



ENVIRONMENTAL SCREENING –

11kVa Electricity line, on Portion 3 of
the farm Bloemheuvel 327, Christiana

PREPARED FOR:

Eskom: Environmental screening
for distribution activities

Prepared By: Green-Box Consulting

1. INTRODUCTION

A 11kVa electricity line is planned for Me. CA Swiegers, a farmer near Christiana and will stretch on a Portion 3 of the farm Bloemheuvel 327, Lekwa-Teemane Local Municipality, North West Province.

The line will be approximately 893m in length and will feed electricity from the southern portion of the farm to the northern portion towards the N12 direction. The Eskom's Distribution Environmental Screening Document has been completed for this proposed line. This document contains associated information pertaining the development of the 11kVa line.

Green-Box Consulting is appointed to consolidate all relevant information and present the information to Eskom.

This document also serves to present information to the SAHRA in terms of Section 38 (1) in order to confirm no important cultural heritage along the proposed line. A site inspection of the proposed line route revealed no important cultural heritage resources or graves found on or near the route of the line.

Included in this document the following:

1. Distribution Environmental Screening Document;
2. Site Plan (Site Map);
3. Site photos;
4. 1:50 000 topo cadastral location map;
5. Environmental sensitivity maps.

The environmental screening status of the powerline area was determined by means of a desktop study. In this document a brief description of the ecology, as stated by Mucina and Rutherford (2006), will be given. This information will be supported with maps and site specific photographs.

2. SCREENING ASSESSMENT RESULTS SUMMARY

Vegetation:

The proposed area falls within vegetation unit SVk 4, which is known as the Kimberley Thornveld. The Kimberly Thornveld is part of the Eastern Kalahari Bushveld Bioregion, which is a sub-bioregion for the Savanna Biome. this thornveld type, is Least Threatened.

Protected Areas:

According to the data for protected areas the portion do not fall within a formally protected Area, nor threatened ecosystems.

Critical Biodiversity Areas:

According to the data for Critical Biodiversity Areas, the proposed portion falls outside any CBA areas.

Wetland Areas:

The line route does not fall within any wetland areas.

3. RECOMMENDATIONS

- Protected trees and plants shall not be removed or damaged without prior approval and permits or licenses from the relevant authority.
- Vegetation clearance, if any, should be kept to the minimum required for the operation.

The EAP herewith confirms the correctness of the information provided in this report.



Signature of the EAP: Danie Krynauw
Date: 05/06/2023

DISTRIBUTION ENVIRONMENTAL SCREENING DOCUMENT

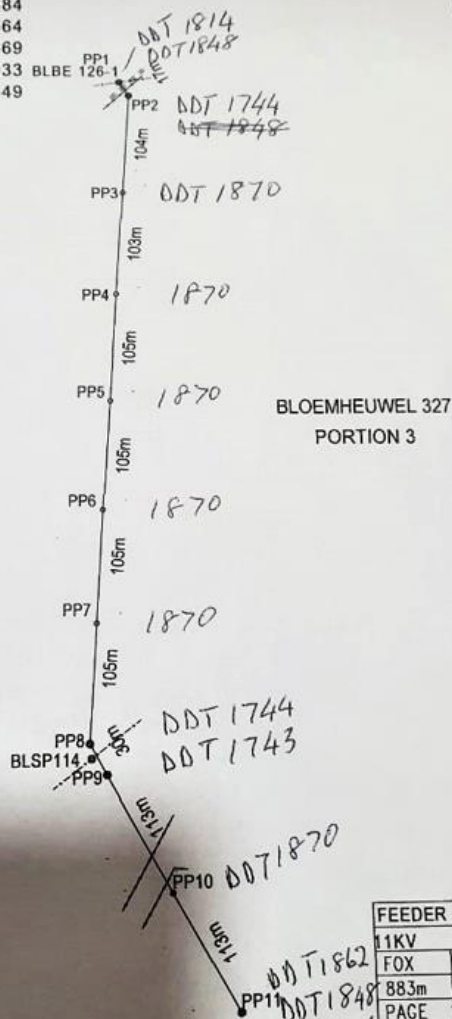
See attached separate document

SITE PLAN (SITE MAP)

PAGE 1

WG25

POLE	Y	X
PP11	-12451.835	3090202.884
BLSP114	-12327.159	3089992.564
PP8	-12325.766	3089979.869
PP9	-12340.574	3090006.033
PP1	-12359.836	3089339.549



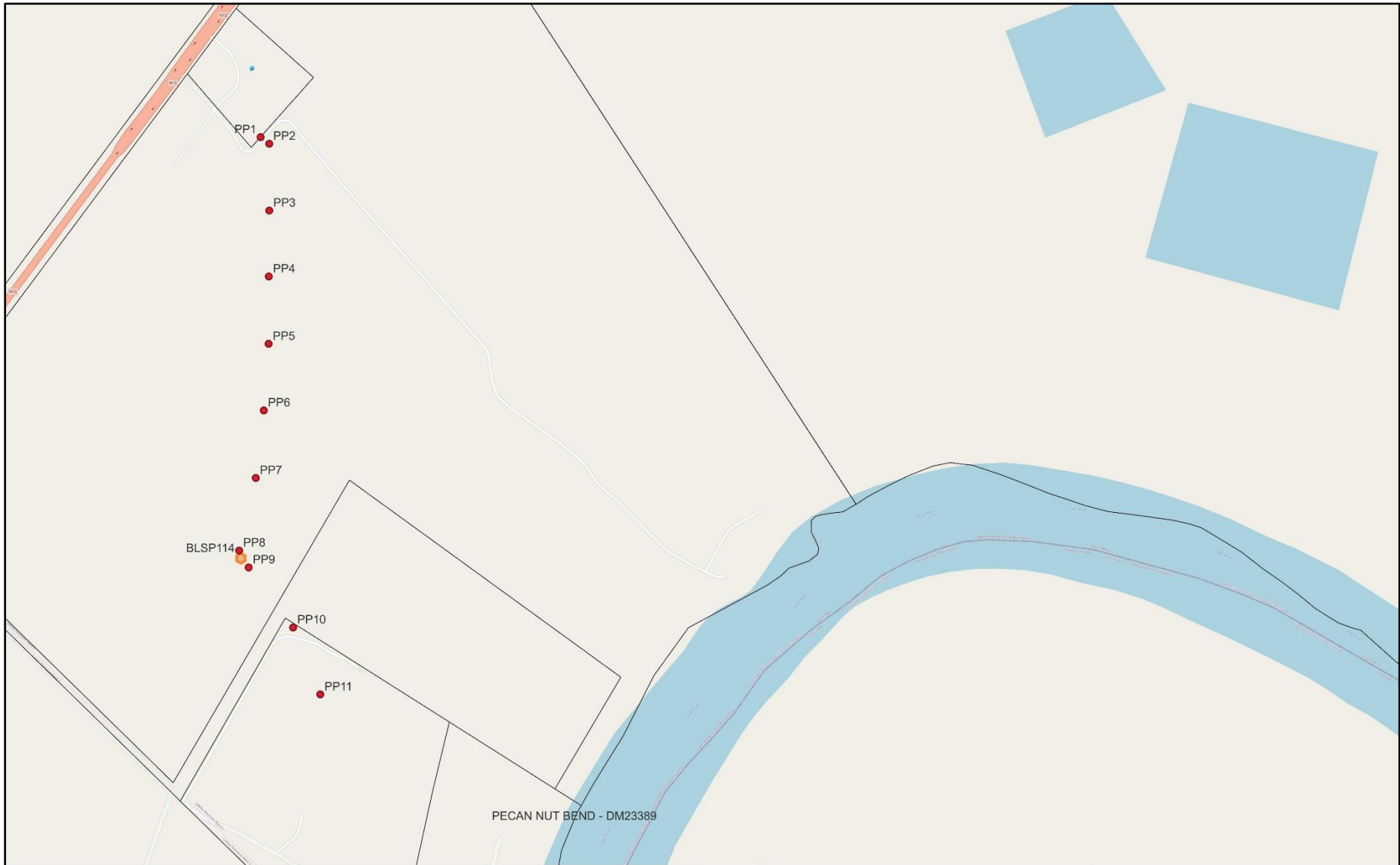
FEEDER			
11KV	FOX	SQUIRREL	HARE
883m	MINK		
PAGE 1 OF 1			
DISTRIBUTION NORTHERN CAP			
OPERATING UNIT			
SCALE 1 : 5000		WG 25	
SURVEY BY:-		GS SURVEY	
TEL 082 8746 991			

SITE PHOTOS



General natural character of the line route

1:50 000 TOPO CADASTRAL LOCATION MAP



Proposed Electricity Line on Portion 3 of Bloemheuwel 327,
Christiana, North West Province

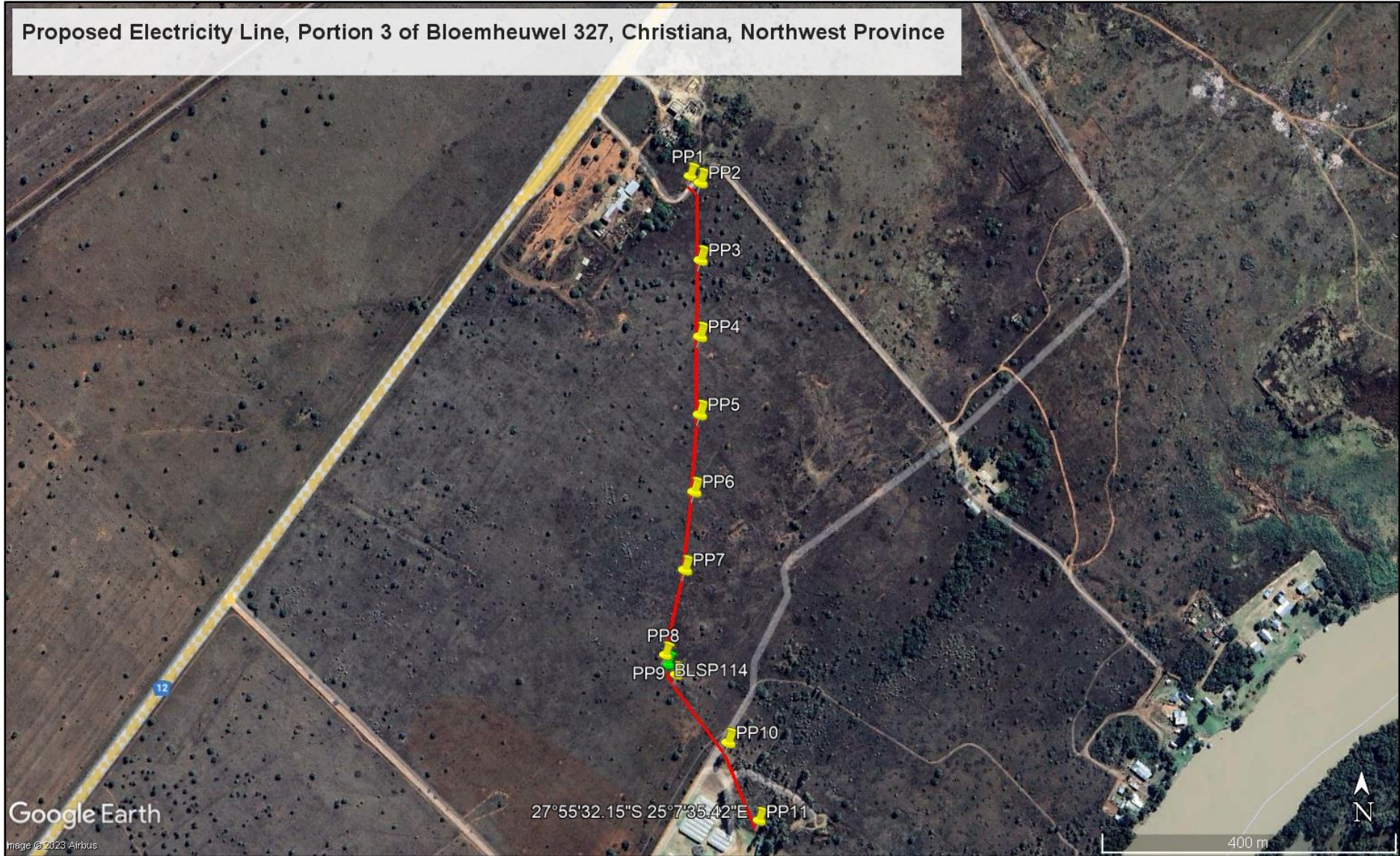


GREEN-BOX
CONSULTING

1:10 000 Locality Map
Prepared by: Green-Box Consulting
QGIS 3.22.0 - Białowieża
16 June 2023

GOOGLE EARTH MAP

Proposed Electricity Line, Portion 3 of Bloemheuwel 327, Christiana, Northwest Province



ENVIRONMENTAL SENSITIVITY

Vegetation map

Description

11kVa electricity line

Details

OBJECTID
40588

NAME
Kimberley Thornveld

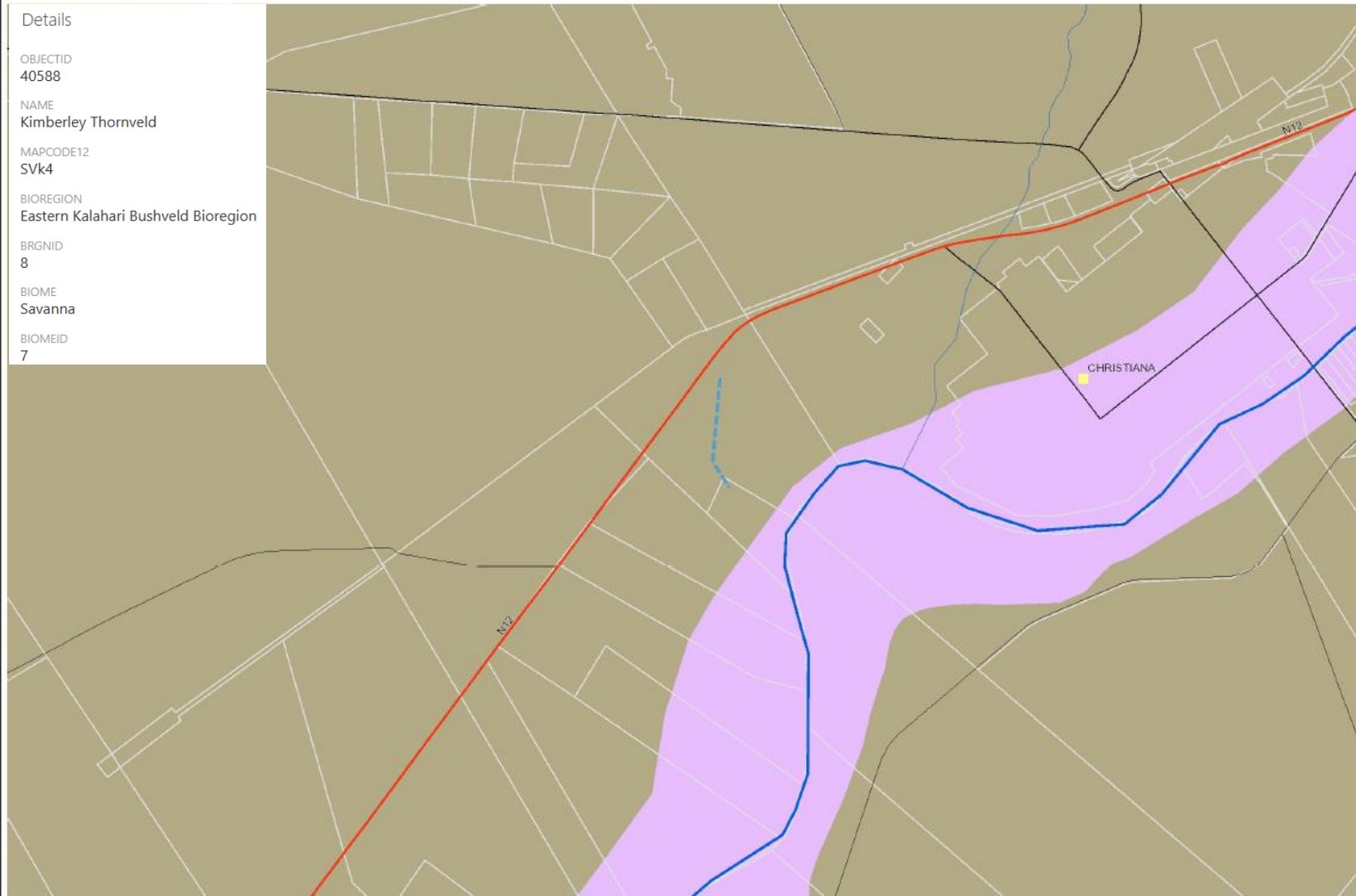
MAPCODE12
SVk4

BIOREGION
Eastern Kalahari Bushveld Bioregion

BRGNID
8

BIOME
Savanna

BIOMEID
7



Legend

Rivers (NFEPA)

- 1
- 5
- 10

National roads

- Secondary roads
- ARTERIAL ROUTE
- MAIN ROAD
- SECONDARY ROAD

Towns

- Farm boundaries

National Vegetation Map 2012

- FFs 1 Bokkeveld Sandstone Fynbos
- FFs 2 Graafwater Sandstone Fynbos
- FFs 3 Orlants Sandstone Fynbos
- FFs 4 Cederberg Sandstone Fynbos
- FFs 5 Winterhoek Sandstone Fynbos
- FFs 6 Pletberg Sandstone Fynbos
- FFs 7 North Hex Sandstone Fynbos
- FFs 8 South Hex Sandstone Fynbos
- FFs 9 Peninsula Sandstone Fynbos
- FFs 10 Hawequas Sandstone Fynbos
- FFs 11 Kogelberg Sandstone Fynbos
- FFs 12 Overberg Sandstone Fynbos
- FFs 13 North Sonderend Sandstone Fynbos
- FFs 14 South Sonderend Sandstone Fynbos
- FFs 15 ...

1: 36 112



1.8 0 0.92 1.8 Kilometers

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Latitude Geographics Group Ltd.

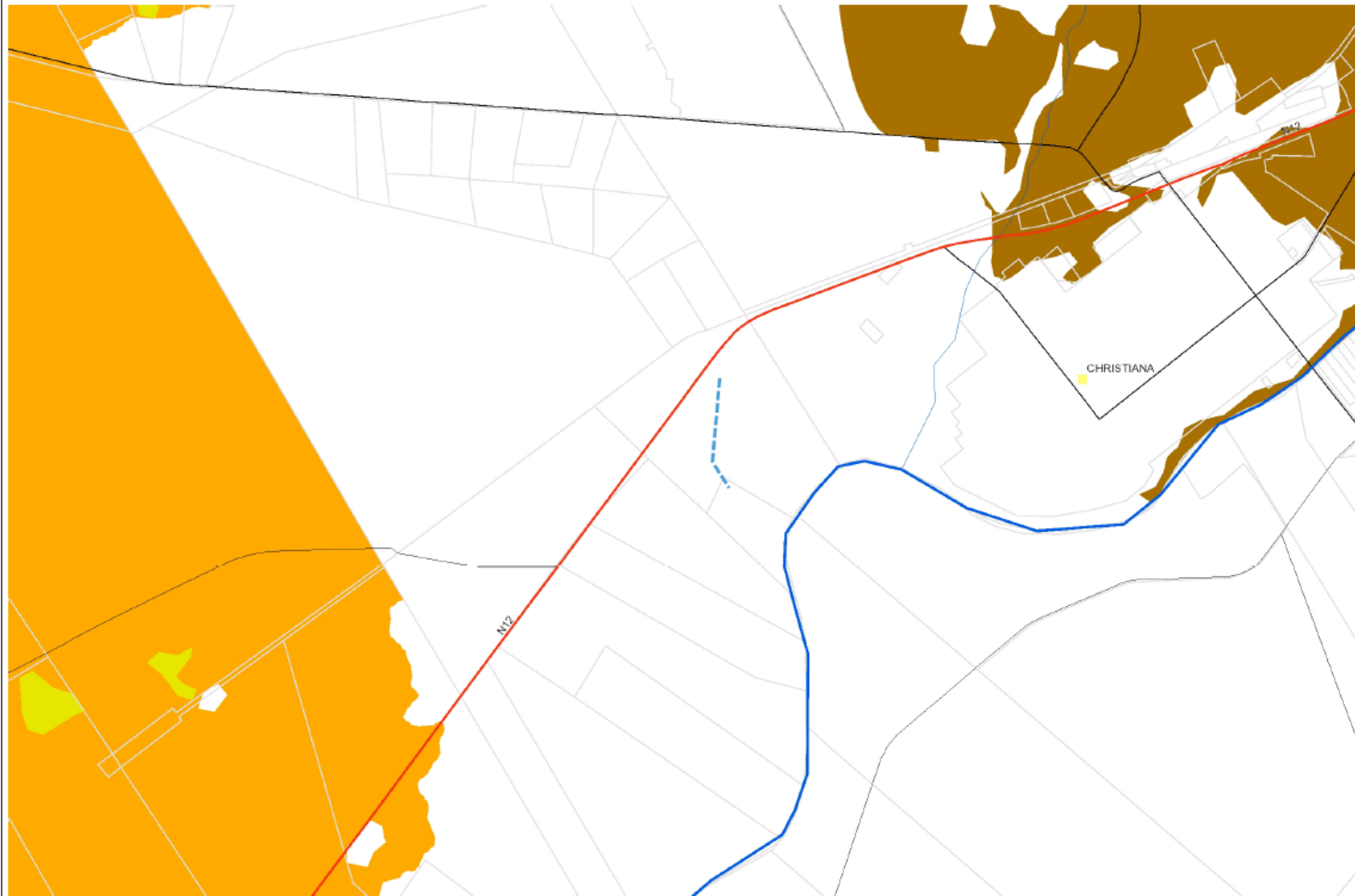
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Vegetation:

The proposed area falls within vegetation unit SVk 4, which is known as the Kimberley Thornveld. The Kimberly Thornveld is part of the Eastern Kalahari Bushveld Bioregion, which is a sub-bioregion for the Savanna Biome. According to Mucina and Rutherford (2006:516), the Kimberley Thornveld vegetation covers the North West, Free State and Northern Cape Provinces: Most of the Kimberley, Hartswater, Bloemhof and Hoopstad Districts as well as substantial parts of the Warrenton, Christiana, Taung, Boshof and to some extent the Barkley West District. This thornveld is situated on an altitude of 1050m – 1400m. Mucina and Rutherford (2006:517) also states that the conservation of this thornveld type, is Least Threatened with a target of 16%. Only 2% of this thornveld is statutorily conserved in Vaalbos National Park and in Sanveld, Bloemhof Dam and S.A. Lombard Nature Reserve. As much as 18% is already transformed, mostly by cultivation. Low erosion is associated with this type of thornveld. The area is mostly used for cattle farming or game ranching. Overgrazing leads to encroachment of *Acacia mellifera subsp. detinens*.

Biodiversity map



Description

11kVa electricity line

Legend

Rivers (NFEPA)

- 1
- 5
- 10

- National roads
- Secondary roads
- ARTERIAL ROUTE
- MAIN ROAD
- SECONDARY ROAD

■ Towns

□ Farm boundaries

Terrestrial Critical Biodiversity Areas

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Area 1
- Ecological Support Area 2

1: 36 112



1,8 0 0,92 1,8 Kilometers

Protected Areas:

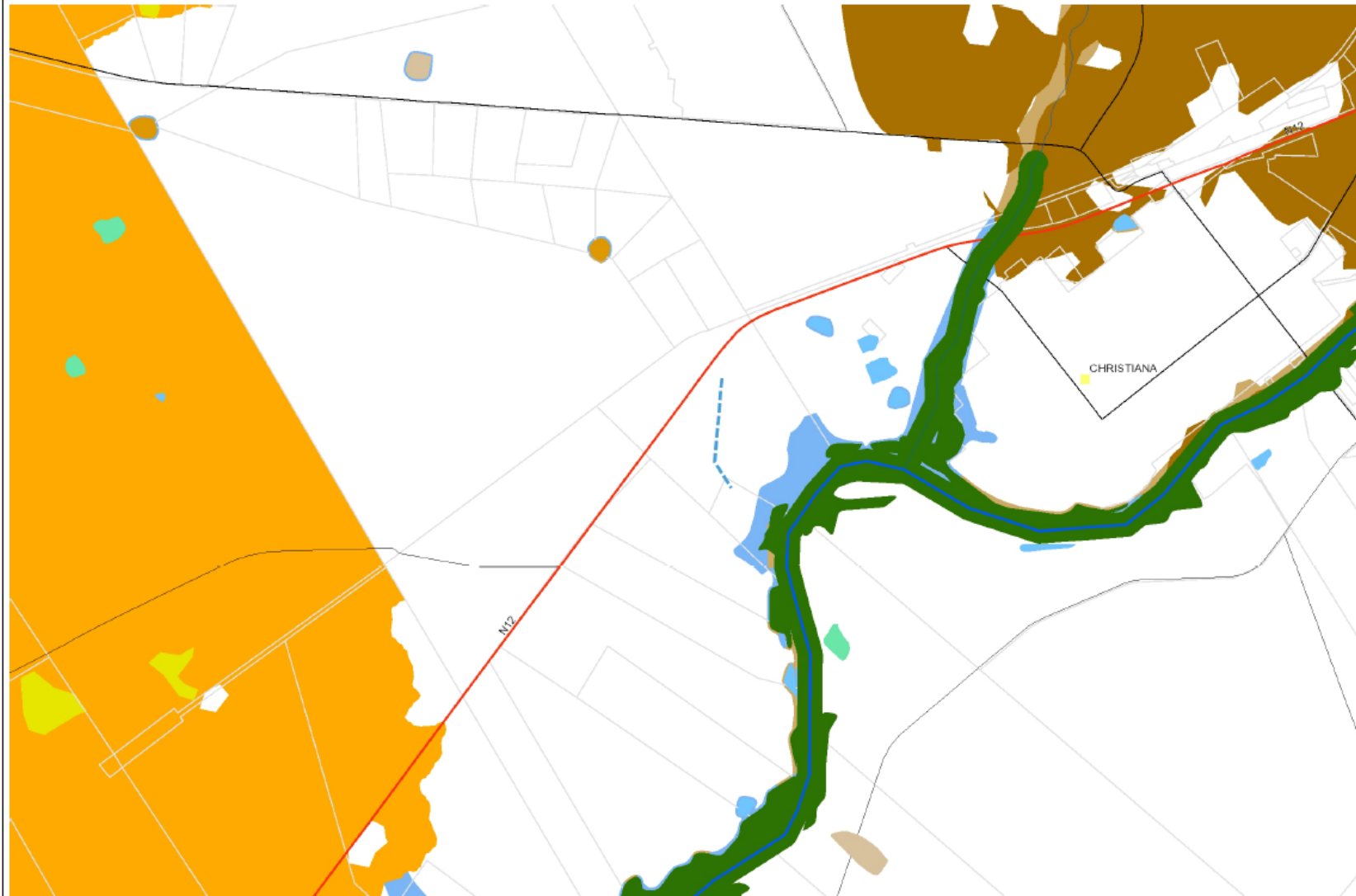
According to the data (Sanbi B-GIS) for protected areas the portion do not fall within a formally protected Area, nor threatened ecosystems.

Critical Biodiversity Area:

According to B-GIS “Critical biodiversity areas (CBAs) are areas of the landscape that need to be maintained in a natural or near-natural state in order to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services”, therefore the purpose of CBA’s is simply to indicate spatially the location of critical or important areas for biodiversity in the landscape.

According to the data for Critical Biodiversity Areas, the proposed portion do not fall inside any Critical biodiversity Area nor in any Ecological Support Area.

Wetland Map



Description

11kVa electricity line

Legend

Rivers (NFEPA)

- 1
- 5
- 10

National Wetlands Map 4 - NWCS L4 classe:

- Slope: Seep
- Slope: Valleyhead seep
- Slope: Depression
- Valley floor: Channeled valley-bottom wetland
- Valley floor: Unchanneled valley-bottom wetland
- Valley floor: Floodplain wetland
- Valley floor: Depression
- Plain: Floodplain wetland
- Plain: Unchanneled valley-bottom wetland
- Plain: Depression
- Plain: Flat
- Bench: Depression
- Bench: Flat

National roads

Secondary roads

- ARTERIAL ROUTE
- MAIN ROAD
- SECONDARY ROAD

Towns

Farm boundaries

Terrestrial Critical Biodiversity Areas

1: 36 112



1,8 0 0,92 1,8 Kilometers

WGS_1984_Web_Mercator_Auxiliary_Sphere
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Wetlands:

Wetland is defined as land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil (from the South African National Water Act; Act No. 36 of 1998). The map above depicts all wetland areas on the proposed area. The proposed development portion consists of not wetlands.

End of Report

