

Appendix H2 - Terrestrial Biodiversity Specialists
Report



F.E.N. Consulting

Applying science to the real world

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Name: Christel du Preez
Chris Hooton
Date: Friday, 29 October 2021
Ref: FEN 20-2150

SLR Consulting

68 on Main, Old Main Road
Kloof, Durban
3640
Tel: [REDACTED]
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Attention: Ms. A. Mothilal

RE: TERRESTRIAL ECOLOGICAL COMPLIANCE STATEMENT AS PART OF THE S24G RECTIFICATION PROCESS FOR THE MONUMENT MOTORS SHELL RETAIL SERVICE STATION, PAARL, WESTERN CAPE.

1. INTRODUCTION AND BACKGROUND SETTING

Freshwater Ecological Network (FEN) Consulting (Pty) Ltd was appointed by SLR Consulting to prepare a Terrestrial Biodiversity Verification and compliance statement as per the Department of Forestry, Fisheries and Environment (DFFE) Screening Tool as part of the Section 24G rectification process for the existing Monument Motors Shell retail service station, located in Paarl, Western Cape Province (hereafter referred to as the 'study area') (Figure A1 in **Appendix A**). The Monument Motors Shell retail service station is located on Erf 26078 (total extent of 0.37 ha) within an urbanised setting, with Main Road located along the western boundary. Initial site operations commenced in 2002 without obtaining the relevant environmental authorisations. As such, a Section 24G rectification process is required for the unlawful commencement of listed activities in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989) (ECA) and the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).

This memorandum focuses on the possible presence of the Peringuey's Meadow Katydid (*Conocephalus peringueyi* (VU)) and Yellow-winged Agile Grasshopper (*Aneuryphymus montanus* (VU)) within the study area as listed in the DFFE Screening Tool (2020) (**Appendix B**). The memorandum will also address the Very High sensitivity indicated for the Terrestrial Biodiversity theme and the Low Plant Species sensitivity theme.

This verification report will follow the requirements as stated in the procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of Sections 24(5)(A) and (H) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).

The outcome of this site sensitivity verification assessment will present the recorded site assessment results so as to:

- Confirm or dispute the current use of the land and the environmental sensitivity as identified by the screening tool (DFFE, 2020), such as new/upgrading of developments or infrastructure, the change in vegetation cover or status etc.; and
- Present a motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity.

2. OUTCOMES OF THE APPLICATION OF THE DFFE SCREENING TOOL

The protocol for the assessment of terrestrial (fauna and flora) biodiversity is prepared in support of the national web based environmental screening tool (DFFE, 2020) which provides the criteria and requirements for the assessment and reporting of impacts on terrestrial biodiversity for activities requiring Environmental Authorisation (EA). For terrestrial biodiversity, the requirements are for landscapes and/or sites which support various levels of threatened or unique biodiversity. The relevant faunal and floral biodiversity data stated within the national web based environmental screening tool (DFFE, 2020) has been provided by the South African National Biodiversity Institute (SANBI).

According to the screening tool applied to the study area, the area is of “Very High” terrestrial biodiversity combined sensitivity (Table 1 – Appendix B). The study area is considered “Medium” for combined Animal Species Theme Sensitivity as the study area is located within the known distribution areas of the following species: the Peringuey’s Meadow Katydid (*Conocephalus peringueyi* (VU)) and Yellow-winged Agile Grasshopper (*Aneuryphymus montanus* (VU)). For the combined Plant Species sensitivity, the site is indicated as “Low” and no sensitive or threatened plant species have been indicated as occurring within the site. For this report, focus on the possible persistence of the above mentioned species within the study area will be assessed. The overall terrestrial sensitivity as indicated by the screening tool will also be addressed.

The applicant, intending to undertake an activity within the study area identified as being of “very high sensitivity” for terrestrial biodiversity on the national web based environmental screening tool must submit a Terrestrial Biodiversity Compliance Statement to the competent authority unless the initial site survey or findings by the specialist determine that a high risk to the regional terrestrial biodiversity in the area is likely, in which case a biodiversity assessment must be undertaken.

3. DEFINITIONS AND LEGISLATIVE REQUIREMENTS

The legislation considered during this investigation included the following:

- The Constitution of the Republic of South Africa, 1996¹
- The National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA);
- The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA);
- Government Notice R598 Alien and Invasive Species Regulations as published in the Government Gazette 37885 dated 1 August 2014 as it relates to the National Environmental Management Biodiversity Act, 1998 (Act No.107 of 1998);
- The Conservation of Agricultural Resource Act, 1983 (Act No. 43 of 1983) (CARA); and
- City of Cape Town. 2017 City of Cape Town Biodiversity Network [Vector] 2017. Available from the Biodiversity GIS [website](#).

¹ Since 1996, the Constitution has been amended by seventeen amendments acts. The Constitution is formally entitled the ‘Constitution of the Republic of South Africa, 1996’. It was previously also numbered as if it were an Act of Parliament – Act No. 108 of 1996 – but since the passage of the Citation of Constitutional Laws Act, neither it nor the acts amending it are allocated act numbers.

4. INVESTIGATION FINDINGS

A database review and desktop analyses was undertaken in terms of the study area whilst the surrounding landscape was also taken into consideration. The results of which are presented in Appendix B with the relevant maps. For ease of reference the results of the background assessment have been summarised in the points below:

- The National List of Threatened Ecosystems indicates that the study area is located in the Endangered Swartland Granite Renosterveld (FRg2) vegetation type; and
- The study area does not represent any areas of conservation importance (CBA/ESA or Other Natural Areas) by the Western Cape Biodiversity Spatial Plan (2017).

A field investigation to ground truth the desktop findings was undertaken on the 20th of October 2021. The broader area surrounding the study area was considered utilising digital satellite imagery prior to and after the field investigation. At the time of the survey, it was early summer, which in the Western Cape corresponds to reduced rainfall and a general reduction in faunal species activity.

The study area has been completely developed into a retail fuel service station, with tar surface covering most of the study area (Figure 1). The only vegetation noted in the study area comprised *Ficus macrocarpa* (Hills Weeping Fig) trees along the southern boundary, two *Quercus robur* (English Oak) trees, a single *Celtis Africana* (White Stinkwood) tree along the western boundary and *Tecoma Capensis* (Cape Honeysuckle) shrubs along the eastern boundary (Figure 2). The study area does not offer any habitat for faunal species due to the overall level of development and limited areas of vegetation within the study area (Figures 1, 2 and 3).

No evidence of mammals were identified, mammals were identified. Avifaunal species were limited to common species that have adapted to high density urbanisation including species in the family Columbidae (pigeons and doves), *Passer melanurus* (Cape Sparrow) and *Motacilla capensis* (Cape Wagtail). These species likely forage over the larger urban area, and we not observed within the study area. Signs of reptiles and amphibians were absent, attributable to the unsuitable/lack of habitat. Invertebrates observed during the site assessment were common, ubiquitous species associated with urban areas, notably species of the Order Lepidoptera (Butterflies and moths) as well as the Orders Hemiptera (Bugs) and Diptera (Flies).



Figure 1: Overview photographs of the study area.



Figure 2: The only vegetation noted in and around the study area were shrubs along the eastern boundary (left) and trees along the western (right) and southern boundaries.



Figure 3: Digital aerial photography showing the study area (red polygon) within the larger landscape which is absent of suitable corridors for faunal movement.

Species of Conservation Concern identified by the DFFE screening tool (2020)

The following paragraphs provide insight into the relevant faunal Species of Conservation Concern (SCC) as flagged by the DFFE screening tool (2020) and provides substantiated reasoning for whether these species may be associated with the study area or any nearby surroundings.

Peringuey's Meadow Katydid (*Conocephalus peringueyi* (VU)) is known from mountains in the Fynbos biome. Given the urbanised environment in which the study area is located, the developed state of the site and the lack of suitable vegetation (habitat) available to support this species, it is unlikely that this species will occur within, or in close proximity to the study area.

The **Yellow-winged Agile Grasshopper (*Aneuryphymus montanus* (VU))** is associated with fynbos vegetation, where it has been collected amongst partly burnt stands of evergreen Sclerophyll in rocky foothills. Considering the study area has been transformed, evidently lacks the suitable vegetation and is located within a bioregion comprising renosterveld vegetation, it is unlikely that either of these species

will occur within the study area. It is noted that the Paarl Mountain Local Nature Reserve is located approximately 1.3 km west of the study area, these species may potentially be present in the area. It must however be noted that according to the iNaturalist database, there are currently no records for this species at this site.

Due to the transformation and habitat degradation of the study area, the findings of the site visit do not align with the findings reported in the national web based screening tool (DFFE, 2020). The study area comprises no vegetation that can be considered characteristic of the vegetation or landscape in which the Peringuey's Meadow Katydid (*Conocephalus peringueyi* (VU)) and Yellow-winged Agile Grasshopper (*Aneuryphymus montanus* (VU)) would occur.

5. BUSINESS CASE, OPPORTUNITIES AND CONSTRAINTS APPLICABLE TO THE STUDY AREA.

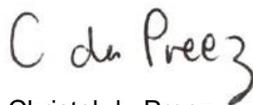
The study area occurs within an urban landscape, has been completely transformed from the reference vegetation state. The Paarl Mountain Local Nature Reserve, located approximately 1.3 km west of the study area, will offer potential habitat for the triggered species, however, as there is insufficient habitat in the study area and limited interconnected corridors, species are unlikely to migrate/move from the local nature reserve to the study area.

Floral and faunal habitat is limited to patches of trees and shrubs in the study area which does not mimic the features described for the reference vegetation type (Mucina and Rutherford, 2006). Very few, if any faunal species are anticipated to utilise the study area as a result of the aforementioned habitat transformation, notable for Species of Conservation Concern (SCC). Thus, the faunal and floral composition of the study area is not anticipated to be of significant conservation value from a terrestrial biodiversity perspective and as such the construction of the Monument Motors Shell retail service station would have been very low and unlikely to impact upon any terrestrial ecosystem services, functions or species.

Therefore, it is the opinion of the specialists that the construction of the Monument Motors Shell retail service station posed no direct impact to any terrestrial features, from a biodiversity resource management point of view. No unique (including floral SCC) or undisturbed habitat with the necessary characteristics required to support the Peringuey's Meadow Katydid (*Conocephalus peringueyi* (VU)) and Yellow-winged Agile Grasshopper (*Aneuryphymus montanus* (VU)) or any other faunal SCC were observed in the study area. Thus, FEN Consulting does not support the Medium Animal Species theme or Very High Terrestrial Sensitivity theme for the study area. The **overall sensitivity for the study area is deemed to be low**, congruent with the current level of habitat therein.

We trust that we have interpreted your requirements correctly. Please do not hesitate to contact us if there are any aspects of this memorandum that you would like to discuss.

Yours Faithfully,



Christel du Preez
Pr. Sci. Nat

Reviewed and signed off by C. Hooton and K. Marais (SACNASP REG No. 117137/17)
Declaration of independence and CV included in Appendix C and D respectively

REFERENCES

- City of Cape Town. 2017 City of Cape Town Biodiversity Network [Vector] 2017. Available from the Biodiversity GIS [website](#),
- IBA: Marnewick MD, Retief EF, Theron NT, Wright DR, Anderson TA. 2015. Important Bird and Biodiversity Areas of South Africa. Johannesburg: BirdLife South Africa. Online available: <http://bgis.sanbi.org/IBA/project.asp>
- Mucina, L & Rutherford, MC. 2012. The vegetation of South Africa, Lesotho and Swaziland. SANBI Strelitzia 19, Pretoria.
- NPAES: DEA and SANBI. 2009. National Protected Areas Expansion Strategy Resource Document. Online available: <http://bgis.sanbi.org/protectedareas/NPAESinfo.asp>
- SAPAD: Department of Environmental Affairs. 2020. South Africa Protected Areas Database (SAPAD_OR_2020_Q3). Online available: [http://egis.environment.gov.za]
- Threatened Ecosystems: National Environmental Management Biodiversity Act: National list of ecosystems that are threatened and in need of protection (G 34809, GoN 1002). 2011. Department of Environmental Affairs. Online available: <http://bgis.sanbi.org/ecosystems/project.asp>

APPENDIX A- LOCALITY MAP

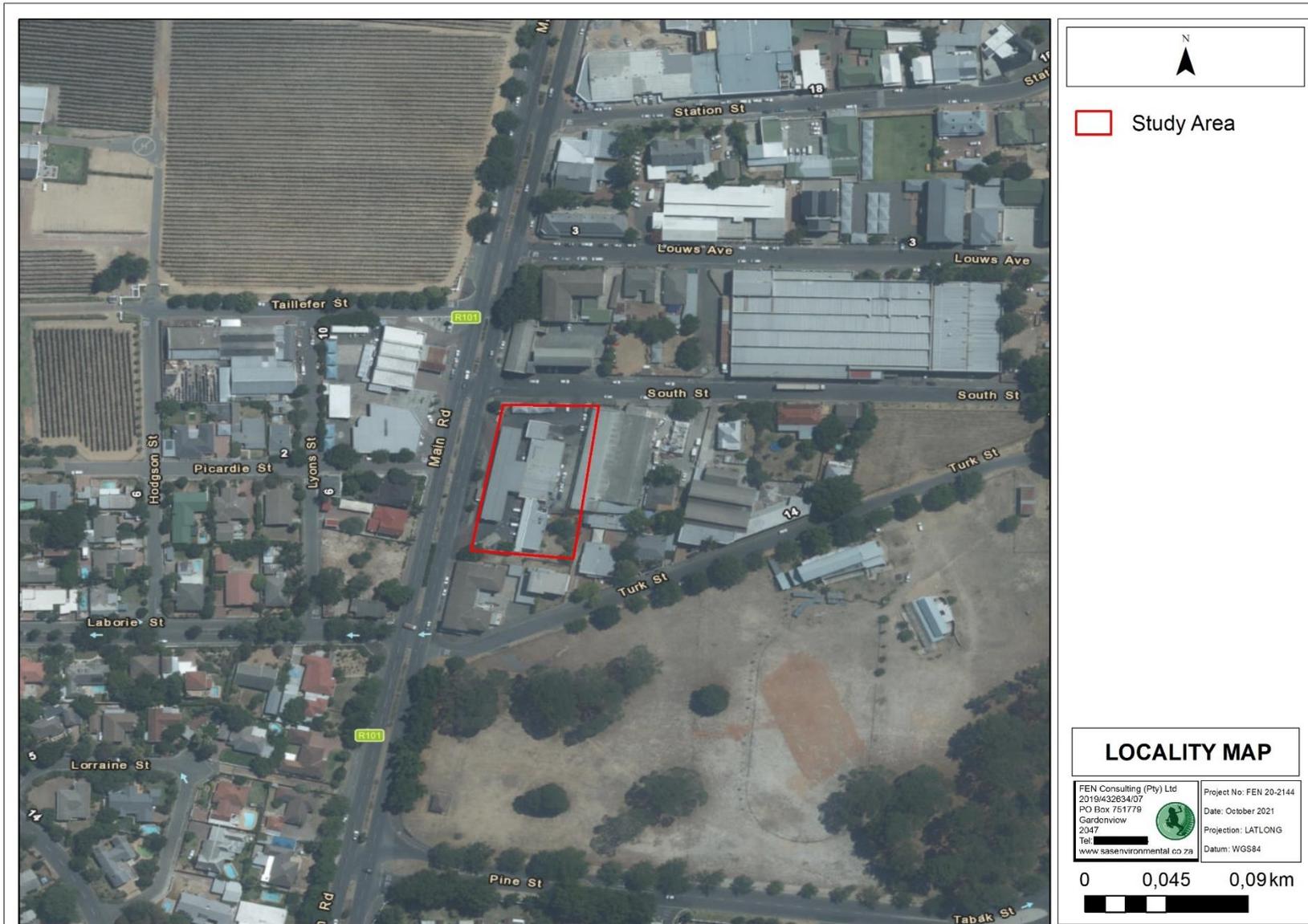


Figure A1: The locality of the study area in relation to its surroundings.

APPENDIX B- BACKGROUND INFORMATION

Table 1: Summary of the conservation characteristics for the study area with a focus on terrestrial database sets.

CONSERVATION DETAILS PERTAINING TO THE STUDY AREA (VARIOUS DATABASES)		DETAILS OF THE STUDY AREA IN TERMS OF MUCINA & RUTHERFORD (2006, 2018, 2012)				
<p>NATIONAL BIODIVERSITY ASSESSMENT (NBA): Ecosystem types are categorised as “not protected”, “poorly protected”, “moderately protected” and “well protected” based on the proportion of each ecosystem type that occurs within a protected area recognised in the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEMPAA), and compared with the biodiversity target for that ecosystem type. The ecosystem protection level status is assigned using the following criteria:</p> <ol style="list-style-type: none"> I. if an ecosystem type has more than 100% of its biodiversity target protected in a formal protected area either a or b, it is classified as well protected; II. when less than 100% of the biodiversity target is met in formal a or b protected areas it is classified it as moderately protected; III. if less than 50% of the biodiversity target is met, it is classified it as poorly protected; and IV. If less than 5% it is hardly protected. 		Biome	The study area is situated within the Fynbos Biome .			
		Bioregion	The study area is located within the West Coast Renosterveld Bioregion			
		Vegetation Type	The study area falls within the Swartland Granite Renosterveld (FRg2) .			
		Climate	MAP 360 – 790 mm, peaking from May to August. Mists common in winter. This is the wettest renosterveld unit. Frost incidence about 3 days per year.			
			MAP* (mm)	MAT* (°C)	MFD* (Days)	MAPE* (mm)
		520	16.3	3	2087	68
NBA (2018):	<p><u>NBA 2018 dataset:</u> The study area falls within the Swartland Granite Renosterveld which is considered Endangered ecosystem and is currently Not Protected.</p>	Altitude (m)	50 – 350 m			
1) Ecosystem Protection Level		Distribution	Western Cape Province			
2) Ecosystem Threat Status		Conservation	Critically Endangered . Almost 80% has been transformed due to agricultural developments and urban sprawl. Conservation target of 26%. Only very small portions (0.5%) enjoy statutory protection. Alien grasses are particularly pervasive. Erosion very low, low to moderate.			
National Threatened Ecosystems (2011)	<p>The study area currently falls within an ecosystem that is critically endangered. For Environmental Impact Assessments (EIAs), the 2011 National list of Threatened Ecosystems remains the trigger for a Basic Assessment in terms of Listing Notice 3 of the EIA Regulations published under the National Environmental Management Act, 1998 (Act No 107 of 1998) (NEMA).</p>	Geology & Soils	Coarse sandy to loamy soils of a variety of forms ranging from Glenrosa and Mispah, to prisma-cutanic and pedocutanic diagnostic horizons to red-yellow apedal soils – all derived from Cape Granite. The soils can contain a considerable volume of moisture in winter and spring. Land types mainly Fa, Ca, Db and Ac.			
		Vegetation & landscape features	Moderate foot slopes and undulating plains supporting a mosaic of grassland/herblands and medium dense, microphyllous shrublands dominated by renosterbos. Groups of small trees and tall shrubs are associated with heuweltjies and rock outcrops.			
IBA (2015) (Figure A2)	<p>According to the IBA Dataset, the Boland Mountains IBA is located approximately 4.4 km east of the study area. This IBA has the following trigger species: Globally threatened species includes the Martial Eagle (<i>Polemaetus bellicosus</i>), Black Harrier (<i>Circus maurus</i>), Blue Crane (<i>Anthropoides paradiseus</i>), Denham's Bustard (<i>Neotis denhami</i>), Southern Black Korhaan (<i>Afrotis afra</i>) and Hottentot Buttonquail (<i>Turnix hottentottus</i>). Regionally threatened species are Verreaux's Eagle (<i>Aquila verreauxii</i>), African Marsh Harrier (<i>Circus ranivorus</i>), Lanner Falcon (<i>Falco biarmicus</i>), Cape Rockjumper (<i>Chaetops frenatus</i>) and Striped Flufftail (<i>Sarothrura affinis</i>).</p> <p>Restricted-range and biome-restricted species that are locally common in the fynbos elements of the IBA include Cape Spurfowl (<i>Pternistis capensis</i>), Cape Bulbul (<i>Pycnonotus capensis</i>), Cape Sugarbird (<i>Promerops cafer</i>), Orange-breasted Sunbird (<i>Anthobaphes violacea</i>), Cape Rockjumper (<i>Chaetops frenatus</i>), Cape Siskin (<i>Crithagra totta</i>) and Victorin's Warbler (<i>Cryptillas victorine</i>), while uncommon species include Southern Black Korhaan, Hottentot Buttonquail, Striped Flufftail and Protea Seed-eater (<i>Crithagra leucoptera</i>). Restricted-range and biome-restricted species that are locally common in the forest elements include Forest Buzzard (<i>Buteo trizonatus</i>) and Sweet Waxbill (<i>Coccyzygia melanotis</i>). South African Shelduck (<i>Tadorna cana</i>) (maximum 1 400 individuals) meets the 1% or more congregatory threshold.</p>					

<p>SAPAD (2021, Q2); SACAD (2021, Q2); NPAES (2009). Figure A3</p>	<p>According to the South African Protected Areas Database (SAPAD, 2021), the Paarl Mountain Nature Reserve is located within the 2 km buffer of the study area. The Cape Floral Region Protected Area is within the 5 km buffer, and the Rhenosterkop Nature Reserve, Hawequas Mountain Catchment Area (MCA) and the Hottentots-Holland MCA is located in the 10 km buffer. The National Protected Areas Expansion Strategy (NPAES, 2009) indicates that the Hawequa Nature Reserve and the Paarl Mountain Local Nature Reserve is located in the 5 km buffer of the study area, with the Hottentots Holland MCA and the Hawequa MCA in the 10 km buffer. A nature reserve is a declared area, or regarded as having been declared, in terms of section 23 of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ((NEMPAA), as a nature reserve. Alternatively, it is an area which before or after the commencement of this Act was or is declared or designated in terms of provincial legislation for a purpose for which that area could in terms of section 23 (2) of NEMPAA be declared as a nature reserve. According to the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEMPAA) the system of protected areas in South Africa consists of the following kinds of protected areas: (a) special nature reserves, nature, reserves (including wilderness areas) and (b) world heritage sites; (d) specially protected forest areas, forest nature reserves and forest wilderness areas declared in terms of the National Forests Act, 1998 (Act No. 84 of 1998); and (e) mountain catchment areas declared in terms of the Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970).</p> <p>According to the South African Conservation Area Database (SACAD, 2021) the study area is located in the Cape Winelands Biosphere Reserve. Biosphere reserves are sites established by countries and recognised under UNESCO's man and the biosphere programme to promote sustainable development based on local community efforts and sound science. Biosphere reserves are organised into three interrelated zones that are regarded as sub-types in the classification scheme: 1) Core area 2) Buffer zone 3) Transition area. Only the core area requires legal protection and hence can correspond to an existing protected area such as a nature reserve or national park.</p> <p>The Cape Winelands Biosphere Reserve extends northwards from the Kogelberg Biosphere Reserve in the south, along the Cape Fold Belt Mountain Chain and adjoining valleys that constitute the Cape Winelands. The reserve incorporates key portions of the registered Cape Floral Region Protected Areas World Heritage Site. The topography of the area is characterized by a diversity of topographic features ranging from the high Cape Fold mountains and deep valleys to rolling hills and open plains. The mountain complex that forms the core of the biosphere reserve is a result of the meeting of two axes of the Cape Fold Belt Mountain Chain and provides a range of habitats and landscape features. The area is located in the Cape Floristic Region or Cape Floral Kingdom, which is the smallest of the world's six floral kingdoms. The Cape Floristic Region sustains 20% of the total number of plant species found on the African continent, with five endemic and two near-endemic plant families and a total of 988 plant genera containing nearly 9,000 species of vascular plants. Main vegetation types in the region include Fynbos, succulent Karoo and Renosterveld. A high species richness of birds, mammals, frogs, reptiles and insects is found in the Fynbos biome. Bird species typical of the Cape Mountains include the hamerkop (<i>Scopus umbretta</i>) and the cape eagle owl (<i>Bubo capensis</i>). Medium-sized species occurring in the area include the leopard (<i>Panthera pardus</i>), the caracal (<i>Felis caracal</i>) and the klipspringer (<i>Oreotragus oreotragus</i>). Smaller animals include the baboon (<i>Papio ursinus</i>), the badger (<i>Mellivora capensis</i>) and the striped polecat (<i>Ictonyx straitus</i>). The endangered geometric tortoise (<i>Psammobates geometricus</i>) is endemic to the renosterveld of the area.</p> <p>The Cape Winelands Biosphere Reserve forms part of the Cape Floral Region, which is a UNESCO World Heritage Site.</p>
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WESTERN CAPE BIODIVERSITY SPATIAL PLAN (WCBSP, 2017)

The study area does not fall within any areas considered of biodiversity importance.

NATIONAL WEB BASED ENVIRONMENTAL SCREENING TOOL (2020)

The screening tool is intended to allow for pre-screening of sensitivities in the landscape to be assessed within the EA process. this assists with implementing the mitigation hierarchy by allowing developers to adjust their proposed development footprint to avoid sensitive areas

Terrestrial Theme	The Terrestrial Sensitivity for the entire study area is considered of Very High sensitivity . The triggered sensitivity features includes a Critically Endangered ecosystem (i.e. the Cape Flats Dune Strandveld as per the NBA, 2018) and the study area is located in a Strategic Water Source Area.
Plant Species Theme	For the plant species theme, the study area is considered of Low sensitivity .
Animal Species Theme	For the animal species theme, the study area is considered of Medium sensitivity . Species identified by the EIA Screening tool include invertebrate species such as the invertebrates <i>Conocephalus peringueyi</i> (Peringuey's Meadow Katydid) and <i>Aneuryphymus montanus</i> (Yellow-winged Agile Grasshopper).

CBA = Critical Biodiversity Area; DWS = Department of Water and Sanitation; EI = Ecological Importance; ES = Ecological Sensitivity; EPL = Ecosystem Protection Level; ESA = Ecological Support Area; ETS = Ecosystem Threat Status; m.a.m.s.l = Metres Above Mean Sea Level; MAP = Mean Annual Precipitation; NBA = National Biodiversity Assessment; NFEPA = National Freshwater Ecosystem Priority Areas; PES = Present Ecological State; SAIIE = South African Inventory of Inland Aquatic Ecosystems; WMA = Water Management Area

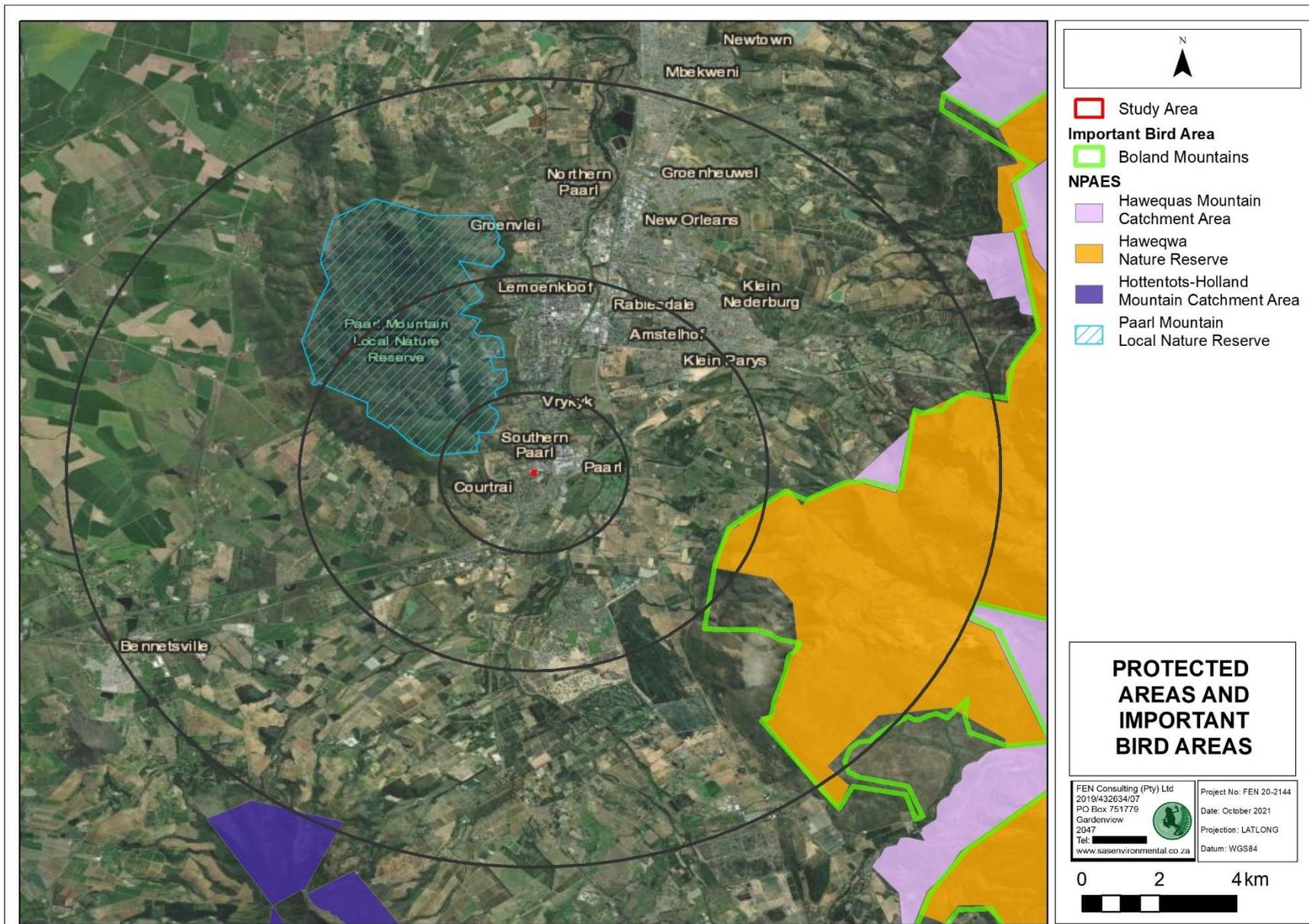


Figure A2: Important Bird Areas as per the IBA dataset (2015) and protected areas as per the National Protected Areas Expansion Strategy (NPAES, 2009) dataset.

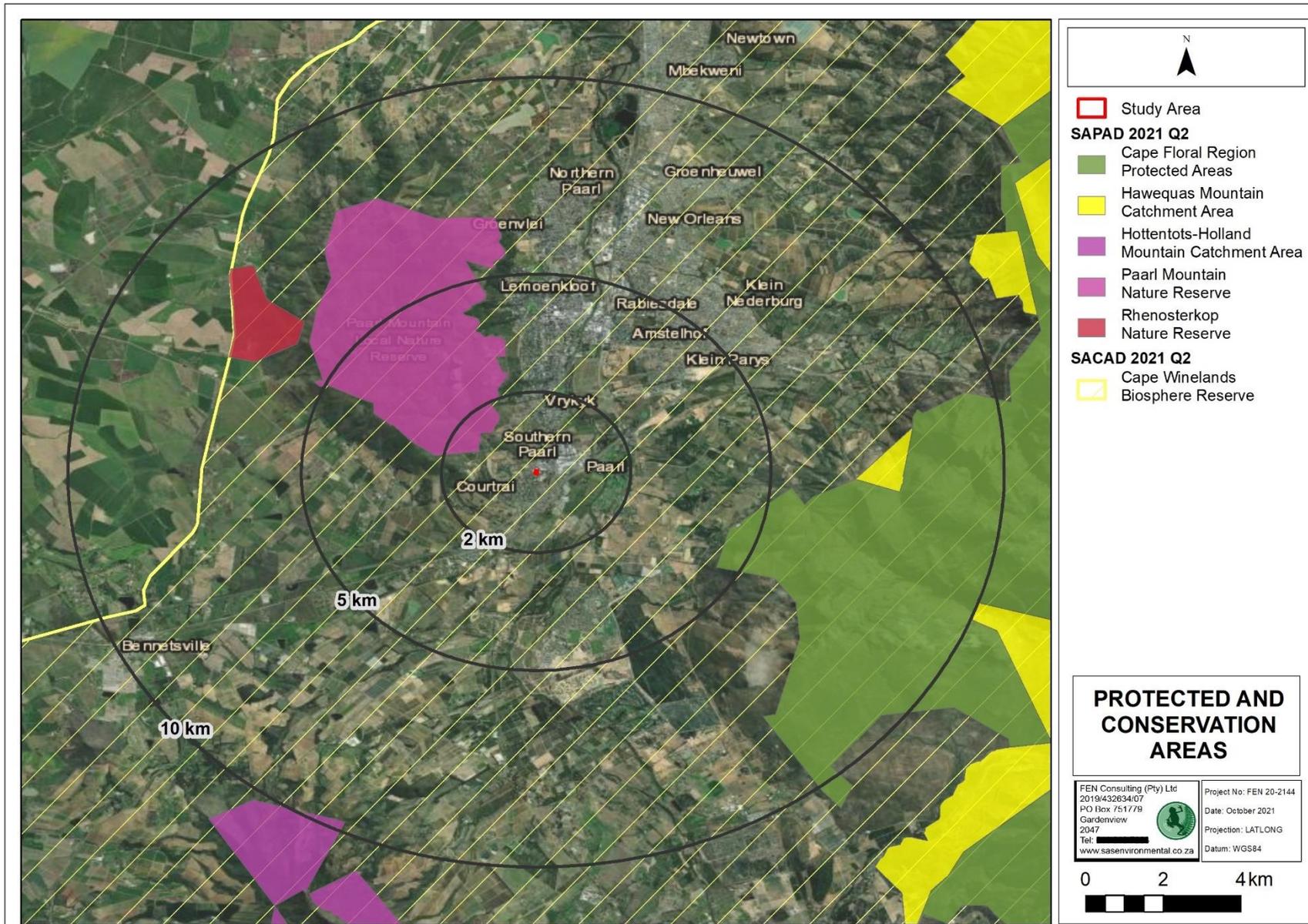


Figure A3: Protected and conservation areas within the 2 km, 5 km, and 10 km buffer zone of the study area as classified in the SACAD and SAPAD (2020) datasets.

APPENDIX C- Declaration of Independence

1. (a) (i) Details of the specialist who prepared the report

Christel du Preez MSc Environmental Sciences (North West University)
 Chris Hooton BTech Nature Conservation (Tshwane University of Technology)
 Kim Marais BSc (Hons) Zoology (Herpetology) (University of the Witwatersrand)

1. (a). (ii) The expertise of that specialist to compile a specialist report including a curriculum vitae

Company of Specialist:	FEN Consulting		
Name / Contact person:	Christel du Preez		
Postal address:	221 Riverside Lofts, Tygerfalls Boulevard, Bellville,		
Postal code:	7539	Cell:	[REDACTED]
Telephone:	[REDACTED]	Fax:	[REDACTED]
E-mail:	[REDACTED]		
Qualifications	MSc Environmental Sciences (North West University)		
Registration / Associations	Registered Professional Scientist at South African Council for Natural Scientific Professions (SACNASP)		

1. (b) a declaration that the specialist is independent in a form as may be specified by the competent authority

I, Kim Marais, declare that -

- I act as the **independent specialist (reviewer)** in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the relevant legislation and any guidelines that have relevance to the proposed activity;
- I will comply with the applicable legislation;
- I have not, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct

Kim Marais

 Signature of the Specialist

1. (b) a declaration that the specialist is independent in a form as may be specified by the competent authority

I, Christel du Preez, declare that -

- I act as the **independent specialist** in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the relevant legislation and any guidelines that have relevance to the proposed activity;
- I will comply with the applicable legislation;
- I have not, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct

C du Preez

1. (b) a declaration that the specialist is independent in a form as may be specified by the competent authority

I, Chris Hooten, declare that -

- I act as the **independent specialist** in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the relevant legislation and any guidelines that have relevance to the proposed activity;
- I will comply with the applicable legislation;
- I have not, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct

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APPENDIX D- CV of specialist



SAS ENVIRONMENTAL GROUP OF COMPANIES – SPECIALIST CONSULTANT INFORMATION

CURRICULUM VITAE OF KIM MARAIS

PERSONAL DETAILS

Position in Company	Senior Scientist Water Resource Manager
Joined SAS Environmental Group of Companies	2015

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Professional member of the South African Council for Natural Scientific Professions (SACNASP – Reg No. 117137/17)
Member of the Western Cape Wetland Forum (WCWF)

EDUCATION

Qualifications

BSc (Hons) Zoology (University of the Witwatersrand)	2012
BSc (Zoology and Conservation) (University of the Witwatersrand)	2011

Short Courses

Aquatic and Wetland Plant Identification (Cripsis Environment)	2019
Tools for Wetland Assessment (Rhodes University)	2018
Certificate in Environmental Law for Environmental Managers (CEM)	2014
Certificate for Introduction to Environmental Management (CEM)	2013

KEY SPECIALIST DISCIPLINES

Biodiversity Assessments

- Biodiversity Action Plans (BAP)
- Alien and Invasive Control Plans (AICP)
- Faunal Eco Scans
- Faunal Impact Assessments

Freshwater Assessments

- Desktop Freshwater Delineation
- Freshwater Verification Assessment
- Freshwater (wetland / riparian) Delineation and Assessment
- Freshwater Eco Service and Status Determination
- Rehabilitation Assessment / Planning
- Watercourse Maintenance and Management Plans
- Freshwater Offset Plan

Aquatic Ecological Assessment and Water Quality Studies

- Riparian Vegetation Integrity (VEGRAI)
- Water quality Monitoring
- Riverine Rehabilitation Plans

Legislative Requirements, Processes and Assessments

- Water Use Applications (Water Use Licence Applications / General Authorisations)
- Water Use Audits
- Freshwater Resource Management and Monitoring as part of EMPR and WUL conditions
- Public Participation processes



SAS ENVIRONMENTAL GROUP OF COMPANIES – SPECIALIST CONSULTANT INFORMATION

CURRICULUM VITAE OF CHRISTOPHER HOOTON

PERSONAL DETAILS

Position in Company	Senior Scientist, Member Biodiversity Specialist
Joined SAS Environmental Group of Companies	2013

EDUCATION

Qualifications

BTech Nature Conservation (Tshwane University of Technology)	2013
National Diploma Nature Conservation (Tshwane University of Technology)	2008

AREAS OF WORK EXPERIENCE

South Africa – Gauteng, Mpumalanga, North West, Limpopo, KwaZulu-Natal, Eastern Cape, Western Cape, Northern Cape, Free State
Zimbabwe, Sierra Leone, Zambia

KEY SPECIALIST DISCIPLINES

Biodiversity Assessments

- Floral Assessments
- Faunal Assessments
- Biodiversity Actions Plan (BAP)
- Biodiversity Management Plan (BMP)
- Alien and Invasive Control Plan (AICP)
- Ecological Scan
- Protected Tree and Floral Marking and Reporting
- Biodiversity Offset Plan

Freshwater Assessments

- Freshwater Verification Assessment
- Freshwater (wetland / riparian) Delineation and Assessment
- Freshwater Eco Service and Status Determination
- Rehabilitation Assessment / Planning



SAS ENVIRONMENTAL GROUP OF COMPANIES – SPECIALIST CONSULTANT INFORMATION

CURRICULUM VITAE OF CHRISTEL DU PREEZ

PERSONAL DETAILS

Position in Company Senior Scientist (Watercourse ecology)
 Joined SAS Environmental Group of Companies 2016

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Professional member of the South African Council for Natural Scientific Professions (SACNASP)
 (SACNASP – Reg No. 120240/19)
 Member of the Western Cape Wetland Forum (WCF)
 Member of the Gauteng Wetland Forum (GWF)

EDUCATION

Qualifications

MSc Environmental Sciences (North West University)	2017
BSc Hons Environmental Sciences (North West University)	2012
BSc Environmental and Biological Sciences (North West University)	2011

Short Courses

Wetland and Aquatic plant Identification presented by Carin van Ginkel (Crispis Environmental)	2019
Wetland Management: Introduction and Delineation presented by the Centre of Environmental Management University of the Free State	2018
Tools for Wetland Assessment presented by Prof. F. Ellery and Rhodes University	2017
Basic Principles of ecological rehabilitation and mine closure presented by the Centre for Environmental Management North West University	2015

AREAS OF WORK EXPERIENCE

South Africa – Gauteng, Mpumalanga, Limpopo, Western Cape, Northern Cape, Eastern Cape

KEY SPECIALIST DISCIPLINES

Freshwater Assessments

- Desktop Freshwater Delineation
- Freshwater Verification Assessment
- Freshwater (wetland / riparian) Delineation and Assessment
- Freshwater Eco Service and Status Determination
- Rehabilitation Assessment / Planning
- Maintenance and Management Plans
- Plant species and Landscape Plan
- Freshwater Offset Plan