

PUBLIC PARTICIPATION PROCESS

Notice is hereby given of a Public Participation Process in terms of the:-

**National Environmental Management Act (Act 107 of 1998)
(As amended)**

In compliance with the above Acts and related regulations, it is the intent of the applicant to submit a Basic Assessment /Environmental Impact Assessment (BA/EIA) in support of an Amendment to an Existing Authorisation for development of 11 freehold portions of land instead of 9 as approved on land in Midas Ave, Olympus. The development will provide [11] erven for residential development at the CMV Auditors complex in Olympus.

**OLYMPUS DEVELOPMENT on Ptn 1, Holding 17,
Olympus A/H, Midas Ave, Olympus**

The Draft Basic Assessment (BAR) document will be available in the Glenstantia Library (510 Chopin Street / 012 358 3112) as from 8 May 2026 for a period of 30 days for public scrutiny; inputs and comments. Interested and Affected Parties may forward any inputs; questions and comments to:

- **The EAP [Pieter Colyn]**
- **F : 0866 22 55 52; or**
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Project Reference No: GDARD / OLYMPUS DEVELOPMENT Amendment Application

Regulatory Authority: GDARD – Department of Agriculture & Rural Development

Municipal Authority: Tshwane Local Municipality

Independent Environmental Consultants: Green Environmental Consulting

Date: 2026/05/04

Registration as an Interested & Affected Party (I&AP)

Yes – I wish to be registered as an Interested & Affected Party (I&AP) for the

OLYMPUS DEVELOPMENT [Amendment] – Pretoria East

Surname: _____ Initials: _____ Title: _____

Physical address: _____ Postal Code: _____

P.O. Box : _____ Postal Code : _____

Tel : (____) _____ Fax : (____) _____ Cell : _____ Email: _____

Please register me as an I&AP.

a) I wish to register the following issues; comments and concerns about the proposed development:

b) I would like to obtain more information regarding the following:

c) I would like you to add the following person(s) to your list of I&APs:

Please forward this form to:

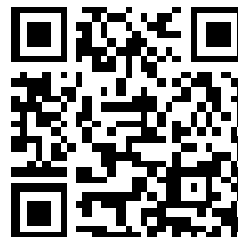
Fax - 0866 22 55 52

Email - rpcolyn@telkomsa.net or greenservices@telkomsa.net

Reference – OLYMPUS DEVELOPMENT AMENDMENT

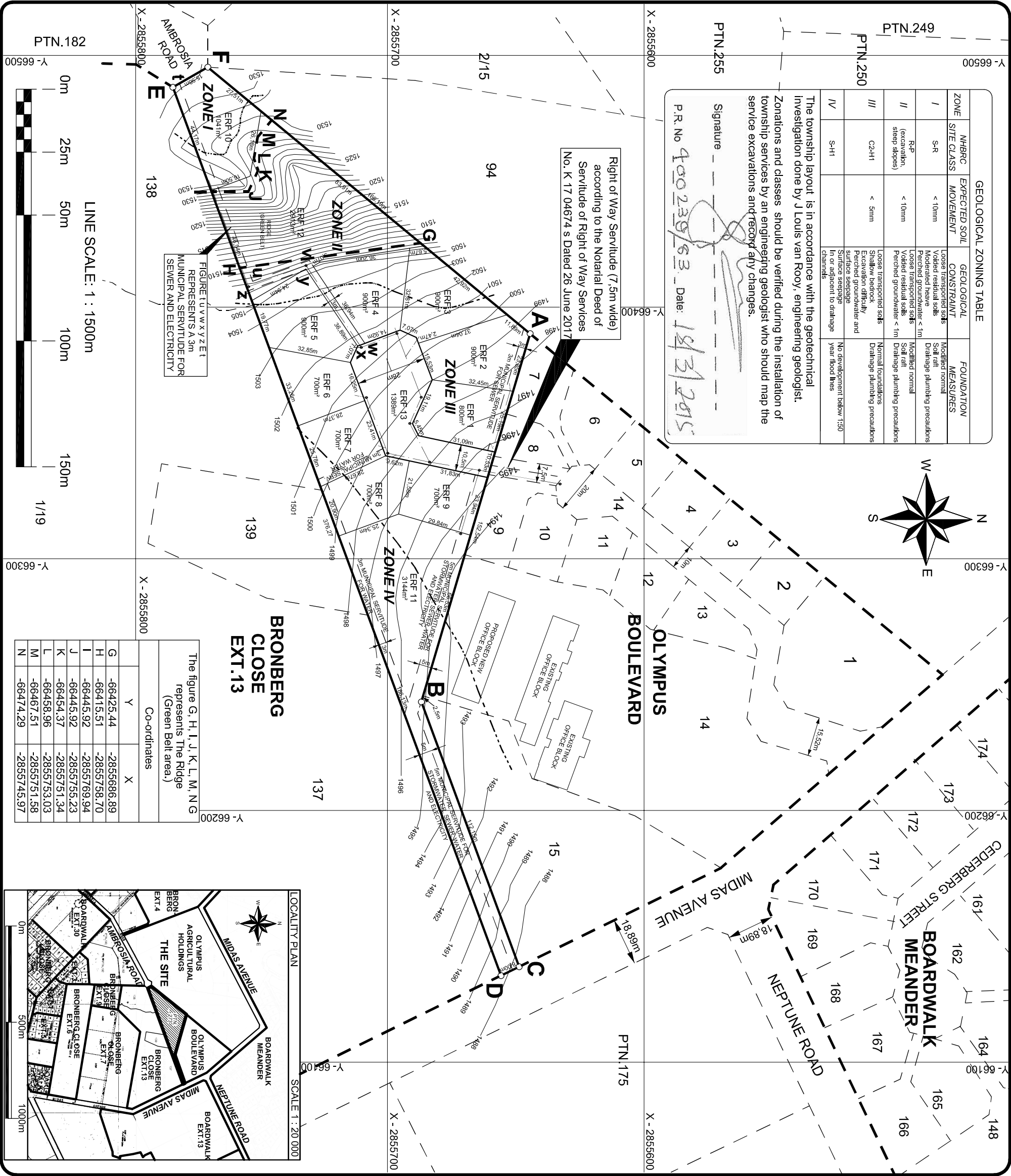
Website: www.greenenvirosa.com

Select: OLYMPUS DEVELOPMENT AMENDMENT



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TAKE ONE



**SITE VERIFICATION REPORT – Midas Residential
Development – Flora, Fauna & Terrestrial Biodiversity
Theme**

Commissioned by

Green Environmental (Ltd)

Compiled by

Ekoinfo CC & Associates

January 2025

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25 Years

1995 - 2020

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Report Status	Version	File Route
FINAL	1	C:\02_Projects\01_EkoInfo\20250126Eko_Midas Site Verification_GreenEnv\Reports\tx\EkoInfo CC Midas Residential Development Site Verification Green Env.docx

1 EXECUTIVE SUMMARY

Executive Summary – Midas Residential Development Site Verification

Commissioned by: Green Environmental Services (Pty) Ltd

Compiled by: EkolInfo CC & Associates

Date: January 2025

Lead Consultant: Willem de Frey (Pr.Sci.Nat. – Botany & Ecology)

Introduction

EkolInfo CC was appointed to conduct a site verification survey for the proposed Midas Residential Development, situated in Pretoria, Gauteng Province. The survey was undertaken in compliance with the National Environmental Screening Tool, focusing on flora, fauna, and terrestrial biodiversity themes.

The site visit was conducted on 31 January 2025, and the assessment included a desktop spatial review, ground surveys, and aerial imagery analysis.

Key Findings

- The 2.1491-hectare site consists of two main topographic features:
 - A small ridge along the western boundary (0.7537 ha, 35% of the site).
 - A flat, previously disturbed area covering the remaining 65% of the site.
- The eastern portion of the site has been impacted by residential expansion, dumping of building rubble, and invasive species encroachment, significantly altering its natural habitat value.
- Historical imagery (2014–2024) confirms ongoing habitat degradation, particularly in the flat sections, which have lost ecological integrity.
- Wetland probability modeling (SAGA GIS, TWI, SWI) indicated potential wetland areas, but field verification found no evidence of wetlands due to red, well-drained soils with no mottling.
- Flora species of concern:
 - Two plant species of conservation concern (Sensitive species 1248 and Sensitive species 430) could potentially occur on the western ridge, but habitat suitability is declining due to invasive plant encroachment.
- Fauna species of concern:
 - The site does not provide suitable habitat for the four mammal species listed by the screening tool, as they are associated with wetlands or sandy soils, neither of which are present.
 - Hewitt's Trapdoor Spider (*Stasimopus hewitti*) may still be present, but habitat loss due to construction dumping has likely reduced its numbers.

Conclusion & Recommendations

- The National Environmental Screening Tool classifications are incorrect:
 - The flat eastern section no longer supports significant biodiversity.
 - The western ridge holds some potential for flora species of concern but is compromised by invasive species and habitat fragmentation.
- Reclassification of site sensitivity:
 - Flora Sensitivity: Medium (due to the ridge).
 - Fauna Sensitivity: Low (no significant habitat remains).
 - Terrestrial Biodiversity Sensitivity: Low to Medium (ridge provides limited corridor function).
- No further biodiversity studies are required for the flat sections of the site.
- The ridge area requires an alien invasive species management plan if conservation measures are to be considered.

Overall Conclusion

The Midas Residential Development can proceed without additional detailed biodiversity assessments, as the site does not present significant environmental constraints beyond localized management of invasive species on the ridge.

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2 INTRODUCTION

Green Environmental Services (Pty) Ltd appointed EkolInfo CC to do a site verification survey of the flora, fauna and terrestrial biodiversity components based on the environmental screening tool results for the proposed residential development towards the east of Pretoria, Gauteng Province (Figure 1). The verification concerns the flora, fauna and terrestrial biodiversity themes (Figure 2).

2.1 Scope of work/ Terms of reference

The scope of work is based on the protocol for the specialist assessment and minimum report content requirements for environmental impacts with regards to the flora, fauna and terrestrial biodiversity¹.

This document concerns the site verification and minimum report content requirements, which require the following:

“Prior to commencing with a specialist assessment, the current use of the land and the potential environmental sensitivity of the site under consideration as identified by the screening tool must be confirmed by undertaking a site sensitivity verification.

2.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist.

2.2. The site sensitivity verification must be undertaken through the use of:

- (a) a desk top analysis, using satellite imagery;
- (b) a preliminary on-site inspection; and
- (c) any other available and relevant information.

2.3. The outcome of the site sensitivity verification must be recorded in the form of a report that:

- (a) confirms or disputes the current use of the land and environmental sensitivity as identified by the screening tool;
- (b) contains a motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity; and
- (c) is submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations.”

Willem de Frey, a registered scientific professional in the fields of ecological – and botanical science with more than 25 years’ experience facilitated the study. The site visit was done on the 31st of January 2025.

3 STUDY AREA

The proposed residential development is located on undeveloped portions of farm Tweefontein 372 and Olympus AH (Figure 3). It is evident that the study area is located within urban/ residential landscape. On a regional scale it is associated with a single regional vegetation unit, namely Andesite Mountain Bushveld (Figure 4). The conservation status of this regional vegetation unit on a national scale is Least Concern.

The area’s provincial conservation status remained the same between the previous study in 2014 (CPlan version 3) (Appendix A) and the current Biodiversity Spatial Plan (CPlan Version 4) (Figure 4), namely Critical Biodiversity Area (CBA).

The landcover 2022 dataset indicates the study area is associated with small holdings with variable vegetation cover from trees to bush to grass to bare soil (Figure 5).

¹ <https://www.sanbi.org/news/national-protocols-and-guidelines-standardise-requirements-for-specialist-studies-in-eias/>

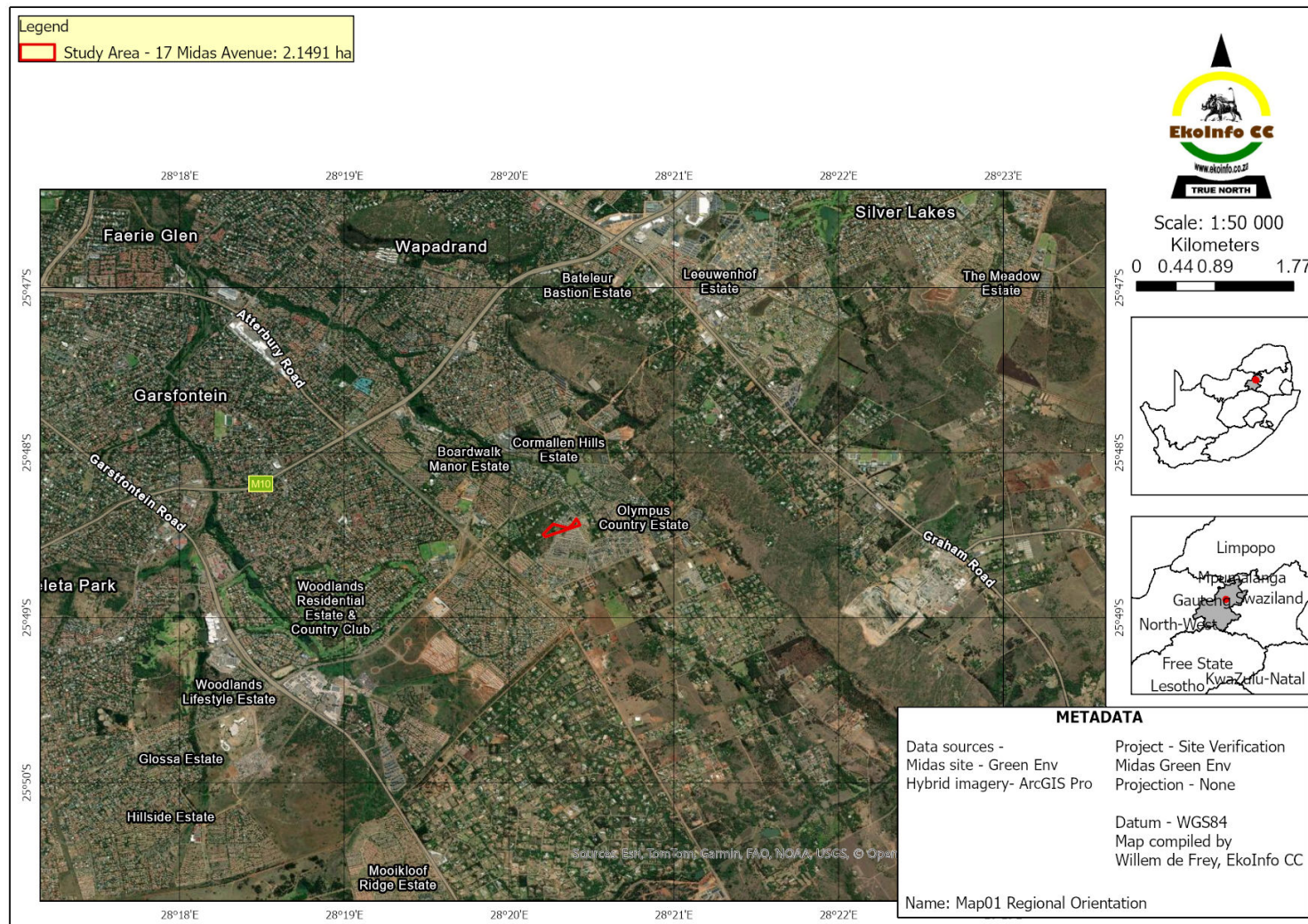
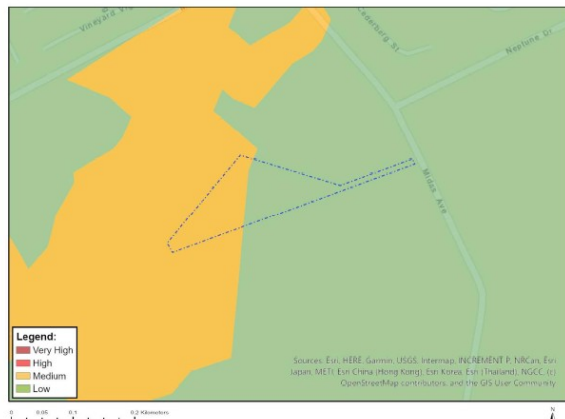


Figure 1: Regional orientation of the proposed residential development area – Gauteng Province, South Africa

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at aiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

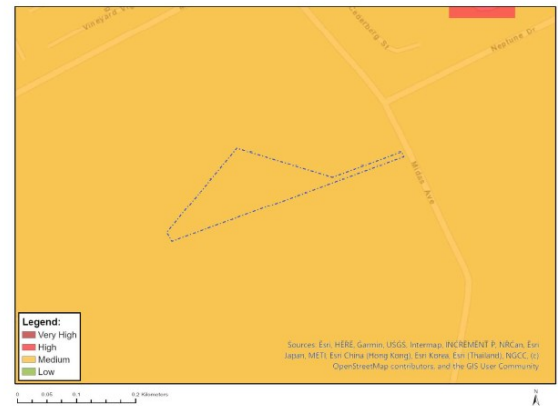
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Sensitive species 430
Medium	Brachycorythis conica subsp. transvaalensis
Medium	Sensitive species 1248

A – Relative Plant Species Theme Sensitivity

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at aiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Mammalia-Chrysospalax villosus
Medium	Mammalia-Crocidura maguassensis
Medium	Mammalia-Dasyatis robertsi
Medium	Mammalia-Neamblysomus julianae
Medium	Invertebrate-Clonilia uvarovi
Medium	Arachnida-Stasimopus hewitti

B – Relative Animal Species Theme Sensitivity

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	CBA 1
Very High	CBA 2
Very High	ESA 1
Very High	National Protected Area Expansion Strategy (NPAES)

C – Relative Terrestrial Biodiversity Theme Sensitivity

Figure 2: National Environmental Screening Tool – Flora, Fauna & Terrestrial Biodiversity Themes

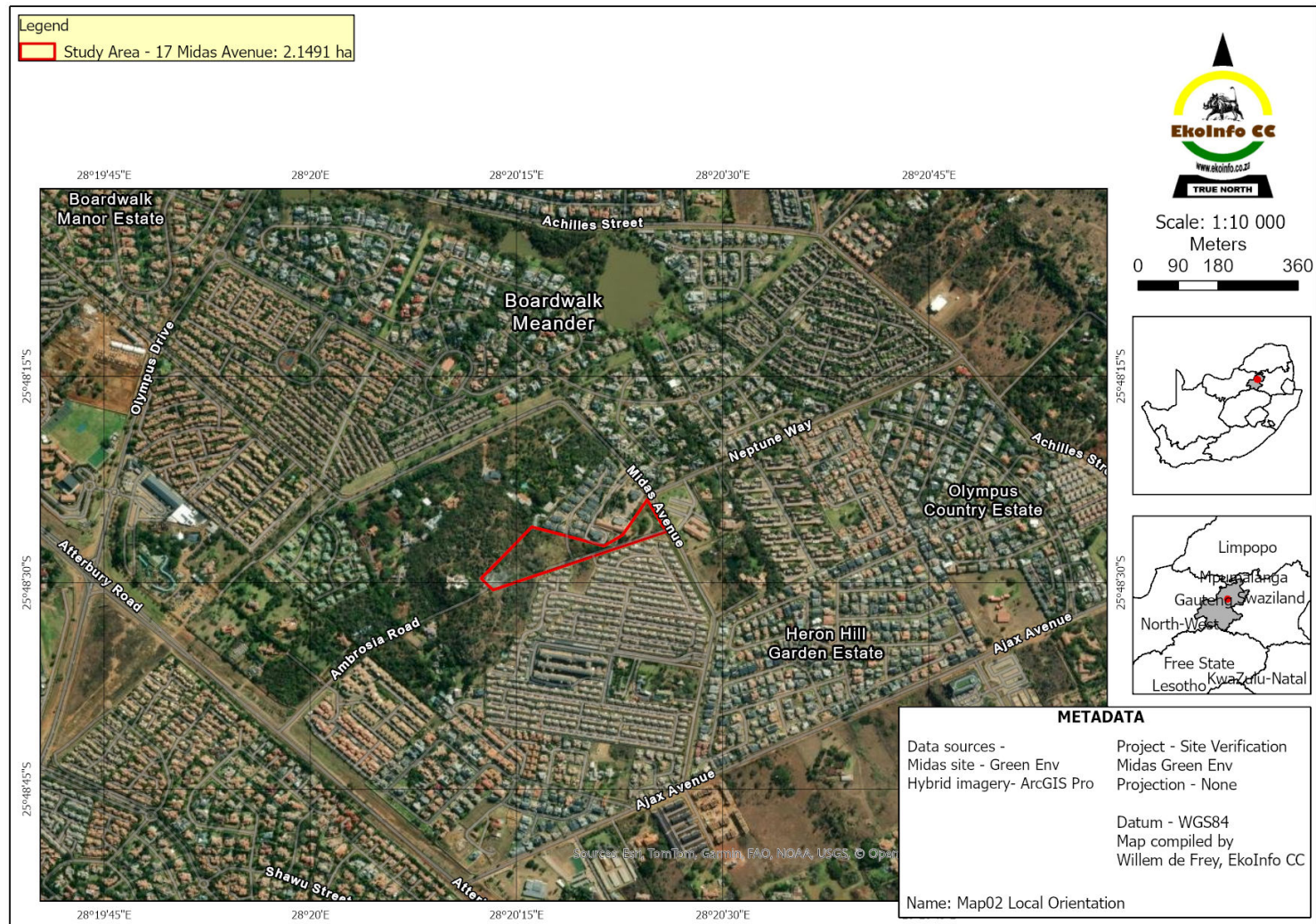


Figure 3: Local orientation of the proposed residential development footprint

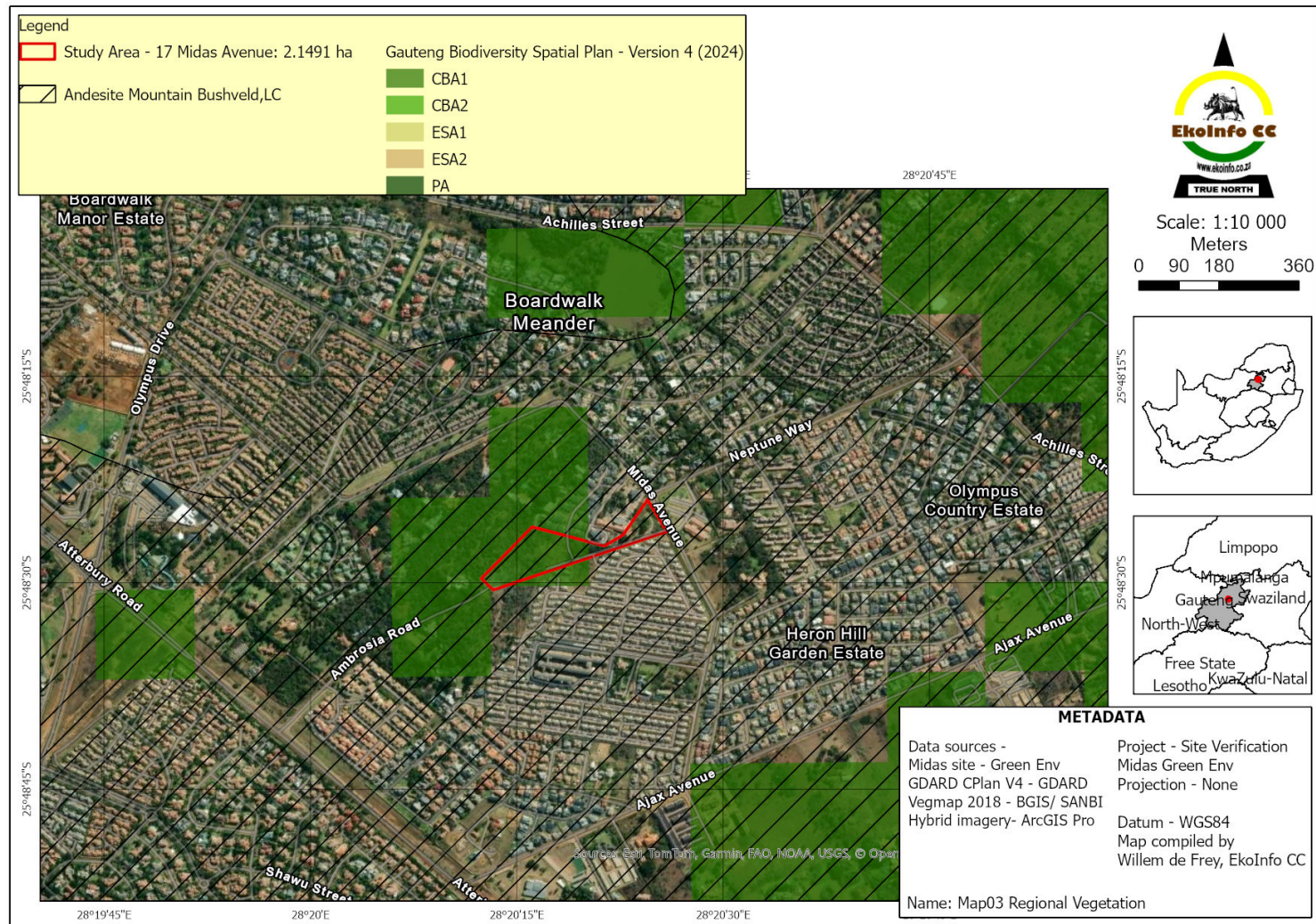


Figure 4: Regional vegetation (2018) and Gauteng Biodiversity Spatial Plan (2024) associated with the proposed residential development area

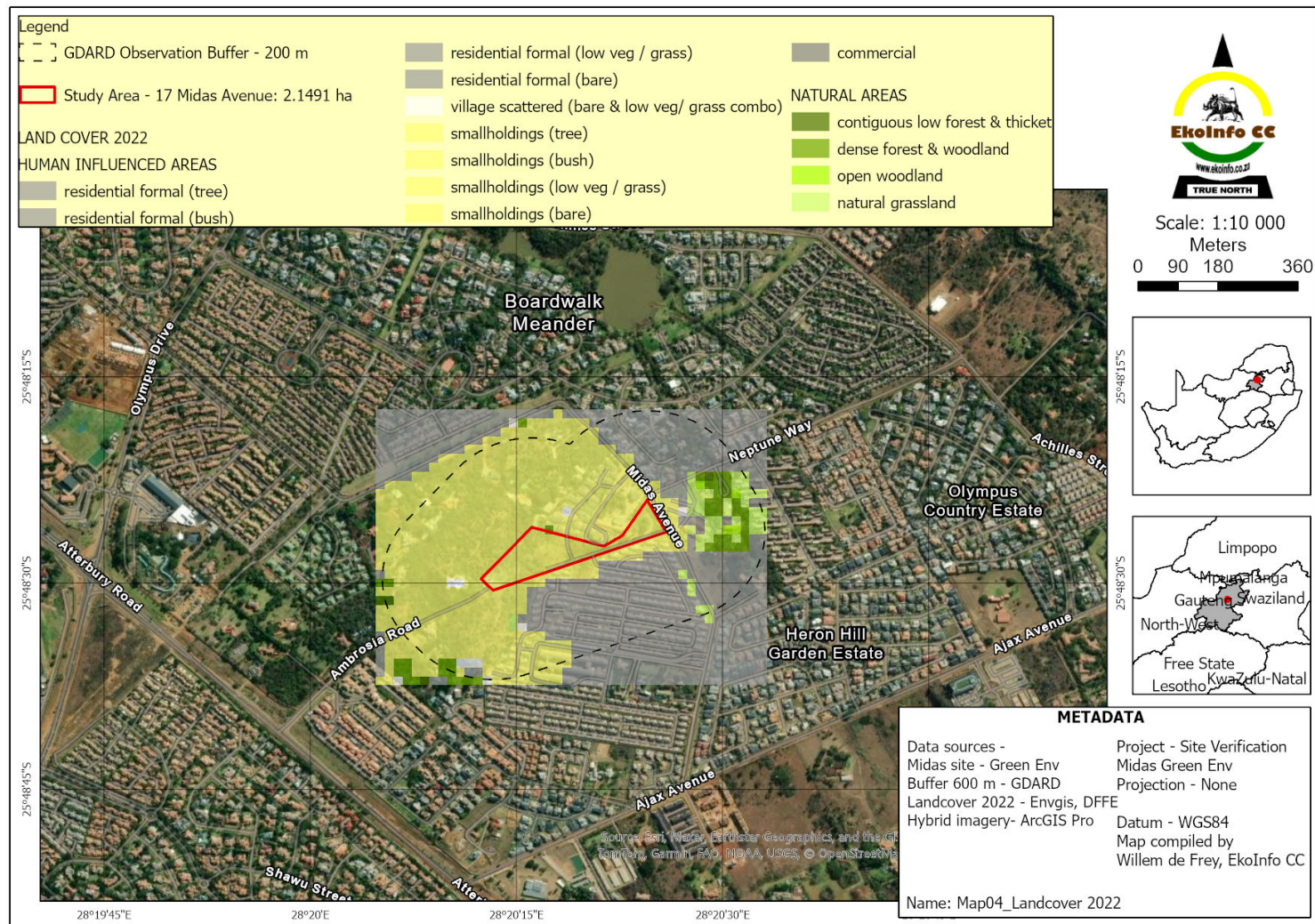


Figure 5: Land cover 2022 classes associated with the proposed residential development

4 METHOD STATEMENT

Willem de Frey a registered professional scientist in the field of ecological – and botanical science did a site visit on the 31st of January 2025. Systematic sites were selected within the proposed residential development site using GIS software. At each of the sites the status of the vegetation was documented:

1. Natural or Cultivated
2. If natural a species list was compiled.

In addition, the soil form was documented to provide context to why the area was cultivated or not.

Georeferenced digital images were taken with ground and aerial based remote sensor. The ground-based images were documented using a Garmin Montana 680 GPS receiver. The aerial-based images were taken with a DJI Mavic Air drone. Images were taken in all four major wind directions, as well as video imagery in a 360° panoramic view.

4.1.1 Limitations And Assumptions

1. This study represents a site verification assessment in accordance with the national environmental screening tool guidelines. It does not represent a full EIA assessment that could be used in a BAP or Scoping-EIA process.
2. Only qualitative data was collected
3. It is assumed that information from third parties (engineers, government institutions) are accurate.

5 RESULTS

5.1 Ecological Condition And Wetland Assessment

5.1.1 Ecological Condition

Although the 2022 land cover dataset (Figure 5) indicates that the study area represents small holdings; the eastern section represents mainly a residential unit (Photo plate 1, Figure 6). The western section appears to be more representative of a small holding (Plot 2 and 3 - Figure 6) but had experienced additional human influences since 2014. Building rubble was dumped, and the herbaceous natural vegetation was replaced by invasive grasses and weeds. It would appear from historical images that the sources of the additional building rubble were the adjacent developments which encroached on the areas since 2014 (Figure 7, Figure 8). This human disturbance was limited to the flat areas to the east of the small ridge (Figure 9).

The small ridge appears to be in the same condition than it was in 2014 (Figure 10, Figure 11) and still present potential habitat for flora species of conservation concern (Appendix B, Figure 2). The main threat to this potential habitat for flora species of conservation concern and volant fauna is loss of habitat due to alien invasive species, whether flora (*Lantana camara*, *Campuloclinium macrocephalum*) or fauna (domestic/ feral cats). The risk to this habitat from alien invasive species was raised in 2014 already (Appendix B).

5.1.2 Wetland Potential

Figure 12 provides an overview of the potential for wetlands to develop in the area using a wetness index derived from 5 m contours (Appendix C). Three plots were surveyed, of which plot 2 is located with the high probability area for a wetland to develop, whether temporary, seasonal or permanent. This probability varies with mean annual rainfall (Table 1), which indicate that for the study area with a mean annual rainfall of 661 mm (Figure 13), the probability for a wetland to develop is between 50 – 75%.

The soil survey at Plot 2, which had not been covered with Witbank soils, indicates the absence of even a temporary wetland, as the soil is red in colour, and mottles are absent (DWS 2005) (Photo plate 4). However, due to the higher clay content in the topsoil, water would rather runoff than infiltrate, flowing the general slope of the landscape towards the southeast (Figure 12). This preferential flow path had been significantly impacted upon by residential development (Figure 3) in the surrounding landscape.



Photo plate 1: Overview of the eastern portion of the study area (Plot 1)

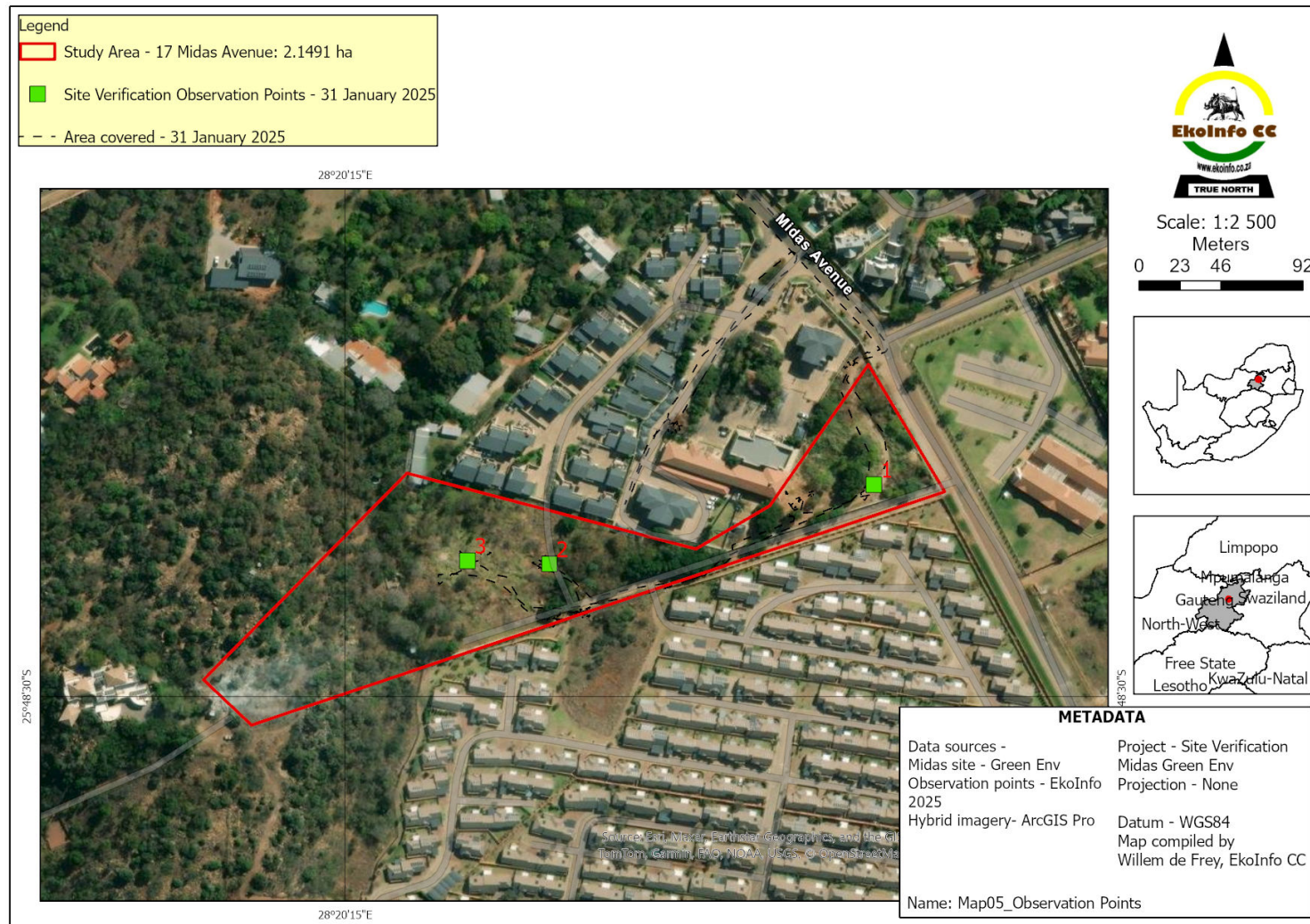


Figure 6: Large scale image of the study area indicating the location of the ground-based observation points



Photo plate 2: Ground based georeferenced digital images of the area surrounding plot 2 (Photo direction – North, East, South, West)



Photo plate 3: Ground based georeferenced digital images of the area surrounding plot 3 (Photo direction – North, East, South, West)



January 2015



September 2017

Figure 7: Evidence of building/ construction rubble dumping within the study area since 2015



Figure 8: Large scale image from Google Earth Pro captured on the 13th of May 2019 showing the disturbance from the adjacent construction activities within the study area

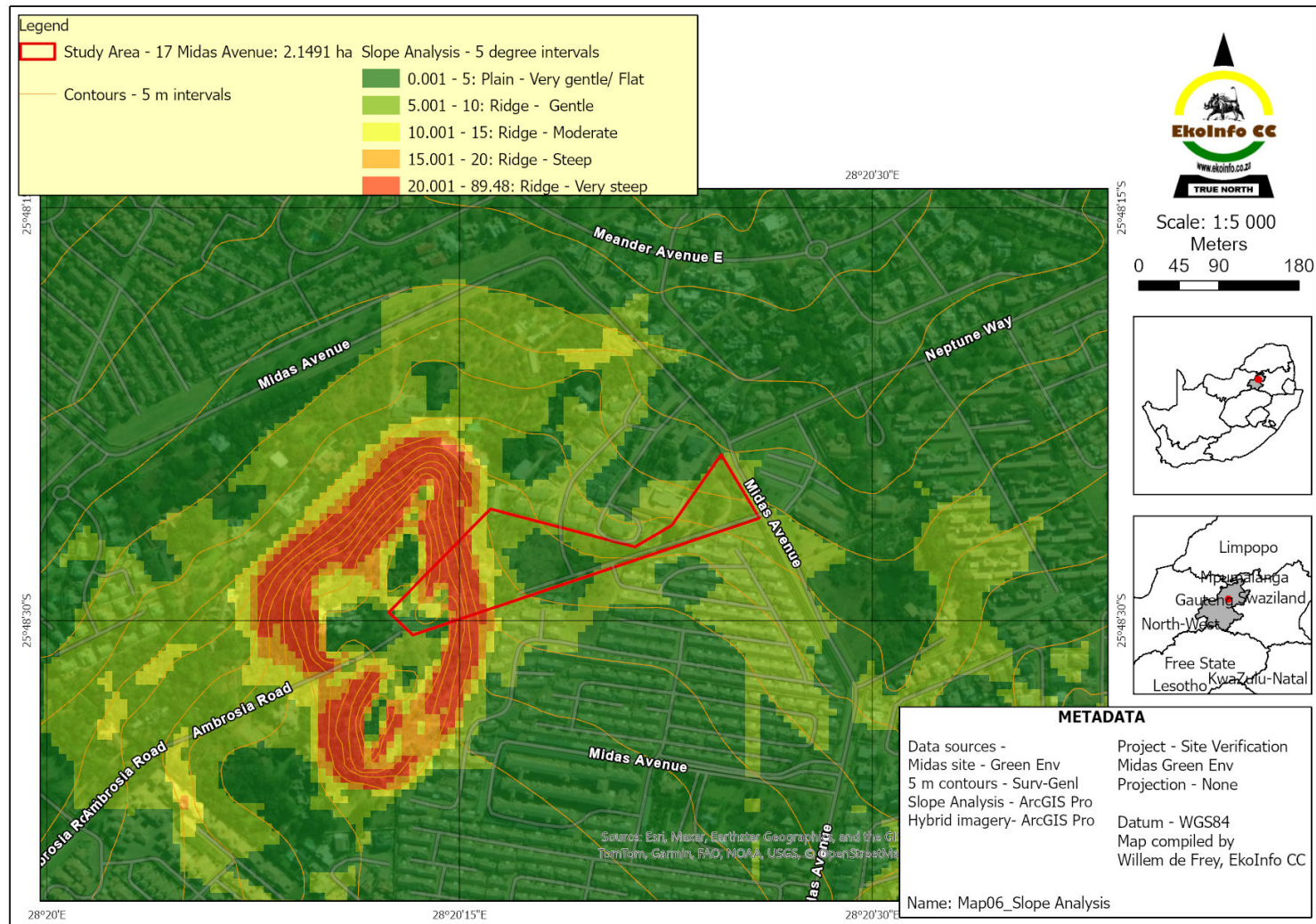


Figure 9: Slope analysis based on available 5 m contours showing the presence of the small ridge along the western boundary of the study area

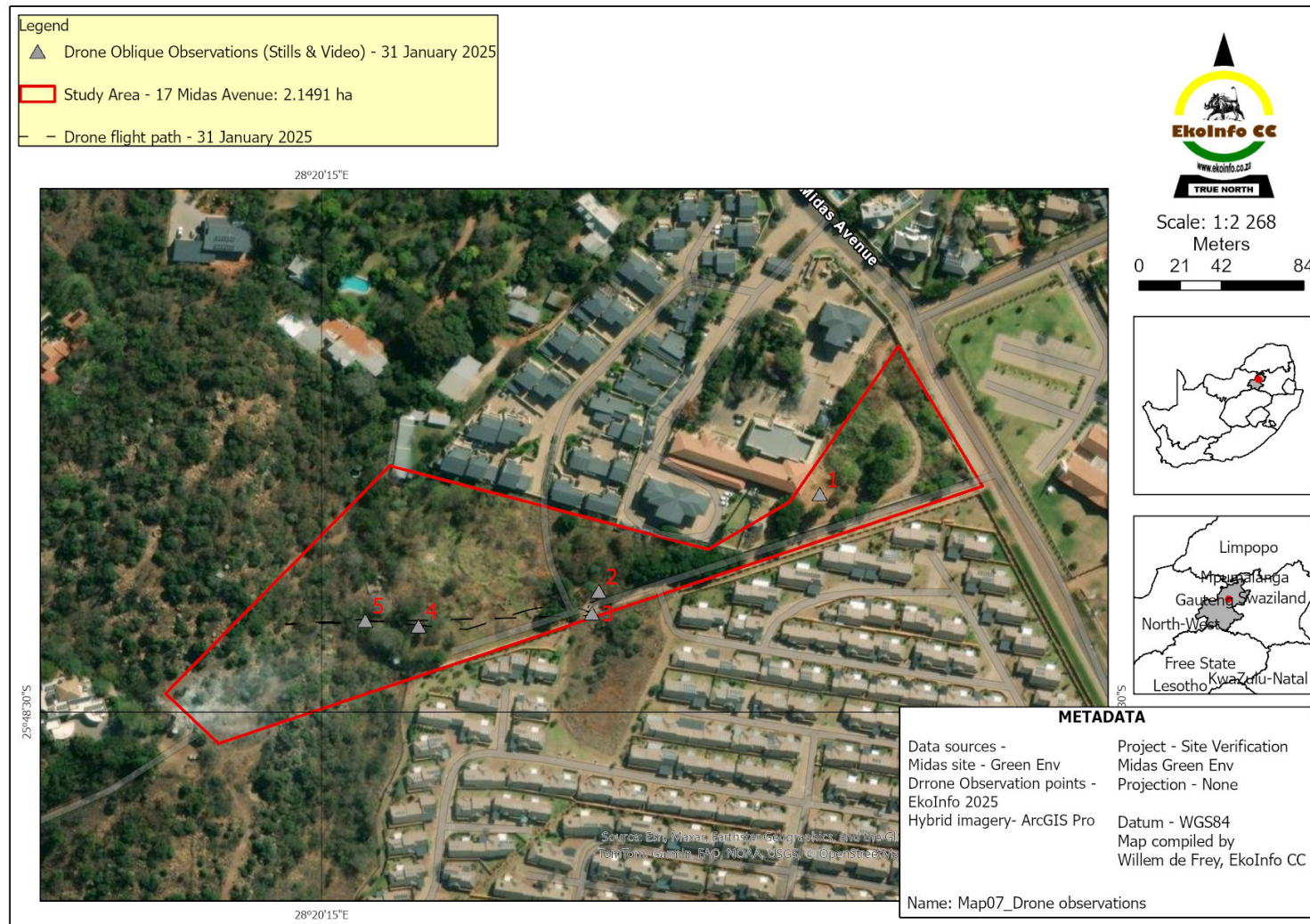


Figure 10: Location and distribution of drone observations across the study areadfs



West facing view of the small ridge



View of the crest of the small ridge

Figure 11: Oblique images of the small ridge on the western boundary of the study area

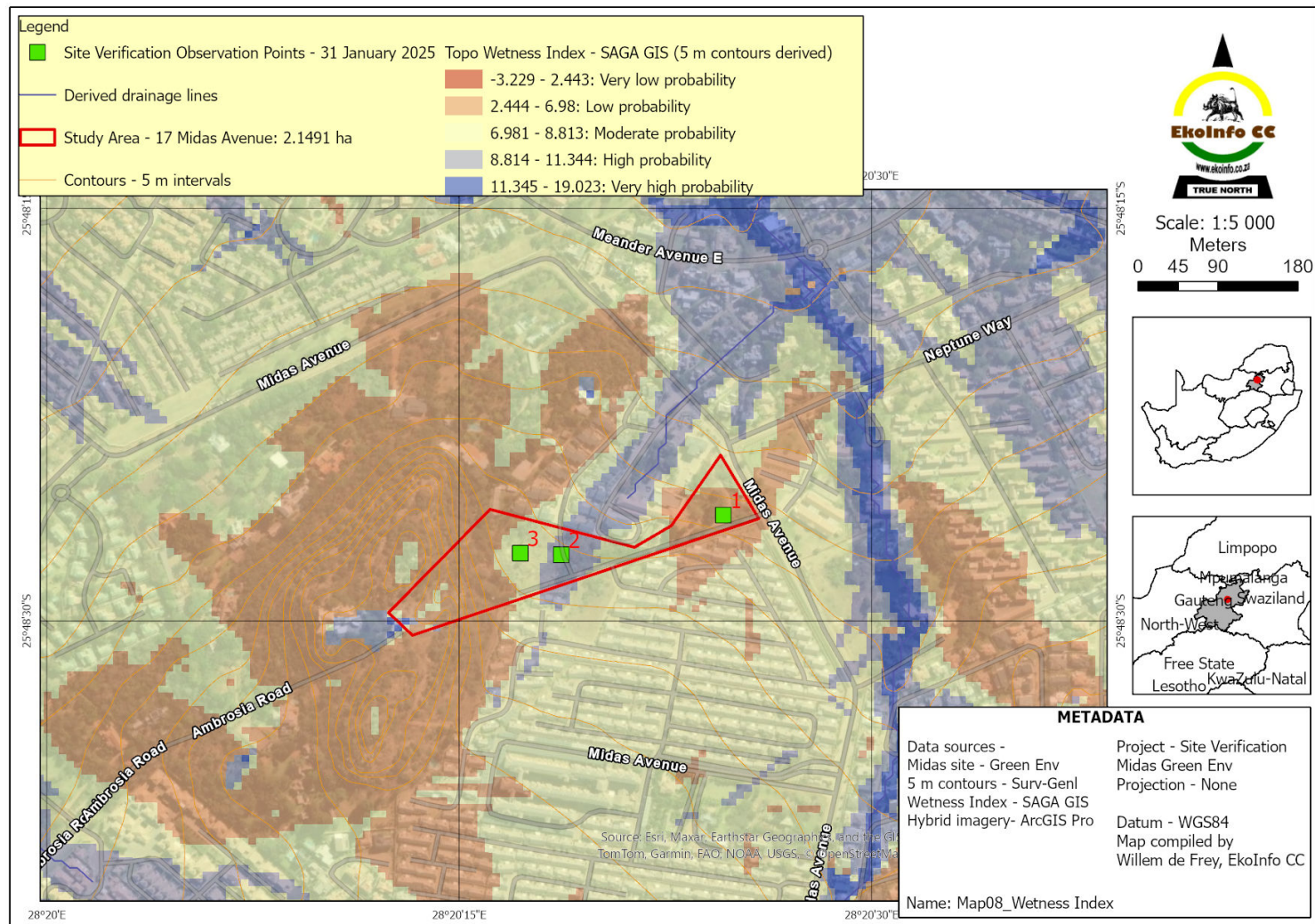


Figure 12: Topographic wetness index derived from 5 m contours indicating the potential presence of wetlands within the study area

Table 1: A conceptual probability table showing the likelihood of wetlands being present based on SAGA GIS wetness indexes (such as the Topographic Wetness Index, TWI) correlated with Mean Annual Rainfall (MAR). This table assumes no influence from geology, soil, or vegetation.

Mean Annual Rainfall (mm)	Low TWI (Dry Areas, Slopes, Ridges)	Moderate TWI (Gentle Slopes, Valley Sides)	High TWI (Depressions, Floodplains, Convergent Flow Areas)
< 250 mm (Arid)	Very Low (~0-5%)	Low (~5-15%)	Moderate (~15-35%)
250 - 500 mm (Semi-Arid)	Very Low (~0-10%)	Moderate (~15-30%)	High (~35-60%)
500 - 750 mm (Dry Subhumid)	Low (~5-15%)	Moderate (~25-45%)	High (~50-75%)
750 - 1000 mm (Moist Subhumid)	Low (~10-20%)	High (~40-60%)	Very High (~75-90%)
1000 - 1500 mm (Humid)	Moderate (~15-30%)	High (~50-70%)	Very High (~80-95%)
> 1500 mm (Very Humid)	Moderate (~20-40%)	Very High (~60-85%)	Almost Certain (~90-99%)

Assumptions & Limitations:

- **SAGA's TWI & Wetness Indices:** Higher TWI values indicate areas where water is likely to accumulate.
- **MAR Influence:** Higher rainfall increases saturation potential, but terrain still dictates where wetlands will form.
- **No Consideration of Geology & Soils:** Actual wetland presence depends on permeability, water table depth, and soil type.
- **Land Use Not Considered:** Human impact (e.g., drainage, agriculture) can alter natural wetland occurrence.

CLIMATE GRAPH // WEATHER BY MONTH PRETORIA

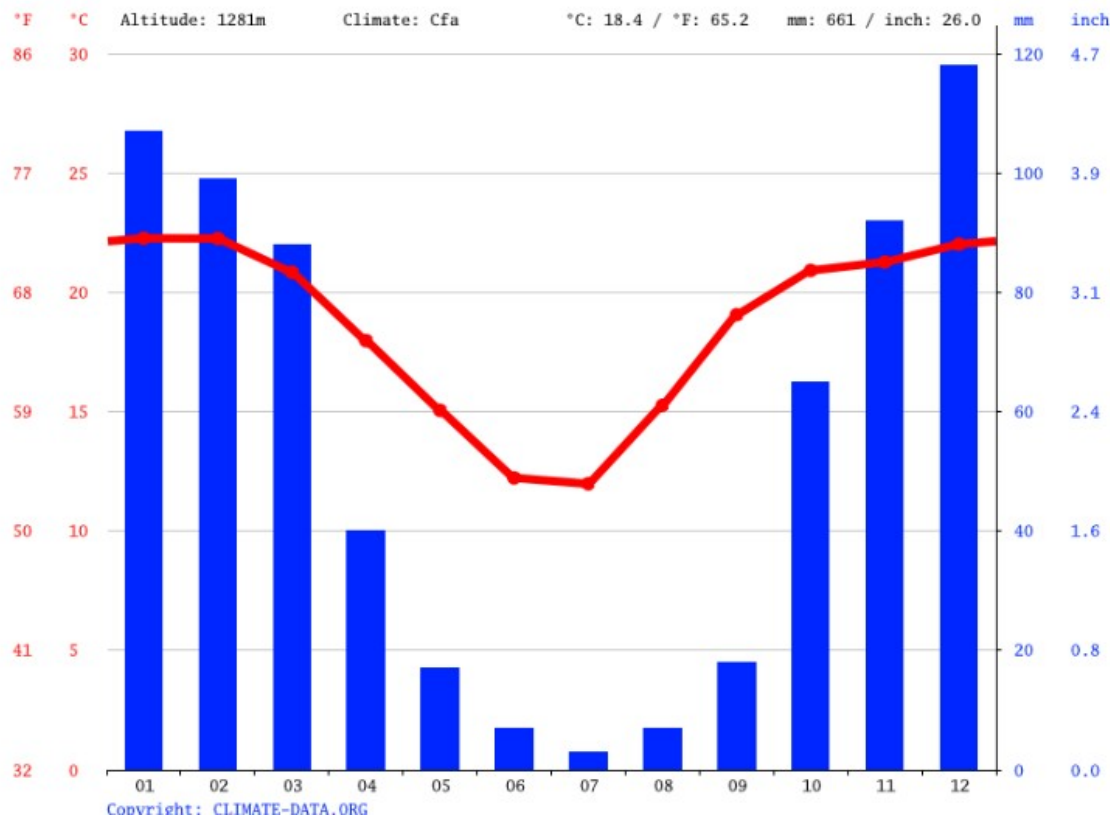


Figure 13: Climograph of Pretoria indicating the mean annual expected rainfall (<https://en.climate-data.org/africa/south-africa/gauteng/pretoria-154/>)



Photo plate 4: Soil profile at Plot 2 indicating the red soil colour and above 10% clay content of the top soil (A horizon)

5.2 Flora Species Of Conservation Concern

The screening tool list three plant species of concern for this area (Figure 2). Table 2 provides an overview of the three species, their habitat preference, Red Data status and probability of occurrence within Gauteng Province, and Andesite Mountain Bushveld specifically.

Of the three species, I have personally observed and recorded two of the species namely: Sensitive species 1248 Sensitive species 430, potential habitat for these two species occur within the small ridge area (Figure 9, Figure 11). Appendix B indicates historical extent of one of these species.

Theoretically potential habitat for *Brachycorythis conica* would also be on the small ridge if the ridge had a higher altitude. Its known location near Roodepoort² in Gauteng, has an altitudinal range of around 1 700 masl, while the small ridge on the western boundary of the study area has an altitudinal range of 1 500 masl. Therefore, it is unlikely that this species would occur in the area.

5.3 Fauna Species Of Conservation Concern

The screening tool list six fauna species of conservation concern (Figure 2). Of the six species, four are mammals, two belongs to the phylum Arthropoda, specifically the classes: Insecta and Arachnida (Table 3). The study area does not present suitable habitat for any of the four mammals' species, as they either are associated with wetlands or very sandy soils, which neither is present within the study area.

Of the two arthropods, there is only potential habitat for *Stasimopus hewitti* (Hewitt's Trapdoor Spider), as the study area contains elements of Savanna, as well as finer textured soils. However the past and current dumping of building materials, resulting in Witbank soils covering the original soils (Photo plate 3, Figure 8), has probably resulted in a loss of habitat for this species in the study area.

Clonia uvarovi represents bush crickets, and is associated with tall woodland Savanna, which is absent from the study area, and had been replaced by residential developments in the surrounding landscape (Photo plate 5). It is a non-volant species, it jumps and walks for movement, therefore is unlikely to be able to recolonise the study area or if present act as a source area due to the extensive residential development surrounding the study area.

6 CONCLUSION

The study area is 2.1491 ha in size, with two main topographic features, a small ridge along the western boundary, and flat/ plains towards the east. The small ridge (slopes of more than 10°) represents 0.7537 ha or 35% of the study area and has the potential to be habitat for two of the flora species of conservation concern.

However, this area has limited potential to function as a stepping stone corridor and source area for these species if the remainder of the small ridge is not conserved as well. This was highlighted in 2014 already.

Appendix D provides an overview of the types of stepping stone corridors and criteria to consider. The study area and the remainder of the ridge qualify as Rocky Outcrops & Ridges (Insular Stepping Stones) in terms of topography and location (surrounded by urban development) but is disqualified if the remainder of the ridge is not protected and managed as well. A minimum size of 5 ha is recommended.

Based on this current site verification study and the previous study done in 2014, it is concluded that the flat eastern habitat no longer represents potential habitat for the listed species of conservation concern, whether fauna and flora, and therefore no further studies are required in this area.

The small ridge to the west of the study area, which represents 35% of the study area, does have the potential to be habitat for two flora species of conservation concern, but without an integrated alien invasive management plan has limited future or potential as stepping stone corridor.

² https://www.inaturalist.org/observations?verifiable=true&taxon_id=581254

Table 2: Overview of the three flora species of conservation concern listed for the study area, their Red data status, habitat preference, likelihood of occurrence in Gauteng Province and specifically the Andesite Mountain Bushveld (Source: <https://redlist.sanbi.org/>, <https://pza.sanbi.org/>)

Species	Common Name	Class	Family	South Africa Red Data Status	Habitat Preference	Probability of Occurring in Gauteng Province	Association with Andesite Mountain Bushveld
Brachycorythis conica subsp. transvaalensis	Not widely recognized	Liliopsida (Monocotyledons)	Orchidaceae	Critically Endangered	Short, open grassland and wooded grassland, on sandy gravel overlying dolomite, sometimes also on quartzite.	Historically present; last seen in Gauteng in 1956 until its rediscovery in 2007.	Not explicitly associated with Andesite Mountain Bushveld.
Sensitive species 1248	Climbing Onion	Liliopsida (Monocotyledons)	Asparagaceae	Vulnerable	Open woodland, rocky hills, often in shaded areas.	Occurs in Gauteng; however, populations have declined due to overharvesting for medicinal purposes.	Not explicitly associated with Andesite Mountain Bushveld.
Sensitive species 430	Not widely recognized	Magnoliopsida (Dicotyledons)	Apocynaceae	Vulnerable	Ridges and quartzitic rocky outcrops in pockets of soil among rocks in direct sunshine or shaded areas.	Limited suitable habitat within certain areas; not encountered in specific studies, indicating a low probability of occurrence.	Associated with Andesite Mountain Bushveld.

Table 3: Overview of the six fauna species of conservation concern listed in the screening tool for the study area, and their probability of occurrence in the study area based on their habitat preferences

Scientific Name	Common Name	Class	Family	National Red List Status	Habitat preference (https://speciesstatus.sanbi.org/)	Can occur in study area	Motivation
<i>Chrysospalax villosus</i>	Rough-haired Golden Mole	Mammalia	Chrysochloridae	Vulnerable	Found on sandy soils in grasslands, meadows and along edges of marshes in Savanna and Grassland biomes of South Africa. Recorded from gardens and parklands, also found in dense stands of kikuyu grass (<i>Pennisetum clandestinum</i>) and marginally on golf courses adjoining natural grasslands.	No	No wetlands present, soil texture loamy, most of habitat replaced by Witbank soil form
<i>Crocidura maquassiensis</i>	Makwassie Musk Shrew	Mammalia	Soricidae	Vulnerable	Wetland associated across various biome, often outcrop related	No	No wetlands present, soil texture loamy, most of habitat replaced by Witbank soil form
<i>Dasymys robertsii</i>	Roberts' Shaggy Rat	Mammalia	Muridae	Near Threatened - Genus	Wetland specialists - specifically intact rivers and wetland ecosystems	No	No rivers close by or wetlands within study area
<i>Neamblysomus julianae</i>	Juliana's Golden Mole	Mammalia	Chrysochloridae	Endangered	This species is confined to sandy soils, often pockets of weathered sandstone associated with rocky ridges, in the Savanna biome of South Africa, and marginally into the Grassland biome in the Tshwane district (Gauteng).	No	Soil texture above 10%, thus loamy to clayey. Original soil covered by Witbank soils. Study area extensively isolated by residential development, especially towards the east/southeast where the Bronberg ridge occurs

Scientific Name	Common Name	Class	Family	National Red List Status	Habitat preference (https://speciesstatus.sanbi.org/)	Can occur in study area	Motivation
<i>Clonia uvarovi</i>	Uvarov's Clonia	Insecta	Tettigoniidae	Vulnerable	This species inhabits tall woodland savannah.	No	Tall woodland savanna absent from the study area, only short closed woodland present on the small ridge
<i>Stasimopus hewitti</i>	Hewitt's Trapdoor Spider	Arachnida	Stasimopidae	Possibly threatened	Not in very sandy soils - wide range of habitats and soil types	Yes	Savanna elements present with regards to woody species. Soil not very sandy, clay content above 10%



Oblique video image towards the east of the study area



Oblique video image towards the southwest of the study area

Photo plate 5: Oblique images taken with the drone showing the extent of urban development surrounding the study area

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8 APPENDIX A – ABRIDGE CV, PRINCIPLE CONSULTANT

Name of firm: EkolInfo cc Environmental and Wildlife Management Consultancy

Name of staff: WILLEM HENDRIK DE FREY

Profession: Environmental and Wildlife Management consultant

Years with firm: Since 1995

Nationality: RSA

Membership of professional societies:

The South African Council for Natural Scientific Professions (Reg no 400100/02)

Categories: Botanical Science and Ecological Science

Currently in the process of affiliating to:

South African Association of Botanist (SAAB)

Grassland Society of Southern Africa

South African Institute of Ecologist and Environmental Scientists (SAIE)

KEY QUALIFICATIONS:

Mr W de Frey has been involved in the discipline of ecology since 1989. During this period he prepared himself for a profession in environmental and wildlife management, by attending courses in chemistry, geology, pedology and statistics, while majoring in Botany and Zoology. His working knowledge was obtained while completing projects for his post-graduate studies in wildlife management in both the Savanna and Grassland Biomes. In addition to his academic publications, he has contributed to numerous reports regarding EMPR's, EIA's, vegetation - and soil surveys and monitoring since the registration of his own consultation close corporation in 1995. He is actively involved in the management and marketing of his close corporation while completing tasks in his field of expertise namely soil, vegetation science and Geographical Information Systems. Mr W de Frey is task orientated with consideration of people's needs and safety. He beliefs in a holistic approach to environmental and wildlife management and has therefore established a network with individuals in related fields. He is also assisting previously disadvantaged persons in establishing a presence in the environmental industry, namely Lordwick Makhura of Baagi Environmental Consultancy CC and a joint venture company Bonolo Biodiversity And Environmental Management consisting of Baagi Environmental Consultancy CC and Disa Mphago Community Helpers CC.

EDUCATION:

1992 BSc Botany & Zoology, University of Pretoria

Course	Content	Level
Chemistry	Organic and Inorganic chemistry	1 st year
Geology	Introduction/ Geomorphology, Stratigraphy, Structural, Sedimentology Palaeontology, Crystallography	1 st and 2 nd year
Pedology	Introduction, soil classification, soil fertility, soil ecology, soil physics	1 st and 2 nd year
Botany	Morphology, Anatomy, Physiology, Taxonomy, Mycology, Ecology, Reproductive biology	1 st , 2 nd and 3 rd year
Zoology	Taxonomy (Vertebrates and Invertebrates), Physiology (mainly vertebrates), Ecology (mainly vertebrates), Animal behaviour (mainly vertebrates)	1 st , 2 nd and 3 rd year
Statistics	Sampling methods, Statistical Analysis, Probabilities	1 st year

1993 BSc (Hons) (Cum laude) Wildlife Management, University of Pretoria

Dissertation: 'N HOLISTIESE EKOLOGIESE BENADERING TOT DIE DRAKRAGBEPALING VAN 'N GEMENGDE WILD- EN BEESBOERDERY IN DIE UBOMBO DISTRIK, MET ENKELE BESTUURS AANBEVELINGS, 1993

1999 MSc (Cum laude) Wildlife Management, University of Pretoria

Thesis: PHYTOSOCIOLOGY OF THE MPUMALANGA HIGH ALTITUDE GRASSLANDS, 1999

COURSES/ WORKSHOPS ATTENDED

1. Red List And Threatened Species Assessment Training Workshop, Hosted by the Conservation Breeding Specialist Group Southern Africa & Endangered Wildlife Trust, December 2003
2. National State of the Environment Workshop, Hosted by DEAT and SRK, ESKOM Convention Centre – November 2004
3. Gauteng Red Data Flora Workshop, Hosted by SANBI and GDACE – November 2005
4. Gauteng Flora Minimum Requirement Workshop, Hosted by GDACE Nature Conservation – August 2007

EMPLOYMENT RECORD:

1986 – 1987

5 Signals Regiment, SADF

1998 – 1993 – Parttime

Council of Geoscience, Palaeontology Section

University of Pretoria, Botany Department

Academy of Marksmanship, Range Officer

U Huisoppasser, Own enterprise

1994 – 1995

University of Pretoria, Botany Department, Assistant researcher

1995 – present

EkolInfo cc Environmental and Wildlife Management Consultancy, Founding member and consultant

Overall EkolInfo CC's principal consultant completed or administrated more than 58 vegetation studies as part of Environmental Impact Assessments within all of South Africa's nine provinces and adjacent countries such as Botswana and Mozambique with a focus on either terrestrial vegetation and/ or wetlands. Some projects were on provincial level such as the Mpumalanga and Gauteng Degradation Projects coordinated by the Institute for Soil, Climate and Water and sponsored by National Department of Agriculture. The majority of projects were on local scale from 5 ha to 50 000 ha or more for local developers and corporate institutions (SASOL, Anglo Coal, BHP Billington, Ingwe Coal, Deneys Rietz Attorneys, ESKOM) facilitated independently or as a subcontractor/ specialist for the following institutions: Oryx Environmental CC, African EPA, Arcuss Gibb, Digby Wells and Associates, Nature and Business Alliance and Eyethu Engineers, Strategic Environmental Focus.

COMMUNITY SERVICE

1. Substitute lecture – 2nd & 3rd year Botany Practical (Vegetation Survey Methods), University of Pretoria -1994 & 1995
2. Guest lecture – Wetland Vegetation Communities (2nd year students), Department of Landscape Architecture, University of Pretoria – 1996 & 1997
3. Guest lecture – Principles of Ecology (1st year students), Department of Landscape Architecture, University of Pretoria – 2002
4. Guest lecture – Principles of vegetation survey and mapping for EIA's (3rd year students), Department of Landscape Architecture, University of Pretoria – 2003
5. Referee – ILASA Merits Awards (Environmental Planning), Institute for Landscape Architects of South Africa - 2003

LANGUAGES:

Language	Capability
English & Afrikaans	Speak, Read, Write - sufficient
Sepedi (Northern Sotho)	Speak, Read, Write – insufficient

9 APPENDIX B – 2014 REPORT

Please refer to attached document

10 APPENDIX C – WETNESS INDEX OVERVIEW

A **wetness index** in GIS is a spatial metric used to predict the distribution and persistence of surface or subsurface water in a landscape based on topography. It is particularly useful in hydrological modeling, soil moisture estimation, and ecological studies. Wetness indexes help identify areas prone to water accumulation, making them important for understanding flood risks, vegetation patterns, and habitat suitability.

Purpose of a Wetness Index

The wetness index reflects:

1. **Water Accumulation:** Predicts zones where water is likely to collect due to topography.
2. **Soil Saturation:** Indicates areas with higher potential for soil saturation.
3. **Hydrological Connectivity:** Helps in modeling runoff and drainage patterns.
4. **Environmental Applications:** Supports agricultural planning, wetland identification, and habitat conservation.
- 5.

Topographic Wetness Index (TWI)

The **Topographic Wetness Index (TWI)**, or **Topowet**, is a widely used index calculated as:

$$TWI = \ln(\alpha / \tan\beta)$$

- α : **Upslope contributing area per unit width (m²/m)** – the area draining into a point, reflecting water input.
- $\tan\beta$: **Slope angle (radians)** – representing water flow potential (steeper slopes promote faster drainage).

Key Features:

- Highlights areas where water accumulates based on slope and upslope area.
- Commonly used for hydrological and soil moisture studies.
- Assumes uniform soil properties and water flow.

SAGA Wetness Index (SWI)

The **SAGA Wetness Index (SWI)**, developed in the SAGA GIS software, is a modified version of TWI that incorporates additional considerations for areas with minimal slope. It is calculated as:

$$SWI = \ln(\alpha / \tan\beta + 1)$$

Key Features:

- Addresses issues in areas with very low slope angles ($\tan\beta$ approaches 0), which can cause TWI to become unrealistically high.
- Adds a constant (+1) to the slope term, stabilizing the index in flat areas.
- Provides more realistic wetness predictions in low-relief landscapes and floodplains.

Differences Between TWI and SWI

Aspect	TWI (Topowet)	SWI (SAGA Wetness Index)
Slope Adjustment	No correction for flat areas; sensitive to small $\tan\beta$.	Adds 1 to $\tan\beta$, stabilizing calculations in flat areas.
Application Focus	Better for steep and moderate slopes.	More effective for flat or gently sloping terrain.
Calculation Simplicity	Straightforward logarithmic function.	Slightly more complex, with added slope term.
Usability in GIS	Used in various GIS platforms.	Primarily available in SAGA GIS but adaptable.

When to Use Each

- Use **TWI** for areas with moderate to steep slopes where slope and water accumulation dominate hydrology.
- Use **SWI** in low-relief or floodplain environments where small slopes can exaggerate wetness predictions.

Both indexes are valuable tools, and the choice depends on the topography and the hydrological characteristics of the study area.

11 APPENDIX D – STEPPING STONE CORRIDOR REQUIREMENTS – GAUTENG PROVINCE

Stepping Stone Corridors for Connectivity in Gauteng's Savanna and Grassland Biomes

1. Introduction

Stepping stone corridors are essential in urban and peri-urban landscapes for maintaining biodiversity and ecological connectivity. In Gauteng's Savanna and Grassland Biomes, habitat fragmentation caused by urban expansion, infrastructure development, and agricultural conversion threatens many species.

Stepping stones serve as refuges, dispersal nodes, and movement pathways, facilitating gene flow and ecological resilience.

2. Types of Stepping Stone Corridors

(A) Natural Grassland & Wetland Patches

These include remnant grasslands (e.g., Egoli Granite Grassland) and seasonal wetlands. They provide critical habitats for pollinators, birds, and small mammals.

Flora Supported: Wild iris (*Dietes iridioides*), Red hot poker (*Kniphofia* species), Brunsvigia (*Brunsvigia radulosa*).

Fauna Supported: Bees (*Apis mellifera scutellata*), African pipit (*Anthus cinnamomeus*), Cape clawless otter (*Aonyx capensis*).

(B) Woodland & Bushveld Clusters

Scattered woodland pockets provide nesting and thermal refuges for birds and small mammals. They are often found in green belts, golf courses, and urban reserves.

Flora Supported: Wild seringa (*Burkea africana*), Marula (*Sclerocarya birrea*), Buffalo thorn (*Ziziphus mucronata*).

Fauna Supported: Grey go-away bird (*Corythaixoides concolor*), Scrub hare (*Lepus saxatilis*), Small-spotted genet (*Genetta genetta*).

(C) River & Riparian Corridors (Blue-Green Networks)

Rivers and their floodplains form natural corridors. Stepping stones along these areas include buffer zones and oxbow lakes.

Flora Supported: River bushwillow (*Combretum erythrophyllum*), Fever tree (*Vachellia xanthophloea*).

Fauna Supported: African fish eagle (*Haliaeetus vocifer*), Water mongoose (*Atilax paludinosus*).

(D) Agricultural & Grassland Fallow Fields

Abandoned fields act as temporary stepping stones, supporting grassland-dependent species.

Flora Supported: Guinea grass (*Panicum maximum*), Wild sorghum (*Sorghum bicolor*).

Fauna Supported: Secretarybird (*Sagittarius serpentarius*), Yellow mongoose (*Cynictis penicillata*).

(E) Urban Green Spaces & Roadside Vegetation Strips

Parks, gardens, and road verges provide connectivity for pollinators and urban-adapted species.

Flora Supported: Wild olive (*Olea europaea subsp. africana*), Wild peach (*Kiggelaria africana*).

Fauna Supported: Carpenter bees (*Xylocopa* spp.), Cape robin-chat (*Cossypha caffra*).

(F) Rocky Outcrops & Ridges (Insular Stepping Stones)

These elevated features act as critical refugia, supporting species that require rocky habitats for shelter and thermoregulation.

Flora Supported: Rock aloes (*Aloe marlothii*), Highveld cabbage trees (*Cussonia paniculata*).

Fauna Supported: Rock agama (*Agama atra*), Black eagle (*Aquila verreauxii*), Klipspringer (*Oreotragus oreotragus*).

3. Connectivity Strategies

- Maintain stepping stone patches of at least 5–10 ha, spaced 1–2 km apart.
- Use indigenous vegetation buffers to enhance habitat suitability.
- Promote underpasses and eco-bridges over roads where fragmentation occurs.
- Manage invasive species to maintain biodiversity.

4. Conservation and Management Considerations

- Protected Ridges & Outcrops: Ensure conservation of key ridges (e.g., Magaliesberg, Suikerbosrand).
- Fire & Vegetation Management: Implement controlled burning regimes where necessary.
- Urban Planning Alignment: Integrate stepping stones with municipal Spatial Development Frameworks (SDFs).



DRAFT BAR Report in support of the Amendment Application

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1/2022)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This template is current as of April 2022. It is the responsibility of the EAP to ascertain whether subsequent versions of the template have been published or produced by the competent authority.
3. A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.
4. **A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority (uploaded to the EIA online system) empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
- 5.
6. **A copy (PDF) of the final report and attachments must be uploaded to the EIA online system. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
7. **Draft and final reports submitted in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) must be emailed to environmentsue@gauteng.gov.za.**
8. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
9. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
10. An incomplete report may lead to an application for environmental authorisation or Waste Management License being refused.
11. Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorization or Waste Management License being refused.
12. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation or Waste Management License being refused.
13. The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 10 days of receipt of the application.
14. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
15. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Ground floor, Umnotho House, 56 Eloff Street, Johannesburg

Administrative Unit telephone number: (011) 240 3051/3052
Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:

File Reference Number:

GAUT 006/26-27/E0010

Application Number:

Date Received:

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

Not Applicable

Is a closure plan applicable for this application and has it been included in this report?

No

if not, state reasons for not including the closure plan.

Development of new residential area – operation is ongoing

Has a draft report for this application been submitted to a competent authority and all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

Yes

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person?

Y
YES

If no, state reasons for not attaching the list.

Have State Departments including the competent authority commented?

No

If no, why?

Awaiting Responses

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

Project title (must be the same name as per application form):

Olympus Development – Midas Ave Ptn 1 of Holding 17 Olympus AH- increase from 9 freehold erven to 11

Select the appropriate box

The application is for an upgrade of an existing development

☐

The application is for a new development

☐

Other, specify

Amendment Application

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES	NO
-----	----

If yes, describe the legislation and the Competent Authority administering such legislation

Not Applicable

If yes, have you applied for the authorisation(s)?

If yes, have you received approval(s)? (attach in appropriate appendix)

YES	NO
YES	NO

NOTE: This application for an amendment to develop more erven i.e. eleven [11]

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations:

Title of legislation, policy or guideline:

Administering authority:

Promulgation Date:

National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	National & Provincial	27 November 1998
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended). Listing 1 Activity 27 Listing 3 Activity 4; 12; 15	Provincial - GDARD	7 April 2017

NOTE: The activity remains the same as per the original application. It is only the number of erven to be developed that is increased to eleven [11].

Description of compliance with the relevant legislation, policy or guideline:

Legislation, policy or guideline	Description of compliance
Listing 1 Activity 27	The clearance of an area of 1Ha or more, but less than 20 Ha of indigenous vegetation, except where such clearance of indigenous vegetation is required for [i] undertaking of a linear activity or [ii] maintenance purposes ** the footprint area of development is around 1.5 Ha in size where the current vegetation will be removed for residential erven and internal access roads
Listing 3 Activity 4	The development of a road wider than 4m with a reserve less than 13.5 metres [Gauteng] criteria No. i – xii ** internal roads to the different erven
Listing 3 Activity 12	The clearance of an area of 300 sqm or more of indigenous vegetation except where such clearance of indigenous vegetation is required maintenance purposes [Gauteng criteria] ** around 1.5 Ha of clearance for new residential erven and access roads
Listing 3 Activity 15	The transformation of land bigger than 1000 sqm in size to residential use, where such land was zoned open space, conservation or had an equivalent zoning on or after 02 August 2010 [Gauteng ALL AREAS] ** transformation of around 1.5Ha of land to residential erven with services and access roads

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Please describe the process followed to reach (decide on) the list of alternatives below

The development area is relatively small and as such allows the development of eleven [11] erven only. There is no alternative area for development and the developer does not want to open a sectional title or high density developments

Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other(provide details of "other")	Description
1	Proposal	11 erven for single title sale with a "green belt" area as part of conservation of indigenous vegetation.
2	Alternative 1	Sectional title development that would have a higher density development on the land but not be in line with the developments around in the area.
3	Alternative 2	
	Etc.	

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

The owner / developer does not want to do high density / townhouse developments, rather only single title developments. By reducing the overall size of each of the original erven a new total of eleven [11] erven can be developed on the same land. For that reason no formal alternative has been provided.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

Proposed activity (**Total environmental (landscaping, parking, etc.) and the building footprint**)

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

or, for linear activities:

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Size of the activity:

13 837 m²/1.3837Ha

n/a

n/a

Ha/ m²

Length of the activity:

Size of the site/servitude:

Ha/m²

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Direct access via Midas Avenue which is a paved road belonging to Tshwane Municipality

Include the position of the access road on the site plan (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Direct access via Midas Avenue which is a paved road belonging to Tshwane Municipality

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Not Applicable

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated

Number of times

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
 - A4 size for activities with development footprint of 10sqm to 5 hectares;
 - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
 - A2 size for activities with development footprint of >20 hectares to 50 hectares);
 - A1 size for activities with development footprint of >50 hectares);
- The following should serve as a guide for scale issues on the layout plan:
 - A0 = 1: 500
 - A1 = 1: 1000
 - A2 = 1: 2000
 - A3 = 1: 4000
 - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;

- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix. It should be supplemented with additional photographs of relevant features on the site, where applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity to be attached in the appropriate Appendix.

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route times

Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives times (complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route (complete only when appropriate for above)

Section B - Location/route Alternative No. (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:
(Including Physical Address and Farm name, portion etc.)

Ptn 1 of Holding 17 Olympus Agricultural Holdings
T0JR 019 00 000 00 17 00001

2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Alternative:

Latitude (S):

28 48 27.71S

Longitude (E):

28 20 17.35E₀

In the case of linear activities:

Alternative:

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Latitude (S):

Longitude (E):

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached

The 21 digit Surveyor General code of each cadastral land parcel

PROPOSAL	T	0	J	R	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0	1
ALT. 1	T	0	J	R	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0	1
ALT. 2																					
etc.																					

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
------	-------------	-------------	-------------	--------------	-------------	------------------

4. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	Undulating plain/low hills	River front
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5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

a) Is the site located on any of the following?

- Shallow water table (less than 1.5m deep)
- Dolomite, sinkhole or doline areas
- Seasonally wet soils (often close to water bodies)
- Unstable rocky slopes or steep slopes with loose soil
- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s)

YES	NO
-----	----

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):

c) are any caves located within a 300m radius of the site(s)

YES	NO
-----	----

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):

d) are any sinkholes located within a 300m radius of the site(s)

YES	NO
-----	----

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)?

YES	NO
-----	----

Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % = 5	Natural veld with scattered aliens % =	Natural veld with heavy alien infestation % = 95	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % =	Building or other structure % =	Bare soil % =

REFER Specialist Report / W de Frey - EcoInfo

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site

YES	NO
-----	----

If YES, specify and explain:

Vulnerable plant **Ceropegia decidua** [Source: GDARD Directorate Nature Conservation] They have many common names including lantern flower, parasol flower, parachute flower, bushman's pipe, string of hearts, snake creeper, wine-glass vine, rosary vine, and necklace vine. For this reason a conservation area has been set aside where no development will take place. [Refer to the GREEN portion on the site plan]

Findings of the Specialist:

However based on a site visit completed on the 13th of June 2014, it was noticed that eastern section below the very steep slopes of the ridge had been subjected to extensive human influence (Photo plate 1 to 4, Figure 4). Most of the area is covered with Kikuyu (*Pennisetum clandestinum*), while alien invasive species such as *Lantana camara*², *Melia azedarach*, *Acacia mearnsii* and *Solanum mauritianum* being abundant. The presences of the alien invasive species present a threat to the future presence and survival of this population

of *Ceropegia decidua*, as highlighted in the overview of the species by the South African National Biodiversity Institute³. However the control of these alien invasive species requires funds, which if development is allowed on the transformed area (eastern section), the development should take responsibility for the control and management of the remaining critical habitat of *Ceropegia decidua* towards the west (Figure 5). If this approach will be followed it would result in the conservation of 29% of the property (Table 3), which is almost three times the international target for conservation and 5% more than the national target

for the least threatened Andesite Mountain Bushveld regional vegetation unit in which the study area occurs. Ideally the developer and the adjacent land users should form a conservation committee for the remaining habitat of the local population of vulnerable *Ceropegia decidua* species, as the study area contains only a small portion of the remaining *Ceropegia decidua* habitat which has not been transformed due to its inaccessibility (steep to very steep slopes, construction cost due to shallow soils and hard rock). The *Ceropegia decidua* joint management area (Figure 6) will present 48% of the known local extent of the

***Ceropegia decidua* population in the area, and will compensate for the loss of 65% of the known local extent due to transformation (human influence) and unsuitable habitat (flat areas, no rocks)** W de Frey / EcoInfo**

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.

YES	NO
-----	----



Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an “A” and with an “N” respectively.

Have specialist reports been attached
If yes indicate the type of reports below

YES

NO

EcolInfo – Site Verification / Fauna & Flora
JL van Rooy - Geotechnical Site Investigation
Corli Havenga Transportation Engineers - Traffic Impact Study

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

Affluent area with housing complexes; churches; shopping malls and retirement villages.
Most of the roads are tarred roads with municipal services installed and operational.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
- (i) exceeding 5 000 m2 in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?

If YES, explain:

YES	NO X
-----	-----------------------

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

Not Applicable

Will any building or structure older than 60 years be affected in any way?

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

If yes, please attached the comments from SAHRA in the appropriate Appendix – **N/A**

YES	NO
YES	NO

SECTION C: PUBLIC PARTICIPATION (SECTION 41)

1. The Environmental Assessment Practitioner must conduct public participation process in accordance with the requirement of the EIA Regulations, 2014.

2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

Was the draft report submitted to the local authority for comment?

YES ☒ NO ☐

If yes, has any comments been received from the local authority?

YES ☐ NO ☒

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

Awaiting comments

If "NO" briefly explain why no comments have been received or why the report was not submitted if that is the case.

Awaiting response from the authorities

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least **thirty (30) calendar days** before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES ☐ NO ☒

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

Site Notice up; BIDs displayed; Advertisement done – No comments received

If "NO" briefly explain why no comments have been received

Still awaiting responses from individuals

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation process is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was flawed.

The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued as required in terms of the regulations

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from interested and affected parties

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives

"insert No. of duplicates"

times

(complete only)

when appropriate)

Section D Alternative No.

"insert alternative number"

(complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	NO
-----	----

If yes, what estimated quantity will be produced per month? – per house being built

6m³

How will the construction solid waste be disposed of (describe)?

Where possible waste will be used for infill purposes for each house built. Excess will be taken to the formal landfill of the municipality for deposition

Where will the construction solid waste be disposed of (describe)?

Tshwane landfill site for deposition

Will the activity produce solid waste during its operational phase?

YES x	NO
-------	----

If yes, what estimated quantity will be produced per month? **2x Wheelie bins per household**

4 m³

How will the solid waste be disposed of (describe)?

Taken away by the municipal waste collection every week

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

YES x	NO
-------	----

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

Tshwane landfill – as part of the service delivery to residential stands in Tshwane

Note: If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

YES	NO x
-----	------

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO x
-----	------

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

Recycling of glass to glass bank at the shopping mall
Cardboard and paper separation for collection by recyclers on a weekly basis
Plastic to the waste collectors on a weekly basis

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES	NO
-----	----

If yes, what estimated quantity will be produced per month?

m³

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? **NOT APPLICABLE**

YES	NO
-----	----

Will the activity produce any effluent that will be treated and/or disposed of on site?

Yes	NO
-----	----

If yes, what estimated quantity will be produced per month?

m³

If yes describe the nature of the effluent and how it will be disposed.

Not applicable

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	NO
-----	----

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Every household will be afforded the right to install rainwater harvesting tanks on site

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

YES	NO
-----	----

If yes, what estimated quantity will be produced per month? **10 households / per household**

50m ³	
------------------	--

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? **Part of the municipal infrastructure being installed**

YES	NO
-----	----

Will the activity produce any effluent that will be treated and/or disposed of on site?

YES	NO
-----	----

If yes describe how it will be treated and disposed off.

Not applicable

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
-----	----

If yes, is it controlled by any legislation of any sphere of government? **NOT APPLICABLE**

YES	NO
-----	----

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

A standard residential development – NO INDUSTRY of any kind.

2. WATER USE

Indicate the source(s) of water that will be used for the activity

municipal	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
-----------	---------------------------	-------------	----------------------------	-------	---------------------------------

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

N/A liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs? **N/A**

YES	NO
-----	----

If yes, list the permits required

If yes, have you applied for the water use permit(s)? **NOT APPLICABLE**

YES	NO
-----	----

If yes, have you received approval(s)? (attached in appropriate appendix) **NOT APPLICABLE**

YES	NO
-----	----

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Municipal

If power supply is not available, where will power be sourced from?

N/A

4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

- Encourage installation of solar panels
- Encourage installation of solar geyser units
- Encourage use of gas and energy saving lights

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

- Encourage installation of solar panels
- Encourage installation of solar geyser units
- Encourage use of gas and energy saving lights

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i)).

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

Awaiting inputs from I&APs and Authorities

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)

(A full response must be provided in the Comments and Response Report that must be attached to this report):

Awaiting inputs

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

The environmental impact assessment forms the basis Environmental Impact Assessment Report [EIAR] as well as direct the structure of the Environmental Management Programme [EMPr] which will ensure that effective management measures are tabled. The process is aimed at either avoiding, successfully manage or mitigate identified impacts that it does not lead to environmental degradation or contamination.

The significance of identified impacts are determined by using an accepted methodology from the Department of Environmental Affairs & Tourism Guideline document on EIA Regulations [April 1998]. As with all impact methodologies, the impact is defined in a semi quantitative way and is assessed according to methodology prescribed in the table below.

Table 1: Scale utilised for the evaluation of the Environmental Ratings

Evaluation Component	Rating	Scale	Description / criteria
MAGNITUDE of negative impact (at the indicated spatial scale)	10	Very high	Bio-physical and/or social functions and/or processes might be <i>severely</i> altered.
	8	High	Bio-physical and/or social functions and/or processes might be <i>considerably</i> altered.
	6	Medium	Bio-physical and/or social functions and/or processes might be <i>notably</i> altered.
	4	Low	Bio-physical and/or social functions and/or processes might be <i>slightly</i> altered.
	2	Very low	Bio-physical and/or social functions and/or processes might be <i>negligibly</i> altered.
	0	Zero	Bio-physical and/or social functions and/or processes will remain <i>unaltered</i> .
MAGNITUDE of POSITIVE IMPACT (at the indicated spatial scale)	10	Very high	Positive: Bio-physical and/or social functions and/or processes might be <i>substantially</i> enhanced.
	8	High	Positive: Bio-physical and/or social functions and/or processes might be <i>considerably</i> enhanced.
	6	Medium	Positive: Bio-physical and/or social functions and/or processes might be <i>notably</i> enhanced.
	4	Low	Positive: Bio-physical and/or social functions and/or processes might be <i>slightly</i> enhanced.
	2	Very low	Positive: Bio-physical and/or social functions and/or processes might be <i>negligibly</i> enhanced.
	0	Zero	Positive: Bio-physical and/or social functions and/or processes will remain <i>unaltered</i> .
DURATION	5	Permanent	Impact in perpetuity. –
	4	Long term	Impact ceases after operational phase/life of the activity > 60 years.
	3	Medium term	Impact might occur during the operational phase/life of the activity – 60 years.
	2	Short term	Impact might occur during the construction phase - < 3 years.
	1	Immediate	Instant impact.
EXTENT (or spatial scale/influence of impact)	5	International	Beyond the National boundaries.
	4	National	Beyond provincial boundaries, but within National boundaries.
	3	Regional	Beyond 5 km of the proposed area and within the provincial boundaries.
	2	Local	Within a 5 km radius of the proposed area.

	1	Site-specific	On site or within 100 meters of the site boundaries.
	0	None	Zero extent.
IRREPLACEABLE loss of resources	5	Definite	Definite loss of irreplaceable resources.
	4	High potential	High potential for loss of irreplaceable resources.
	3	Moderate potential	Moderate potential for loss of irreplaceable resources.
	2	Low potential	Low potential for loss of irreplaceable resources.
	1	Very low potential	Very low potential for loss of irreplaceable resources.
	0	None	Zero potential.
REVERSIBILITY of impact	5	Irreversible	Impact cannot be reversed.
	4	Low irreversibility	Low potential that impact might be reversed.
	3	Moderate reversibility	Moderate potential that impact might be reversed.
	2	High reversibility	High potential that impact might be reversed.
	1	Reversible	Impact will be reversible.
	0	No impact	No impact.
PROBABILITY (of occurrence)	5	Definite	>95% chance of the potential impact occurring.
	4	High probability	75% - 95% chance of the potential impact occurring.
	3	Medium probability	25% - 75% chance of the potential impact occurring.
	2	Low probability	5% - 25% chance of the potential impact occurring.
	1	Improbable	<5% chance of the potential impact occurring.
	0	No probability	Zero probability.
Evaluation Component	Rating scale and description / criteria		
CUMULATIVE impacts	High: The activity is one of several similar past, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and/or socio-economic resources of local, regional or national concern. Medium: The activity is one of a few similar past, present or future activities in the same geographical area, and might have a combined impact of moderate significance on the natural, cultural, and/or socio-economic resources of local, regional or national concern. Low: The activity is localised and might have a negligible cumulative impact. None: No cumulative impact on the environment.		

Once the Environmental Risk Ratings have been evaluated for each potential environmental impact, the Significance Score of each potential environmental impact is calculated by using the following formula:

SS (Significance Score) = (magnitude + duration + extent + irreplaceable + reversibility) x probability.

The maximum Significance Score value is 150.

The Significance Score is then used to rate the Environmental Significance of each potential environmental impact as per Table 2 below. The Environmental Significance rating process is completed for all identified potential environmental impacts both before and after implementation of the recommended mitigation measures.

Table 2: Significance Score utilised for the evaluation of the Environmental Risks Rating

Significance Score	Environmental Significance	Description / criteria
125 – 150	Very high (VH)	An impact of very high significance will mean that the project cannot proceed, and that impacts are irreversible, regardless of available mitigation options.
100 – 124	High (H)	An impact of high significance which could influence a decision about whether or not to proceed with the proposed project, regardless of available mitigation options.
75 – 99	Medium-high (MH)	If left unmanaged, an impact of medium-high significance could influence a decision about whether or not to proceed with a proposed project. Mitigation options should be relooked at.

40 – 74	Medium (M)	If left unmanaged, an impact of moderate significance could influence a decision about whether or not to proceed with a proposed project.
<40	Low (L)	An impact of low is likely to contribute to positive decisions about whether or not to proceed with the project. It will have little real effect and is unlikely to have an influence on project design or alternative motivation.
+	Positive impact (+)	A positive impact is likely to result in a positive consequence/effect and is likely to contribute to positive decisions about whether or not to proceed with the project.

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Construction Phase:				
Noise from deliveries	NEG – Medium	Will only be for the duration of building. Only during normal working hours	NEG – Low	Low
Noise from power tools	NEG – Medium	Only during building hours. No after hours	NEG – Low	Low
Building staff in the area	NEG – Medium	Only during normal working hours. No on-site accommodation	NEG – Low	Very Low
Dust from excavations	NEG – Medium	Only for trenches and services installation	NEG – Low	Low
Trenches are dangerous	NEG – High	Trenches to be clearly marked. To be filled in as soon as possible. Signage	NEG – Low	Low – Med
Interruption to water	NEG – Low	Only when mains are being connected. Municipality will notify	NEG – Low	Low
Interruption to power	NEG - Low	Only when mains are being connected. Municipality will notify	NEG - Low	Low
Operation Phase:				
Standard residential noises	NEG – Low	People noises; children; lawn mowers	NEG – Very Low	Low
Traffic at all times	NEG – Low	Movement of vehicles arriving and departing	NEG – Very Low	Low
Movement of people	NEG – Low	Standard residential movement	NEG – Very Low	Low
Security	POS – Low	Access control; security system and security lights	POS – Med	Low

Street lights	POS – Low	Lights at night; visibility	POS – Med	Very Low
No vacant land	POS - Med	No vagrants; no informal settlements	POS - High	Very Low

Alternative 1

(REPEAT THIS TABLE FOR EACH ALTERNATIVE)

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
The only alternative is for high density residential developments and as such any impacts will be more severe and the possibility of impacting the “green belt” area will be increased. This alternative should not be considered in the interest of protecting vulnerable plant species in the “green belt” designated area				

No Go

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
No proper protection of the “green belt” designated area	NEG – Medium	We have a need for protection of vulnerable species on site	NEG – Medium	High
Possibility of vagrants living on the land	NEG – High	Open land is an open invitation to informal settlements	NEG – High	High
Possibility of informal settlements coming onto the land	NEG - High	Bushes are ideal place for vagrants to live and settle. Destabilizes the area and safety risk to adjoining properties	NEG - High	High

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

None

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

There are none

2. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

DECOMMISSIONING AND CLOSURE IS NOT CONTEMPLATED

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Potential impacts:	Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being

				implemented

Alternative 1

Potential impacts:	Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

Alternative 2

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

The following Specialist Reports were prepared for the original application:

- Site Verification : Fauna & Floras Report
- Geotechnical Report
- Traffic Impact Report

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

Not Applicable

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

During Construction:

Delivery of building materials and the movement of large delivery vehicles will create excess movement and noise in the area:

Movement of workers and part-time labour in the area;

Excavations and building noise during the installation of services and municipal infrastructure;

Building machinery will cause noise pollution

During Operation

Normal flow of residential traffic into and from the area;

Municipal waste removal weekly;

Normal residential noises i.e. children; vehicles; mowers; music etc

Developed areas no longer offer an opportunity for informal settlements to occur

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Proposal

The development of infrastructure to service free hold residential stands is always a positive aspect in terms of the development of an area. The setting aside of an area for the protection of vulnerable listed plants is in line with conservaton for future generations. The use of the available land for freehold development and not high density development is unique as the trend is to place as many housing unit on a portion of land as possible. This development will be a high end development that will enhance the overall status of the area.

Alternative 1

The developer does not want high density development They only wish to develop 10 stands with 10 houses on the 10 stands.

Alternative 2

N/A

No-go (compulsory)

If the NO-GO option was selected, then the area will stand to develop as an informal settlement area. The area is too small to handle a commercial development. The area also needs to have a portion of the land conserved as an area of protection of vulnerable plants and as such the limited development should be considered and not set aside and risk the protection of threatened species.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

Limited residential development [11 stands] with an area specifically set aside for the protection of a vulnerable species. This is the correct approach rather than a high-density development or merely leaving the area for vagrants to occupy.

For alternative:

High-density development should not be considered as the impact on the protected area may be compromised.

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

A small impact development [11 stands] with a conservation area included is a balanced approach where the protection of the environment is set foremost. The protection of the environment through the keeping of a "green belt area" as part of the overall low density development is the correct approach in terms of protection and sustainable development. [Refer: Specialist Report]

7. SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

The inclusion of a "green belt" protection area is in line with the principle of sustainable development while upholding conservation standards

8. RECOMMENDATION OF THE PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner as bound by professional ethical standards and the code of conduct of EAPASA).

YES	NO
X	

If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

There are none

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

The protected "green belt area" must be clearly demarcated and a formal protection body established that will oversee and ensure continued protection and maintenance of the actual area.

9. THE NEEDS AND DESIREBILITY OF THE PROPOSED DEVELOPMENT (as per notice 792 of 2012, or the updated version of this guideline)

Is development required? – yes, residential developments [11 erven] must continue in order to provide in the demand for serviced stands.
Will the development provide in a quest for serviced stands? – yes it would
Will the development provide in creating employment? – yes it would
Will the development provide ongoing employment opportunities? – yes as the new hme owners will employ their own workers and domestic staff
Will the development provide training for unskilled labour? – yes the building industry is always busy with training of new labour
Will the development provide new infrastructures? – yes it will
Will the development b developing unused land within the municipal boundaries? – yes it will and it wil be to the benefit of the municipality.

10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED
(CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)

The authorization must be for the maximum period as the end result will be residential developments that will stand for many years

11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) (must include post construction monitoring requirements and when these will be concluded.)

If the EAP answers "Yes" to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached

To be
provided

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive):

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s) – *(must include a scaled layout plan of the proposed activities overlain on the site sensitivities indicating areas to be avoided including buffers)*

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.