

Appendix D1

Biodiversity Compliance Statement



13 March 2023

**TERRESTRIAL BIODIVERSITY COMPLIANCE STATEMENT: UMZINTO NORTH CELLULAR PHONE MAST;
PART OF ERF 33 UMZINTO**

As the appointed botanical specialist for assessment of the terrestrial biodiversity of part of Erf 33, uMzinto, uMdoni Municipality, Ugu District Municipality, KwaZulu-Natal, that is proposed as the site of the construction of a 45 m high lattice-structure cellular-phone mast (cell-phone mast or cell-phone tower), I confirm that:

Section 1.

- (a) I have not conducted a site visit but have access to a full set of recent photographs upon which to base my findings. It is acknowledged that a site visit is usually required (as per specialist protocols), but in this instance it is patently clear that the site has been used for cultivation of sugarcane for many years and is highly disturbed.
- (b) The potential impact on the biodiversity of the natural environment of the site proposed for the construction of the cell-phone mast is discussed.

Section 2.

- a. **Specialist:** Dr David J. McDonald, Bergwind Botanical Surveys & Tours CC, 14A Thomson Road, Claremont.
Telephone: 082-876-4051.
SACNASP Reg. No. 400094/06 Ecological Science (Curriculum Vitae appended)

b. Declaration of independence:

I David Jury McDonald, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I, in terms of the general requirement to be independent, other than fair remuneration for work performed in terms of this application:

- (i) have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity;
- (ii) in terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements (except for an in-person site visit);
- (iii) have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared or to be prepared as part of the application; and
- (iv) am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

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1. Location

The Umzinto North Cell-phone Mast site would be located adjacent to Palm Road, immediately west of uMzinto North and directly 8 km inland west of Scottburgh (Figure 1). The lattice cell-phone mast would be constructed in the west corner of the triangular Erf 33, uMzinto and the footprint of construction will cover 100 m².

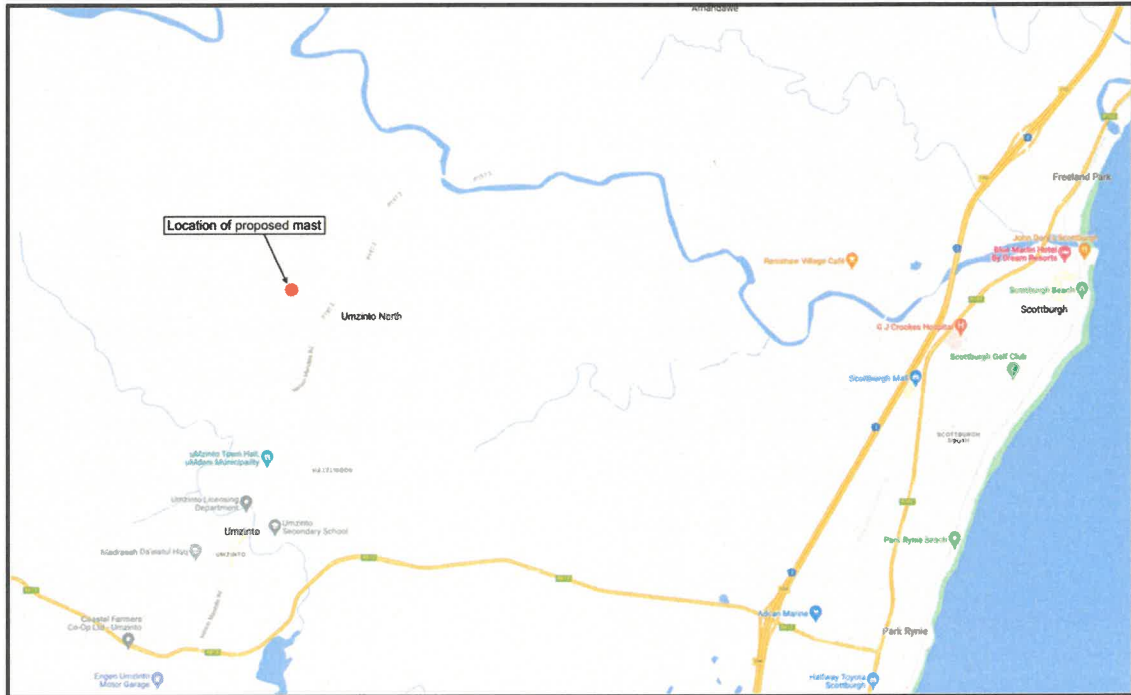


Figure 1. The location of Erf 33, uMzinto, and the proposed cell-phone mast (red dot) in southern KwaZulu-Natal.

2. Methods

This report is based on a desktop analysis of Google Earth Pro™ satellite imagery and a set of 27 photos of the site supplied by EnviroAfrica, the environmental practitioners tasked with the EIA process for application for environmental authorisation (EA). In addition, the Biodiversity Sector Plan for the Ugu District Municipality

3. Vegetation Type

According to the Vegetation Map of South Africa, Swaziland and Lesotho (SANBI, 2018) also known as VEGMAP, the original vegetation that would have occurred on Erf 33, uMzinto is KwaZulu-Natal Coastal Belt Grassland (Mucina *et al.* 2006) (Figure 2) [Note: (1) The unshaded areas in Figure 3 were originally KwaZulu-Natal Coastal Belt Grassland); (2) The dark areas in the unshaded areas are alien invasive trees). The grassland vegetation has been lost over extensive areas by development of the land as sugarcane fields. Only small pockets of this vegetation type still persist on the KwaZulu-Natal South Coast and it is classified as Endangered (Figure 3).



Figure 2. Aerial satellite image from Google Earth™ of the area around Erf 33, uMzinto, with the Vegetation Map of South Africa, Lesotho and Swaziland (eSwatini) superimposed. Note that the unshaded area represents areas originally supporting KwaZulu-Natal Coastal Belt Grassland which includes the cell-phone mast study site.

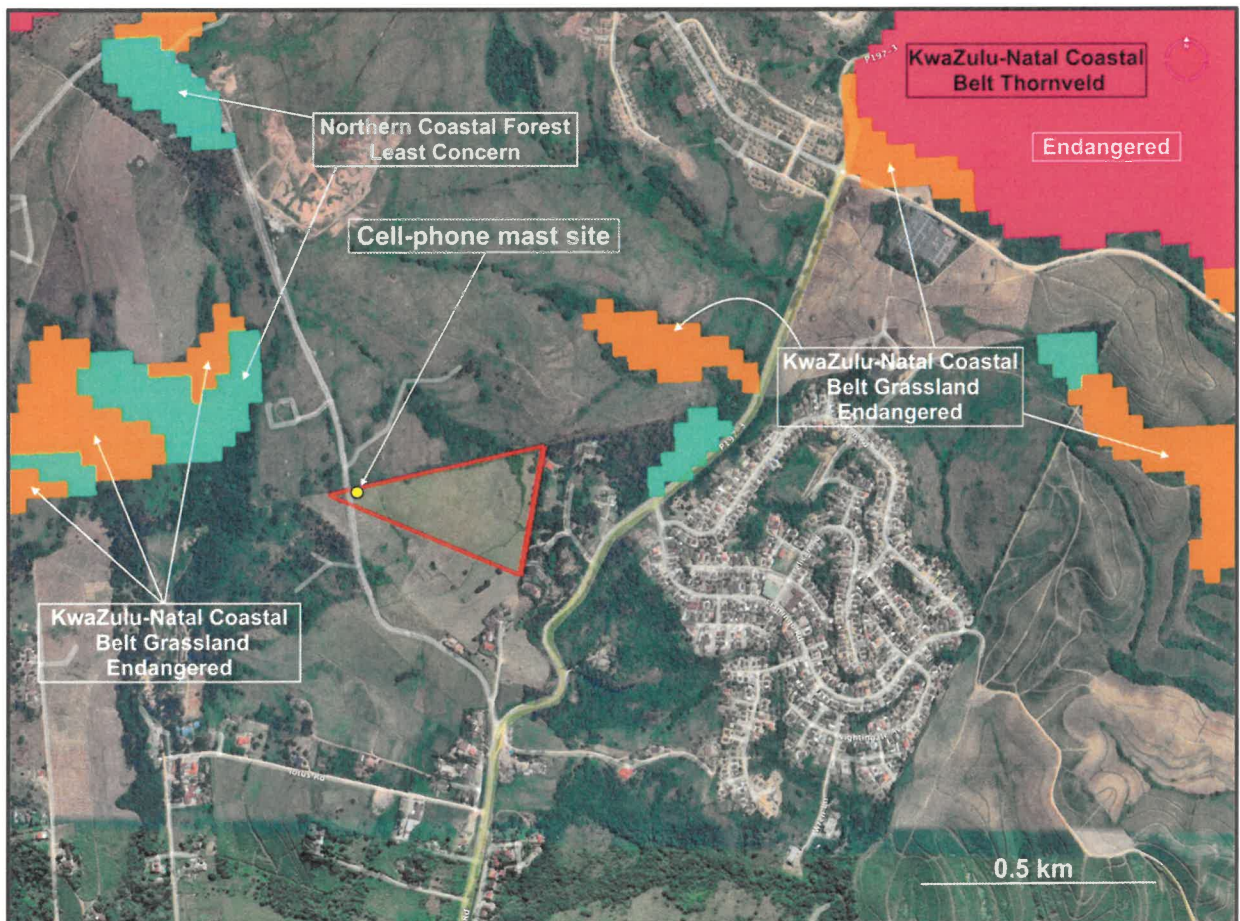


Figure 3. Aerial satellite image from Google Earth™ of the area around Erf 33, uMzinto, overlaid with the shapefile of Red Listed Ecosystems (RLE), showing that the proposed cell-phone mast site does not support any vegetation of conservation importance.

4. Disturbance regime

The site proposed for the construction of the cell-phone mast or tower is part of an active agricultural area where sugarcane has been grown for at least the past 20 years, if not longer (Figure 4). This means that the site has been completely transformed from its original state of KwaZulu-Natal Coastal Belt Grassland and it no longer supports any natural vegetation (Figure 5).



Figure 4. Looking eastwards over Erf 33, uMzinto, with the red arrow indicating the site proposed for the cell-mast.



Figure 5. Close-up of the proposed cell-mast site, highly disturbed and planted with sugarcane.

5. The National Web-based Environmental Screening Tool and Critical Biodiversity Areas

The National Web-based Environmental Screening Tool was applied to determine the environmental sensitivity of the entire Erf 33, uMzinto. It was determined that for the Terrestrial Plants Sensitivity Theme, the sensitivity is **MEDIUM** (Figure 6) and for the Terrestrial Biodiversity Sensitivity Theme, the sensitivity is **VERY HIGH** (Figure 7). From the photographs examined, of which Figures 4 and 5 are only two of 27, the conditions on the site are very different from the classification for both plant species and terrestrial biodiversity, as given by the

screening tool. The classification for both of these themes should be **(VERY!) LOW SENSITIVITY**. There can be no doubt that none of the sensitive plant species listed below would be found at the proposed mast site.

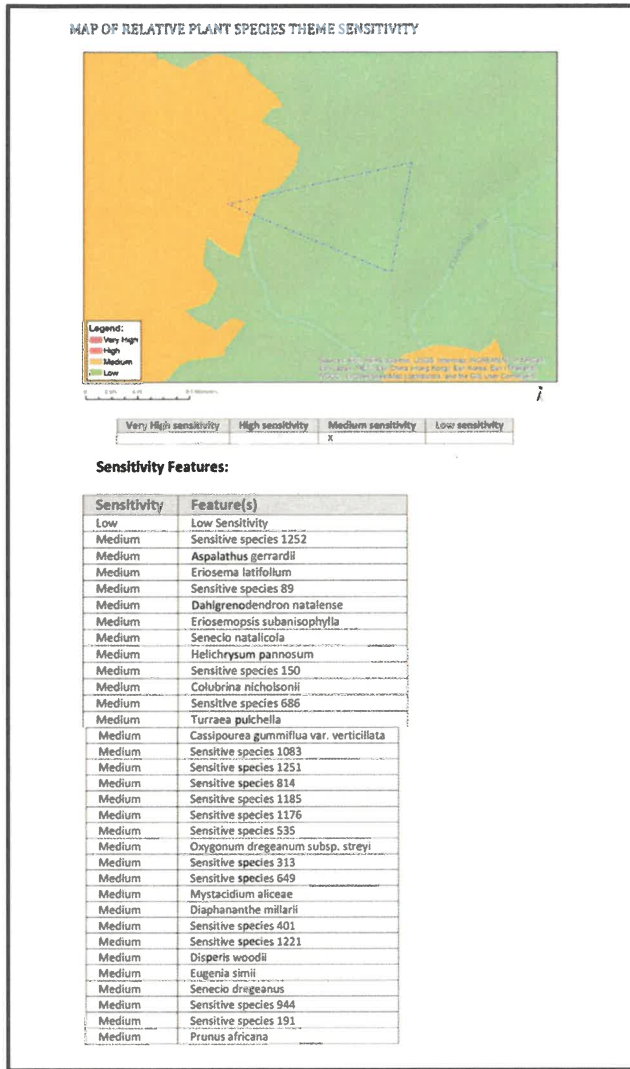


Figure 6. Map of Relative Plant Species Theme Sensitivity, with sensitive plant species, from the National Web-based Environmental Screening Tool indicating that the site (blue-dotted boundary) has **MEDIUM** sensitivity.

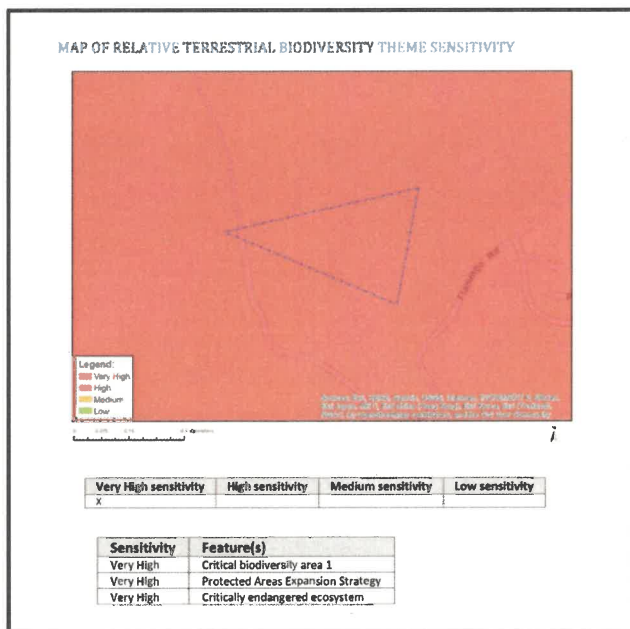


Figure 7. Map of Relative Terrestrial Biodiversity Theme Sensitivity from the National Web-based Environmental Screening Tool indicating that the terrestrial biodiversity at the site (blue-dotted boundary) is apparently **Very High**.

Ezemvelo KZN Wildlife is the provincial statutory body in KwaZulu-Natal (KZN) responsible for conservation of biodiversity. They have classified KZN with respect to Critical Biodiversity Areas (CBAs) (Ezemvelo KZN Wildlife, 2016a), Ecological Support Areas (ESAs) (Ezemvelo KZN Wildlife, 2016c), as well as formally and informally protected areas (PAs) (Ezemvelo KZN Wildlife, 2016b) in biodiversity sector plans (BSP) for each district municipality (Ezemvelo KZN Wildlife, 2014). uMzinto falls in the Ugu District Municipality and the BSP for this administrative entity shows that there are no CBAs or ESAs close to the Erf 33, uMzinto study area (Figure 8). The closest protected area (Ezemvelo KZN Wildlife, 2016b) is the Vernon Crookes Nature Reserve that is \pm 3.5 km from the proposed cell-phone mast at the closest point. From a terrestrial biodiversity and a botanical perspective, this has negligible bearing in terms of negative impacts of the mast on the nature reserve.

Landscape Corridors that would function as links between conservation areas in a fragmented landscape have also been mapped (Ezemvelo KZN Wildlife, 2016d) (Figure 9) The closest corridor is the Midlands Corridor, well north (15–20 km) of the mast site (Figure 9).

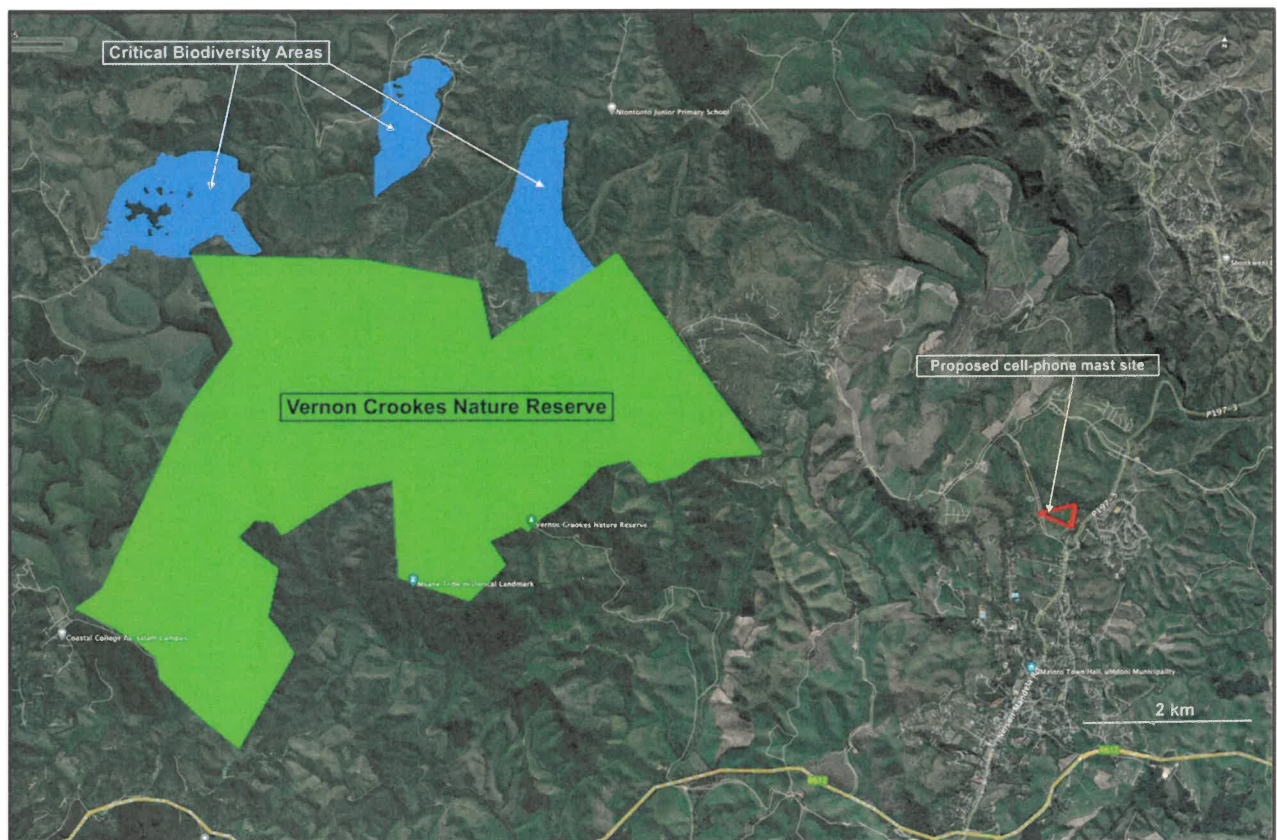


Figure 8. Protected area (Vernon Crookes Nature Reserve - green) and CBAs (blue) within 10 km of the proposed cell-phone mast.

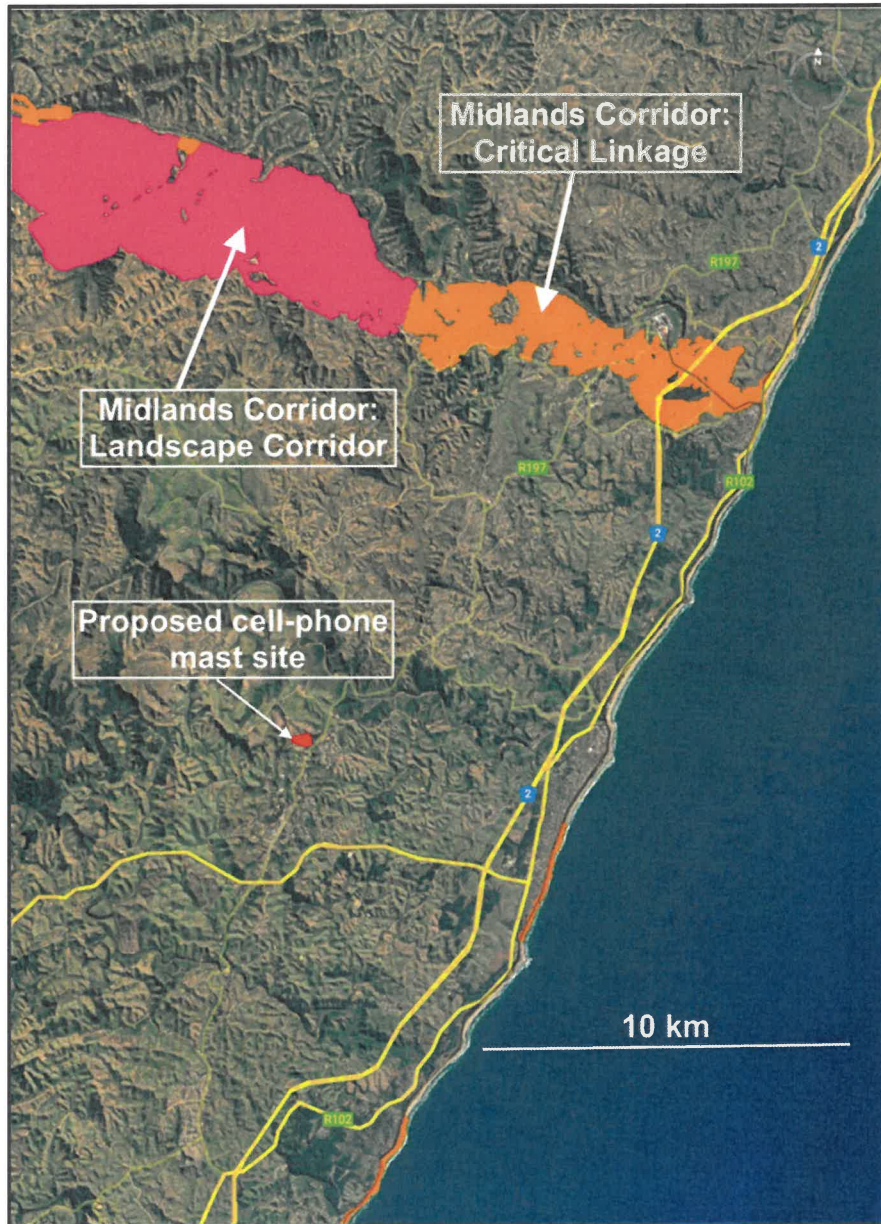


Figure 9. Part of the map of Landscape Corridors closest to the proposed cell-phone mast site, superimposed on a Google Earth Pro™ satellite image.

6. Conclusions

Use of the good photographic and remote sensing information available obviated a site visit despite that being advocated in the legislated specialist protocols. From the photographic evidence available it has been possible to successfully conclude that the proposed 45 m cell-phone mast or tower with a 100 m² footprint would have a VERY LOW to NEGLIGIBLE negative impact on any sensitive habitat from both botanical and terrestrial biodiversity perspectives. This is at variance with the classification produced by the application of the National Web-based Screening Tool that is MEDIUM sensitivity for the plant species theme and VERY HIGH for the terrestrial biodiversity theme.

There is nothing to suggest, from a biological standpoint, that the mast should not be built on the proposed site in the western corner of Erf 33, uMzinto and the proposal is supported without reservation and without the need of any mitigation to offset and negative impacts.

7. References

Ezemvelo KZN Wildlife (2014). *Ugu District Municipality: Biodiversity Sector Plan, Version 1.1*. Unpublished Report by Ezemvelo KZN Wildlife, Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife, P. O. Box 13053, Cascades, Pietermaritzburg.

Ezemvelo KZN Wildlife. *KZN CBA Optimal version 2016 [Vector] 2016a*. Available from the Biodiversity GIS website, downloaded on 13 March 2023.

Ezemvelo KZN Wildlife. *KZN Ezemvelo Wildlife Managed Protected Area (PAs) 2016 [Vector] 2016b*. Available from the Biodiversity GIS website, downloaded on 14 March 2023.

Ezemvelo KZN Wildlife. *KZN Ecological Support Areas 2016 [Vector] 2016c*. Available from the Biodiversity GIS website, downloaded on 14 March 2023.

Ezemvelo KZN Wildlife. *KZN Landscape Corridors 2016 [Vector] 2016d*. Available from the Biodiversity GIS website, downloaded on 14 March 2023.

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Submitted: 15 March 2023



Botanical Specialist

Appendix: Curriculum Vitae

Dr David Jury McDonald Pr. Sci. Nat.

Name of Company: Bergwind Botanical Surveys & Tours CC. (Independent consultant)

Work and Home Address: 14 A Thomson Road, Claremont, 7708

Tel: (021) 671-4056 **Mobile:** 082-876-4051 **Fax:** 086-517-3806

E-mail: dave@bergwind.co.za

Website: www.bergwind.co.za

Profession: Botanist / Vegetation Ecologist / Consultant / Tour Guide

Date of Birth: 7 August 1956

Employment history:

- 19 years with National Botanical Institute (now SA National Biodiversity Institute) as researcher in vegetation ecology.
- Five years as Deputy Director / Director Botanical & Communication Programmes of the Botanical Society of South Africa
- 17 years as private independent Botanical Specialist consultant (Bergwind Botanical Surveys & Tours CC)

Nationality: South African (ID No. 560807 5018 080)

Languages: English (home language) – speak, read and write
Afrikaans – speak, read and write

Membership in Professional Societies:

- South Africa Association of Botanists
- International Association for Impact Assessment (SA)
- South African Council for Natural Scientific Professions (**Ecological Science, Registration No. 400094/06**)
- Field Guides Association of Southern Africa

Key Qualifications:

- Qualified with a M. Sc. (1983) in Botany and a PhD in Botany (Vegetation Ecology) (1995) at the University of Cape Town.
- Research in Cape fynbos ecosystems and more specifically mountain ecosystems.
- From 1995 to 2000 managed the Vegetation Map of South Africa Project (National Botanical Institute).
- Conducted botanical survey work for AfriDev Consultants for the Mohale and Katse Dam projects in Lesotho from 1995 to 2002. A large component of this work was the analysis of data collected by teams of botanists.
- **Director: Botanical & Communication Programmes** of the Botanical Society of South Africa (2000—2005), responsible for communications and publications; involved with conservation advocacy particularly with respect to impacts of development on centres of plant endemism.
- Further tasks involved the day-to-day management of a large non-profit environmental organisation.
- **Independent botanical consultant** (2005 – to present) over 300 projects have been completed related to environmental impact assessments in the Western, Southern and Northern Cape, Karoo and Lesotho. A list of reports (or selected reports for scrutiny) is available on request.

Higher Education

Degrees obtained
and major subjects passed:

B.Sc. (1977), University of Natal, Pietermaritzburg
Botany III
Entomology II (Third year course)

B.Sc. Hons. (1978) University of Natal, Pietermaritzburg
Botany (Ecology /Physiology)

M.Sc. - (Botany), University of Cape Town, 1983.
Thesis title: 'The vegetation of Swartboschkloof, Jonkershoek,
Cape Province'.

PhD (Botany), University of Cape Town, 1995.
Thesis title: 'Phytogeography endemism and diversity of the
fynbos of the southern Langeberg'.

Certificate of Tourism: Guiding (Culture: Local)
Level: 4 Code: TGC7 (Registered Tour Guide: WC 2969).

Employment Record:

January 2006 – present: Independent specialist botanical consultant and tour guide in own company:

Bergwind Botanical Surveys & Tours CC

August 2000 - 2005 : Deputy Director, later Director Botanical & Communication Programmes,
Botanical Society of South Africa

January 1981 – July 2000 : Research Scientist (Vegetation Ecology) at National
Botanical Institute

January 1979—Dec 1980 : National Military Service

Further information is available on my company website: www.bergwind.co.za