

BACKGROUND INFORMATION DOCUMENT (BID) FOR CONSULTATION

DRAFT

as a component of the

Spatial Planning and Land Use Management Act, (SPLUMA), (Act 16 of 2013, read with the KwaZulu-Natal Planning and Development Act, (PDA), (Act 27 of 2008), and in terms of the KwaDukuza Municipality Spatial Planning and Land Use Management By-Law No. 1630, gazetted 04 March 2016

for the

Proposed Rezoning from Agriculture to Conservation area of the Sibudu Caves World Heritage Site, Located on portion 10 of the Farm Sinembe No. 16902-FU, 4.3 Hectares in Extent, KwaZulu-Natal Province, Kwadukuza Local Municipality, ILembe District Municipality


Application No: TBA

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1. CONTACT NAMES AND ADDRESSES

Interested and Affected Parties may contact the Environmental Consultants listed below for additional information.

Applicant:	Environmental Consultants:
Simon Vines Town & Regional Planner	
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2. BACKGROUND INFORMATION

The Sibudu Caves are located on the property described as Portion 10 of the Farm Sinembe No. 16902-FU, which is 4.3 hectares in extent, KwaZulu-Natal Province, and an application for Re-zoning from "Agricultural" to Conservation Area" in terms of the PDA and SPLUMA Planning Legislation is being compiled by Simon Vines Town and Regional Planners.

The Sibudu Caves World Heritage Site was inhabited by humans over 150,000 years ago and they are the longest

continuously-occupied caves in Southern Africa.

The Sibudu Caves Trust have appointed Simon Vines Town and Regional Planners to try and protect this valuable archaeological site. The farm within which the Sibudu Caves property is situated is subject to the provisions of the Conservation of Agricultural Resources Act, (Act 43 of 1983). However, consent has been granted to subdivide the property in terms of the Subdivision of Agricultural Land Act, Act 70. Simon Vines Town and Regional Planners have, accordingly, obtained permission from the Department of Agriculture, Forestry and Fisheries, (DAFF), to subdivide a portion of 4,3 ha off the Farm Sinembe (118ha in total) and to seek a rezoning that is an appropriate land use in order to ensure the responsible management of this World Heritage resource in the future.

Simon Vines Town and Regional Planners intend to rezone the subdivided portion from "Agriculture" to "Conservation Area", which zoning can include an area declared as "Conservation" in terms of the KwaZulu-Natal Heritage Act, (Act 4 Of 2008).

Enviroedge cc. has been commissioned to undertake the application process to Amafa for the proposed development. As part of this process, this Background Information Document has been prepared, together with the Town Planning Motivation document for submission to Amafa.

3. PURPOSE OF THIS REPORT

This report provides preliminary project information to enable interested and/or affected parties (IAPs) an opportunity to comment on the proposed re-zoning application.

4. TOWN PLANNING REZONING PROPOSAL

The Sibudu Caves are located approximately 40km north of Durban, 5,7km north-west of Tongaat and 14,8km south-west of Shakaskraal, within Ward 4 of the KwaDukuza Local Municipality and the iLembe District Municipality. The Tongati River forms the ward boundary between Ward 4 to the north of the Tongati River, and Ward 12 to the south. The property is described as Portion 10 (Sibudu), of Erf 16902 of the Farm Sinembe, and is 4.31 ha in extent. The KwaZulu-Natal Heritage Council, (Amafa), is currently adding the property to the list of the provinces heritage landmarks. (National Monument Declaration).

The Sibudu Caves site is a rock shelter located in a steep, forested cliff facing west-south-west which overlooks the Tongati River below. The Sibudu Caves are located along the R614 road, on the south-western side of the road, approximately 5,6km from the turn off from the R102 from Tongaat to Shakaskraal. The Sibudu Caves are accessed via the R614, (4,4km), a turn off to Ndongolo located at co-ordinates: 29°31'38.25"S; 31° 5'57.49"E, and a dirt road access road turn off point located at co-ordinates: 29°32'14.21"S; 31° 5'32.72"E, (1,3km), and the final section in a north-westerly direction at a distance of 1,6km along the road. The town of Stanger is located 28,5km north-east of the Sibudu Caves site.

The main Tongati River runs from the west to the south of the site, with the Mona River located 0,5km south of the site. The Mona River links into the main Tongati River 0,7km to the south-east of the site and the Tongati River then flows on toward the Indian Ocean to the east of the site.

The project area is characterised by sugar cane farming with large tracts of agricultural land, smaller agricultural holdings and the dense rural/semi-rural settlement of Ndwedwe to the west of the Tongati River.

The project aim is to re-zone the Sibudu Caves site from Agriculture to Conservation, in order to protect the Sibudu Cave site. The KwaDukuza Planning Department has advised that the site is currently under the provisions of the KwaDukuza Land Use Management Scheme, and, that based on the intended preservation of the site, the most appropriate new zoning would be "Conservation Area", as this land use accommodates the site "conservation", which is defined as follows:

"An area of notable environmental, scientific, architectural or historical interest or importance and whose character or appearance is desirable or necessary to preserve because they are discrete examples of a specific habitat, style or are irreplaceable".

The proposed site will be used for heritage site purposes, as this would best allow for the potential of the site to be realised, whilst preserving its integrity as a potential World Heritage site.

The approximate centre point of the site can be found at co-ordinates: 29°31'21.95"S; 31° 5'9.54"E.

A South African development company plans to build a low income subsidy housing estate on the sugar cane fields, with approximately 370 houses on about 32 ha within 300m of the centre of the Sibudu Caves site. There is concern that the Sibudu Caves site would be negatively impacted by development in such close proximity. The

proposed subdivision and re-zoning would help to preserve the Sibudu Cave site.

The Sibudu Caves shelter was formed by erosional downcutting of the Tongati River, which now lies at a depth of 10m below the shelter. The shelter floor is 55m long and about 18m in width. The shelter has a large collection of Middle Stone Age deposits that are well preserved organically and have been accurately dated utilising optically stimulated luminescence. The site was first occupied by modern humans at least 77 000 years ago and continued to serve as a favoured gathering place over the following 40 000 years. A record of prehistoric human occupation extending back at least 77 000 years and probably much longer, lies in the Sibudu Caves. These multi-layered, human made sediments are crammed with thousands of artefacts left behind by *homo sapiens* during our species formative years. The Sibudu shelter is one of South Africa's most important archaeological sites, and its recent nomination for a World Heritage site status illustrates its universal value with heritage that belongs to all humanity.

Evidence of some of the earliest examples of modern human technology has been found in the shelter, although the earliest known spears date back 400 000 years, the evidence found in the shelter includes the earliest bone arrow – 61 000 years old, the earliest needle – 61 000 years old, the earliest use of heat-treated mixed compound gluing – 72 000 years ago as well as the earliest example of the use of bedding – 77 000 years ago. The use of glues and bedding are of particular interest since the complexity of their creation and processing has been presented as evidence of the continuity between early human cognition and that of modern humans.

The occupations at the Sibudu shelter are divided into pre-Still Bay, Still Bay (72 000-71 000 BP), HowiesonsPoort (before 61 000 BP), post Howiesons Poort (58 000 BP), late (47 700 BP) and final Middle Stone Age phases (38 600 BP). There were occupation gaps of approximately 10 000 years between the post-Howiesons Poort and the late Middle Stone Age stage, and the late and final Middle Stone Age periods. There was no Late Stone Age occupation of the shelter, although there was a 1 000 BP Iron Age occupation. Evidence suggests that these were dry periods and the shelter was occupied only during wet climatic conditions.

In 2015, the South African government submitted a proposal to add the Sibudu Caves to the list of World Heritage Sites, and it has been placed on the United Nations Educational, Scientific and Cultural Organization, UNESCO list of tentative sites as a potential future "serial nomination".

5. AFFECTED AREA

General

The Ndongolo and Ndwedwe areas are located approximately 40km north of Durban. The Sibudu Cave shelter site is located near to the Ndongolo area, within the KwaDukuza Local Municipality. Please see Figure 1 – Locality Plan and Figure 2 – Site Plan.

Vegetation

According to The Vegetation of South Africa, Lesotho and Swaziland, the vegetation in the study area can be classified as Indian Ocean Coastal Belt, which corresponds with the Subtropical Coastal Forest Biome, and Mucina and Rutherford (2006) classify the vegetation group as KwaZulu-Natal Coastal Belt (CB3). The KwaZulu-Natal Coastal Belt is characterised by highly dissected undulating plains, which previously may have been covered to a large extent with various types of subtropical coastal forest. Some primary grassland dominated by *Themeda triandra* still occurs in the hilly, high rainfall areas, however, anthropological activities in this belt have created secondary *Aristida* grasslands, thickets and patches of coastal thornveld. Three endemic plant species are recorded by Mucina and Rutherford for the KwaZulu-Natal Coastal Belt (CB3) vegetation type, and these include *Vernonia Africana* (Extinct), *Barleria natalensis* (Baleria) (Extinct) and *Kniphofia pauciflora* (Dainty poker) (Critically Endangered and Declining).

The vegetation within the study area has, however, been disturbed, cleared and modified through anthropogenic activities, which include sugar cane farming and subsistence farming activities on the southern side of the Tongati River. The Sibudu Caves area vegetation, located on the northern banks of the Tongati River, however, consists predominantly indigenous vegetation, with areas of alien invasive weed infestation, associated with anthropogenic activities. The cliff face is densely covered with indigenous forest vegetation, indicative of the KwaZulu-Natal Coastal Belt, (CB3) vegetation type. Some large trees were noted including *Albizia sp.*, *Erythrina sp.* and *Acacia sp.*, together with fruit trees including banana and mango and alien invasive species such as *Eucalyptus sp.* (Gum trees), *Melia azederach*, (Syringa), and alien invasive shrubs including *Lantana Camara*, (Lantana) and *Solanum mauritianum*, (Bugweed).



Photo 1. Image of the Sibudu Caves looking north

Fauna

There are two major rivers and associated streams, drainage lines and wetland areas that fall within the Sibudu Caves area. These riverine/drainage line areas and their associated vegetation are likely to provide habitat for associated species such as avifauna, reptiles and amphibians. The Ezemvelo KZN Wildlife Terrestrial Systematic Conservation Plan 2010 (TSCP) allocates the study area a Biodiversity Priority Area 3 status. This status covers the entire study area. Please refer to Figure 4. The species list for the study area and surrounds, includes the following: *Gnomeskelus spectabilis*, (Pill millipede), *Eounyma lymnaeiformis* (Cone-shaped snail), the Lymnaeid Awl Snail (local common), endemic to KZN, *Edouardia conulus*, the (Conical Bark Snail), KwaZulu-Natal-endemic (Scarce), *Eremidium erectus*, the KwaZulu-Natal-endemic erect-cercus wingless grasshopper and *Gulella separata* (Endangered) Endemic to KZN.

The TSCP also lists various millipedes including: *Doratogonus falcatus* millipede (Least concern), *Doratogonus natalensis* – (Natal Black Millipede) (Vulnerable) and *Doratogonus cristulatus* – Cristulate Black Millipede (Least concern), as present within the area, all of which are endemic to KwaZulu-Natal.

Alien invasive plant species noted on site include the following: *Melia azederach* (Syringa), *Eucalyptus sp.* (Blue gum), *Solanum mauritianum* (Bugweed) and *Lantana camara* (Lantana).

Culture and Heritage

The Sibudu Caves are listed with UNESCO as a potential future World Heritage Site. The Sibudu Caves site is to be subdivided from the main farm site in order to preserve this important archaeological site. Additional features of cultural and historical importance are described in the KwaDukuza area, including: King Shaka's Gravesite and Memorial, the town of KwaDukuza is itself built on the original site of King Shaka's Royal Settlement, called Dukuza and the KwaDukuza Museum is dedicated to the sugar industry, colonialism and the cultural heritage of the early settlers of the town of Stanger.

National and District Roads

The Sibudu Caves are accessed via the R614, (4,4km), a turn off to Ndongolo located at co-ordinates: 29°31'38.25"S; 31° 5'57.49"E, and a dirt road access road turn off point located at co-ordinates: 29°32'14.21"S; 31° 5'32.72"E, (1,3km), and the final section in a north-westerly direction at a distance of 1,6km along the road. The proposed subdivision application is not likely to impact any provincial or national road.

Services

Overhead electricity lines and steel lattice towers and a substation are noted and are located to the south-east of the site, together with wood pole electricity lines to houses on the southern side of the Tongati River. The proposed subdivision of the Sibudu Caves site will not require any service installation or extension to existing services.

Topography and Drainage

The site topography and drainage are controlled by the underlying geology of the area. The Sibudu Caves site is located in the lower section of a rocky cliff face. The lower areas below the cave, to the south of the Tongati River are generally undulating, and the site is accessed via a fairly steep hill on the southern side. Alternatively, to obtain direct access to the cave, there is a walk along the northern side of the Tongati River to the cave. The approximate centre point of the site can be found at co-ordinates: 29°31'21.95"S; 31° 5'9.54"E.

The study area is bounded by the Tongati River to the south, and the Mona River, slightly further south. The Mona River feeds into the main Tongati River 0,7 km to the south-east of the Sibudu Caves site.

The top section of the cliff is approximately 30m above the Tongati River below. The cliff face is a sheer eroded rock wall on the north-eastern outer extremity of a meander in the Tongati River. Please refer to Figures 2 and 3.

Geology and Hydrology

Ordovician Natal Group sandstone, Dwyka tillite, Ecca shale and Mapumulo gneiss or Mokolian are described within the KwaZulu Natal Coastal Belt. The weathering process of old dunes has produced Berea red sand in places and the soils supported by the rock types in the area are shallow over hard sandstones and deeper over younger and softer rocks.

Land use and Socio-economic structure

Land use in the surrounding areas consists of predominantly agricultural farming of sugar cane and subsistence farming activities associated with individual households. The socio-economic structure can be classified as predominantly low income. The proposed Sibudu Caves site is undeveloped.

6. POTENTIAL KEY ISSUES

The opportunities created by preserving this site will allow for the site integrity to be preserved and for the site to potentially become a future World Heritage Site. This will protect the potential historic treasures within the shelter for further study. As a World Heritage Site it will be possible to conserve the site and also to develop tourism related activities which will ultimately benefit people within the site area, through associated job creation opportunities.

7. INTERESTED AND AFFECTED PARTIES

Interested and Affected Parties (IAPs) should contact the environmental consultant to submit comments regarding the proposed subdivision of land for the Sibudu Caves site. Any issues, which you would like to raise and have not been identified to date, would be welcomed.

References

Mucina L & Rutherford MC (eds) 2006. *The Vegetation of South Africa, Lesotho and Swaziland*. Strelitzia 19. South African National Biodiversity Institute. Pretoria.

Simon Vines Town and Regional Planners (December 2017), Motivational Report for the Proposed Subdivision and Rezoning Application of Sibudu Caves Site.

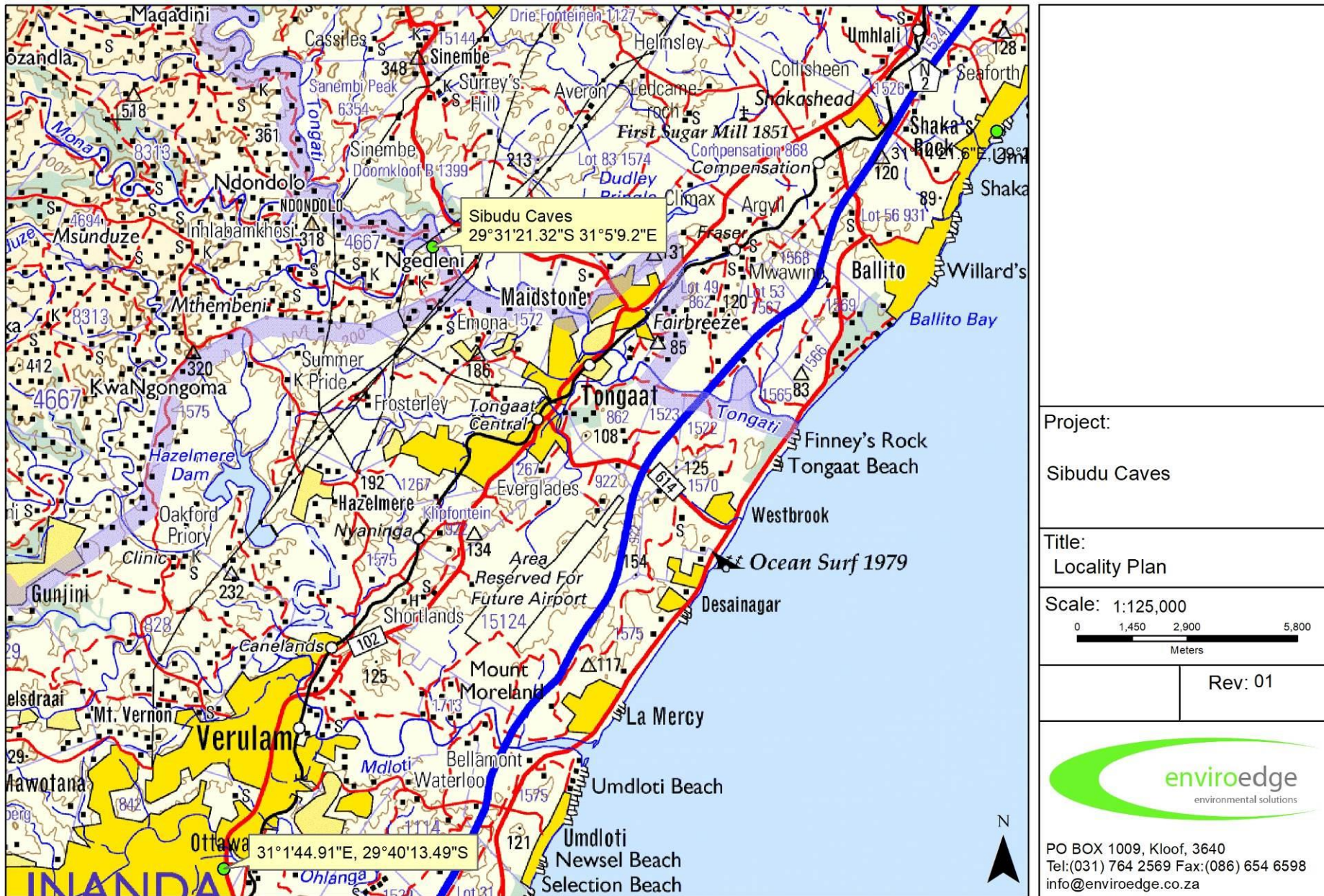


Figure 1 – Locality Plan

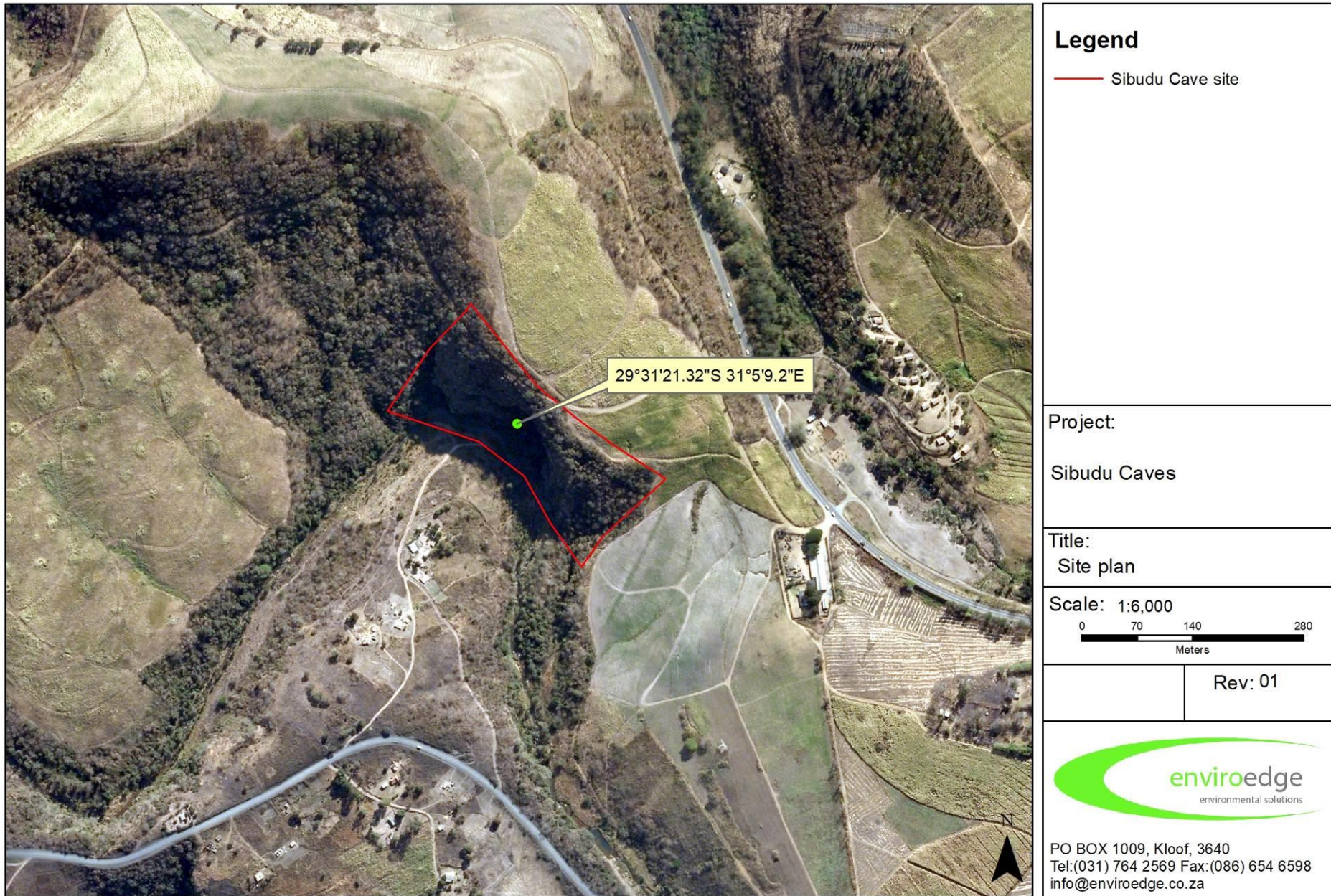


Figure 2 – Site Plan

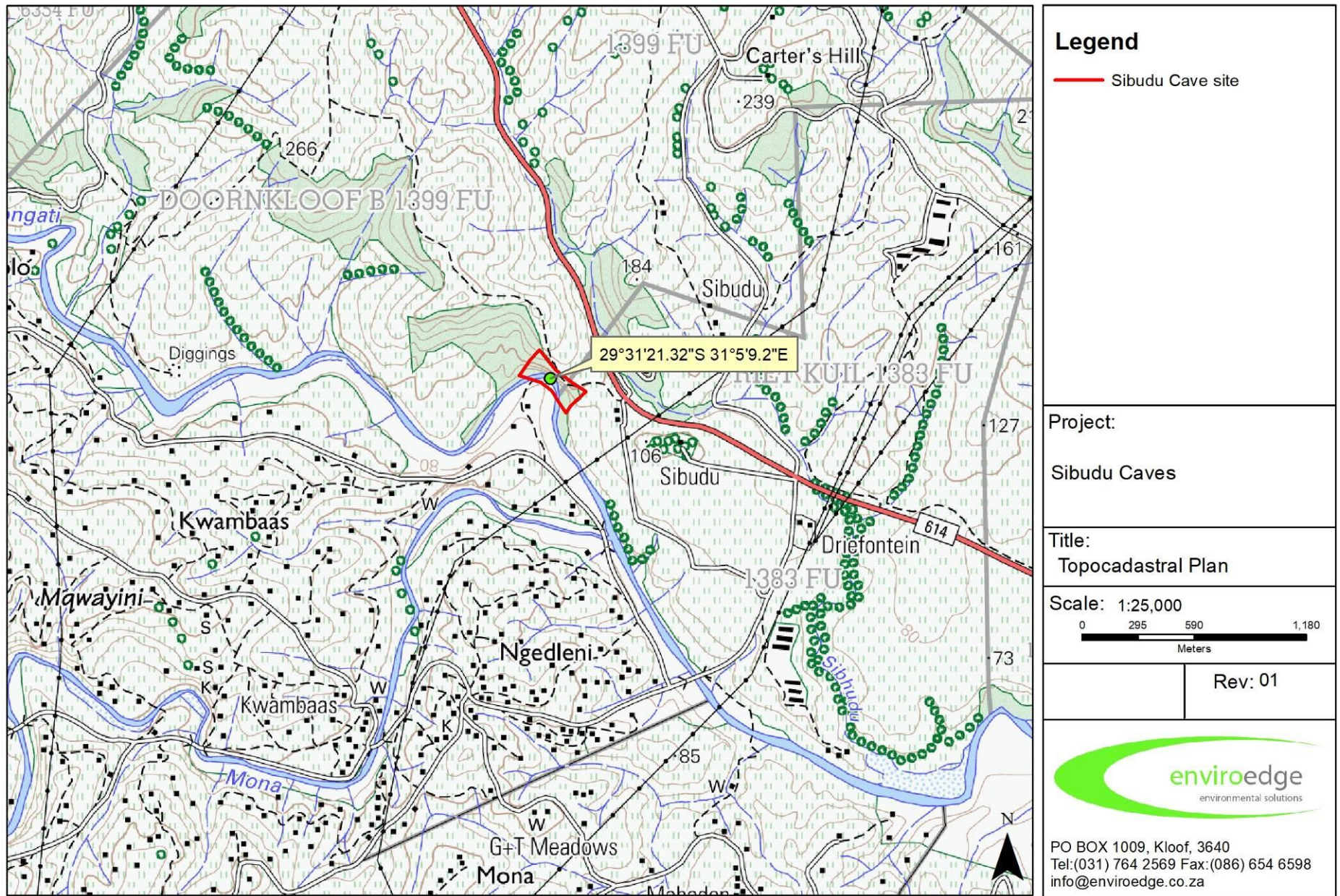


Figure 3 – Topographical Plan

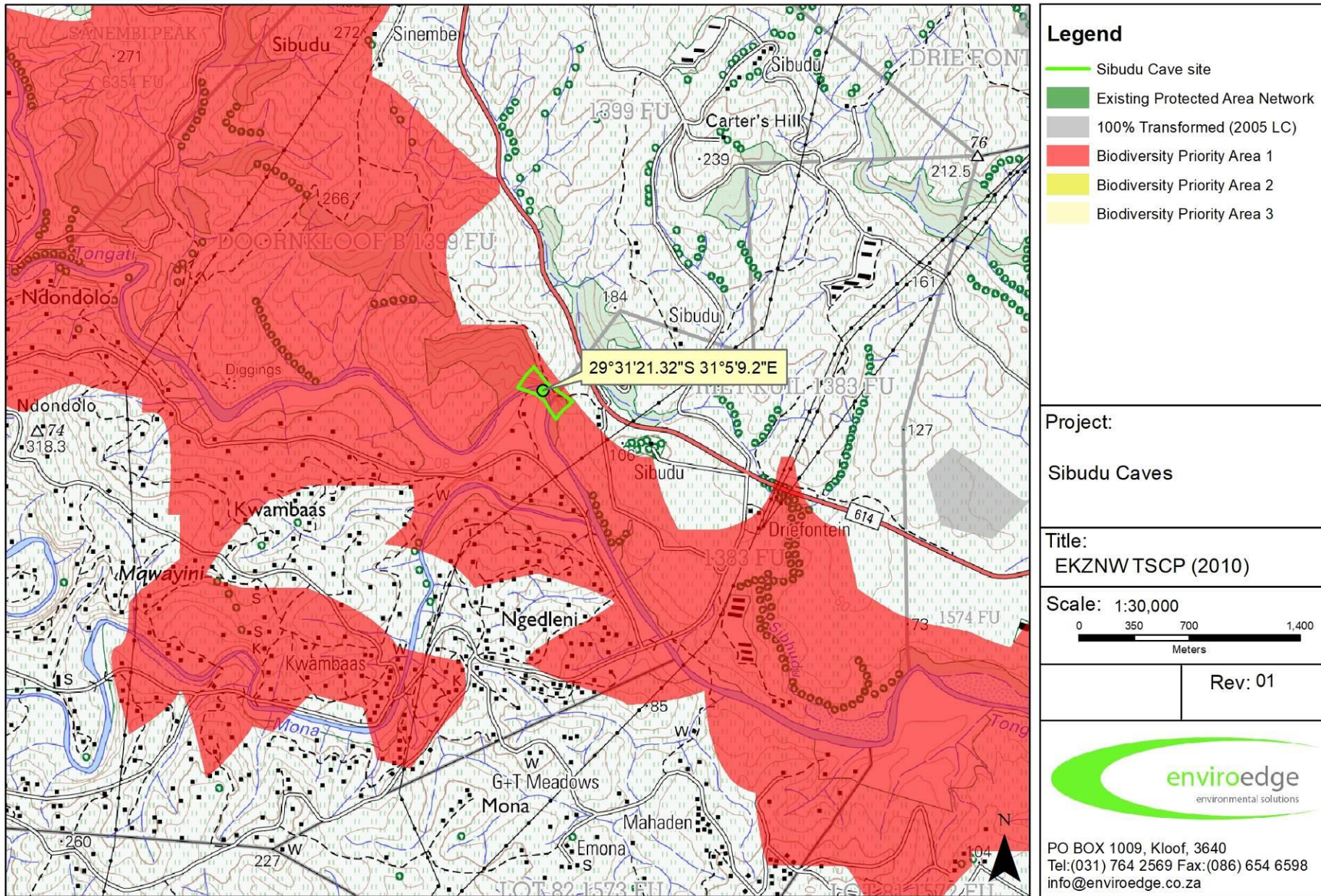


Figure 4 – EKZNW Wildlife TSCP – C- Plan

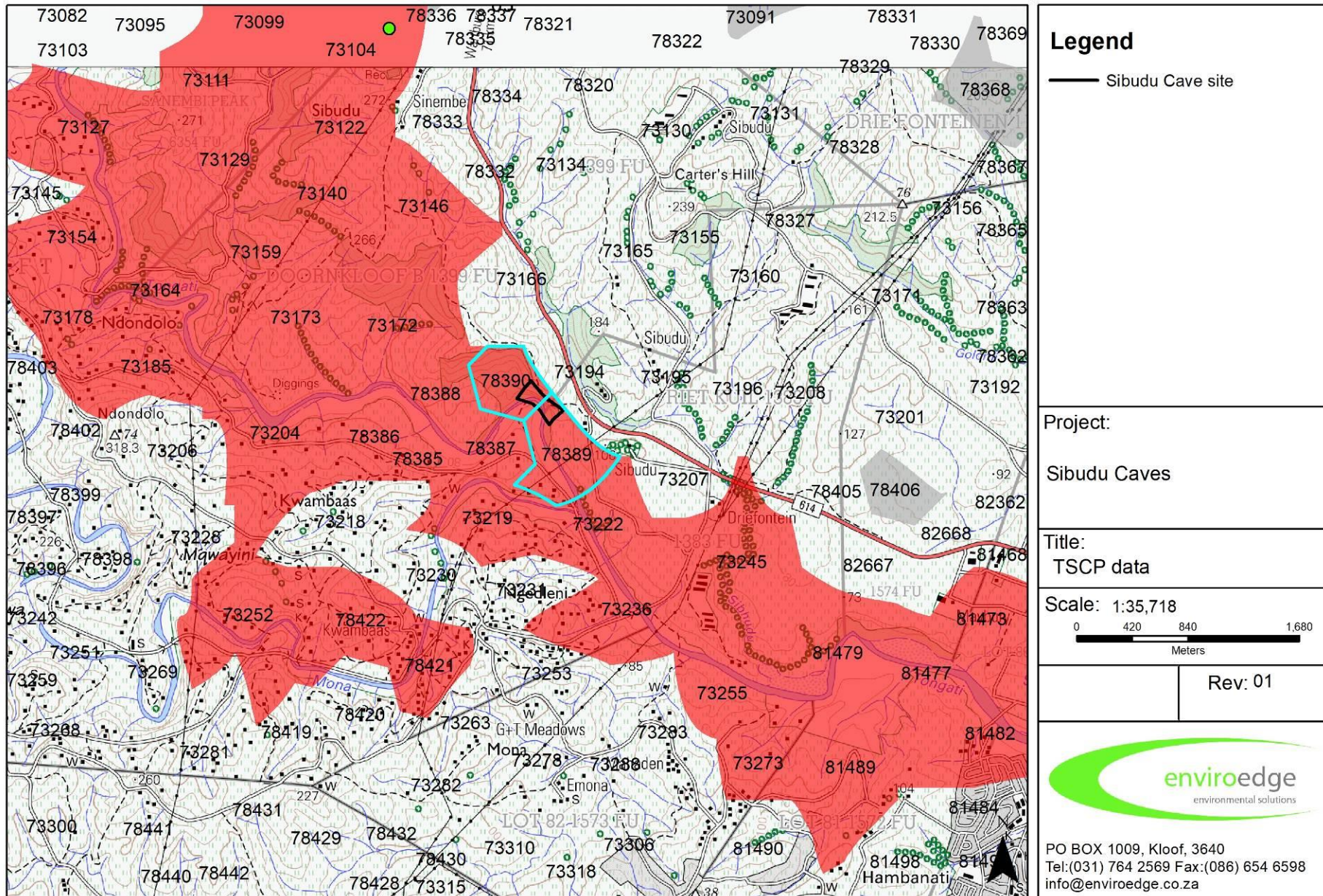


Figure 4a – EKZNWildlife TSCP – C- Plan Polygon

C-Plan Attributes Table

PU_NAME	HECTARES	SITEKEY	NEWFEAT	PAIRRCD	PAMINSET	LEGEND	FEATURE_1	FEATURE_2	FEATURE_3	FEATURE_4
# 78392	35.37	78392	Terrestrial surface	Ir1	R2	R2	North Coast Grassland	Mi_DORFAL_D - Doratogonus falcatus	Mo_edolym_d - Euonyma lymneaeformis	Mi_GNOSPE_D - Gnomeskelus spectabilis
# 78393	24.119	78393	Terrestrial surface	Ir1	R2	R2	North Coast Grassland	Mi_DORFAL_D - Doratogonus falcatus	Mo_edocon_d - Edouardia conulus	Mo_edolym_d - Euonyma lymneaeformis

FEATURE_4	FEATURE_5	FEATURE_6	FEATURE_7	FEATURE_8	FEATURE_9	FEATURE_10	TRANS_STAT
Mi_GNOSPE_D - Gnomeskelus spectabilis	Mo_edocon_d - Edouardia conulus	Pl_verafr_c - Vernonia africana	Pl_barnat_c - Barleria natalensis	Mo_gulsep_d - Gulella separata	Mi_DORCRI_D - Doratogonus cristulatus	Mi_DORNAT_D - Doratogonus natalensis	AVAILABLE
Mo_edolym_d - Euonyma lymneaeformis	Pl_barnat_c - Barleria natalensis	Pl_verafr_c - Vernonia africana	Mi_GNOSPE_D - Gnomeskelus spectabilis	Gr_ereere_d - Eremidium erectus	Mi_DORCRI_D - Doratogonus cristulatus	Mi_DORNAT_D - Doratogonus natalensis	AVAILABLE

Figure 4b – EKZNWildlife TSCP – C- Plan Polygon – Attributes Table

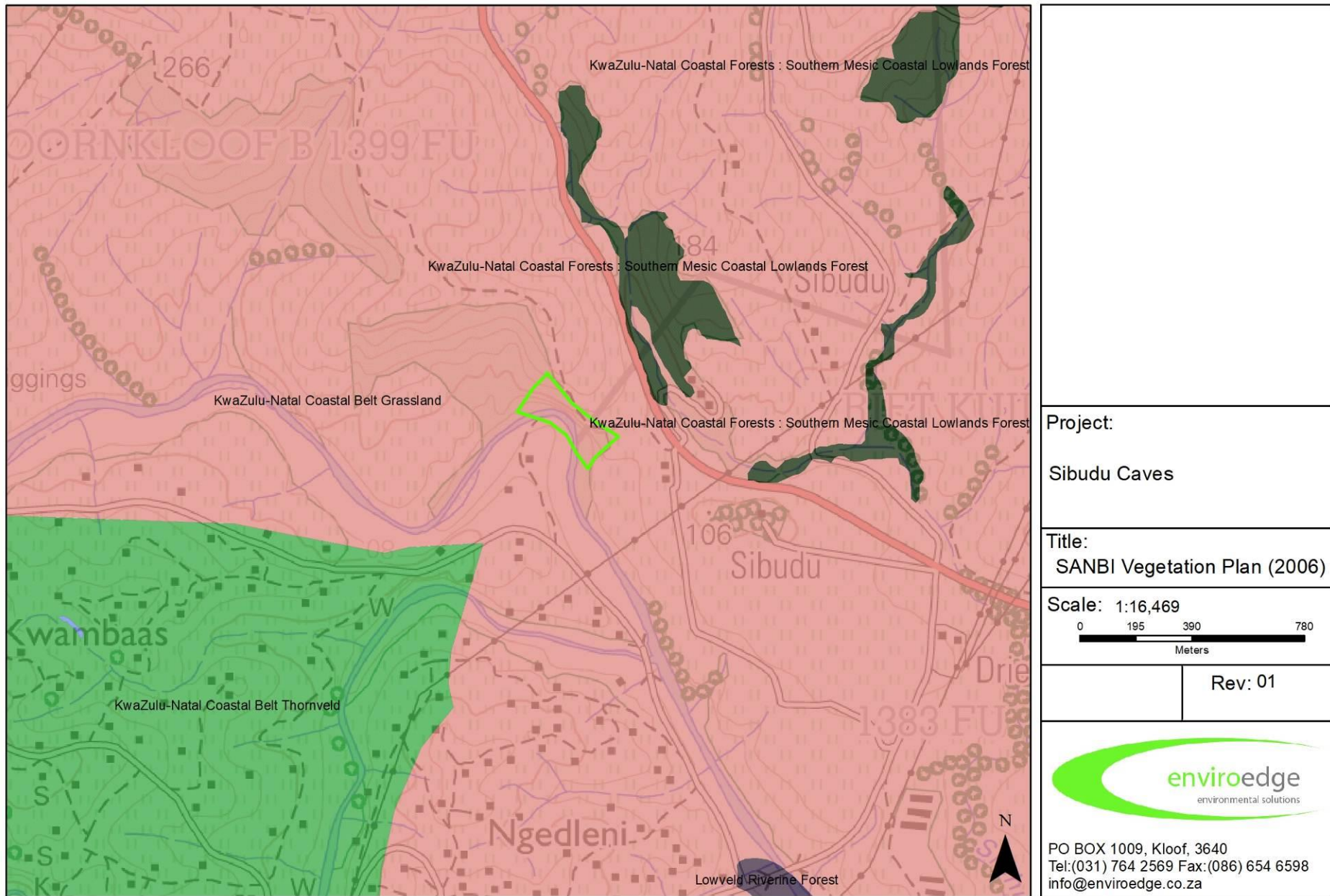


Figure 5 – SANBI Vegetation Plan (2006)