

---

**TERRESTRIAL BIODIVERSITY COMPLIANCE REPORT**

---

## TERRESTRIAL BIODIVERSITY COMPLIANCE STATEMENT

### 1. COMPLIANCE STATEMENT REQUIREMENTS.

An applicant, intending to undertake an activity identified in the Scope of this Protocol, on a site identified as being of “low sensitivity” for terrestrial biodiversity on the national web based environmental screening tool must submit a **Terrestrial Biodiversity Compliance Statement** to the competent authority which complies with GNR320 of 20 March 2020.

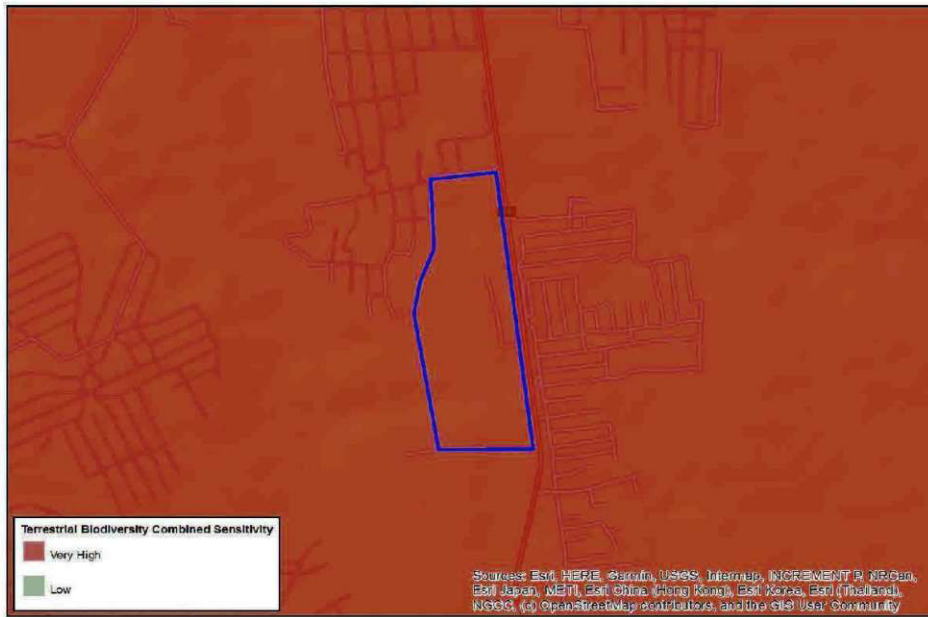
### 2. SPECIALIST INFORMATION.

2.1	PERSONAL INFORMATION.	<i>Name: Jacobus Ignatius de Wet</i> <i>SACNASP Registration number: 40043/87</i> <i>Field of expertise: ZOOLOGY/BOTANY</i> <i>Experience: 1997 TO PRESENT</i>
2.2	PRACTICE/FIRM INFORMATION.	<i>Name of Practice/Firm: KOOS DE WET ECOLOGICAL CONSULTANT</i> <i>Address: POSTNET SUITE 141, P/BAG X20097, LYDENBURG, 1120</i> <i>Contact Number: 083 628 1825</i> <i>E-mail: koosdewet88@gmail.com</i>
2.3	CURRICULUM VITAE.	Refer to Appendix D.6

### 3. SITE INVESTIGATION INFORMATION.

3.1	Project Name.	Proposed acorn city mixed use township development
3.2	Property Description.	Portion 27 of the farm Arthursseat 214-ku Bushbuck ridge local municipality.
3.3	Initial site sensitivity screening rating.	Very high for terrestrial biodiversity
3.4	Initial site verification outcome.	Low
3.5	Date of site verification.	2021/10/14
3.5	Season of the site investigation and the relevance of the season to the outcome of the assessment.	Early summer - appropriate

## MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

### Sensitivity Features:

Sensitivity	Feature(s)
Very High	Vulnerable ecosystem
Very High	Critical Biodiversity Area 2
Very High	Focus Areas for land-based protected areas expansion
Very High	Freshwater ecosystem priority area quinary catchments

## 4. BASELINE BIODIVERSITY DESCRIPTION.

### 4.1 Definitions.

4.1.1	<b>Biological diversity or biodiversity.</b>	This site is approximately 49 Ha in extent enclosed by a largely dilapidated fence and surrounded by dense human habitation. Heavy foot traffic is present along footpaths crossing the area from people walking between residential and commercial areas. Also visible is harvesting of firewood as well as heavy damage to Marula trees ( <i>Sclerocarya birrea</i> ssp. <i>caffra</i> ), probably for traditional medicinal use. The area may also be used for grazing by cattle and goats. No signs of game species normally found in the region was observed and it is expected that mammals will be represented mostly by rodents such as Porcupine and Multimammate mouse, as well as wandering dogs.
4.1.2	<b>Alien invasive species.</b>	Common alien invasive species such as Blackjack, Spear thistle, Prickly pear, Cocklebur and Purple top may be present in large numbers.
4.1.3	<b>Alien species.</b>	A woody alien species commonly used for windbreaks in agriculture, <i>Casuarina cumminghamiana</i> was seen at one site as well as prickly pear and several occurrences of Pine trees. Sickle bush, <i>Dichrostachys cinerea</i> is present in dense stands to the exclusion of other vegetation to a large degree, especially in the northern part of the proposed site which is indicated by the MBSP as Heavily or Moderately modified.

4.2 Baseline distribution profile of terrestrial biodiversity of the site / project area of influence.

4.1	Main vegetation type/s.	<b>LEGOGOTE SOUR BUSHVELD</b>
4.2	Threatened ecosystems.	Legogote Sour Bushveld is threatened, with status <b>VULNERABLE.</b>
4.3	Ecological corridors & connectivity.	<b>N/A</b> MBSP Classification Heavily modified/Other Natural Areas
4.4	Locally important habitats.	<b>NONE</b>
4.5	Suspected occurrence of alien and invader species as listed in NEMBA and CARA that may threaten biodiversity.	Large parts are severely disturbed with alien and invasive species as well as CARA declared species present.
4.6	Other.	

**5. VERIFICATION METHODS.**

Methodology used to verify the terrestrial biodiversity/biodiversity of conservation concern on the site/project area of influence including the equipment and modelling used (where relevant) in preparation of the Compliance Statement.

5.1	<b>Compare baseline biodiversity data with actual biodiversity on site.</b>	MBSP data indicates correctly that the Northern <b>part of the site is Heavily or Moderately modified.</b> The MBSP indicates the remainder of the area as <b>Other natural areas</b> which are areas that are currently not considered essential for meeting biodiversity targets or maintaining ecological functioning but may still have a role in the delivery of ecosystem services. It should however be considered to re-evaluate this part of the area to potentially change the rating to moderately modified.
5.2	<b>Method of site investigation.</b>	Due to dense bush and inaccessibility random transects were walked on foot and recording plants and images by digital camera.
5.3	<b>Number of sample sites investigated across the study area and mean density of observations/ number of samples sites per unit area.</b>	A total of 89 sample sites were investigated across the study area (49ha) resulting in a sampling density of 1 Sample site per 0.55 ha.
5.4	<b>Method of description of each sample site.</b>	Visual observation and images.
5.5	<b>Method of identification &amp; demarcation of site biodiversity.</b>	Random sites recorded with GPS
5.6	<b>Method of photographic evidence.</b>	Olympus digital camera and images georeferenced.
5.7	<b>Method to determine an appropriate buffer /corridor around biodiversity areas.</b>	N/A
5.8	<b>Other.</b>	N/A

**6. VERIFICATION RESULTS.**

6.1	AERIAL PHOTO MAP OF THE DEVELOPMENT SITE/FOOTPRINT AREA THAT INDICATES THE SAMPLING SITES.

# ACORN CITY SAMPLE SITES

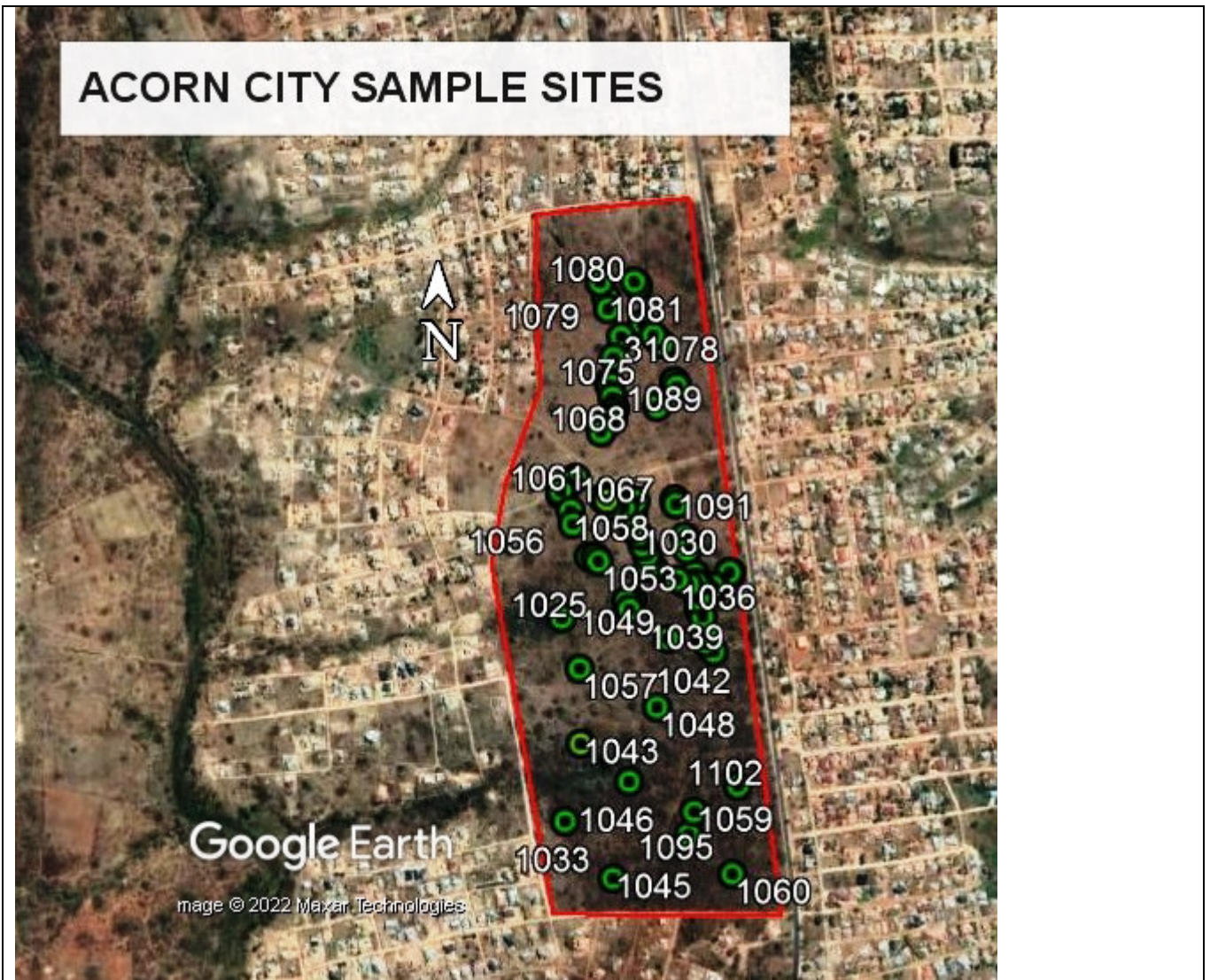




Image of proposed site from 2003 showing severe historical disturbance at that time and earlier as well as human activity such as possible harvesting of plant and animal products making the site unsuitable for any common species and more so for sensitive species.

No evidence of sensitive animal species could be found for this QDS from sources such as ADU Virtual museum:

**Frogs:** 27 species, all Least Concern


**Mammals:** 50 species for the grid square with the mammal that could possibly be found here. Least Concern




**Reptiles:** 67 Species all least concern except for the Large-scaled Grass Lizard which is Near Threatened but is very unlikely to be found due to the transformation of the habitat as they are very habitat specific.


6.2 MPUMALANGA BIODIVERSITY SECTOR MAP: TERRESTRIAL PRIORITY ASSESSMENT



6.2 BIODIVERSITY SAMPLE SITE DESCRIPTION (WITH REFERENCE TO THE MAP).

Name	Habitat Description	Biodiversity importance	
Site 1021 13/10/21 Site Coordinate - 24.636654 31.039462	Severely damaged Marula in disturbed area <i>Sclerocarya birrea</i> <i>ssp. caffra</i>	Low	

<p>Site 1082 14/10/2021 - 24.633081 31.039959</p>	<p>Encroachment of this species reducing biodiversity <i>Dichrostachys cinerea</i></p>	<p>Low</p>	
<p>Site 1036 14/10/2021 Site Coordinate - 24.638081 31.039866</p>	<p><i>Aloe marlothii</i></p>	<p>Low</p>	
<p>Site 1029 14/10/2021 Site Coordinate - 24.040720 31.637953</p>	<p><i>Acacia sieberiana</i></p>	<p>Low</p>	

6.3 ALIEN / INVASIVE SPECIES (AIS) SITE DESCRIPTION (WITH REFERENCE TO THE MAP).			
Name	Biodiversity Description	Occurrence	Image
<p>Site 1043 14/10/2021 -24.639147 31.041352</p>	<p>Alien species commonly used in agriculture to create wind breaks. <i>Casuarina cumminghamiana</i></p>	<p>Single</p>	



Site 1043 14/10/2021 -24.640630 31.038980	<i>Invasive alien.</i>  <i>Opuntia ficus-indica</i>	Single	
--	---	--------	--

## 7. RECOMMENDATIONS.

With reference to the sampling results, make recommendations for impact management outcomes or actions and any monitoring requirements for inclusion in the EMP with reference to the specific site as indicated on the map in Section 6.1

Site /Map Reference No.	Impact management outcomes / actions (mitigation and remedial measures to avoid impacts)
	An Ecologist must be present when bush clearing starts to ensure that sensitive species which may be present are relocated to a safe place.
	Alien and invasive species that are found must be completely removed including seeds that may be present to avoid regrowth.
	A comprehensive eradication plan must be implemented on a regular basis in order to limit the spread of these plants thought the year.

## 8. STATEMENT VALIDATION.

A description of the assumptions made as well as any uncertainties or gaps in knowledge or data.

8.1	Assumptions	It is assumed that all third-party information used (e.g. GIS data and satellite imagery) is correct at the time of generating this report. The survey was restricted to a single season (summer), but it is not considered necessary to perform an additional winter survey.
8.2	Uncertainties or gaps in knowledge	N/A

## 9. CONCLUSION.

### 9.1 STATEMENT.

9.1.1	The site sensitivity is confirmed to be low for terrestrial biodiversity taking the implementation of any other mitigation measures into account.
9.1.2	The proposed development will have negligible further impact on terrestrial biodiversity as the site is rated LOW for terrestrial biodiversity.

### 9.2 CONDITIONS.

Any conditions to which this statement is subjected.

There are no further conditions to which this compliance statement is subjected.



Signature of Specialist  
Koos de Wet

2022-02-25

Date