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Pri.Sci.Nat # 400045/08

BOTANICAL ASSESSMENT OF PROPOSED DEVELOPMENTS ON ROMANSBAAI ABALONE FARM, GANSBAAI, WESTERN CAPE.

Compiled for: Lornay Environmental Consulting, Hermanus

Applicant: Aqunion (Pty) Ltd

9 May 2024

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.

NA Helme

ABRIDGED CV:

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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 south-western Cape. Since the end of 2001 I have been the Sole Proprietor of Nick Helme Botanical Surveys, and have undertaken over 1700 site assessments in this period.

A selection of relevant previous botanical work is as follows:

- Botanical assessment of proposed development on Erven 1469, 1470, 1471, 1473 and 1479, Vandyksbaai (Lornay Environmental 2024)
- Botanical assessment of proposed sand-mining on Portion of Portion 30 of Klipfonteyn 711, Gansbaai (Grasaro 2023)
- Botanical assessment of proposed development on Erf 4570 Betty's Bay (Lornay Environmental 2023)
- Botanical assessment of proposed development on Erf 1486 Vermont (Lornay Environmental 2023)
- 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 Groot Patrysvlei, Clanwilliam (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)
- Botanical assessment of proposed cultivation on farm Erfdeel, Bo-Swaarmoed, Ceres (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.

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1. INTRODUCTION

This botanical impact assessment was requested to inform the environmental planning and authorisation process being followed for the proposed development of a solar energy facility, a new dam and pipeline, pumpstation expansion, and new growing facilities (Phases 1 & 2) on the Romansbaai abalone farm, near Gansbaai, in the Western Cape (see Figure 1). The total study area property is about 50ha in extent, and is located west of the road to Danger Point from Gansbaai.

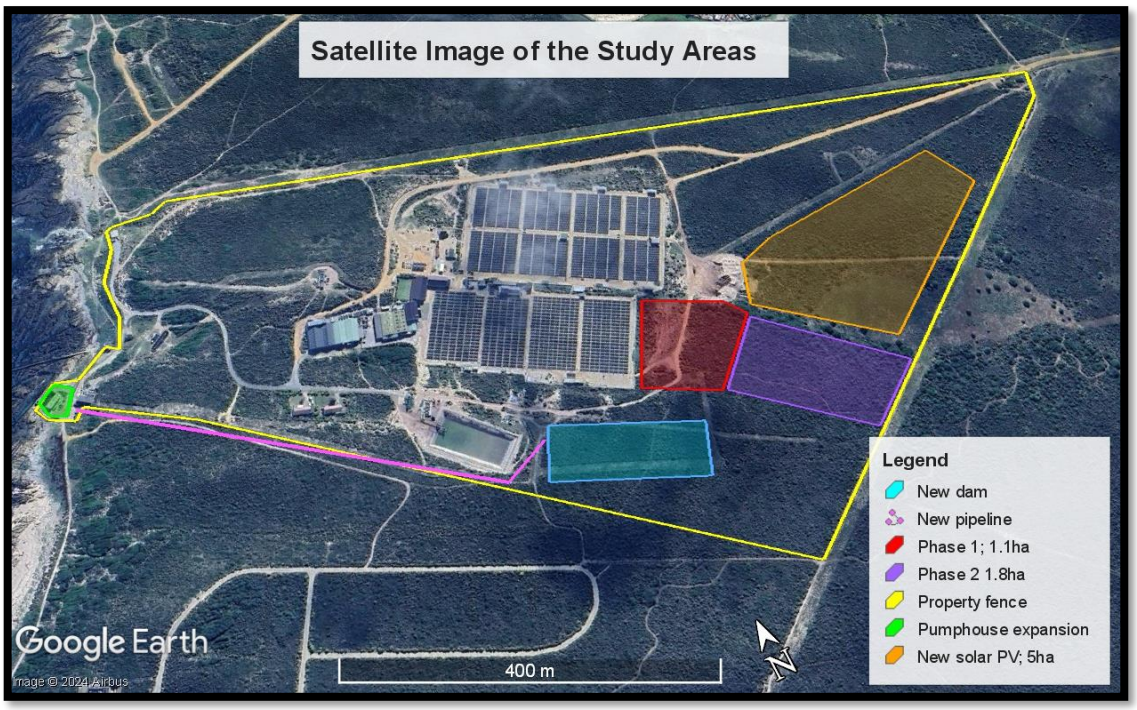

Figure 1: Image showing the proposed development in the study area. The property boundary is shown in yellow.

2. TERMS OF REFERENCE

The terms of reference for this study were as follows:

- Undertake a site visit to assess the vegetation in the study area
- Identify and describe the vegetation in the study area and place it in a regional context, including its status in terms of the CapeNature Spatial Biodiversity Plan (CBA/ESA/ONA, etc)
- Identify and locate any (likely) plant Species of Conservation Concern in and around the study area, based on observation, literature and iNaturalist website review
- Provide an overview and map of the likely botanical conservation significance (sensitivity) of the site and proposed footprints

- Identify and preliminarily assess (according to standard IA methodology) the likely botanical impacts of the proposed developments, including impacts associated with the construction and operational phases
- Indicate the acceptability of the development from a botanical perspective
- Identify and describe the cumulative impacts of the development
- Recommend feasible and reasonable mitigation measures to minimise impacts and to help mitigate impacts associated with the proposed development. Include an assessment of the need for a possible biodiversity offset.

3. LIMITATIONS, ASSUMPTIONS AND METHODOLOGY

The site was visited on 27 April 2024. This was at the end of a hot, dry summer, and was thus outside the optimal winter – spring flowering season in this mainly winter rainfall area, and few of the likely geophytes and very few of the annuals were evident or identifiable (apart from the autumn flowering *Oxalis, Haemanthus* and *Brunsvigia*), whilst all perennial plants were identifiable. There were thus some seasonal constraints on the accuracy of the botanical findings, but given the heavy dominance of perennials in this area – which can be used as indicators of habitat sensitivity - the confidence in the accuracy of the botanical findings is fairly high. 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 study area was walked, and all plants on site were noted. Photographs of certain plant species were made (using a Fuji mirrorless slr camera), and uploaded to the inaturalist.org website. Satellite imagery dated May 2023 (and earlier) was used to inform this assessment, and for mapping. It is assumed that all-natural vegetation in the dam and growing facility footprints will be permanently lost, and that vegetation in the PV area will be brushcut and maintained at less than 1m tall, with perhaps a 30% cover loss at the construction phase. The vegetation in the pipeline area is assumed likely to be lost during construction, but most species will return over time (5-10yrs).

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.

The exact meaning of the No Go alternative in this case is not known, but presumably it would be no further infrastructure development, implying persistence of the natural vegetation in these areas.

4. REGIONAL CONTEXT OF THE VEGETATION

The study area is part of the South Coast Fynbos bioregion (Mucina & Rutherford 2006), and is part of the Fynbos biome, located within what is now known as the Core Region of the Greater Cape Floristic Region (GCFR; Manning & Goldblatt 2012). The GCFR is one of only six Floristic Regions in the world, and is the only one largely confined to a single country (the Succulent Karoo component extends into southern Namibia). It is also by far the smallest floristic region, occupying only 0.2% of the world's land surface, and supporting about 11500 plant species, over half of all the plant species in South Africa (on 12% of the land area). At least 70% of all the species in the Cape region do not occur elsewhere, and many have very small home ranges (these are known as narrow endemics). Many 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 nationwide plant Red Listing project indicate that 67% of the threatened plant species in the country occur only in the southwestern Cape, 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 priorityTHE SITE , and is quite unlike anywhere else in the country in terms of the number of threatened plant species.

The South Coast Fynbos bioregion is characterised by relatively high winter rainfall, strong rainfall gradients, poor, sandy soils, moderate topographic diversity, and large urban areas and high levels of alien invasive vegetation. Due to this combination of factors the loss of natural vegetation in this bioregion has been extensive (>50% of original extent lost within the region), and the bioregion has a high number of threatened plant species (Raimondo *et al* 2009).

The CapeNature Spatial Biodiversity Plan (Pence 2017; Figure 2) indicates that that most of the site is mapped as Other Natural Area (ONA), with a patch of CBA1 in the north, and patches of ESA1 (Ecological Support Area) and ESA2. After ground-truthing the site (and with data on rare plant distribution) I only partly agree with this mapping, and I would extend the CBA1 to include most of the undeveloped eastern part of the property, whilst obviously excluding the existing facilities from CBAs and ONAs.

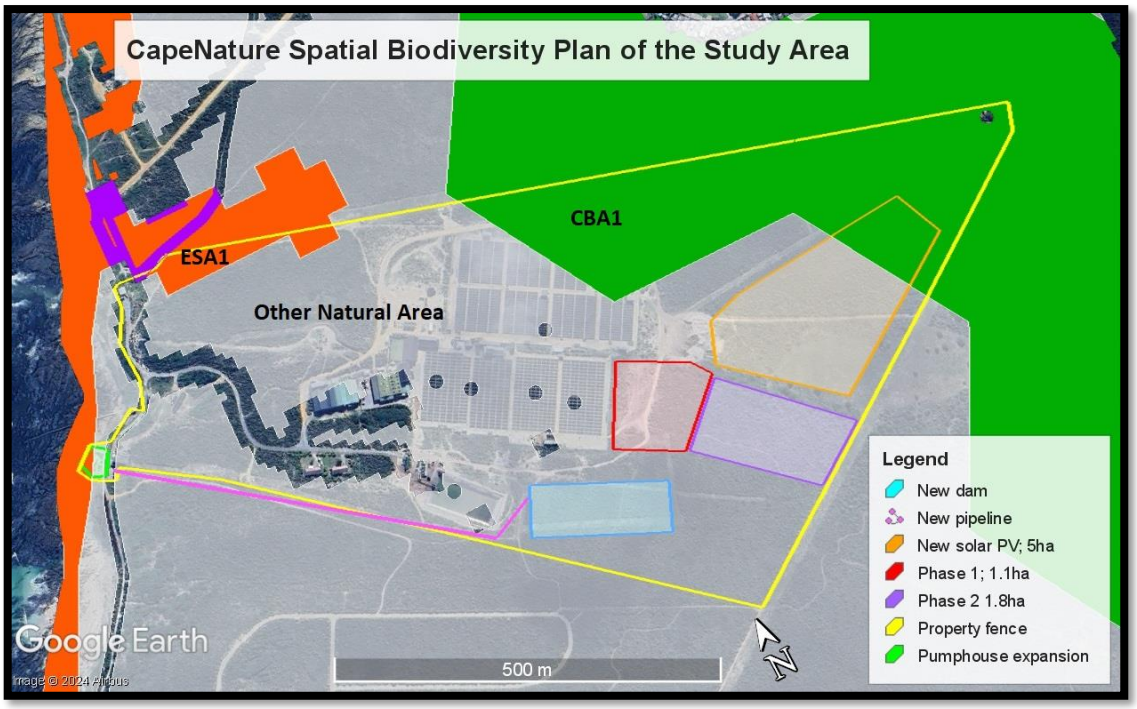

Figure 2: Extract of CapeNature Spatial Biodiversity Plan (Pence 2017) showing that most of the site is mapped as Other Natural Area (ONA), with a fairly large patch of CBA1 in the northeast, and patches of ESA1 (Ecological Support Area; wetlands and coastal corridors) in the west. After ground-truthing the site I only partly agree with this mapping, and it is obvious that the facilities on site were built after the CapeNature SBP imagery was commissioned (some facility areas mapped as CBA1, and much of it as ONA). I would extend the CBA1 to include much of the natural vegetation in the east and southeast.

5. THE VEGETATION AND ITS SENSITIVITY

According to the SA Vegetation Map the original natural vegetation in the study area is all **Overberg Dune Strandveld** (Mucina & Rutherford 2018). Based on my groundtruthing I would agree with this. No copy of this mapping is provided as it adds little value.

Overberg Dune Strandveld is now gazetted as **Endangered** on a national basis (Government of South Africa 2022). About 90% of its total original extent remains intact, about 36% is conserved, and the national conservation target is also 36% (Rouget *et al* 2004), and I am thus unclear on how this can be listed as Endangered, even though it is listed under the B1(iii) criterion (restricted distribution and threatening processes). The unit is known to support relatively few plant Species of Conservation Concern (Raimondo *et al* 2009), most of which are threatened by habitat loss to urban development and alien invasive

vegetation. This unit occurs on nutrient poor, deep, alkaline sands on the coastal lowlands, and the vegetation type does not need fire for optimal ecological functioning, although it can and does occasionally burn (Helme & Rebelo 2016).

The site has not been burnt for at least twenty years, the vegetation is grazed and fairly lightly trampled (in places) by game (eland, bontebok, springbok and zebra), and has a low density of invasive alien species (<0.5% cover of rooikrans and manitoka; *Acacia cyclops* and *Myoporum* sp.), and most of it can thus be regarded as being in good condition.

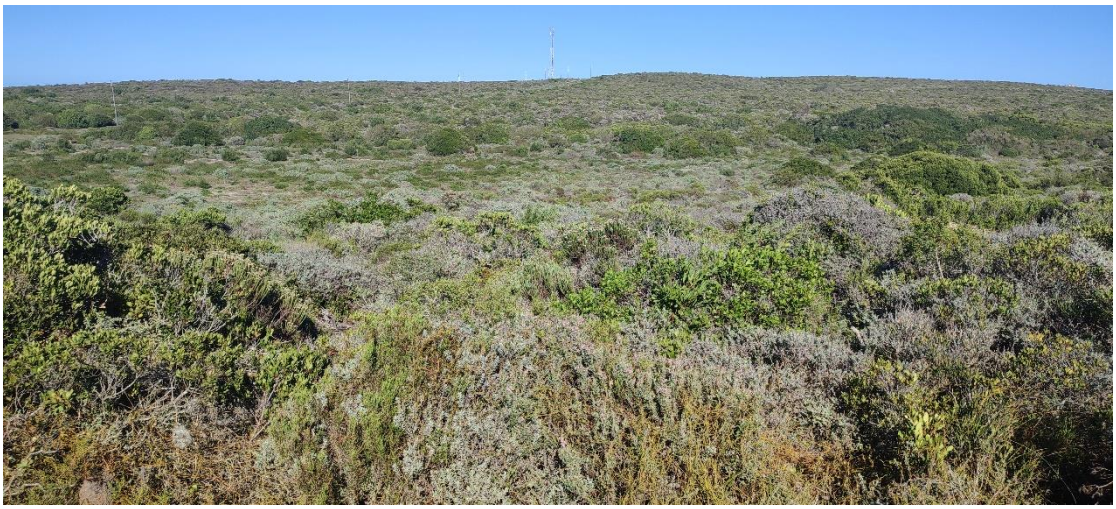

Plate 1: View of natural Strandveld vegetation in the area proposed for the PV facility, looking southwest.

Plate 2: View of High sensitivity Overberg Dune Strandveld on the Phase 2 facility area, looking northwest.

Plate 3: View of disturbed, Low sensitivity Overberg Dune Strandveld in the proposed Phase 1 facility area, looking north towards the existing infrastructure.

Plate 4: View of High sensitivity Strandveld vegetation in proposed dam area, looking west.

Plate 5: View west along proposed pipeline route to existing pumpstation, with brushcut area to the right (north) of the fence.

As can be seen in the site photos the natural vegetation on most areas has high structural diversity, with a mix of tall shrubs, small trees, grasses, restios and herbs. Autumn flowering geophytes are also present (*Brunsvigia, Oxalis, Haemanthus*).

Indigenous species noted in the natural vegetation in most of the study areas include *Searsia glauca, S. laevigata, S. lucida, Anthospermum spathulatum, A. galiodes, Euclea racemosa, Pterocelastrus tricuspidatus, Thamnochortus insignis, Cynodon dactylon, Carpobrotus acinaciformis, Otholobium bracteolatum, Jordaaniella dubia, Ruschia sarmentosa, Restio eleocharis, R. calcicola, Helichrysum niveum, H. patulum, H. dasyanthum, Cassine peragua, Maytenus lucida, Lachenalia rubida, Ficinia ramosissima, F. indica, F. secunda, Schoenus arenicola, Chaenostoma subspicatum, Phylica ericoides, Metalasia muricata, Salvia aurea, Brunsvigia orientalis, Passerina paleacea, Satyrium carneum, Osteospermum moniliferum, Eriocephalus racemosus, Tetragonia fruticosa, Sideroxylon inerme, Roepera flexuosa, Geranium incanum, Muraltia satureoides, M. pappeana, Haemanthus coccineus, Brunsvigia orientalis, Chironia baccifera, Olea exasperata, Ehrharta villosa, Cineraria geifolia, Asparagus asparagoides, Rumex sagittatus, Oncosiphon suffruticosum, Pentameris pallida, Arctotheca calendula, Athanasia quinqedentata* ssp*. rigescens, Cassine peragua, Aspalathus hispida, Cotula pruinosa, Tephrosia capensis, Agathosma geniculata, Pelargonium betulinum, Massonia depressa, Solanum guineense, Ifloga repens, Babiana nana, Myrsine africana, Zaluzianskya villosa, Oxalis depressa* and *Trachyandra ciliata.*

At least five plant **Species of Conservation Concern** (SoCC) were recorded on site, with distribution as per Table 1. All have substantial and viable populations on the greater property, but their distribution and abundance varies from footprint to footprint. There is a moderate likelihood of one or two other SoCC being present on the various footprints. Rare local endemic species such as *Cliffortia anthospermoides* (Endangered) do not appear to be present on site, and were actively searched for. *Erica irregularis* (Endangered) does not occur south of Gansbaai, although it is common at Grootbos. *Dasispermum grandicarpum* is an inconspicuous, low herb that grows annually from a rootstock (especially now, early in the season), and was until recently known only from Grootbos NR, but has now been recorded from Stanford to Gansbaai (pers. obs.). The species is Redlisted as Data Deficient, but it was not seen in the study areas.

Species	***Redlist Status***	***Found where***
Athanasia quinquedentata ssp. *rigens*	VU	PV, Phase 2, Dam
Cynanchum zeyheri	VU	PV, Phase 2, Dam
Muraltia pappeana	Near Threatened	PV, Phase 1, Phase 2, Dam
Agathosma geniculata	Near Threatened	PV, Phase 2, Dam
Lampranthus fergusoniae	VU	PV, Phase 2, Dam

Table 1: Distribution of the plant SOCC in the study areas. No SoCC were recorded in the pumpstation or pipeline areas.

Athanasia quinquedenta ssp. rigens is a shrub Redlisted as Vulnerable, and occurs in coastal sands over limestone from Gansbaai to Stilbaai. Scattered plants occur in three of the study areas.

Agathosma geniculata is a shrub Redlisted as Near Threatened, and occurs in coastal sands from De Kelders to Arniston. The species is common on three of the study areas.

Muraltia pappeana is a shrub Redlisted as Near Threatened, and occurs in coastal sands from De Kelders to Riversdale. The species is common throughout most of the study areas.

Cyanchum zeyheri (not flowering, provisional id) is a creeping shrub Redlisted as Vulnerable, and occurs in coastal sands and rocky areas from Saldanha to Agulhas, and is probably very overlooked. Scattered plants occur in three of the study areas.

Lampranthus fergusoniae is a vygie Redlisted as Vulnerable, and is found from Kleinmond to Knysna on coastal sands. Scattered plants occur in three of the study areas.

The botanical sensitivity of the site is as shown in Figure 3. Two patches of High sensitivity have been mapped, which are mainly in the proposed PV area and the new dam footprint. Most of Phase 1 facility area is of Low sensitivity, and most of the Phase 2 facility area is of Medium sensitivity.

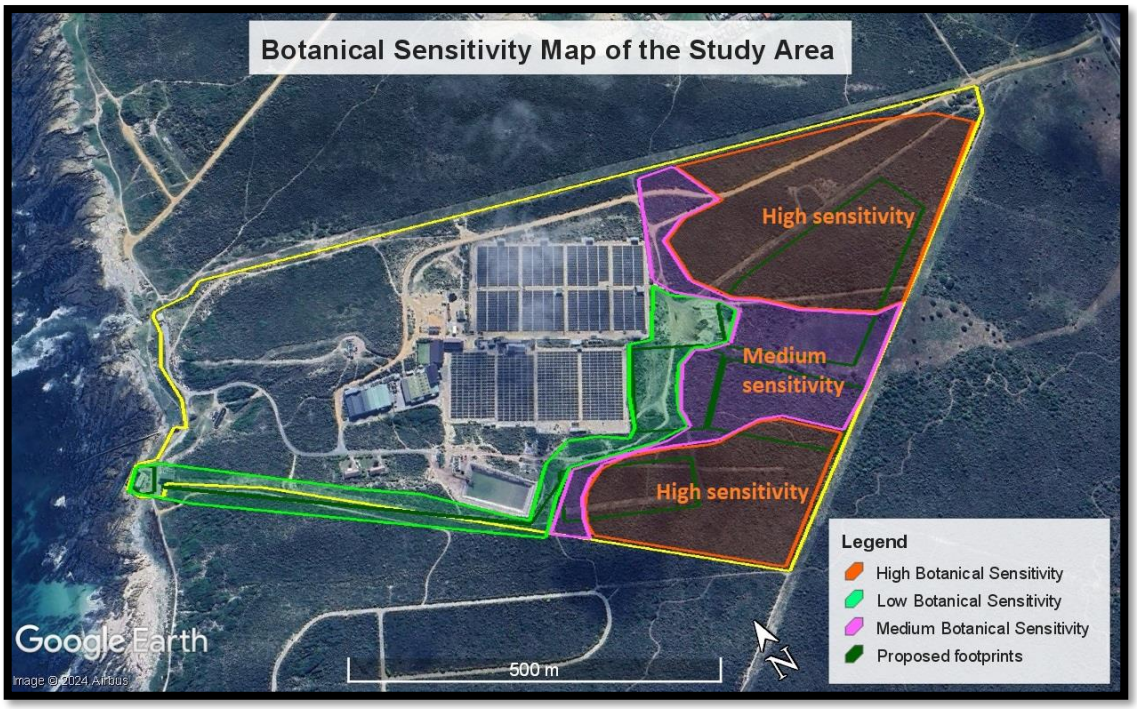

Figure 3: Botanical sensitivity map for the portion of the property with proposed development footprints (property outline in yellow).

6. IMPACT ASSESSMENT

6.1 Construction Phase (Direct) Botanical Impacts

The primary construction phase ecological impact of the proposed development would be permanent loss of all Low, Medium and High sensitivity vegetation (gazetted as an Endangered vegetation type) in three of the five footprints, along with associated loss of the site populations of the five recorded plant Species of Conservation Concern in these areas. Areas where vegetation loss will be total are the two growing facilities (Phases 1 & 2) and the new dam.

Temporary vegetation loss would occur in the PV area and the pipeline. In the PV area vegetation loss will be most significant for the larger, taller woody species, which will need to be brushcut down to less than 1m, whilst the lower growing species should actually benefit from the reduced canopy cover. Total vegetation loss in the PV area is neither desirable nor likely, as the applicant wants to ensure that vegetation cover is largely retained, to limit sand and dust impact. No vegetation loss is likely as a result of the pumphouse expansion.

The proposed PV development would also result in degradation of about 6ha of area mapped as CBA1 (Critical Biodiversity Area 1), with the rest of the footprint impacting on ONA (Other Natural Area). Loss of mapped CBAs and ESAs are not

supported, as they are deemed to be irreplaceable habitat and serve multiple ecological functions, for both species, ecological connectivity and for meeting national conservation targets. Loss of CBAs is usually associated with High negative ecological impact.

Botanical significance of this habitat and species loss (before and after mitigation) ranges from **Very Low negative** for the pumpstation expansion to **Medium - High negative** for the dam area. There is little one can do to mitigate the impacts of loss of habitat and SoCC.

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

Development Area	Extent of impact	Duration of impact	Intensity	Probability of impact	Irreplaceable loss of biodiversity	Significance before mitigation	Significance after mitigation
PV area	Local	Long term	Medium	Definite	Low to Medium	Low to Medium -ve	Low to Medium -ve
Phase 1 Area	Local & regional	Permanent	High	Definite	Low	Low -ve	Low -ve
Phase 2 Area	Local & regional	Permanent	High	Definite	High	Medium -ve	Medium -ve
Dam area	Local & regional	Permanent	High	Definite	High	Medium to High -ve	Medium to High -ve
Pipeline	Local	Temporary	Low	Definite	Low	Low -ve	Low -ve
Pumphouse expansion	Local	Permanent	Very Low	Definite	Very Low	Very Low -ve	Very Low -ve
No Go	Local	Unknown and variable	Neutral to low negative	Unknown	Low	Neutral to Low negative	Neutral to Low negative

Table A: Summary table for construction phase botanical impacts associated with the proposed development in each of the study areas. The primary construction phase impacts would be permanent loss of High sensitivity vegetation (gazetted as an Endangered vegetation type), along with associated loss of the site populations of the five recorded plant Species of Conservation Concern. Additional impacts include loss of areas mapped as CBA1 (PV site only) and ONA.

6.2 Operational Phase Botanical Impacts

Operational phase impacts will take effect as soon as the natural vegetation on the site is lost or disturbed, and will persist in perpetuity, or as long as the area is not fully rehabilitated (not likely within 30yrs). Operational phase impacts include loss of current high levels ecological connectivity across the study areas, and associated habitat fragmentation. The construction may also result in alien Argentine ant introduction, with associated negative ecological impacts on seed dispersal for up to 25% of the remaining indigenous plant species within 50m of any construction.

The overall habitat fragmentation and loss of ecological connectivity impact is likely to be **Medium negative** at the property scale (before and after mitigation), as the development will result in loss or degradation of almost 50% of the remaining natural vegetation on the property.

Development Area	Extent of impact	Duration of impact	Intensity	Probability of impact	Irreplaceable loss of biodiversity	Significance before mitigation	Significance after mitigation
PV area	Local	Long term	Medium	Likely	Low to Medium	Low to Medium -ve	Low to Medium -ve
Phase 1 Area	Local & regional	Permanent	High	Definite	Low	Low to Medium -ve	Low to Medium -ve
Phase 2 Area	Local & regional	Permanent	High	Definite	High	Medium -ve	Medium -ve
Dam area	Local & regional	Permanent	High	Definite	High	Medium -ve	Medium -ve
Pipeline	Local	Temporary	Low	Likely	Low	Low -ve	Low -ve
Pumphouse expansion	Local	Permanent	Very Low	Definite	Very Low	Very Low -ve	Very Low -ve
No Go	Local	Unknown and variable	Neutral to low negative	Unknown	Low	Neutral to Low negative	Neutral to Low negative

Table B: Summary table for operational phase botanical associated with the proposed urban development. The main operational phase impacts would be loss and degradation of current ecological connectivity across the footprints, and associated habitat fragmentation.

The No Go alternative would have a significantly lower indirect (operational phase) botanical impact than the proposed development, and is thus the preferred alternative.

No significant positive ecological impacts of the proposed development are likely, either before or after mitigation, although it could be argued that formal conservation of the remaining natural areas is a potential positive impact post mitigation, but in reality this is no different from the No Go alternative.

6.3 The No Go Alternative

The No Go alternative (continuation of the *status quo)* on this site would have significantly lower construction and operational phase botanical impacts (Neutral vs Medium to High negative) than the proposed development, and is thus the strongly preferred alternative before and after mitigation.

6.4 Cumulative Impacts

The cumulative ecological impacts are in many ways equivalent to the regional ecological impacts, in that the vegetation type and faunal habitat and species to be impacted by the proposed development has 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 urban development and alien plant invasion (Mucina & Rutherford 2012; Helme & Rebelo 2016).

The overall cumulative ecological impacts of the proposed development at the regional scale are likely to be Low to Medium negative before and after mitigation.

6.5 Positive Impacts

No significant positive ecological impacts of the proposed development (before mitigation) are likely during either the construction or the operational phase. However, after mitigation the formal conservation of the remaining natural vegetation on the property could be seen as a significant positive impact, if it happens.

7. REQUIRED MITIGATION

The following mitigation is considered essential, feasible and reasonable:

- Any approved development footprints should be clearly demarcated on site prior to any development. No disturbance of natural vegetation outside of these demarcated areas should be allowed, either during construction or thereafter.
- All listed invasive alien plant species should be removed from the site within one year of any project authorisation, using approved methodology (see Martens *et al* 2021). The main invasive species are rooikrans (*Acacia cyclops)* and manitoka (*Myoporum serratum* and *M tenuifolium*).
- Search and Rescue of all translocatable bulbs (geophytes) should be undertaken from the approved development footprints for Phases 1 & 2 and the new dam prior to construction. This should be done at the end of the flowering season for the relevant species (ranges from April to October). Material should be translocated to other parts of the property where it will not be disturbed in future, and which is ecologically similar.
- No large scale soil disturbance or site clearing should happen in the proposed PV area, and instead vegetation can be trimmed to a maximum height of 1m, maintaining the bulk of the plant cover, whilst allowing for the solar panels to be positioned at a minimum of 1m above ground level. If the vegetation grows above the panels it may be trimmed on a regular basis, as needed, but should never be cut below 300mm above the ground. Cut material can be used as mulch to stabilise and cover any loose sand nearby.

8. CONCLUSIONS AND RECOMMENDATIONS

- About 14ha of the 50ha property surveyed is of High botanical sensitivity, and the underlying vegetation type (Overberg Dune Strandveld) is gazetted as Endangered on a national basis. Approximately 40% of this High sensitivity area will be lost or disturbed by the proposed development.
- At least five plant Species of Conservation Concern (SoCC) were recorded in four of the five footprint areas, but viable populations of all SoCC will remain on undeveloped parts of the property, and most of them should survive in the PV area if the vegetation in this area is brushcut to about 1m tall.

- The only mapped CBA1 that will be impacted by the proposed development is in the PV area, and it will thus not be totally lost, as most of the species in this area should survive, even if partly shaded by panels, and ecological connectivity through the PV area will remain.
- Loss of vegetation in the Phase 1 & 2 and dam areas will be total, with the dam area being the most significant (highest density of SoCC of the three total loss areas).
- Combined construction and operation phase botanical impacts are Medium negative or less for all development areas, expect for the dam area, where it is Medium to High negative. The proposed mitigation is relatively minor, and will not substantially lower these impacts.
- If any development on site is approved then all mitigation as outlined in Section 7 must be timeously and properly implemented.
- The No Go alternative would be the strongly preferred alternative from a botanical perspective, with a Neutral impact.
- This level of botanical impact does potentially trigger a biodiversity offset requirement (Department of Forestry, Fisheries & the Environment. 2023). However, given that the vegetation type is relatively well conserved (100% of national target already set aside) – at least on paper – no further land additions to the conservation of Overberg Dune Strandveld are advised, especially given CapeNature's management constraints. Given that even the formally conserved areas of this vegetation type are under severe threat from alien invasive vegetation, such as in the nearby Walker Bay Nature Reserve (CapeNature). Thus it is suggested that any biodiversity offset be in the form of funding for alien invasive plant management in these already declared but poorly managed conservation areas. A biodiversity offset specialist should calculate the appropriate quantum of the contribution, and this should ideally be enough to fund alien clearing operations in at least a 100ha area in perpetuity (based on approx. 10ha footprint, at an offset ratio of 10:1 for Endangered habitats, as per offset guidelines, Department of Forestry, Fisheries & the Environment 2023).

9. REFERENCES

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