

Terrestrial Ecological Assessment

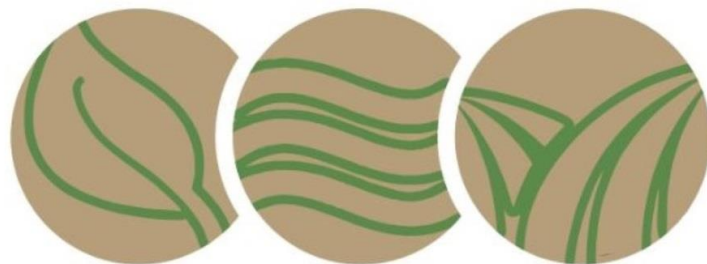
for

EAGLES PRIDE HATCHERY

SCHOOONGEZICHT

Prepared by:

Bucandi Environmental Solutions



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ENVIRONMENTAL SOLUTIONS
Environmental concerns? Consider it solved!

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March 2022

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1. INTRODUCTION AND BACKGROUND

A specialist terrestrial flora and fauna survey was conducted by Bucandi Environmental Solutions for the proposed addition of 21 semi-environmentally controlled breeder houses to an existing poultry facility near Lichtenburg in the Northwest Province (Figure 1 and Figure 2). This document reports on the findings of a field and desktop survey that were conducted during March 2022.

The proposed development area is located on Portion 0 (Remaining Extent) and Portion 4 of the Farm Schoongezicht 124 IP (576.14 ha). It will be made up of three subsites, each containing seven houses. The three subsites, named Site 1 (2.16 ha), Site 2 (2.16 ha) and Site 3 (2.16 ha) were included in the study area. Google Earth Imagery shows that sections of the study area have been ploughed and used for agricultural fields and / or planted pasture until 2017. These sections are still regularly baled for pasture production. The remainder of the study area consist of indigenous vegetation. In terms of biodiversity classification, the study site contains Terrestrial Critical Biodiversity Area (CBA) 1, Aquatic Ecological Support Area (ESA) 1 and Aquatic ESA 2.

2. TERMS OF REFERENCE

The objective of the study was to conduct a baseline field survey of plant species and animal species on the proposed development area (referred to as the "study area"), focussing primarily on taxa that are of conservation significance.

The vegetation study included the following:

- Determination of vegetation types based on Mucina & Rutherford (2006).
- Indication of the proximity to any Formal or Informal Protected Areas.
- Indication of the proximity to any areas identified in the National Protected Areas Expansion Act.
- Description of broad-scale habitat units (vegetation associations) in terms of the floristic structure, dominant species, cover abundance and overall species composition.
- Mapping of broad-scale vegetation units according to structurally discrete vegetation associations as well as transformed areas.
- Description of the broad-scale vegetation units in terms of sensitivity, biodiversity value and conservation importance.
- Recommendations on aspects such as management of plant species of conservation concern and sensitive habitat types, and eradication / control of alien invasive species.

The faunal study included the following:

- Desktop review of potentially occurring conservation-important animal taxa.
- Recommendations on aspects such as management of threatened and near threatened animal species, and the eradication / control of alien invasive species.

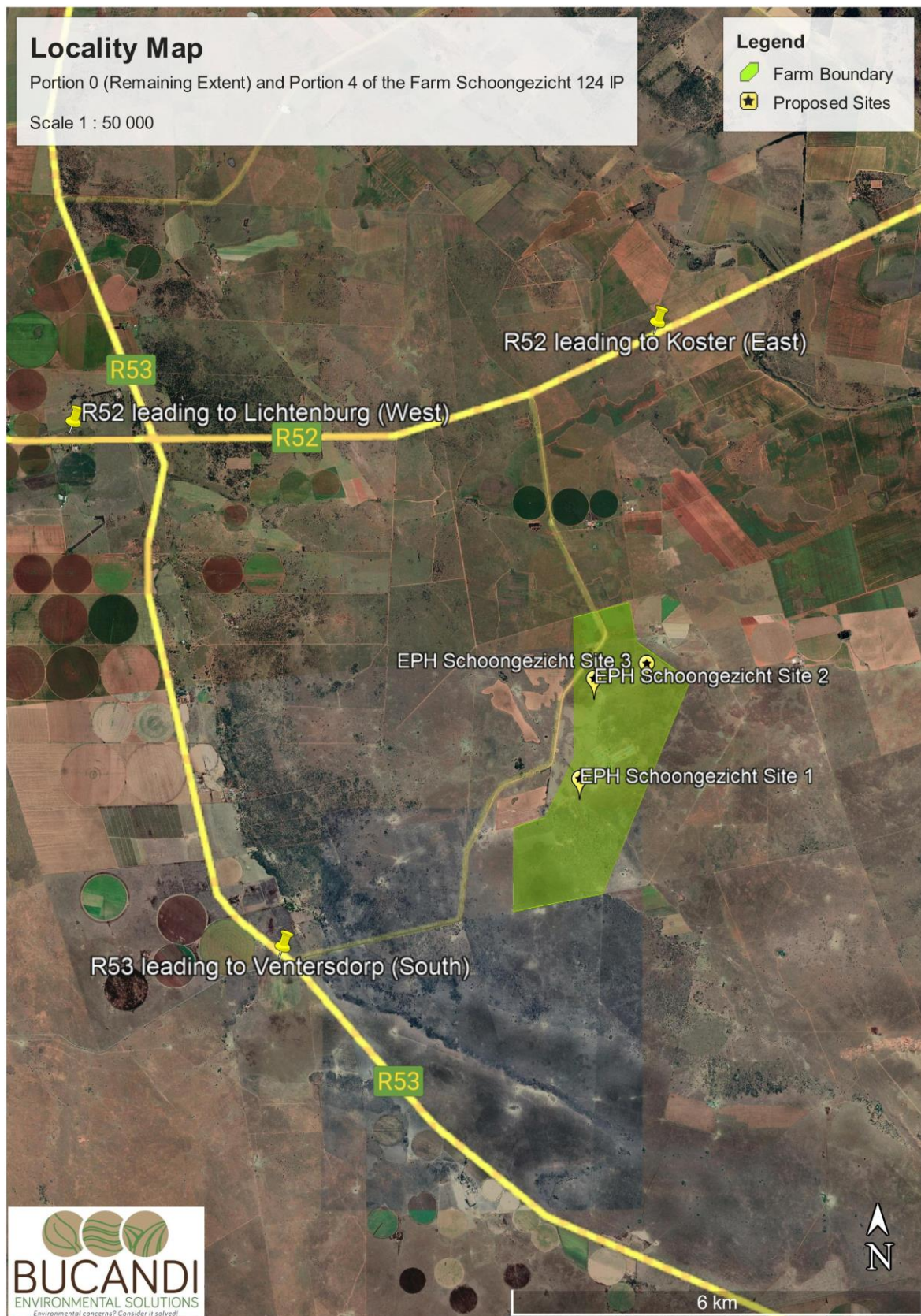


Figure 1: Locality map

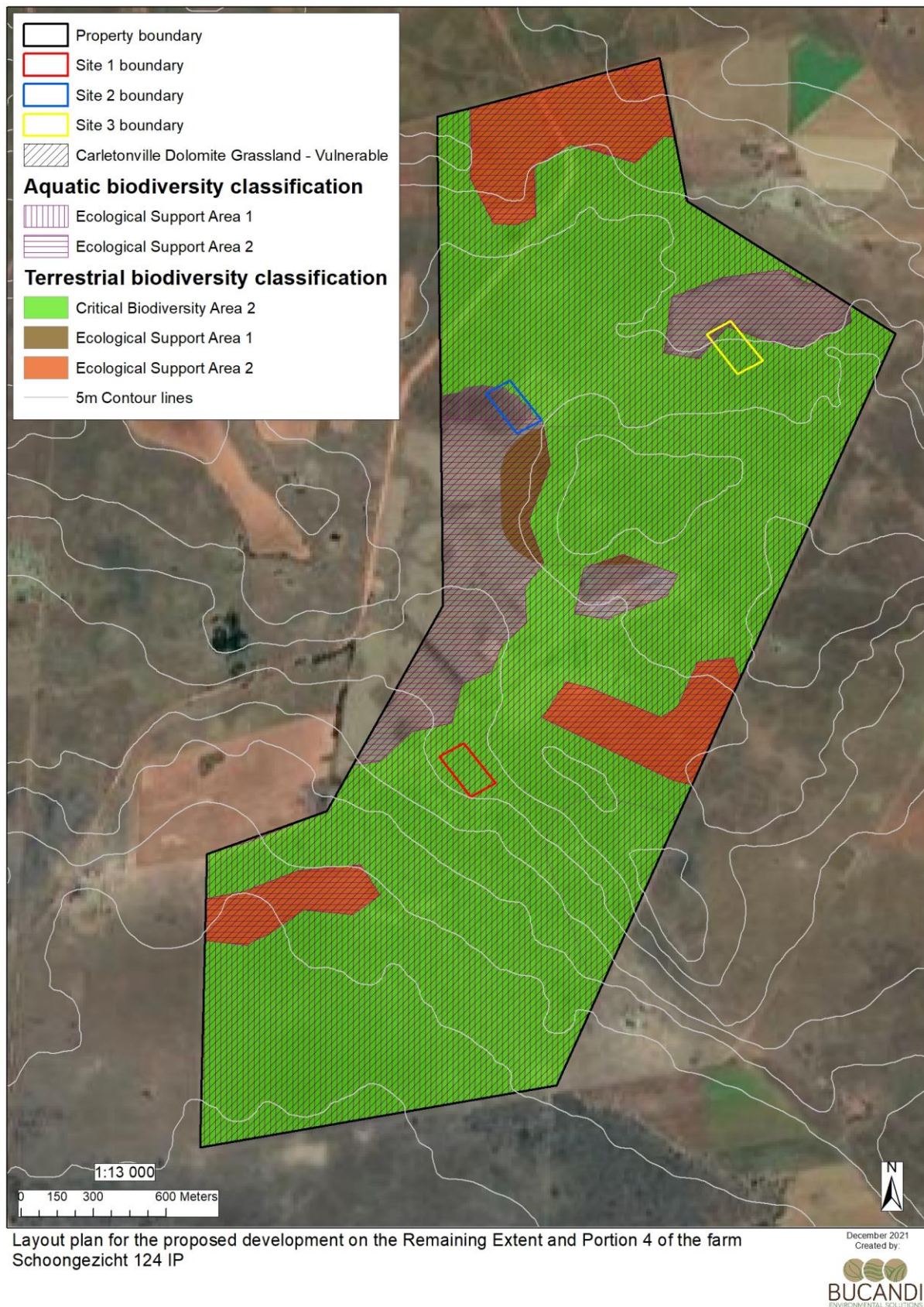


Figure 2: Layout plan for the proposed development.

3. METHODOLOGY

The site was classified into areas of high, medium and low sensitivity based on the conservation status of the natural vegetation, the level of transformation and the terrestrial and aquatic biodiversity classification. A desktop study was conducted to determine the potential occurrence of faunal species of conservation importance occurring in the area.

4. RESULTS AND DISCUSSION

4.1 Proximity to Protected areas

4.1.1 Formally Protected Areas

The proposed development area is located just within the southern boundary of the Transition Zone of the Marico Biosphere. It is also located 27 km north of Schoonspruit Nature Reserve, 60 km southeast of Molemame Nature Reserve and 100 km southwest of the Transition Zone of the Magaliesburg Biosphere.

4.1.2 Informally Protected Areas

The proposed development area is located 45 km west of Lichtenburg Game Breeding Centre, 86 km southwest of Mountain Sanctuary Park and 90 km southeast of Mafikeng Game Reserve.

4.1.3 NPAES Focus Areas

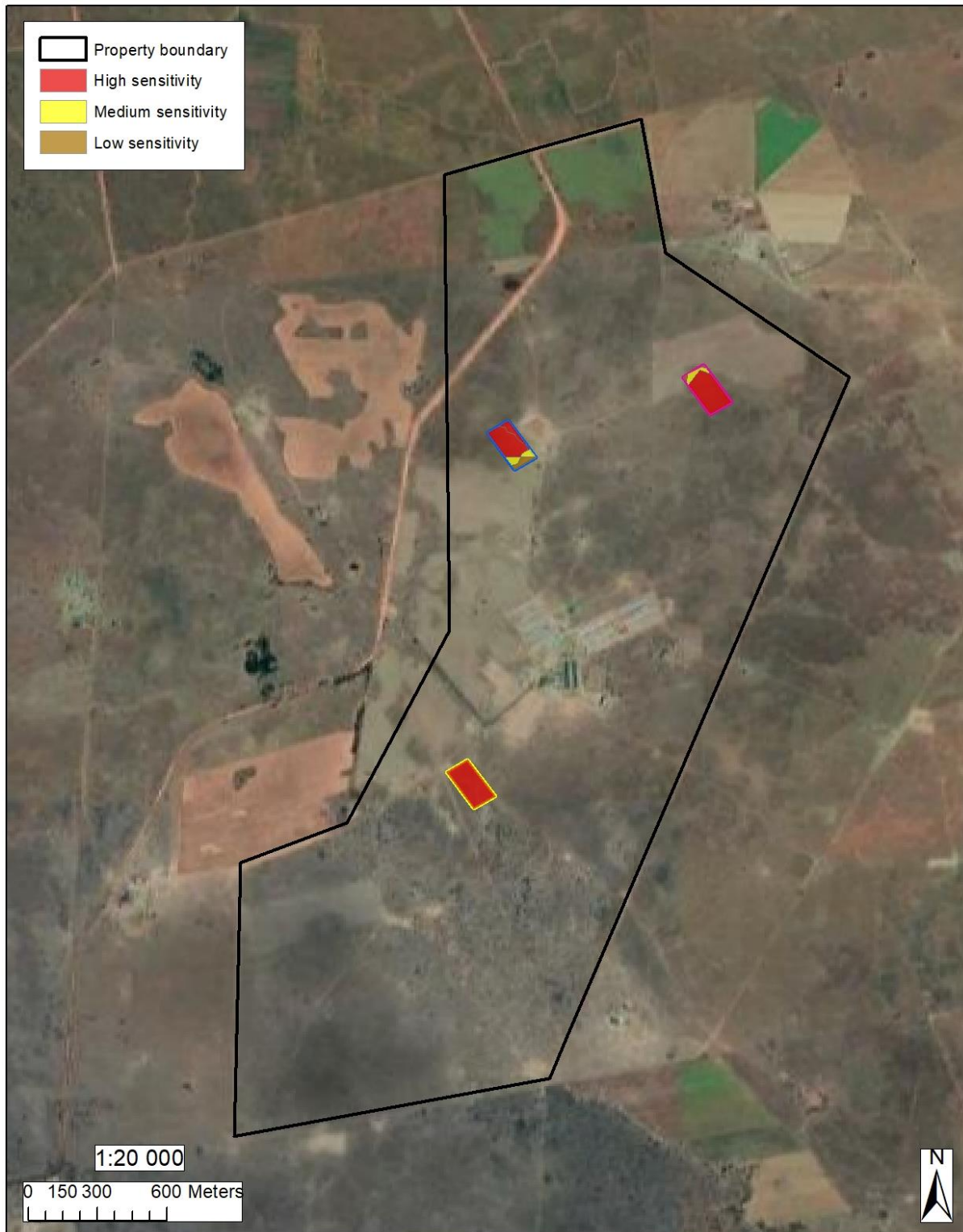
The proposed development area is located 21 km north of Focus Areas identified as Vaal Grasslands, as well as 30 km southeast and 50 km southwest of Focus Areas identified as NW/Gauteng Bushveld.

4.2 Sensitivity zones

The study area is located on 6.47 ha of historical Carletonville Dolomite Grassland - a Vulnerable vegetation type. It includes 5.44 ha of Aquatic Ecological Support Area (ESA) 1, 0.69 ha of Aquatic ESA 2 and 4.37 ha of Terrestrial Critical Biodiversity Area (CBA) 1. An area of 0.43 ha has been transformed through ploughing and the remainder is untransformed indigenous vegetation. The study area was ranked according to high, medium, and low sensitivity based on the historical vegetation type, biodiversity classification and the level of transformation.

4.2.1 High sensitivity

This zone includes untransformed land that falls within Terrestrial CBA 2, Aquatic ESA 1 or both. The proposed development will have an impact on 5.67 ha of land within this sensitivity zone including the entire Site 1 (2.16 ha), 1.63 ha in Site 2 and 1.87 ha in Site 3.



Ecological sensitivity map for the proposed development on the Remaining Extent and Portion 4 of the farm Schoongezicht 124 IP

March 2022
Created by:



Figure 3: The impact of the proposed development footprint on the sensitivity zones.

4.2.2 Medium sensitivity

This zone includes untransformed land that falls within Aquatic ESA 2, as well as transformed land that falls within Terrestrial CBA 2, Aquatic ESA 1 or both. The proposed development will have an impact on 0.53 ha of land within this sensitivity zone including 0.29 ha in Site 2 and 0.24 ha in Site 3.

4.2.3 Low sensitivity

This zone includes land has been ploughed and falls within Aquatic ESA 2. The proposed development will have an impact on 0.29 ha of land within this sensitivity zone including 0.24 ha in Site 2 and 506.56 m² in Site 3.

No Orange or Red Listed floral species were found during the survey of the site. The proposed development is small and will have a small impact. However, due to the majority of the proposed development being located on areas of high sensitivity, it is crucial that the proposed mitigation measures are strictly adhered to.

4.3 Fauna

The property has been stocked with ungulates including eland, koedoe and impala. Due to relatively large areas of untransformed natural vegetation occurring, it can be expected that many faunal species will make use of the property, including the study area. However, proper mitigation measures will ensure that fauna occurring on the study area can safely relocate to the large areas of natural vegetation occurring on the remainder of the property and in the surrounding area.

5. CONCLUSION

The study area coincides with three sensitivity zones that range from high to low sensitivity. It consists largely of untransformed land and is located on Carletonville Dolomite Grassland, rated as Vulnerable in terms of conservation significance. It also falls within the Transition Zone of the Marico Biosphere. From an ecological perspective, the proposed development / activity will have a small impact on this vegetation type and the associated species, the majority of this impact occurring on land that is given a High Sensitivity ranking. However, the impact is small, 5.67 ha, and the vast majority of untransformed land on the property will remain in pristine condition.

In order to avoid or minimize the impacts of the proposed development, the mitigation measures included in the Basic Assessment Report and the Environmental Management Programme should be strictly adhered to. The following additional mitigation and management measures are recommended:

- In the event of any protected or Declining species being recorded within the approved development site, permission for the removal of such species should be obtained from the Permitting Office of DEDECT, and the appropriate in situ and / or ex situ conservation measures should be developed and implemented with the approval of the DEDECT conservation authorities. Where feasible, protected or Declining species can be translocated to degraded or untransformed parts of the study area which provide potentially suitable habitat, but such translocations will have to be carried out in a way

that ensures no ecological degradation of the host habitat occurs, and will have to be evaluated by an ecologist for each species and each potential translocation area. Alternatively, protected or Declining species can be rescued and donated to appropriate conservation and research institutions such as the Walter Sisulu National Botanical Garden (Roodepoort) or the Pretoria National Botanical Garden of SANBI

- Where possible, development should avoid habitat identified with high ecological sensitivity.
- According to the AIS regulations all declared alien weeds must be effectively controlled or eradicated.