TERRESTRIAL BIODIVERSITY COMPLIANCE STATEMENT
ERF 390 & REMAINDER ERF 141
KEURBOOMSTRAND
PROPOSED CONSOLIDATION

Bitou Municipal Area

View of the existing residence

Benjamin Walton for Cape Vegetation Surveys

o.b.o. Cava Mola Mining (Pty) Ltd

August 2021

STATEMENT OF INDEPENDENCE

I, Benjamin Alan Walton, trading as "Cape Vegetation Surveys", in terms of section 33 of the NEMA, 1998 (Act No. 107 of 1998), as amended, hereby declare that I provide services as an independent botanical specialist and receive remuneration for services rendered for expressing a factual account of the baseline environment. I have no financial or other vested interest in the project. Botanical information contained in the report may not be copied without the authors consent.

An abridged Curriculum Vitae:

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Western Cape Nature Conservation Board (CapeNature), Scientist: Land Use Advisor 2010-2017;

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(1) Introduction and Terms of Reference

The terms of reference is to conduct a vegetation survey to confirm the vegetation unit and conservation status; and describe the vegetation and sensitivity, with reference to the fynbos forum ecosystems and NEMA specialist guidelines. This is to inform the environmental impact (specifically botanical) of activities within transformed Goukamma Dune Thicket habitat; and identify risks, suggest mitigation and make recommendations for implementation. The sensitivity of the study area (see Fig. 1) adjacent to the municipal parking area at Keurboomstrand is described in context of the remaining natural habitat, current land use and suitability of development.

Figure 1: Showing the property (magenta polygon) at Keurboomstrand (image courtesy of Google Earth; ca. 2009).

Scope of Assessment - national screening tool

The DFEE screening report generated for Erf 390 & Remainder Erf 141 at Keurboomstrand for "*Any activity in an estuary_on the seashore_in the littoral active zone_or in the sea*" identified, *inter alia*, that a terrestrial biodiversity assessment be undertaken based on the Very High Terrestrial Biodiversity Sensitivity of the area; with a Medium Plant Species Sensitivity. This report complies with the minimum requirements for terrestrial biodiversity assessments[1].

Site sensitivity verification

The area was analyzed using satellite imagery (Google Earth and Cape Farm Mapper) and biodiversity informants viewed in QGIS.

Verification of the sensitivity of the receiving environment was conducted by a preliminary survey on foot where plant species were observed and recorded and select waypoints were taken with a GPS. The waypoints were used as a reference to establish the extent of the existing vegetation patterns and land use.

The two erven proposed for consolidation were previously a single cadastral unit; with a residence constructed on the upper Erf and the remainder a lawn with existing trees. Thus the receiving environment where development is proposed is transformed (see Fig. 2).

[1] Government Gazette No. 43110, GN No. 320 (2020) National Environmental Management Act, 1998 (Act No. 107 of 1998) Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of section 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for environmental authorization.

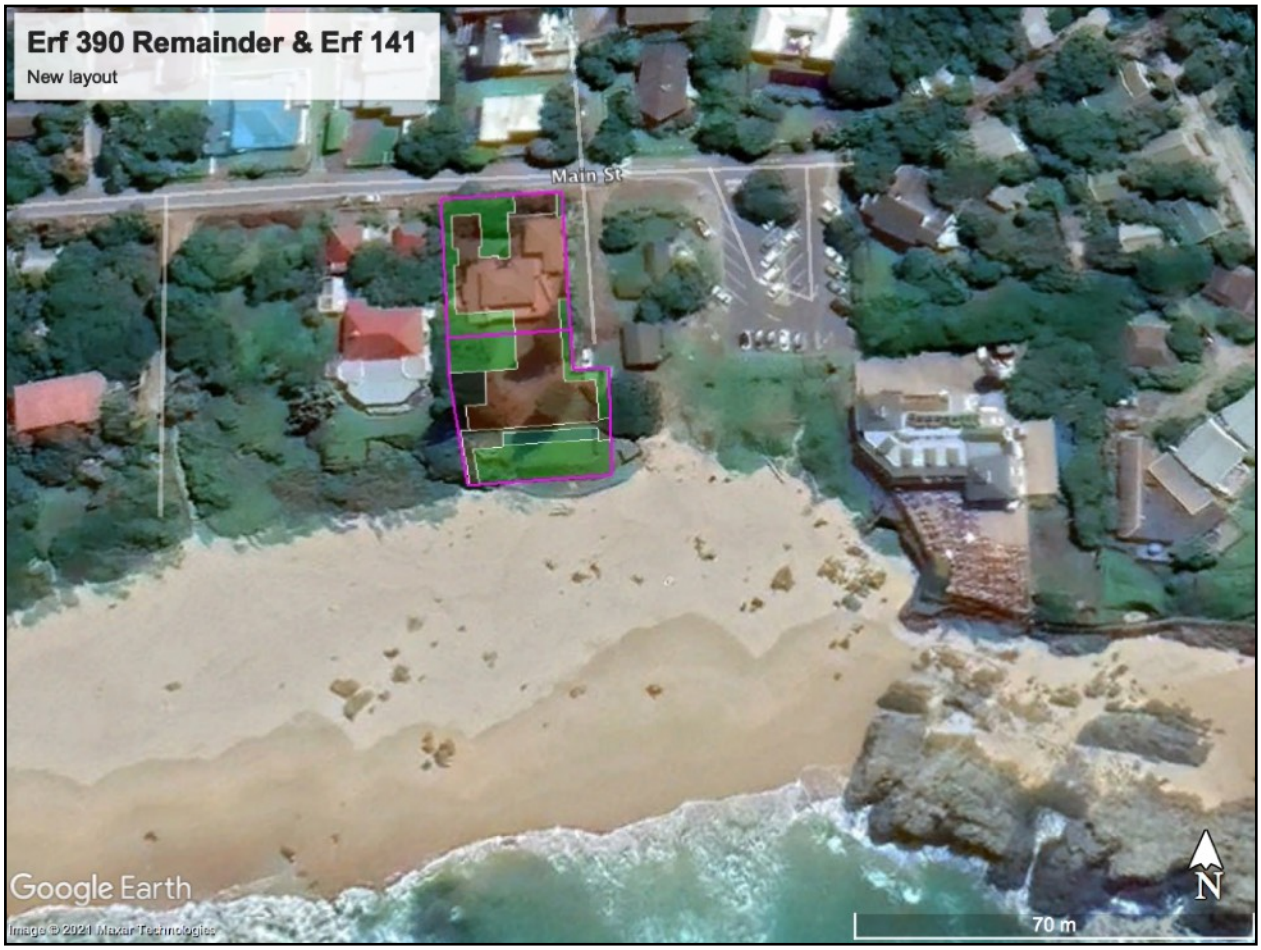

Figure 2: Showing the property and proposed development footprint (image courtesy of Google Earth).

This report describes the vegetation status and sensitivity occurring on site which is a transformed habitat with lawn grass and trees along the boundary of the garden with an existing residence. Thus no impact on biodiversity is expected to occur should development proceed.

(2) **The property and location**

Remainder Erf 141 (750.6 m^2) and Erf 390 (870.6 m^2) at Keurboomstrand, are zoned Residential Zone I and Open Space, respectively. The site is located at the corner of Main and Read Streets in Keurboomstrand adjacent to the municipal parking area and is hereinafter referred to as the “study area”. Erf 390 is on the southern

seaward side (see Fig. 3) and is fronted by Erf 152 an easement row area.

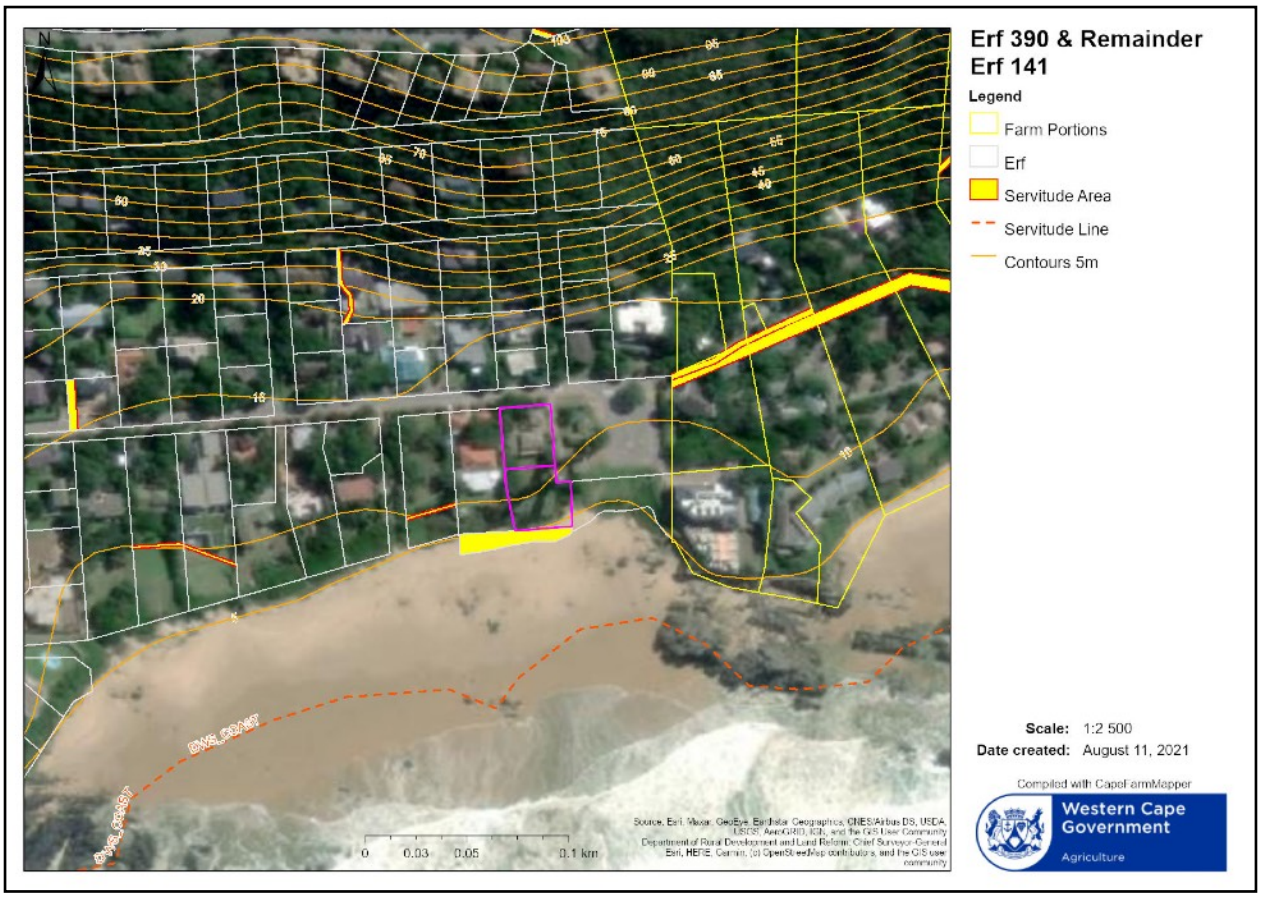

Figure 3: Showing the property and servitude areas (image courtesy of Cape Farm Mapper).

The proposal concerns the consolidation of the affected erven into one property and to demolish the existing structure to build a new enlarged dwelling unit; as shown on the diagram "2020-CS-12 Maritz Keurboom Massing Diagram_REV0" by CLD Architects (Pty) Ltd.

THE BIODIVERSITY IMPORTANCE OF THE AREA IN CONTEXT OF THE LANDSCAPE PERSPECTIVE

(3) The **Biodiversity Spatial Plan**[2]

The property is not within a designated sensitive area according to the Provincial Biodiversity Spatial Plan (see Fig. 4). However the spatial planning unit (20 ha) encompassing the study area is mapped as containing the following specific geographic features:

(3)(1) Coastal Habitat Type;

(3)(2) Coastal resource protection- Eden;

(3)(3) Eastern Fynbos Renosterveld Shale Fynbos Floodplain Wetland;

(3)(4) Foredune;

(3)(5) Garden Route Shale Fynbos (EN) - outside of study area;

(3)(6) South Outeniqua Sandstone Fynbos (VU) outside of study area;

(3)(7) Watercourse protection- South Eastern Coastal Belt.

From a landscape perspective the identified specific geographic features mentioned above, pertain to the importance of a coastal resource being the seafront and foredunes and coastal habitats

The study area is transformed from a botanical perspective, but large trees afford shelter for avifauna and is otherwise fragmented from the surrounding natural habitats. However the seafront is prone to coastal erosion and ecological processes are largely dependant on wind and wave action.

[2] http://bgis.sanbi.org/Projects/Detail/194

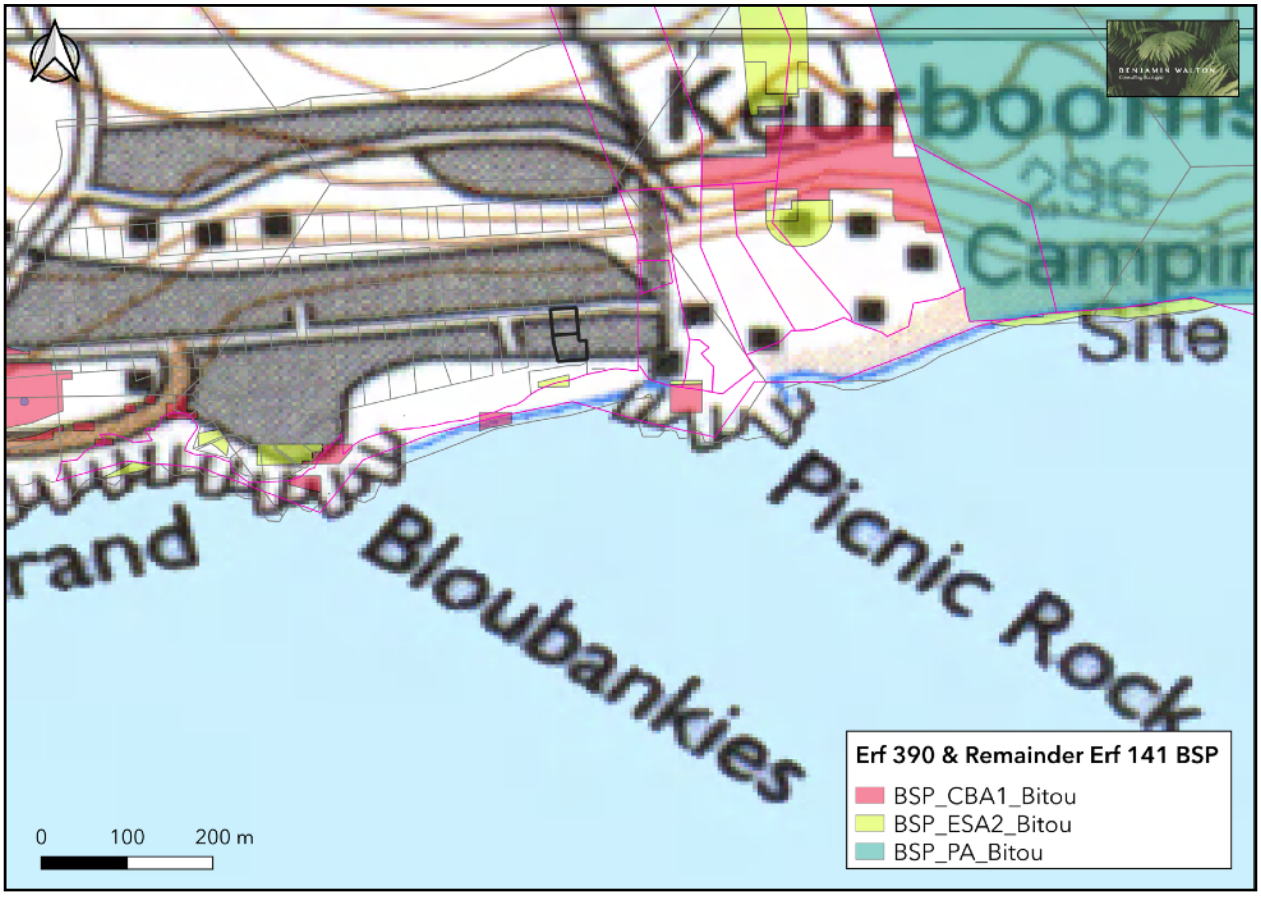

Figure 4: The study area indicated as outside of designated sensitive areas according to the Biodiversity Spatial Plan, 2017.

THE BIODIVERSITY IMPORTANCE OF THE SITE AND SURROUNDING RECEIVING ENVIRONMENT

(4) Vegetation description

According to the updated Vegetation Map of South Africa, Lesotho and Swaziland[3] the mapped vegetation unit occurring at the property is Least Threatened Goukamma Dune Thicket (AT 36), which is not a threatened ecosystem i.t.o. the National Environmental Management Biodiversity Act[4] (see Fig. 5).

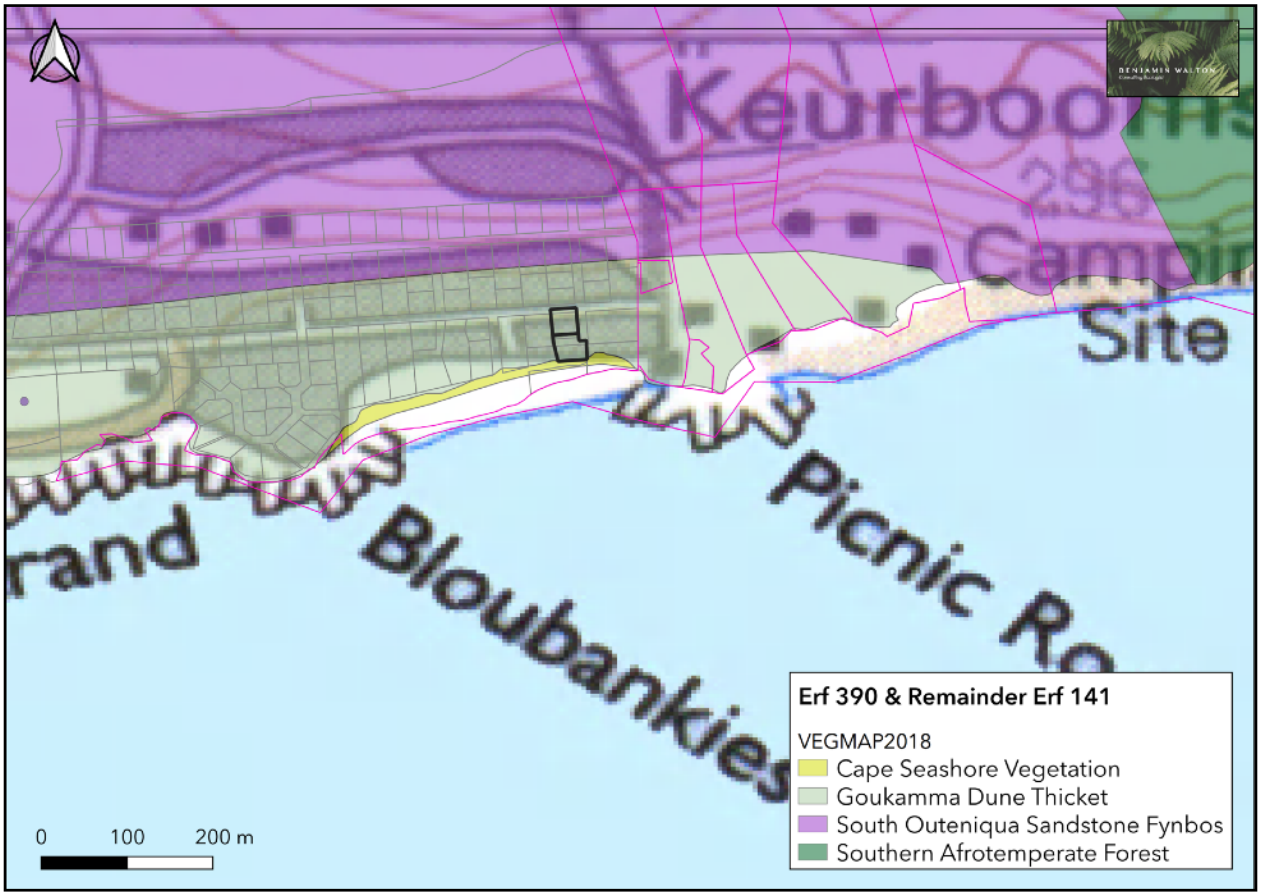

Figure 5: The property in context of National vegetation units as indicated within Goukamma Dune Thicket.

[3] Mucina L & Rutherford MC (eds) (2006) Vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African National Biodiversity Institute, Pretoria.

[4]Government Gazette No. 34809, GN No. 1002 (2011) National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004): National List of Ecosystems that are Threatened and in need of Protection

The latter vegetation unit abuts onto Cape Seashore Vegetation at the southern extent of the property.

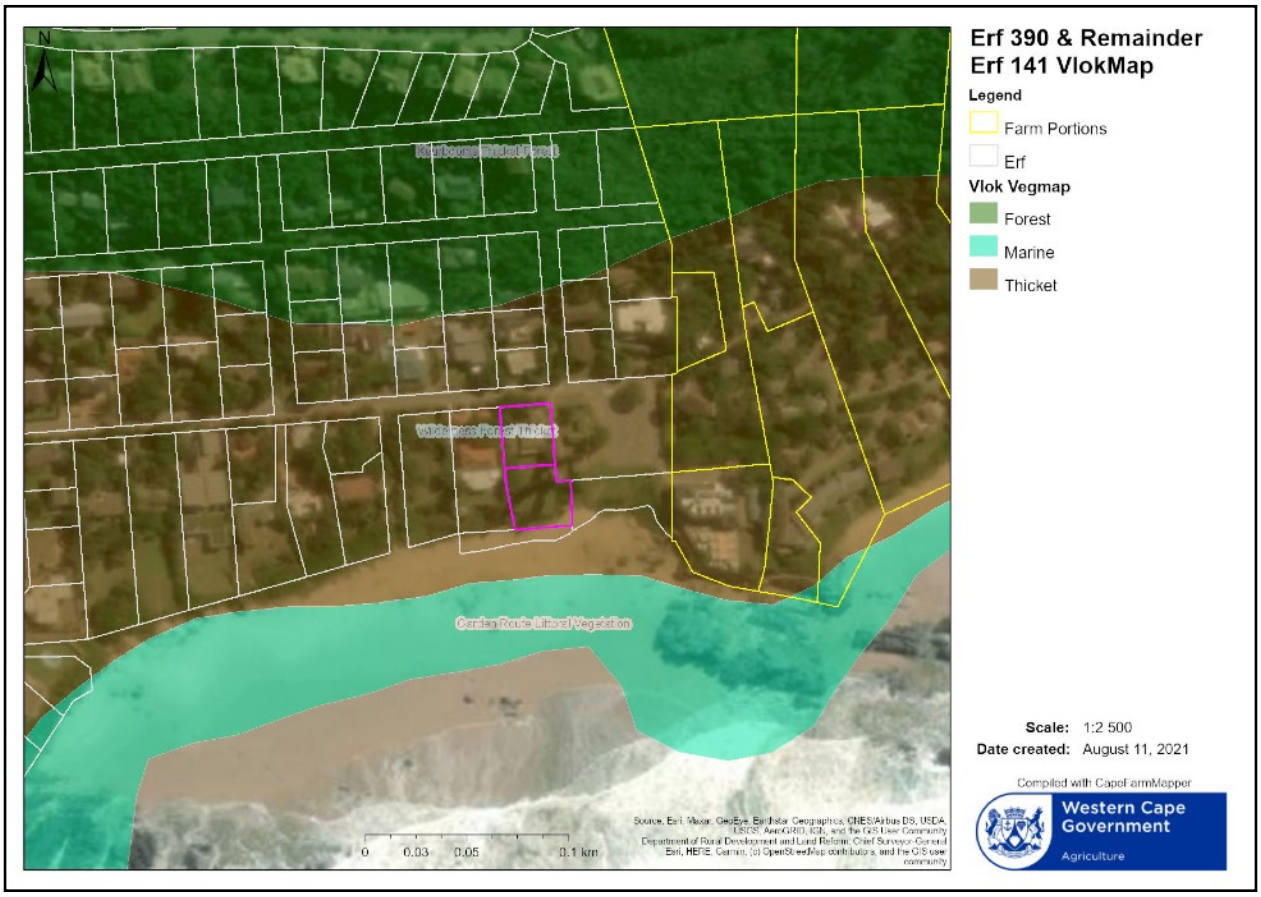

Figure 6: The property in context of the fine-scale vegetation variants as indicated within Wilderness Forest Thicket.

The fine-scale Vegetation Map for the Garden Route[5] delineated broad habitat types with associated vegetation variants, with the study area mapped as containing *Wolwe Forest Thicket*; adjacent to *Garden Route Littoral Vegetation* (see Fig. 6); which is more akin to the original broad vegetation patterning.

[5] Vlok JHJ, Euston-Brown DIW and Wolf T (2008) Vegetation Map for the Garden Route Initiative. Unpublished 1:50 000 maps and reports supported by CAPE FSP task team.

SITE SENSITIVITY VERIFICATION

Figure 7: Showing the Milkwood trees adjacent to the western boundary.

(5) **Baseline description of biodiversity and ecosystem condition**

Based on an initial viewing on the 17th of June 2021 and a site inspection conducted on the 7th of July 2021 the property has a level lawned area and garden at the southern extent (see Fig. 7) and an existing residence at the northern extent.

Figure 8: Showing the eastern boundary with Coastal Silky Oak and Norfolk Island Pine trees.

The lawned area has two large *Sideroxylon inerme* ssp. *inerme* (Milkwood) trees adjacent to the western boundary and *Brachylaena discolor* (Coast Silver-Oak) and *Araucaria heterophylla* (Norfolk Island Pine) along the eastern boundary (see Fig. 8). The northern street boundary area has a Milkwood tree mixed with some *Pterocelastrus tricuspidatus* (Candlewood) trees on the front garden.

There is not a community of plants resembling Fynbos at the transformed suburban property as only a lawned garden with trees exist on site.

Figure 9: Showing the southern extent of the property abutting onto Cape Seashore Vegetation.

The vegetation unit at the receiving environment is mapped as Goukamma Dune Thicket, with a conservation status as Least Threatened. Ground-truthing of the study area has refuted the presence of healthy or representative Shale Fynbos or Dune Thicket vegetation occurring there, as the property is transformed, fragmented and situated adjacent to a built environment. Some indigenous and protected Milkwood tree species occur at the study area, and otherwise the area is lawned. The property does abut onto the seashore and coastal littoral zone (see Figs. 9 & 10).

No Species of Special Concern were observed at the property.

Figure 10: Showing the coastline looking westwards from the property boundary.

Thus the clearing of transformed habitat of **Very Low Terrestrial Biodiversity Sensitivity** with a **Very Low Plant Species Sensitivity** is a very low impact for biodiversity and potentially positive impact for development.

The impact is site specific in **extent** to the study area and surrounding adjacent environment. The activities may have impacts downstream and along the coastline if erosion or pollution is unmanaged.

The **duration** of the impact is permanent should development proceed at the site.

The impact is of **low intensity** as a negligible amount of pattern and process will be lost by occupation.

The impact on Garden Route Shale Fynbos or Goukamma Dune Thicket is **highly improbable**.

The impact on Garden Route Shale Fynbos or Goukamma Dune Thicket habitat and effect on biodiversity, predicted with a **high** level of confidence in the assessment, is of **very low significance**.

(6) **Mitigation and Recommendations for management**

(6)(1) All Invasive Alien Plant species must be controlled and prevented from spreading, without causing undue damage to the environment.

(6)(2) Only indigenous plant species should be used in the landscaped areas of the development.

(6)(3) Construction and operational management of the development must ensure that the Milkwoods are not impacted on should they be retained.

(6)(4) Following construction any exposed surfaces and slopes may be covered with stack pile mulch and debris, hessian cloth and / or “sausage rolls” to prevent loss of soil by natural wind and water erosion.

(6)(5) Ensure drainage and runoff is managed to prevent erosion and soil loss. Install contour berms where erosion has occurred to ensure that no new erosion pathways are formed.

(6)(6) Resource conservation measures should be implemented as far as practical, with downlighting to reduce light pollution.

Conclusion

Consolidation of the abovementioned properties, in the opinion of the author, will not impact on the conservation status of Goukamma Dune Thicket; with remaining vegetation of Low Terrestrial Biodiversity Sensitivity.

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