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LANDSCAPE PLAN FOR COOT CLUB, MOSAIC FARM, KLEIN RIVER ESTUARY, WESTERN CAPE.

Client: Mr Jo Sinfield
Coot Club
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Version 1
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1. Declaration of Independence

I, Sean David John Privett, declare myself to be independent in this specialist report and that all opinions and recommendations expressed are my own.

Abridged CV

Surname: Privett, First Names: Sean David John Privett, Date of Birth: 19 November 1970
Formal Qualifications: BSc – Environmental and Geographic Sciences, MSc – Botany (UCT).
Conservation Director at Grootbos Nature Reserve (www.grootbos.com) from 1997 to present, Director of Grootbos Foundation, Trustee of Flower Valley Conservation Trust, Trustee Overberg Lowlands Conservation Trust, Chairman Walker Bay Fynbos Conservancy (www.fynbos.co.za) and Cape conservation specialist for Fauna and Flora International. A range of conservation and social development projects with a focus on fynbos conservation. Owner of Fynbos Ecoscapes cc since 1995, which focuses on environmental consulting, botanical assessments, conservation management planning, fynbos landscaping, restoration and an indigenous plant nursery. Author of various scientific and popular publications including Field guide to Grootbos Nature Reserve and the Walker Bay region.

Recent consultancies.

2020 Environmental audit of stone mine on portion of erf 210, Gansbaai, Western Cape.
2020 Botanical assessment for proposed ploughing application on Boskloof Farm, Elim, Western Cape,
2020 Landscaping plan for Maremanna Estate, Bot River.
2020 Conservation management and landscaping plan for Mountain Rose Farm, Hemel-n-Aarde Valley.
2020 Botanical assessment for Vloedbos Resort, 24G application.
2019 Botanical impact assessment for proposed extension of Steyns Quarry, Rem Farm 474, Bot River, Western Cape.
2019 Specialist botanical assessment for ploughing application at Melkhoute Bosch 3/497, Malgas, Western Cape.
2019 Botanical assessment for proposed abalone farm on the Remainder of Farm 385, Pearly Beach, Caledon District.
2019 Botanical assessment of Erf 12199 and 10963, Hermanus, Western Cape.
2018 Botanical report on Plot 178, Benguela Cove, Western Cape.
2018 Botanical report for proposed extension to sand mine on Sand Down 220/3, Gansbaai, Western Cape.
2018 Botanical report for infrastructure development on portion 3 of Farm 215, Baardskeedersbos, Western Cape.
2018 Rehabilitation plan for Buffeljachs abalone farm.
2016 Botanical assessment of proposed sand mine on Farm 733/2, Klipheuwel, Western Cape.
2016 Botanical assessment of proposed calcrete mine on Farm 1043 (REM), Saldanha, Western Cape.
2016 Rapid botanical assessment of Erf 321, Stanford, Western Cape. Duncan Heard Environmental Consulting, Hermanus.
2016 Botanical assessment of five proposed new dwelling sites on Farm 215/1, Baardskeedersbos, Western Cape.
2016 Botanical assessment of proposed extension area for Stanford Stone quarry, on Erf 1070, Stanford, Western Cape. Fynbos Ecoscapes report for Site Plan Consulting, Strand.

2. Introduction and site description

The Mosaic site is located in a rural, natural area on the Wortelgat Road, about 8,8 km from Stanford, in the Overstrand Municipality. The property Wortelgat Remainder 1/723 is 463.79 hectare and fronts on the Kleinriver lagoon, being the estuary of the Klein River. The property stretches across the Wortelgat Road to the south, while the Walker Bay Nature Reserve lies immediately to the south along the coast. The property is a longstanding member of the Walker Bay Fynbos Conservancy (www.fynbos.co.za) and is characterised by its exceptional natural beauty and high biodiversity. The property has over the last two decades been developed into an upmarket tourism facility and operated as such. The new owners are planning to further develop the site by adding additional accommodation and associated tourism facilities. This report provides a framework for future landscaping and rehabilitation around the new tourism development on the property (Figure 1).

Figure 1. Approximate location (white polygon) of development at Coots Club, Mosaic farm, Hermanus.

3. Relevant proposed mitigation measures from the visual impact assessment (Oberholzer 2019)

- Existing indigenous vegetation to be retained as far as possible in the vicinity of the proposed development to provide visual screening and a visual backdrop to the development. It is acknowledged that clearings for firebreaks may be necessary.
- Only areas required for the actual buildings to be cleared. The remainder of the construction site be cordoned off and the natural vegetation protected. The proliferation of construction tracks to be avoided.
- Additional milkwood trees to be planted between and partly in front of the units to provide visual screening for the proposed development. The milkwoods to be planted in close formation for mutual protection.
- Formal landscaping to be minimal, and alien plant species avoided. Preferably local buffalo grass or kweek and local strandveld plants to be used. Specifically, kikuyu grass or palm trees to be avoided.
- A landscape development plan, including lists of permitted plant species, prepared by a qualified landscape architect or horticulturist to be submitted together with the Site Development Plan to the local authority.

- Internal roads to be as narrow as possible, and parking areas limited in size, as currently indicated, to minimise the visual intrusion of vehicles in the landscape.

4. Characteristics of natural vegetation on site

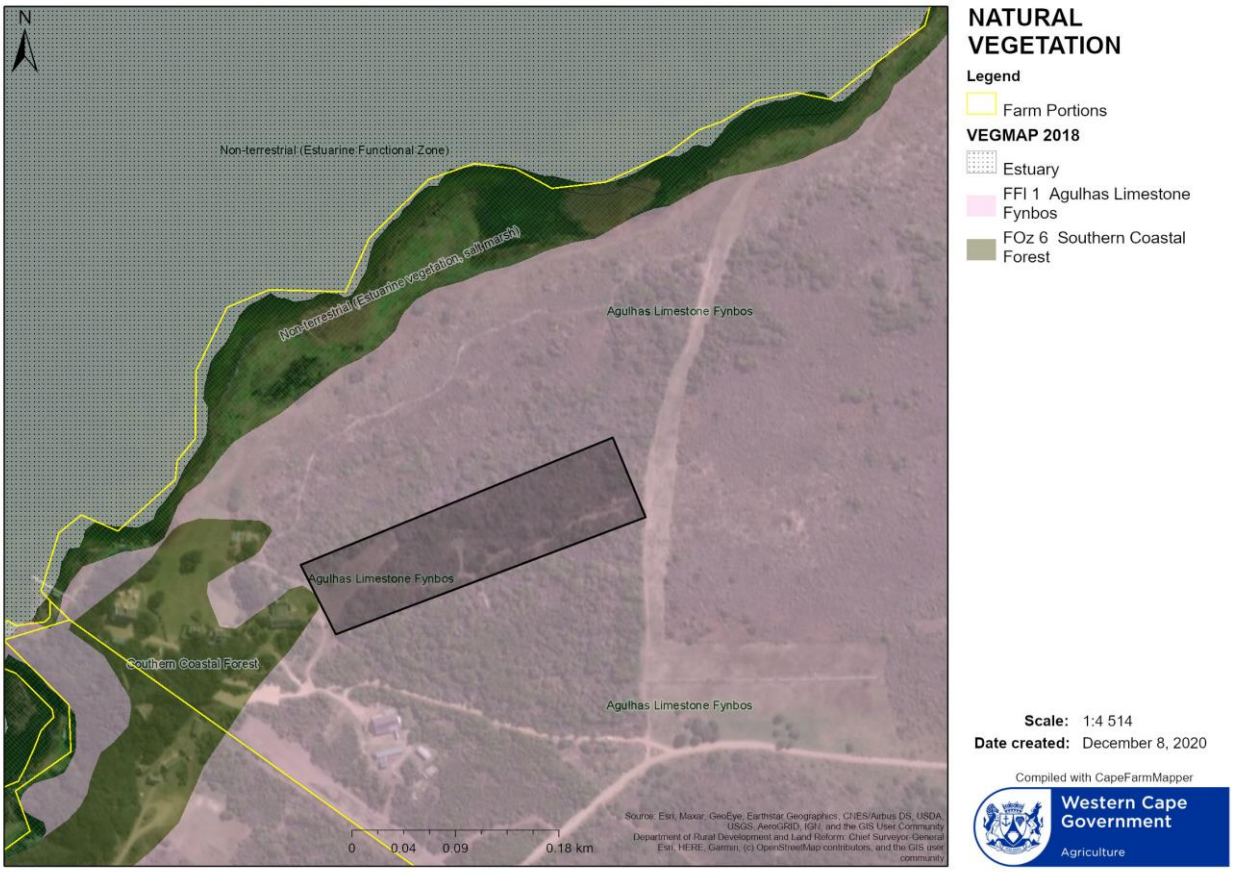

Figure 2. Natural vegetation in the vicinity of the development area at Coots Club, Mosaic Farm, Kleinriver estuary. Light green is Southern coastal forest, pink is Agulhas limestone fynbos *see below and dark green is Non-terrestrial estuarine vegetation, salt marsh (Source SANBI Vegetation map of South Africa 2018).

According to the Vegetation of South Africa, the development area falls within the Agulhas limestone fynbos vegetation type. However, following a site visit, ground truthing confirmed that the site is characterised by recovering Overberg dune strandveld. The Agulhas limestone fynbos is found to the south of the main access road to the property. There are some small areas of thicket and limestone fynbos in the vicinity of the development area. The thicket species are spread across the property. Overberg dune strandveld often transitions to thicket in the absence of fire.

Plate 1. Overberg dune strandveld with some thicket elements on the site at Coots Club, Remainder 1/723.

Dominant strandveld species recorded included *Thamnochortus erectus* (thatching reed), *Passerina corymbosa* (gonna bush), *Searsia crenata* (dune crowberry), *Chasmanthe aethiopica* (cobra lily), *Pelargonium capitatum* (coastal malva), *Leucadendron coniferum* (dune conebush – vulnerable), *Osteospermum moniliferum* (bietou), *Anthospermum aethiopicum, Leonotus leonorus* (wild dagga), *Metalasia muricata* (blombos), *Helichrysum dasyanthum, Helichrysum petiolare* (hottentots koeigoed) and *Stenotaphrum secundatum* (buffalo grass).

The thicket species *Sideroxylon inerme* (white milkwood), *Searsia lucida* (blink taaibos), *Cassine peragua* (bastard saffronwood*), Searsia laevigata* (taaibos) and *Myrsine africana* (Cape myrtle) were recorded on site.

The current structural and species composition of the natural vegetation in the vicinity of the development area is indicative of past disturbance, most likely a combination of agricultural clearing and subsequent alien plant infestation. The natural strandveld vegetation has however recovered well and is now characterised by a healthy mix of native species.

5. Landscaping guidelines

The intention of the landscaping guidelines is to ensure any planting enhances the existing natural habitat on site and retains habitat for birds, insects and small fauna. Continuity of fynbos, with tourism infrastructure forming islands within the landscape will allow the least disruption of the natural habitat and can preserve much of the biodiversity attributes the area currently offers (e.g. bird and small mammal viewing and a sense of being in nature).

- Given the location and sensitive nature of the vegetation on site it is important that all landscaping related to this development complements and enhances the natural biodiversity on site.
- The landscape planting theme should complement the existing wilderness appeal and dune strandveld/milkwood forest characteristics of the site. Future landscaping should steer clear of any formalized avenues, mass planting etc and be focused on enhancing and supplementing the existing natural feel and diversity of the site.

- Only plant species found on the site or in nearby Overberg dune strandveld or Southern coastal forest should be used for future landscaping. A planting palette of appropriate local indigenous species has been drawn up as part of this landscaping plan (see 6. below).
- Post construction rehabilitation areas should be planted using only plants from the approved planting list, and should be installed in an informal, natural manner and at a density of at least 4 plants per m^2. Use of any plants which are not on the approved list should be strictly prohibited.
- The owners are encouraged to purchase plants from a local source to reduce genetic contamination.
- The landscaping should include visual screening of buildings. Figure 3 below includes the planting of thicket species between the units to provide screening. It is proposed that *Sideroxylon inerme* (white milkwood) be the dominant species used in this screening as it is a characteristic flagship species of the site. Other thicket/tree species that can be interplanted with the milkwoods include *Ostespermum moniliferum* (bietou), *Cassine peragua* (bastard saffronwood), *Chionanthus foveolatus* (fine leaf ironwood), *Euclea racemosa* (sea guarrie), *Olea capensis ssp capensis* (iron wood), *Olea exasperata, Olea europea ssp africana* (wild olive), *Pterocelastrus tricuspidatus* (candle wood), *Searsia glauca* (Blue kuni), *Searsia lucida* (blink taaibos) and *Searsia laevigata*.
- Only buffalo lawn (*Stenotaphrum secundatum*) or kweek (*Cynodon dactylon*) may be used for lawns.
- The used of herbicides and insecticides should be kept to a minimum and all compost/organic fertiliser should be organically certified (eg Biogrow, Reliance or Seagro products).
- All construction footprints should be kept to a minimum and wherever possible the natural vegetation must be maintained.
- Prior to construction commencing a construction zone must be clearly demarcated and fenced off with temporary fencing. All construction materials and activities must be contained within the construction area (eg. use of future parking and access roads for material storage and construction activities).
- Prior to disturbance of natural vegetation, a search and rescue operation should be undertaken within the demarcated construction zones (including new access roads and parking). All translocatable species (geophytes, graminoids and succulents) should be removed and planted in suitable nearby habitat on the property. Ideally search and rescue should take place during spring when seasonally visible geophytes can be located.
- Any topsoil removed during site construction should be stockpiled and available for post construction rehabilitation.
- All planted areas should be mulched to reduce water loss and weed growth. An automatic irrigation system should be installed with rain sensors to ensure optimal watering while minimising water usage. Once established the irrigation can be reduced or potentially switched off in the rehabilitation areas. Where Possible water from rain tanks should be used for irrigation.
- Newly planted areas will require active maintenance and care including initial weeding (this should reduce with time as the natural vegetation establishes), watering and pruning/cutting back.

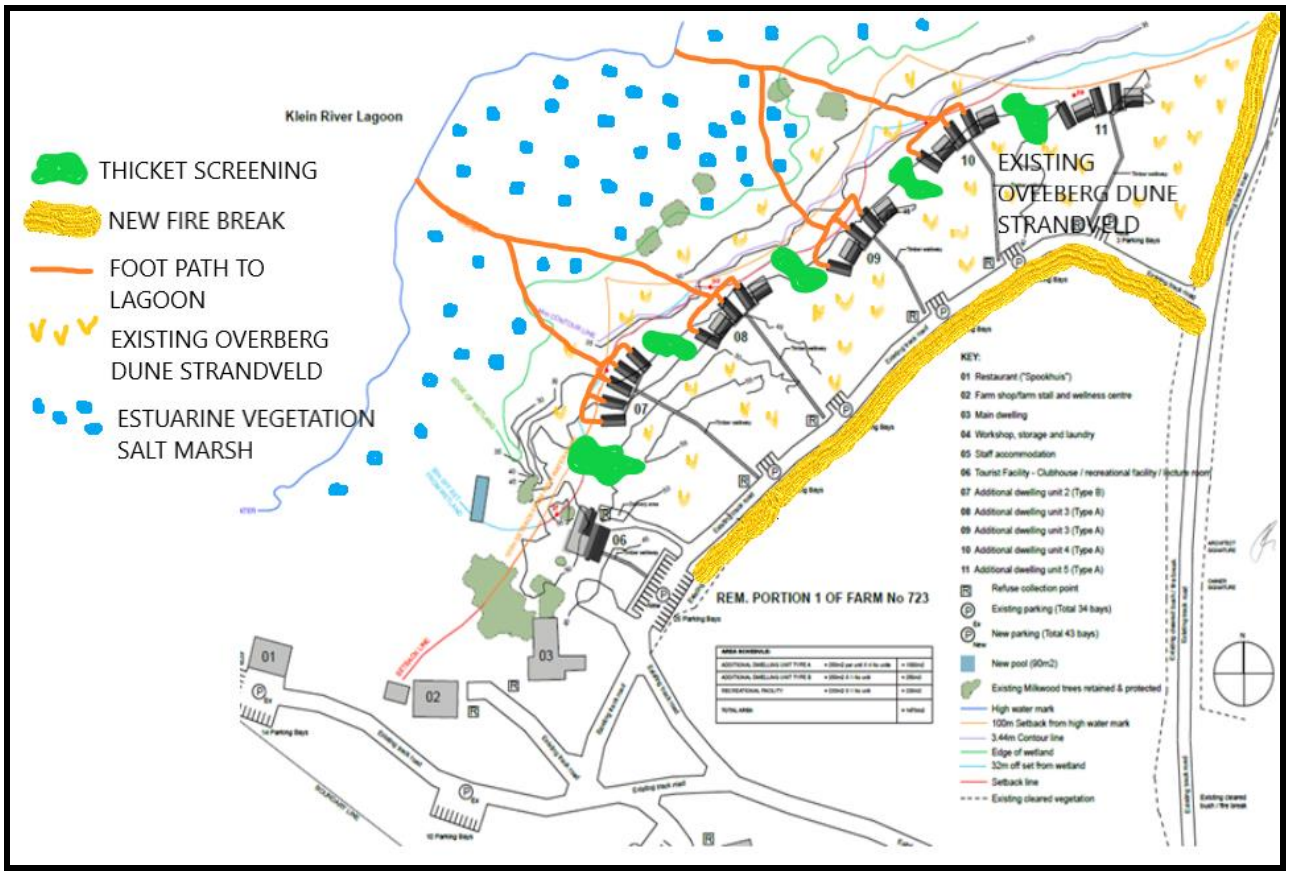

Figure 3. Landscaping layout plan for Coots Club development, Remainder 1/723, Kleinriver estuary (diagram source: Kritzinger Architects: Mosaic Farm).

6. Proposed plant list for landscaping

The following plant list has been compiled using local indigenous species that are either found on site or in nearby similar habitat.

Ground covers
Arctotis acaulis (gousblom)
Carpobrotus acinaciformis/edulis (sour fig)
Osteospermum fruticosum
Helichrysum crispum (kooigoed)
Helichrysum petiolare
Pelargonium capitatum (coastal malva)
Drosanthemum candens
Ruschia macowanii
Ruschia sarmentosa

Bulbs
Amarylllis belladonna (March lily)
Brunsvigia orientalis (Candelabra)
Chasmanthe aethiopica (cobra lily)
Haemanthus coccineus (April fool)
Watsonia stenosiphon
Lachenalia bubifera
Lachenalia rosea
Watsonia angusta

Zantedeshia aethiopica (arum lily)

Grasses/reeds
Chondropetalum tectorum
Chondropetalum microcarpum
Elegia thyrsifera
Scirpoides nodosus
Thamnochortus erectus

Lawns
Cynodon dactylon (kweek)
Stenotaphrum secundatum (buffalo grass)

Shrubs
Agathosma geniculata
Agathosma serpyllaceae
Aspalathus forbesii
Athanasia quinquedentata
Athanasia trifurcata (klaaslouw bos)
Osteospermum incanum
Chrysanthemoides monilifera (bietou)
Cotyledon orbiculata (pigs ear)
Diosma subulata
Eriocephalus paniculatus (wild rosemary)
Geranium incanum (maagpyn bossie)
Helichrysum dasyanthum
Helichrysum teretifolium
Indigofera brachystachya
Leonotis leonurus (wild dagga)
Leucadendron coniferum (dune conebush)
Leucospermum pattersonii (limestone pincushion)
Linum africanum
Metalasia densa
Metalasia muricata (blombos)
Morella cordifolia
Muraltia satureoides
Oedera capensis
Orphium frutescens
Otholobium bracteolatum
Passerina paleaceae (gonna)
Pelargonium betulinum
Phylica amoena
Phylica ericoides
Polygala myrtifolia (September bush)
Protea obtusifolia (limestone sugarbush)
Protea repens (suikerbossie)
Rhus crenata (dune crowberry)
Salvia africana-lutea (brown sage)
Seriphium (Stoebe) plumosum (slangbos)
Syncarpha argyropsis
Zygophylum flexuosum

Trees/thicket species
Cassine peragua (bastard saffronwood)
Chionanthus foveolatus (fine leaf ironwood)
Euclea racemosa (sea guarrie)
Olea capensis ssp capensis (iron wood0
Olea exasperata
Olea europea ssp africana (wild olive)
Pterocelastrus tricuspidatus (candle wood)
Searsia (Rhus) glauca (Blue kuni)
Searsia (Rhus) lucida (blink taaibos)
Searsia (Rhus) laevigata
Robsondendron maritimum
Tarchonanthus camphoratus (wild camphor)
Sideroxylon inerme (white stinkwood)

7. Alien vegetation management

The previous owners have invested extensively in alien vegetation clearing on the farm as a whole and in the vicinity of this development. There are however still some alien invasive species present, most notably *Acacia saligna* (port Jackson), *Acacia cyclops* (rooikrans) and *Leptospermum laevigatum* (Australian myrtle).

Annual follow up clearing of all alien invasive trees must be carried out on the site. This clearing must be undertaken by trained personal to ensure effective implementation of clearing efforts.

8. Fire management

The development will be located in mature, fire-prone dune strandveld vegetation. The surrounding natural vegetation to the south and east is also highly flammable and requires regular (10-20-year interval) fires to maintain the biodiversity and ecological functioning of the landscape. As such, it is important that measures be put in place to safeguard the infrastructure from future wild fires. It is proposed that a firebreak (minimum 10m wide) be installed along the existing access road (Figure3). The combination of the road and new firebreak will provide opportunity for potential back-burning and general fire defence in the event of a wild fire. Furthermore it is proposed that low, less flammable indigenous species such as *Carpobrotus acinaciformis/edulis, Osteospermum fruticosum, Ruschia macowanii* and *Cotyledon orbiculata* be planted around the infrastructure to reduce fire threat, Future maintenance of the vegetation around the infrastructure should include regular pruning back and removal of dead/dry material in order to reduce fire threat.

SDJ Privett
8 December 2020

9. Literature cited

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