESA2 (terrestrial) bordering this. I am broadly in agreement with this mapping, although the southeast corner of the site should be mapped as CBA1 (terrestrial).



Figure 3: Extract of the CapeNature Spatial Biodiversity Plan (CapeNature 2023), showing that most of the area is unmapped, with ESA1 (aquatic) along the Mill Stream, and small patches of ESA2 (terrestrial) bordering this.

5. THE VEGETATION

5.1 Description of the Study Area

The study area is essentially flat, with the Mill Stream and associated wetland habitat in the southwestern corner. The soils on site are fairly deep acid to neutral sands and sandy loams, with underlying shales evident in the southeastern corner. The vegetation on site is unlikely to have burned at any stage in the last forty years, and the vegetation is not really a fire driven vegetation type, being more a Thicket and Forest type, becoming more so in the

absence of fire. The vegetation in the southeastern corner is essentially seasonal wetland, and is neither Thicket nor Forest.



Plate 1: Invasive alien gum trees (*Eucalyptus*) along the northern edge of the Mill Stream, with dense *Phragmites* reeds marking the river.



Plate 2: Buffalo grass being cultivated as roll-on lawn in the northern area, with large milkwoods beyond.



Plate 3: Dense alien kikuyu grass sward in foreground, with indigenous milkwoods and other Thicket species beyond. This is south of the current house.



Plate 4: Very High sensitivity seasonal wetland in the southeast corner, looking northeast, with dense alien Port Jackson (*Acacia saligna*) just beyond the boundary fence, and scattered plants in foreground.



Plate 5: Another view, looking northwest, of Very High sensitivity seasonal wetland in the southeast corner, with scattered alien Port Jackson (*Acacia saligna*) seedlings in foreground.



Plate 6: Interior view of the milkwood forest along the southeastern edge of the site. Most of the understorey is the invasive herb *Commelina benghalensis* (Bengal dayflower).

5.2 The vegetation

The vegetation map of South Africa (Mucina & Rutherford 2006 and online update dated 2024) indicates that most of the original vegetation type present on site is mapped as **Agulhas Limestone Fynbos**, with a patch of **Elim Ferricrete Fynbos** in the northwest, and **Southern Coastal Forest** about 500m further south (Figure 4). I do not believe that the vegetation map is particularly accurate in this area, and in reality the original vegetation here would have been very transitional, with elements of all three mapped units. There is essentially no sign of Limestone Fynbos on site today, and large milkwood forest is not an element of Limestone Fynbos, but is rather Southern Coastal Forest.

Agulhas Limestone Fynbos has 95% of its original extent still intact, some 8% conserved, and a national conservation target of 32% of original total extent (Rouget *et al* 2004). The vegetation unit is gazetted as **Critically Endangered** on a national scale (Government of South Africa 2022), due to its restricted global extent and threatening processes (mainly invasive alien plants).

Elim Ferricrete Fynbos has about 40% of its original extent still intact, some 5% conserved, and a national conservation target of 30% of original total extent (Rouget *et al* 2004). The vegetation unit is gazetted as **Endangered** on a

national scale (Government of South Africa 2022), due to its restricted global extent and threatening processes (mainly invasive alien plants).

Southern Coastal Forest has about 94% of its original extent still intact, some 89% conserved, and a national conservation target of 40% of original total extent (Rouget *et al* 2004). The vegetation unit is gazetted as **Least Concern** on a national scale (Government of South Africa 2022).

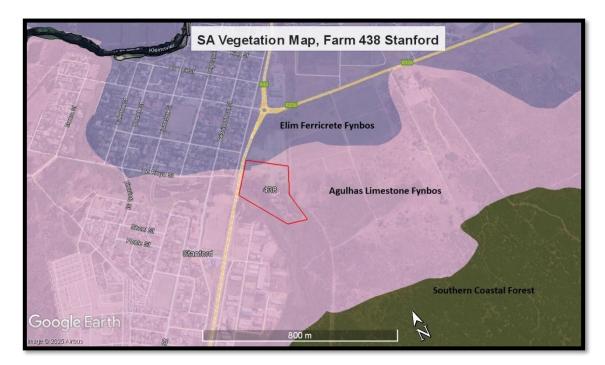


Figure 4: Extract of the SA Vegetation Map (Mucina & Rutherford) showing that the primary vegetation type on site is mapped as Agulhas Limestone Fynbos, with some Elim Ferricrete Fynbos mapped in the northwestern corner. Southern Coastal Forest is shown as being about 500m to the southeast. In reality the original vegetation here would have been very transitional, with elements of all three mapped units. There is essentially no sign of Limestone Fynbos on site today.

About 65% of the site is some form of grassland, either in the form of cultivated roll-on lawn (Plate 2) or alien grass sward (Plate 3). About 80% of this is cultivated indigenous buffalo grass (*Stenotaphrum secundatum*), and the remainder is mostly alien invasive kikuyu grass (*Cenchrus clandestinus*).

Dense, tall alien *Eucalyptus* (gum trees) dominate the northern bank of the Mill Stream from south of the current house to the R43. There is very little indigenous vegetation under these trees (Plate 1), but a few remnant indigenous shrubs such as *Searsia glauca*, *Searsia lucida*, *Euclea racemosa*, *Colpoon compressum*, *Olea europaea* ssp. *africana*, and *Gymnosporia buxifolia* still persist here.

The wetland elements in the main Mill Stream were not comprehensively surveyed, but are dominated by *Phragmites australis* (reeds) *Typha capensis* (bulrush), *Bolboschoenus maritimus* (sawgrass), *Senecio halimifolius* (tabakbos), and *Juncus kraussii* (steekriet).

About 1.0ha is covered by milkwood trees (*Sideroxylon inerme*), either as scattered individuals or dense stands. Where this is dense it forms a closed canopy forest best classified as Southern Coastal Forest (Plate 6), with an understorey dominated by the alien herb *Commelina benghalensis* (Benghal dayflower), which is likely to be an indication of previous heavy use of this area by livestock. Very few indigenous shrubs occur under the milkwoods, but there are a few *Gymnosporia buxifolia* and *Olea europaea* ssp. *africana*.

By far the most diverse area on site is in the southeastern corner, where an area of about 0.14ha of seasonal wetland on clay soils occurs. Indigenous plant species noted here include *Orphium frutescens*, *Plantago carnosa*, *Athanasia dentata*, *Mariscus thunbergii*, *Frankenia repens*, *Stenotaphrum secundatum*, *Plecostachys serpyllifolia*, *Triglochin striata*, *Otholobium bracteolatum*, *Helichrysum patulum*, *Paspalum vaginatum*, *Carex* sp., *Osteospermum moniliferum*, *Passerina paludosa*, *Senecio pillansii*, *Schoenus nigricans* and *Centella asiatica*. This Very High sensitivity area is at risk from *Acacia saligna* (Port Jackson), which occurs in dense stands to the east.

At least two listed plant **Species of Conservation Concern** (SoCC) were recorded on site, both being found only in the southeastern area, in the Very High sensitivity area (Figure 5). There is very limited potential for any other SoCC to occur on site, as most of the habitat has been heavily disturbed. None of the approximately 50 listed plant Species of Conservation Concern in the Screening Tool are likely to occur on site, due to it being mostly heavily disturbed, and lacking the appropriate habitats (most are montane or limestone species).

Passerina paludosa is a shrub Redlisted as Endangered, as it has a very limited range in seasonally wet lowlands from the Cape Flats (only Rondevlei to Muizenberg) to near Pearly Beach (but not seen here since 2005). The discovery of this population - not previously reported – is thus highly significant. A small (about 20 plants) and viable population occurs in the southeastern area, and the population on site is considered regionally very significant, and is hopefully larger, with unsurveyed but suitable habitat further up the Mill Stream valley.

Senecio pillansii is another perennial species, Redlisted as Near Threatened, and still occurs in many localities between the Cape Peninsula and Stilbaai. The population on site is small (<10 plants) and is not considered regionally significant.

5.3 Botanical Sensitivity

Current botanical sensitivity on site is shown in Figure 5. The southeast corner is the only Very High sensitivity area, and both plant SoCC are restricted to this area no site. The Mill Stream wetland is deemed to be of Medium botanical sensitivity, as are the patches of milkwoods and other threes – but both are of High ecological value. The bulk of the vegetation on site is heavily disturbed and is of Low botanical sensitivity.

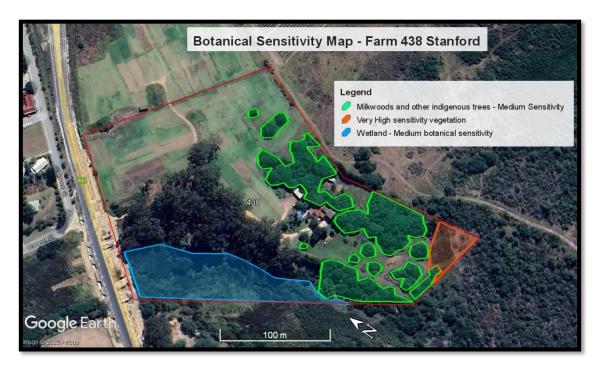


Figure 5: Map of the botanical sensitivity on Farm 438 Stanford. All unshaded areas within the study area are of Low botanical sensitivity.

6. IMPACT ASSESSMENT

6.1 Construction Phase (Direct) Botanical Impacts

The primary construction phase botanical impact of the proposed development would be loss of any natural and partly natural vegetation in the development footprint. Further construction is not assessed. The mapped vegetation type (Agulhas Limestone Fynbos) is gazetted as Critically Endangered on a national basis (Government of South Africa 2022), but it is noted that part of the area would be better characterised as Southern Coastal Forest, which is listed as Least Concern. The loss can be assumed to be of a permanent nature (prior to mitigation at operational phase).

From what I can tell of the development layout and process there is likely to be very little loss of Medium sensitivity habitat at the construction phase, even though infrastructure and units will be placed under the milkwood canopy, as the proposed construction in this area will avoid all trees, and in the milkwood area the accommodation pods will be built off-site. There will be no concrete foundations in the milkwood area, with a prefabricated base being used. All services (water reticulation, sewerage and power) in this area are to be housed under the boardwalk connecting the pods and then lead off and connected to the main services along the road network.

No loss of Very High sensitivity vegetation will occur. Essentially all hard footprints will be in Low sensitivity areas, apart from the "soft" footprints in the Medium sensitivity milkwood areas, but this should not cause any permanent damage or loss of what is there currently.

The botanical significance of the construction phase loss is deemed to be **Low negative** (before and after mitigation), as the extent and scale is very small. Minor mitigation could be implemented at the operational phase.

No plant Species of Conservation Concern will be impacted at the construction phase.

The No Go alternative would clearly have had a lower direct (construction phase) botanical impact than the proposed development - presumably best rated as Neutral.

The extent of the impacts are deemed to be local and regional, but also national, in that the vegetation types are assessed at a national level.

<u>Impact</u>	Extent of impact	Duration of impact	<u>Intensity</u>	Probability of impact	Irreplaceable loss of biodiversity	Significance before mitigation	Significance after mitigation *
85% is loss of Low sensitivity vegetation; 15 within Medium sensitivity vegetation, but with little loss	Local & regional	Mostly permanent	Low to Medium	Definite	Low	Low -ve	Low -ve
No Go	Local	Unknown and variable	Neutral to low negative	Not likely	Low	Neutral	Neutral

Table A: Summary table for construction phase botanical impacts associated with the proposed development layout.

6.2 Operational Phase Botanical Impacts

Operational phase impacts will take effect as soon as the natural vegetation in the focus area is lost or disturbed, and will persist in perpetuity, or as long as the area is not adequately rehabilitated. Operational phase impacts include loss of current levels of fair ecological connectivity across the area, and associated habitat fragmentation, plus potential positive impacts such as revegetation with locally indigenous species and alien invasive vegetation management.

Overall the operational phase botanical impact of the development is likely to be **Low negative** (prior to mitigation), and **Very Low negative** after mitigation.

The **No Go alternative** would clearly have a lower indirect (operational phase) botanical impact than the development of most of this area, although even in the No Go scenario the landowner could potentially introduce very high stocking rates on site that lead to severe overgrazing, trampling and denudation of whatever vegetation remains, in which case No Go impacts could be as high as **Medium negative**.

Positive ecological impacts could be realised in the future only if the applicant/their homeowner representative implements all required mitigation and the proposed site management guidelines.

Development Area	Extent of impact	Duration of impact	<u>Intensity</u>	Probability of impact	Irreplaceable loss of biodiversity function	Significance before mitigation	Significance after mitigation *
Loss of current level of ecological connectivity, habitat fragmentation	Local & regional	Long term and permanent	Low	Medium to High	Low	Low -ve	Very Low -ve
No Go	Local	Unknown and variable	Neutral to Medium	Likely	Low to Medium	Neutral to Medium negative	Neutral to Medium negative

Table B: Summary table for operational phase botanical impacts associated with the proposed development.

6.3 The No Go Alternative

The No Go alternative is usually considered to mean a continuation of the status quo, which in this case is taken to mean no further habitat loss to development, moderate unmanaged alien plant invasion, ongoing roll—on lawn production, no grazing and trampling by livestock, but with possible unpredictable future agricultural type impacts — such as introduction of high numbers of livestock. Confidence in the likelihood of impacts is thus low, but the No Go alternative could range from being the environmentally preferred alternative, with perhaps a Very Low negative impact, to the least preferred alternative, with a Medium negative impact.

6.4 Cumulative Impacts

The cumulative ecological impacts are in many ways equivalent to the regional ecological impacts, in that the vegetation type/s impacted by the proposed development have been, and will continue to be, impacted by numerous developments and other factors (the cumulative impacts) within the region. The primary cumulative impacts in the region are loss of natural vegetation and threatened plant species to ongoing agriculture, urban development and alien plant invasion (Mucina & Rutherford 2012; Helme *et al* 2016).

The overall cumulative ecological impact of the proposed development in the study area at the regional scale is likely to be Very Low negative, as it is small cale, with little loss of natural vegetation.

6.5 Positive Impacts

Positive ecological impacts on this site that could be realised would include ongoing removal and management of all alien invasive vegetation on the site, as well as selective replanting of suitable locally indigenous plant species in all areas except the Very High sensitivity area.

7. REQUIRED MITIGATION

The following mitigation for the proposed development is deemed feasible, reasonable and mandatory:

- All woody invasive alien vegetation (mainly *Acacia saligna*, *Acacia cyclops* and *Eucalyptus*) on the property must be felled using a hand or chainsaw, following appropriate methodology as per Martens *et al* (2021). No heavy machinery may be used (except perhaps in the case of the large gum trees in the western sector along the Mill stream), and Port Jackson (*Acacia saligna*) stems should be cut at close to ground level and immediately (within ten minutes) painted (not sprayed) with a suitable herbicide such as Garlon. Small seedlings (<15cm) of Port Jackson can usually be hand pulled, provided the root is removed. This alien vegetation control must be undertaken within six months of any authorisation, and must repeated annually to ensure no regrowth.
- All non-woody invasive alien vegetation should also be removed, with a
 particular focus on kikuyu grass (*Cenchrus clandestinus*), other annual
 grasses such as *Avena* (oats), *Briza* (brome) and *Lolium* (ryegrass), and
 the blue flowered *Commelina benghalensis* under the milkwoods.
- No disturbance of the Very High sensitivity area (as per Figure 5) may take place at any stage in the future, and to safeguard and ensure this the area should be clearly demarcated as Very High sensitivity with suitable signage on its perimeters.
- No milkwoods (Sideroxylon inerme) with stem diameter greater than 5cm should be felled or removed. No milkwood roots greater than 3cm diameter should be cut.
- No livestock may be allowed into the Very High sensitivity section.
- Rehabilitation of the disturbed (Low and Medium sensitivity) areas should be undertaken on an ongoing basis, and should include alien invasive plant management and replanting with suitable locally indigenous plant species.

 The planting list of suitable locally indigenous species for the Estate and the various zones must be compiled with input from the botanist, and approved in writing by the botanist.

8. CONCLUSIONS

- At least 65% of the study area has negligible remaining natural vegetation and is of Low botanical sensitivity. The remaining vegetation on the site is a mix of Elim Ferricrete Fynbos (Endangered), Southern Coastal Forest (Least Concern) and Agulhas Limestone Fynbos (Critically Endangered; very little of this).
- Two plant SoCC (Species of Conservation Concern) were recorded in the small patch of Very High sensitivity vegetation on site, all of which lies well outside the proposed development footprint.
- The overall botanical impact of the proposed development is likely to be an acceptable Low negative, before and after mitigation.
- All mitigation noted in Section 7 is considered feasible, reasonable and essential, and must be timeously and properly implemented.
- An attempt should be made to secure and improve the conservation
 management of the adjacent areas of remaining natural vegetation to the
 east and southeast of the site, notably by reducing the alien invasive
 vegetation in these areas, which currently constitutes a fire risk as well as
 being a source of ongoing re-invasion of the project area, and in particular
 the Very High sensitivity area on the southeastern edge of this property.

9. REFERENCES

CapeNature. 2023. Western Cape Biodiversity Spatial Plan. CapeNature, Cape Town, South Africa.

Dept. of Forestry, Fisheries & Environment. 2022. National Biodiversity Offset Guideline. Government Gazette 25 March 2022. No. 46088.

Government of South Africa. 2022. South African Red List of Terrestrial Ecosystems: assessment details and ecosystem descriptions. Government Notice 2747, Gazette 4526. Technical Report #7664, SANBI Pretoria, South Africa.

Helme, N., P. Holmes & A. Rebelo. 2016. Strandveld Ecosystems. <u>In:</u> Cadman, A (ed.). *Ecosystem Guidelines for Environmental Assessment in the Western Cape, Ed.*2. Fynbos Forum, Fish Hoek, South Africa.

Manning, J. and P. Goldblatt. 2012. Plants of the Greater Cape Floristic Region 1: The Core Cape flora. *Strelitzia 29*. South African National Biodiversity Institute, Pretoria.

Martens, C., Deacon, G., Ferreira, D., Auret, W., Dorse, C., Stuart, H., Impson, F., Barnes, G. and C. Molteno. 2021. *A practical guide to managing invasive alien plants: A concise handbook for land users in the Cape Floral Region.* WWF South Africa, Cape Town, South Africa.

Mucina, L. and M. Rutherford. *Eds.* 2024 online update, on bgis.sanbi.org. Vegetation map of South Africa, Lesotho, and Swaziland. *Strelitzia 19*. South African National Biodiversity Institute, Pretoria.

Raimondo, D., Von Staden, L., Foden, W., Victor, J.E., Helme, N.A., Turner, R.C., Kamundi, D.A., and Manyama, P.A. (eds.) 2009 and online updates on redlist.sanbi.org. Red List of South African Plants 2009. *Strelitzia 25*. South African National Biodiversity Institute, Pretoria.

Rouget, M., Reyers, B., Jonas, Z., Desmet, P., Driver, A., Maze, K., Egoh, B. & Cowling, R.M. 2004. *South African National Spatial Biodiversity Assessment 2004: Technical Report. Volume 1: Terrestrial Component.* Pretoria: South African National Biodiversity Institute.