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Vegetation and land use statement

For the proposed resort camps on Cairnbrogie, the Remainder of Farm No.432, Plettenberg Bay



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**Vegetation and land use – specialist statement
FOR**

**THE PROPOSED CAIRNBROGIE RESORT CAMP, REMAINDER OF THE FARM KRANSHOEK NO. 432,
PLETTENBERG BAY**

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Vegetation and land use – specialist statement

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Introduction & summary

In response to the request for more detailed specialist information on the vegetation of the camp sites specifically, the Protected Environment, the following specialist detail is provided. Note most of this information was already contained within the Draft BAR and has been extracted and duplicated in this report for ease of reference and clarity. Additional photos have been added for clarity and the information is collated into a single document.

The data used is referenced in the reference list below or has been collected on site over the last 2 years during the NEMA process.

As the data used to inform the declaration of the Protected Environment has resulted in the formal declaration of the area as part of the Robberg Coastal Corridor, it is taken that this data is of sound quality and does not require any further clarification or assessment. The boundary of the Protected Environment is, therefore, deemed to not be under any form of scrutiny. The location of the proposed tourism accommodation adjacent to the Protected Area has been in consideration and has been scrutinized by the Robberg Coastal Corridor management committee, Cape Nature and SANParks. Any buffers required by them have been agreed and implemented in the proposed allocation of the “development zone” (area within which the tourism accommodation and infrastructure will be placed).

Inspection of the sites has taken place in various different seasons both before and after the 2017 fires and has informed this specialist statement.

Methods utilized include the incorporation of assessments already undertaken for the purpose of defining the Protected Environment as well as site visits with the relevant parties to the Robberg Coastal Corridor, Cape Nature and SANParks.

Gaps in knowledge and assumptions made are limited due to the fact that the area has enjoyed considerable scrutiny during the process required to declare a Protected Environment and subsequent management of the RCCPE.

The Fresh Water Specialist evaluated the impacts on the water resource and the surrounding wetland environment around the farm dam and these are not repeated or duplicated in this statement.

Mitigation measures are indicated in the report and in the Draft BAR and EMPr.

Conditions for inclusion in the EA are all listed in the Draft BAR and should include the ongoing monitoring of the RCCPE as per the RCCMP that is already in place and in operation. General good environmental practice in the minimal construction and installation phase is included in the EMPr for the project and for the ongoing operational phase of the facilities.

The findings of the assessment, this specialist statement and the draft BAR are that the proposed alternative can be supported and authorized to take place at the sites proposed in the manner proposed with the mitigation and management as proposed.

The site and proposed tourism accommodation camps

The property is currently zoned as Agriculture 1 and is operated as a small-scale dairy farm with planted pastures for cattle, pine plantations for timber production and associated agricultural dwellings and maintenance infrastructure.

The proposal is for two (2) tourism camp areas. The coastal camp will be a "single use" camp – implying that a single group hire the entire facility. There will be containers¹ each sleeping guests and a central kitchen dinging area. The parking is remote and guest walk the last section to the camp, or the guests will be hikers from the proposed Robberg to Harkerville hiking trail (similar to the Otter trail at Natures Valley). The dam camp area will have parking at each container and each can be rented individually, 6 containers sleeping 4 guests each are proposed.

¹ The option for the Coastal Camp is either 3 containers sleeping 4 guests each or 6 containers sleeping 2 guests each – each with internal bathrooms. The option for the Dam Camp is 6 containers sleeping 4 guests each with either internal bathrooms or communal ablutions.

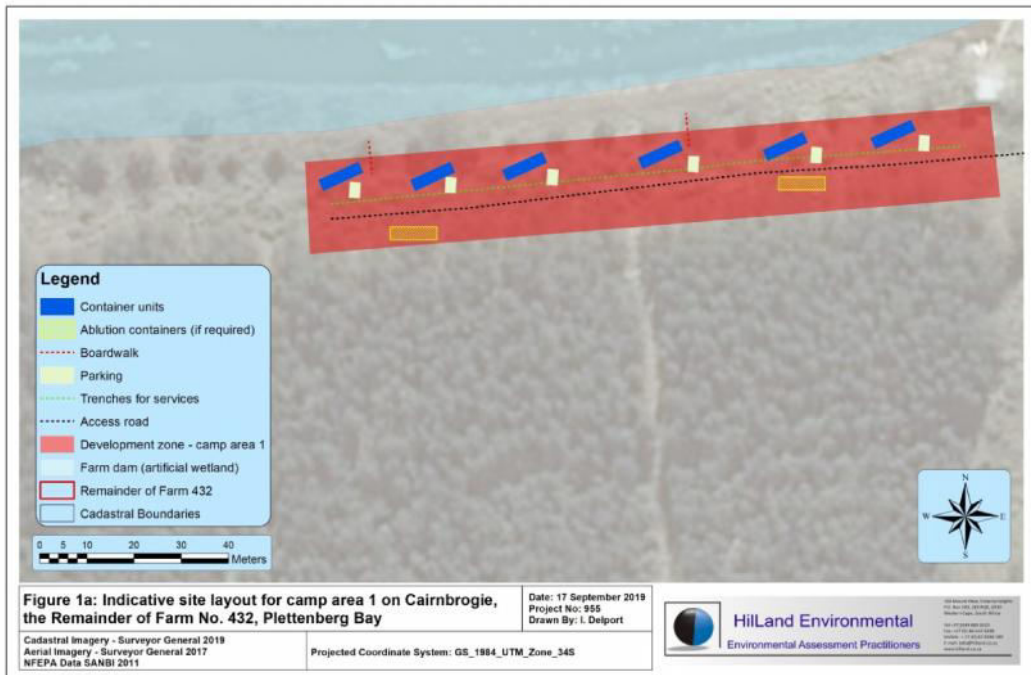


Figure 1: Indicative site layout for camp area 1 (dam camp) on Cairnbrogie, the Remainder of Farm No.432, Plettenberg Bay

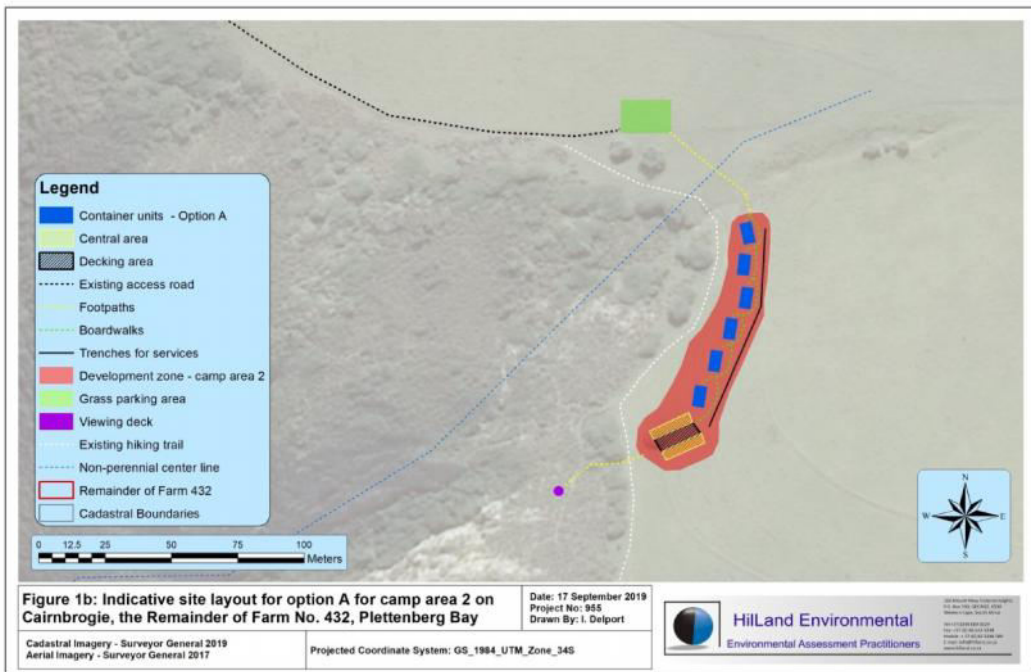


Figure 2: Indicative site layout for camp area 2 (coastal camp), Option A (6 units) on Cairnbrogie, the Remainder of Farm No. 432, Plettenberg Bay

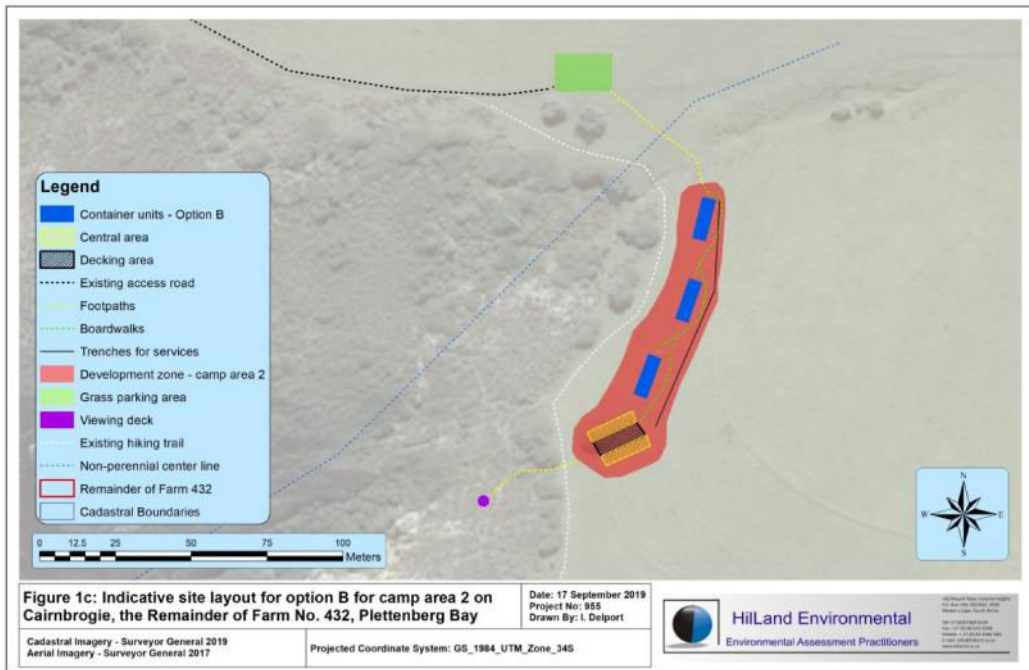


Figure 3: Indicative site layout for the coastal camp - Option B (3 units) on Cairnbrogie, the Remainder of Farm No. 432, Plettenberg Bay

Land use and the proposed sites

Using the DAFF CapeFarmMapper GIS tool and the DAFF Crop census 2013/2018 layers, the coastal site is clearly shown to fall within the transformed planted pasture area, while the dam camp site falls within a historic plantation area.

The two proposed sites have been inspected both prior to the 2017 fires and post the fires, in various seasons in order to confirm that they are transformed and that no rare or endangered species are present in the areas proposed for the tourist camps.



Figure 4 Crop Census (Cape Farm Mapper) showing the land use of the property in general.

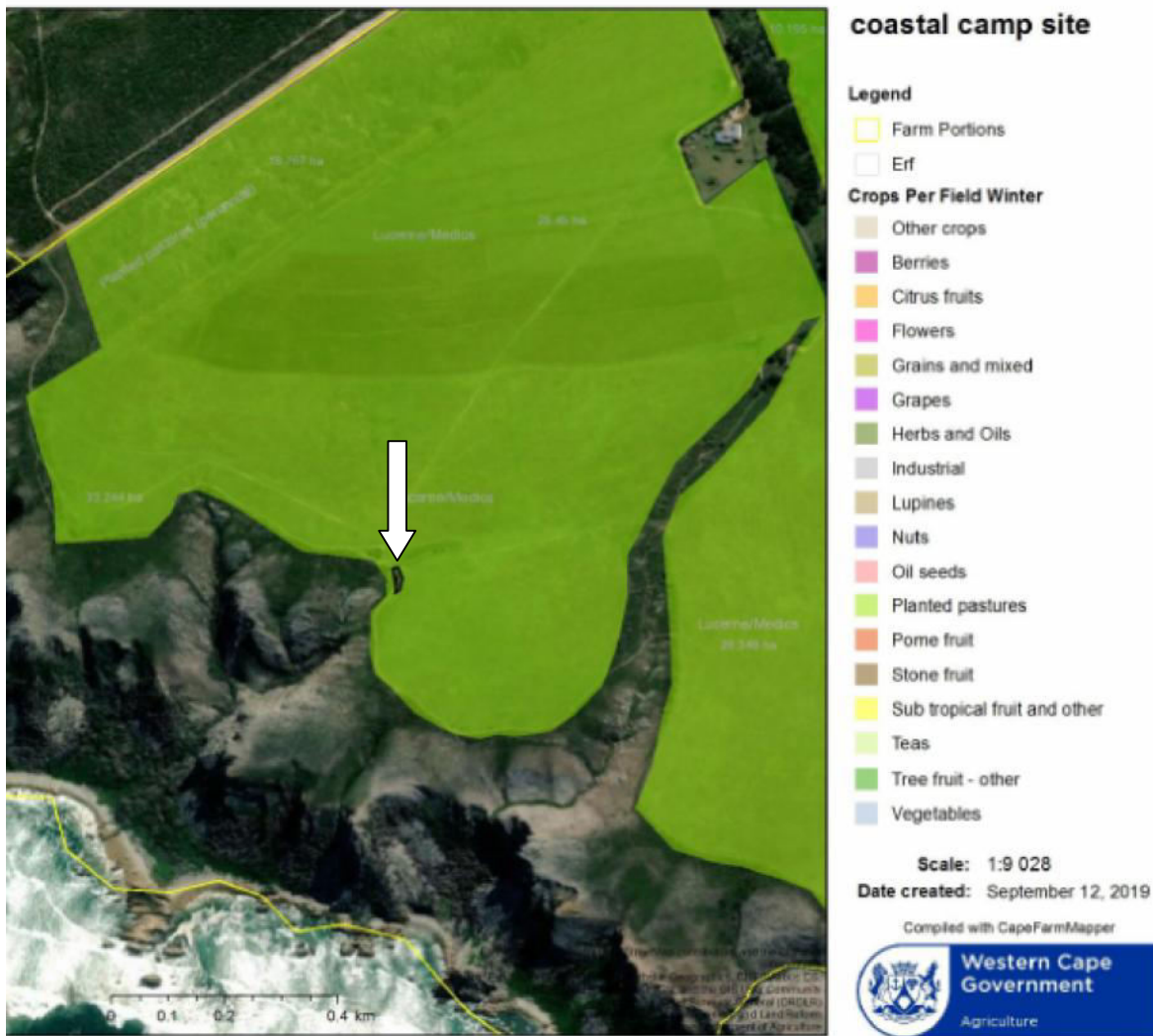


Figure 5 Area showing the coastal camp development zone within the Agricultural area (transformed) adjacent to the coastal cliff fynbos of the Protected Environment

Site 2 adjacent to the dam falls within an area of pine afforestation (burnt in the 2017 fires).

The property has been primarily used for agriculture and afforestation over the last several decades. The vegetation type can be classified as planted pastures / improved grasslands, consisting primarily of grazing type grass species, medics and lucerne. The afforestation areas consist of pine plantations.

As indicated in the draft BAR, the proposed camp area 1 falls within an area of plantation recently burnt adjacent to the existing dam. This camp area will be located in terrestrial vegetation (does not encroach on the wetland vegetation around the dam fringes). A row of planted Yellowwood trees, above the full supply level of the dam, will remain and the tourism area will be located behind them away from the dam.

The elements of fynbos returning after the fire in the plantation area where the camp will be located are pioneer. The areas around the containers will be planted with indigenous trees to create “mini forest pockets” to assist in creating privacy for each unit.

The proposed camp area 2 is located within the pastures areas adjacent to the coastal fynbos. There is no South Outeniqua Sandstone Fynbos (LT; based on original extent mapping) remaining within the planted pastures on which the camp is proposed. Indigenous vegetation will be planted around the containers to assist in visual screening.

The remaining natural vegetation along the coastal cliffs section of the property has now all been formally protected within the proclaimed Protected Environment along the coastline forming part of the Robberg Coastal Corridor.

The proposed camp areas were specifically selected as they fall within already transformed / disturbed areas. These sites are degraded from past transformation and do not hold inherent value for conservation. The proposed development will include the rehabilitation of the surrounding areas to only contain indigenous vegetation and continual follow-up clearing of alien invasive vegetation. Animals that make use of these areas will not be negatively impacted by the proposed camp areas as they will easily be able to move around these into adjacent areas. The pasture is fenced off so no stock will enter the area. The raised nature of the design will still allow for movement of animals (rodents, reptiles etc.) under and around the units, therefore, there is no connectivity loss.

The proposed tourism accommodation was initially proposed to be in the form of permanent tents on wooden decks, however, based on comment received during the process this has been changed to be containers placed on concrete plinths, raised from the ground with wooden boardwalks linking the units. The advantage to containers is mainly their ability to withstand the elements and to be less prone to damage (baboons).

Photo record

The following photos show the status of the vegetation at the two proposed tourism camp sites



Figure 6 Coastal camp site in the pasture area. Note the skeleton of the *Searsia* species that was burnt in the fires and the *Osteospermum moniliferum* (= *Chrysanthemoides monilifera*, Bietou) coming back under the trees now along the edge of the Protected Environment.



Figure 7 Coastal camp site in the pasture area



Figure 8 Pasture area of the Coastal camp site showing the existing cycle track



Figure 9 Coastal camp site - showing the pasture grasses and isolated *Helichrysum*, *Senecio* and *Osteospermum* (=Chrysanthemoides) species that are now coming up.



Figure 10 Coastal camp site showing the existing container with communication equipment that is near the parking area proposed.

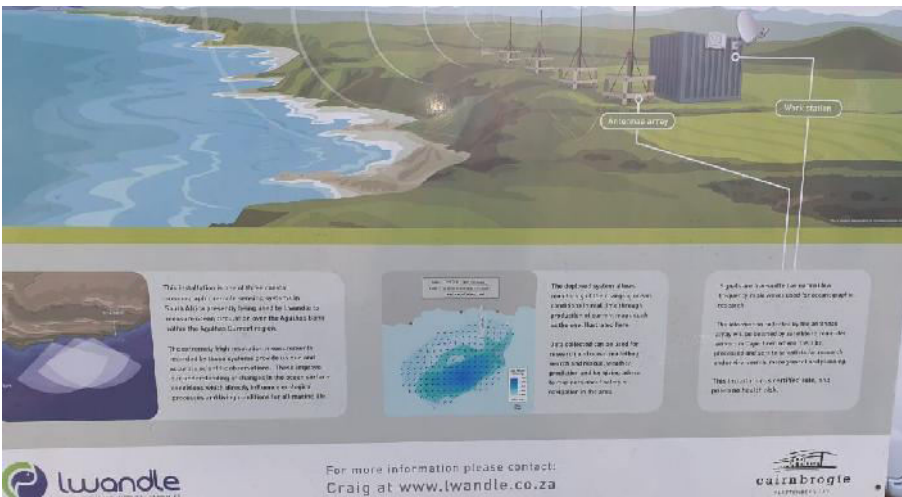


Figure 11 Information board regarding the equipment on site near the Coastal Camp.



Figure 12 Coastal fynbos within the Protected Environment



Figure 13 Hiking trail markers within the Protected Environment.



Figure 14 Restoring fynbos after the fires



Figure 15 Re-sprouting *Tarchonanthus camphoratus* along the Protected Environment border



Figure 16 Vegetation in the site of the container at the dam camp site.



Figure 17 Dam camp site after the burn. Note containers and the access road will be in the area between the yellowwood trees (right) and the pine trees (left).



Figure 18 Current vegetation at the dam camp site. Burnt plantation now harvested.



The landuse map above gives an indication of the two proposed tourism camp areas, the northern one on the edge of the plantation and close to the farm dam, the southern one within the pastures and close to the newly proclaimed Protected Environment.





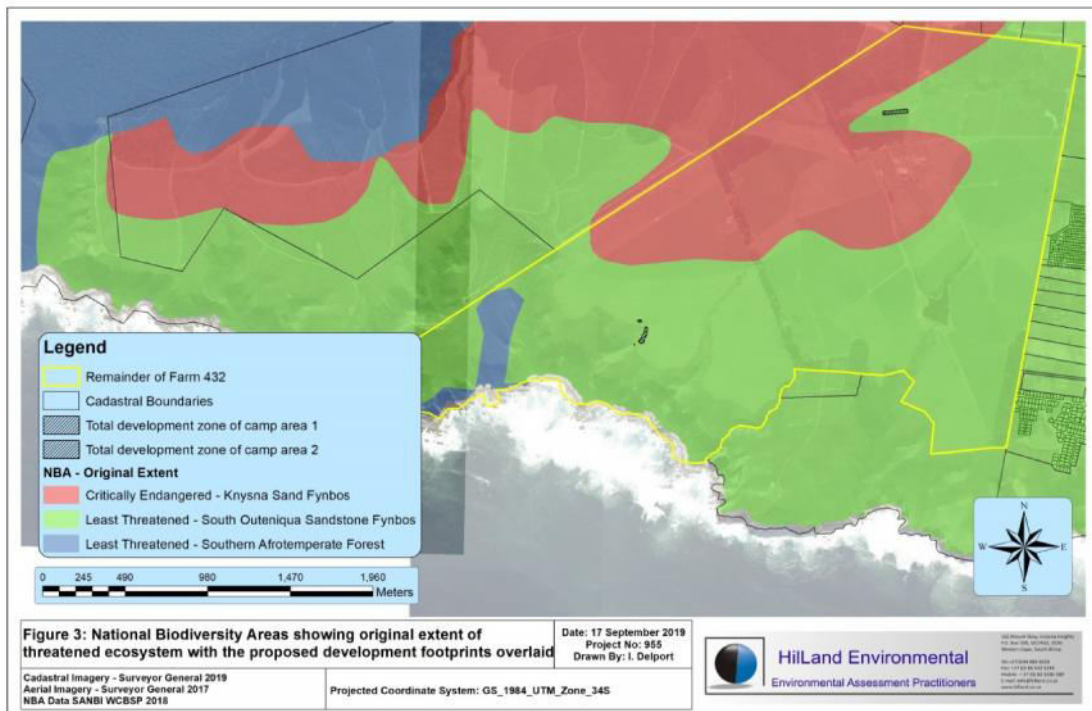
Vegetation classification

Historically the two camp sites are mapped as falling within the Least Threatened- South Outeniqua Sandstone Fynbos. The land use map above shows the transformation of these historic vegetation types, while the SANBI remaining extents maps indicates the transformation that has taken place.

Jan Vlok (2006) produced a specialist report of the coastal cliffs as part of the motivation for declaring these part of the Robberg Coastal Corridor (RCC)– now a Protected Environment stretching from Robberg Nature Reserve to Harkerville (GRNP).

The RCC Management Plan (2013), includes the proposed tourism accommodation at Cairnbrogie (coastal camp site). It has been taken into account in the planning of the Protected Environment (5.4.4 & Figure 6 of the RCC MP). This accommodation proposed will provide for overnight accommodation for the proposed coastal hiking trail from Robber Nature Reserve to the Harkerville Forest (GRNP) (see 6.1 of the RCC MP).

Cairnbrogie is meeting its obligations in terms of the RCC MP regarding Alien clearing follow-up subsequent to the fires of 2017 which stimulated a proliferation of alien seedlings in the Protected Environment. The RCC stressed the importance of fire as a tool for the management of the coastal fynbos and the wildfires of 2017 have largely replaced the previously urgent need to burn the area. The RCC MP deals with ongoing ecological burns of the Protected Environment.



According to the Vlok Vegmap the coastal camp area would originally have been Noetzie Proteoid Fynbos, while the dam camp site would have been Roedfontein Grassy Fynbos. The Ecosystem Threat status for both sites is South Outeniqua Sandstone Fynbos which is gazette as Least Threatened with a proposed change to Vulnerable.

The camp area next to the dam falls into an ESA – Terrestrial, adjacent to the water source. The Area is indicated as “not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of the CBA and delivery of ecosystem services. The objective is to maintain in a functional, near natural state, where some habitat loss is acceptable provided that the underlying biodiversity objective and ecological functioning are not compromised.” As such the provision of the accommodation on small raised footprints, accessed by a boardwalk and set back from the dam is viewed as allowing the continuation of all the ecological functioning. This is confirmed in the Fresh Water Risk assessment and has been approved in the GA now registered for the water resource.

The camp area at the coast is in a pasture and is not indicated as ESA or CBA.

Vlok (2006) assessed the area of the coastal Protected Environment (now proclaimed).

The vegetation consists of an ericoid fynbos community that is not very rich in species with the following shrubs and herbs abundant to dominant; *Agathosma ovata*, *Anthospermum aethiopicum*, *Aspalathus setacea*, *Chrysanthemoides monillifera*, *Cliffortia linearifolia*, *Crassula ericoides*, *Erica formosa*, *Erica sparsa*, *Erica versicolor*, *Helichrysum cymosum*, *Hermannia flammea*, *Leucadendron salignum*, *Linum africanum*, *Lobelia tomentosa*, *Metalasia muricata*, *Metalasia pungens*, *Muraltia ericaefolia*, *Montinia caryophyllacea*, *Passerina vulgaris*, *Phylla axillaris*, *Plecostachys serpyllifolia*, *Relhania calycina* and *Selago glomerata*. Geophytes and graminoids are uncommon but *Bobartia orientalis*, *Eragrostis capensis*, *Ficinia oligantha*, *Hypoxis angustifolia*, *Moraea elliotii*, *Restio triticeus*, *Schoenoxiphium ecklonii*, *Tetradlea capillacea*,

Tetralia cuspidata and *Tritoniopsis caffra* are present. Trees are also rare with only a few *Osyris compressa*, *Rhus lucida* and *Tarchonanthus camphoratus* present. The only rare and threatened (*sensu* Golding, 2002) plant species present is *Muraltia knysnaensis*, of which only a few individuals were noted

His observations are reinforced by the observations made during the site assessments both prior to the 2017 fires and after the 2017 fires.

The coastal cliffs have been surveyed and identified and have been incorporated into the Robberg Coastal Corridor Protected Environment.

Impacts Identified

- **Clearance of vegetation** – areas for the proposed tourist camps and associated infrastructure will require limited clearance of vegetation to allow for the placement of these structures. The sites were selected as they are already transformed but overlook areas of attraction (dam) or unique beauty (coastal cliffs and Protected Environment). This allows for the enjoyment of the experience created without the impact on the natural environment or disturbance of ecological processes.

Clearing will strictly be limited to within the development footprint zone and efforts will be taken to avoid any disturbance outside of these selected sites. In particular, the proclaimed Protected Environment at the coast will be strictly out of bounds in terms of access (other than on the existing pathways / hiking trails).

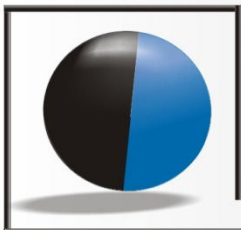
Conclusion

There are no protected trees or indigenous forest associated with the proposed tourist accommodation. The proximity to the RCCPE is within a disturbed agricultural pasture and will not impact on the adjacent fynbos vegetation within the RCCPE. The EMPr covers all construction phase and operational phase potential impacts.

References

Van Tonder, C, CapeNature, 2013. Management Plan for the Robberg Coastal Corridor Protected Environment. Produced for the RCCPE Land Owners Association. Internal report.

Vlok, J. 2006. Specialist Botanical Report for the proposed subdivision of the remainder of the farm Cairnbrogie (#432), Knysna.



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Qualifications:

- 1991 Bachelor of Science (BSc.) Botany & Zoology, Rhodes University
- 1992 Bachelor of Science Honours (BSc Hons) Botany, Rhodes University
- Various LLB courses (Unisa)

Career:

- 1992 – present Founder member of HilLand Associates and HilLand Environmental, Environmental Management Consultants
- 1993 – 1995 Part time Lecturer in Conservation Development, Saasveld Campus of the Port Elizabeth Technicon (now NMMU).

Publication:

Over 800 reports commissioned as part of Environmental Impact Assessment Processes, Public Participation, Scoping, Environmental Management and specialist botanical reports.
Popular articles on Environmental Management.

Fields of Expertise:

27 years' experience in Vegetation Surveys, Vegetation Sensitivity Mapping, Biodiversity Assessments, Specialist Botanical Assessments, Environmental Impact Assessments, Environmental Impact Reports, Environmental Planning and Management, Rehabilitation, Environmental Management Plans & Frameworks, Strategic Conservation Planning with Multi Spectrum Participation, Environmental compliance monitoring and auditing, Public participation and facilitation.

Projects:

Leading and participating in over 900 projects in terms of ECA and NEMA on a variety of Development Projects within Southern Africa.
Various Research Projects focusing on environmental management, planning and rehabilitation.

Conferences & Associations:

- Participant in various National Conferences.
- Member of the International Association of Impact Assessors South Africa (IAIAsa).
- Founder chairperson of the Southern Cape branch of IAIAsa.
- Botanical Society of South Africa.
- South African Association of Botanists.

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