

**BOTANICAL STATEMENT FOR A PROPOSED TRAFFIC CIRCLE AT THE
INTERSECTION OF BADEN POWELL (R310) AND MACASSAR ROAD
(M9) WITHIN THE CITY OF CAPE TOWN MUNICIPALITY**

INTRODUCTION

A traffic circle has been proposed at the intersection of Baden Powell Drive and Macassar Road. The road upgraded has been proposed in an area adjacent to some indigenous vegetation, and may result in the loss of indigenous vegetation. The Environmental Assessment Practitioner (EAP) for the project is The Environmental Partnership (TEP). The EAP commissioned Capensis Ecological Consulting (Capensis) to provide a botanical statement on the proposed road upgrade, as the author was the botanical specialist for a project on the adjacent property. This statement is based on the work undertaken on the adjacent property for a proposed development on Farm RE/547, located on the north-east quadrant of the traffic circle. No fieldwork has been undertaken to inform this statement, only desktop information has been used. The proposed traffic circle location is displayed below in Figure 1.



Figure 1. The design of the proposed traffic circle (pink lines) in relation to the surrounding areas. The suburb to the west of the circle is Khayelitsha.

METHODS

The area proposed for development has been examined using aerial imagery (City of Cape Town and Google Earth TM). The author has surveyed the adjacent property numerous times, and has driven past the site frequently in the past 5 years. The previous report and ecological mapping for Farm RE/547 has been referenced. Due to the desktop nature of this survey, a number of assumptions have been made, these are:

1. The vegetation condition in the road reserve of Baden Powell is the same habitat as the habitat mapped adjacent to the road reserve in Farm RE/547. The author has no reason to believe the habitat would be different, and has examined the site when driving past.
2. That the habitat condition would be the same, or more likely worse, since the fieldwork was undertaken in 2014, 2017 and 2021. There is likely to be less natural vegetation in the road reserve to begin with, as the road is subject to more consistent disturbances. Furthermore, the habitat condition is likely to have worsened in the four years since the last fieldwork was undertaken. At this time, it was documented that the adjacent habitat had lost important species.
3. The spatial files of the proposed development and the likely areas to be cleared have been supplied by the EAP, and their accuracy is assumed to be correct.

The vegetation was described according to habitat condition. The categories and their definitions used to describe the vegetation is provided in Table 1.

Table 1. The habitat condition descriptions used for the vegetation on the site.

Habitat category,	Description	Indigenous vegetation
Intact vegetation	A true representation of the original vegetation type in terms of structure and species makeup. Minimal soil disturbance. Unlikely to have ever been ploughed. Disturbance may be evident.	Yes
Semi-intact	Resembles the original vegetation type in terms of structure and species makeup but has lower species diversity than intact vegetation. Dominated by disturbance-resilient species. Soils may have been heavily disturbed in the past. Restoration potential is high.	Yes
Degraded	Only a few species representative of the original vegetation type are present. The vegetation has undergone heavy disturbance. Restoration potential is either low or moderate.	Yes
Highly degraded	The original vegetation is usually absent and has been removed in the past. Only a few remnant or pioneer species are present. Soils usually ploughed in the past. Restoration potential is very low.	*No (not naturally occurring as per the NEMA definition)
Transformed	No remnant species exist anymore. The landscape is altered irreversibly with no restoration potential. Examples include cultivated farmland and the built environment.	*No (not naturally occurring as per the NEMA definition)

FINDINGS

The vegetation in the areas adjacent to the proposed works in the road reserve was classified as (1) Degraded to Highly degraded Strandveld and (2) Highly degraded to Transformed Strandveld (Figure 2) in the botanical report for Farm RE/547 (Nicolson, 2022). The Degraded to Highly degraded strandveld habitat is “indigenous vegetation” according to the legal definition. The Departments and Environmental Affairs and Development Planning (DEA&DP) defines indigenous vegetation as: “...vegetation consisting of indigenous plant species occurring naturally in an area, regardless of the level of alien infestation and where the topsoil has not been lawfully disturbed during the preceding 10 years.”¹

The precautionary principle applied here means that the assumption must be made that the vegetation in the road reserve does constitute “indigenous” vegetation, and therefore environmental authorisation (EA) is required for the project as over 300m² of an Endangered ecosystem will be cleared. In this case, the original ecosystem is Cape Flats Dune Strandveld, nationally listed as Endangered.

¹ Government Gazette No 33306, 18 June 2010. Listing Notice 3: List of Activities and Competent Authorities identified in terms of Sections 24(2) and 24D.



Figure 2. The habitats mapped on Farm RE/547 in relation to the proposed traffic circle and the likely area that will be cleared, overlaid on a Google Earth™ aerial image.

The sensitivity of the habitat adjacent to the areas proposed for clearing are (1) Medium and (2) Very low. One species of conservation concern was found in previous studies in the adjacent property in the vicinity of the proposed works, but the buffer around this species does not intersect with the proposed works (Figure 3).



Figure 3. The sensitivity map and SCC on Farm RE/547 in relation to the proposed traffic circle and the likely area that will be cleared, overlaid on a Google Earth™ aerial image.

The area likely to be cleared for the new traffic circle is excluded from the 2024 Terrestrial Biodiversity Network (TBN) (City of Cape Town, 2024). This supports the idea that the vegetation within the road reserve has not been seen as a conservation priority. The adjacent area in Farm RE/547 is classified as CBA 1a (Figure 4). This is an important area and according to the TBN, CBA1a sites are considered to be 100% irreplaceable.



Figure 4. The COCT TBN Map for the site and on Farm RE/547 in relation to the proposed traffic circle and the likely area that will be cleared, overlaid on a Google Earth™ aerial image.

CONCLUSIONS AND RECOMMENDATIONS

Applying the precautionary principle, it is assumed that the vegetation in the road reserve that will be cleared for the proposed traffic circle is by definition indigenous vegetation. The original ecosystem is Endangered Cape Flats Dune Strandveld, and the trigger for EA is the clearance of 300m² indigenous vegetation. However, the condition of the vegetation in the road reserve, is likely to be Degraded to Highly degraded at this time, but is potentially Highly degraded. In either case, the narrow strip of the road reserve will continue to be degraded by the surrounding land uses. Dumping and bush clearing, invasive plants and potential development of the adjacent sites are all current and future disturbances. There are unlikely to be any SCC within the road reserve, however, to mitigate the potential presence of the Endangered *Erepsia dunensis*, mitigation of a pre-development walk-down is required to ensure that this species is not present. The proposed development would not have any impact on the COCT Terrestrial Biodiversity Network as this area is excluded from the mapping.

It is the opinion of the author that the proposed traffic circle at Baden Powell Drive and Macassar Road will not have a significant impact on the ecological functioning of the area. It is highly likely

that no important species occur in this area. To ensure that no SCC occur in this area, the abovementioned mitigation measure is recommended.

Greg Nicolson (Pr. Sci. Nat.)

A handwritten signature in black ink. The first letter 'G' is large and stylized, with a circle around it. The rest of the name 'Nicolson' is written in a cursive script.

Botanical Specialist