

**APPENDIX F2 A: ECOLOGICAL S24G
OPINION LETTER**



21 October 2019

LETTER OF OPINION ON SITE STATUS AND BOTANICAL IMPACT SUBJECT TO A SECTION 24G APPLICATION AS PART OF THE DOOR OF HOP DEVELOPMENT PROJECT ON A PORTION OF THE FARM HARTSENBERGFONTEIN 3321, SEDIBENG DISTRICT MUNICIPALITY, GAUTENG PROVINCE.

1. Background and scope

The Door of Hope Children's Mission has proposed the development of a village estate including schools, offices and housing along with other associated infrastructure. The development is aimed at the development of a community of families who will live together. The environmental assessment process included a specialist Botanical Assessment report (which should be read in conjunction with this letter).

During the course of compiling the Basic Assessment for the development, the development was commenced without the proper authorization. Three housing units were constructed as well as a dirt road and 10kl sewage package plant, triggering listed activities. A 24G application is thus required for this construction without the proper authorization.

The housing units were constructed in what historical imagery shows is an old garden and what is a degraded ridge. Adjacent to these are some cleared areas which are constructed on a class 3 ridge. This letter serves to outline the impacts associated with these sections of the development on the flora and vegetation on the study site, as well as outlining the mitigation measures that should be undertaken to rectify any negative impacts. This was done through a study of desktop information available for the site, as well as the field investigation conducted on the rest of the site.

2. Site description

Currently the bulk of the existing residential areas are located to the south of the site, centred on rocky outcrops and the ridge area. The site visit indicated that there are two main vegetation communities within the study area, these are grasslands (12.97ha), and the ridge (4.11ha). The area can be further divided into stands of alien trees, primarily *Eucalyptus grandis*, which extend in a line, possibly as a wind break, along the eastern edge of the property (5.4ha). Infrastructure, most of it pre-

existing has also been built on the ridge to the south of the site (1.52ha). Much of the ridge area had recently been burnt.

The current buildings occur on the ridge area. The ridge vegetation forms an open thicket, with a grassy understory with some herbaceous species and geophytes. It is about 5m tall at its tallest. The indigenous trees dominating this vegetation community type are *Vachellia caffra*, *Celtis africana* and *Dombeya rotundifolia* as relatively large trees and *Euclea crispa* and *Erhetia rigida* forming the shorter trees and shrubs stratum. The basal layer comprised grass species (either dry or burnt) with exposed rocky areas supporting *Boophone disticha*, *Kohautia amatymbica*, *Pentanisia angustifolia*, *Asparagus sp.*, *Ipomoea bathycolops*, *Scadoxys punicens* and *Aloe zebrina*, among others.

This vegetation type is heavily invaded by a variety of invasive species including *Melia azedarach*, *Agave sisalana*, *Agave Americana*, *Pinus sp.*, *Opuntia ficus-indica*, *Cercus jamacara* and *Jacaranda mimosifolia*. The most dominant invasive is *Acacia mearnsii* which forms a dominant tree species on the northern part of the ridge.

3. Conservation Value

The location of the buildings and associated infrastructure is on the ridge side of the development and thus fall into both a Critical Biodiversity Area (CBA) as well as a Class 3 Ridge. Recommendations for these areas are that they remain natural and are used for conservation. For ridges, these should be consolidated where possible and managed for conservation.

Although the housing units have been built on the ridge, historical imagery indicates that the area used for construction was a lawn in the past, indicating low impacts on the indigenous vegetation. However, other areas that have been cleared traverse the class 3 ridge which forms valuable and sensitive habitat, indicating that impacts here are moderate to high.

4. Impacts and recommendation

Impact to the vegetation of the already constructed houses is a **low negative** as fragmentation affecting seed dispersal, faunal movement and pollination is exacerbated by the housing units. However, the remaining associated infrastructure is located in a class 3 ridge, the conservation of which is important for such a sensitive ecosystem. As such, the impacts of these sections on the ridge is a **moderate negative**. Mitigation measures for the remainder of the site (not part of the Section 24G application) include conservation of the remaining ridge areas. The proponent has indicated that this will be done, with these areas utilised only for conservation comparable activities such as hiking, bird watching and environmental education.

As much of the mitigation hierarchy cannot be applied to the sections located on the ridge (avoid, mitigate, rehabilitate), the remaining option is to offset these areas. It is thus imperative that the remainder of the ridge on the site and where possible (through cooperation with adjoining properties) as much of the ridge as possible is actively conserved. This will require an alien vegetation management plan in addition to a conservation management plan to ensure that these areas are managed to as far as possible aid conservation goals for the province.

5. Conclusion

The area of the site for the three housing units affects no ridge vegetation as the area comprised lawn in the past, and not indigenous vegetation. However, the remaining associated infrastructure is located within ridge vegetation. The impact to the vegetation for the housing units is thus a low negative, and for the associated infrastructure, moderate negative. Management of the remainder of the ridge area (as part of the rest of the development) as a conservation area is essential and alien vegetation controlled throughout the life of the development. The following plans should be produced:

- Alien Vegetation Management Plan
- Conservation Management Plan

And meetings must be held with adjacent property owners to discuss the possible consolidation of the ridge areas and management as part of a cooperative.

Sincerely,



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