

## **Plant Species Compliance Statement**

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**PLANT SPECIES COMPLIANCE STATEMENT:  
GAMMA 400KV GRIDLINECORRIDOR**



**PRODUCED FOR CEN INTEGRATED ENVIRONMENTAL MANAGEMENT UNIT (CEN) ON BEHALF  
OF RED CAP ENERGY**



**3Foxes Biodiversity Solutions**

[Simon.Todd@3foxes.co.za](mailto:Simon.Todd@3foxes.co.za)

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## SHORT CV/SUMMARY OF EXPERTISE – SIMON TODD

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 <p><b>3Foxes Biodiversity Solutions</b> <b>ECOLOGICAL SPECIALIST SERVICES</b> Assessment/Management/Research</p>	<p>Simon Todd Pr.Sci.Nat Director &amp; Principle Scientist C: 082 3326502 Simon.Todd@3foxes.co.za</p> <p>23 De Villiers Road Kommetjie 7975</p>	<p>Ecological Solutions for People &amp; the Environment</p>
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Simon Todd is Director and principal scientist at 3Foxes Biodiversity Solutions and has over 20 years of experience in biodiversity measurement, management and assessment. He has provided specialist ecological input on more than 200 different developments distributed widely across the country, but with a focus on the three Cape provinces. This includes input on the Wind and Solar SEA (REDZ) as well as the Eskom Grid Infrastructure (EGI) SEA and Karoo Shale Gas SEA. He is on the National Vegetation Map Committee as representative of the Nama and Succulent Karoo Biomes. Simon Todd is a recognised ecological expert and is a past chairman and current deputy chair of the Arid-Zone Ecology Forum. He is registered with the South African Council for Natural Scientific Professions (No. 400425/11).

### *Skills & Primary Competencies*

- Research & description of ecological patterns & processes in Nama Karoo, Succulent Karoo, Thicket, Arid Grassland, Fynbos and Savannah Ecosystems.
- Ecological Impacts of land use on biodiversity
- Vegetation surveys & degradation assessment & mapping
- Long-term vegetation monitoring
- Faunal surveys & assessment.
- GIS & remote sensing

### *Tertiary Education:*

- 1992-1994 – BSc (Botany & Zoology), University of Cape Town
- 1995 – BSc Hons, Cum Laude (Zoology) University of Natal
- 1996-1997- MSc, Cum Laude (Conservation Biology) University of Cape Town

### *Employment History*

- 2009 – Present – Sole Proprietor of Simon Todd Consulting, providing specialist ecological services for development and research.
- 2007 Present – Senior Scientist (Associate) – Plant Conservation Unit, Department of Botany, University of Cape Town.
- 2004-2007 – Senior Scientist (Contract) – Plant Conservation Unit, Department of Botany, University of Cape Town

- 2000-2004 – Specialist Scientist (Contract ) - South African National Biodiversity Institute
- 1997 – 1999 – Research Scientist (Contract) – South African National Biodiversity Institute

A selection of recent work is as follows:

### **Strategic Environmental Assessments**

Co-Author. Chapter 7 - Biodiversity & Ecosystems - Shale Gas SEA. CSIR 2016.

Co-Author. Chapter 1 Scenarios and Activities – Shale Gas SEA. CSIR 2016.

Co-Author – Ecological Chapter – Wind and Solar SEA. CSIR 2014.

Co-Author – Ecological Chapter – Eskom Grid Infrastructure SEA. CSIR 2015.

Contributor – Ecological & Conservation components to SKA SEA. CSIR 2017.

### **Relevant Studies Related to the Current Project Area**

Nuweveld North, East and West WEFs. Fauna & Flora Specialist Study for EIA. Zutari 2021.

Environmental Impact Assessment for the Proposed Komsberg East and Komsberg West Wind Farms and Associated Grid Connection Infrastructure: Fauna & Flora Specialist Impact Assessment. Arcus Consulting 2014.

Rietkloof & Brandvallei Wind Farms and Associated Grid Connection Infrastructure: Fauna & Flora Specialist Impact Assessment Report. EOH 2016.

Proposed Gunstfontein Wind Farm and Associated Grid Connection Infrastructure: Fauna & Flora Specialist Impact Assessment Report. Savannah Environmental 2016.

Mainstream South Africa Dwarsrug Wind Energy Facility: Fauna & Flora Specialist Impact Assessment Report. Sivist 2014.


Phezukomoya and San Kraal Wind Energy Facilities and associated grid connection. Fauna and Flora specialist studies. Arcus Consulting 2018.

Kokerboom Wind Energy Facilities (1-4) and associated grid connections. Fauna and Flora specialist studies. Aurecon 2017.

## SPECIALIST DECLARATION

I, ..Simon Todd....., as the appointed independent specialist, in terms of the 2014 EIA Regulations, hereby declare that I:

- I act as the independent specialist in this application;
- I 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;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act;
- 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 Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I have no vested interest in the proposed activity proceeding;
- 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;
- I have ensured that information containing all relevant facts in respect of the specialist input/study was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments on the specialist input/study;
- I have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;
- all the particulars furnished by me in this specialist input/study are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of the specialist:  \_\_\_\_\_

Name of Specialist: \_\_\_\_Simon Todd\_\_\_\_\_

Date: \_\_\_\_23 August 2022\_\_\_\_\_

## **1 INTRODUCTION**

In 2021 Red Cap Energy (Pty) Ltd ('Red Cap') received Environmental Authorisation for three wind farms and for a 400 kV grid corridor collectively known as Nuweveld Wind Farm Development, located close to Beaufort West in the Western Cape Province. The approved grid corridor links the Nuweveld projects to the Droërivier Substation ~65 km to the south of the wind farms. Red Cap is also proposing to develop four additional wind farms and associated grid connections, known as the Hoogland Projects. The Hoogland Wind Farms are located north and south of the Nuweveld complex, and the Hoogland grid connections will terminate at the Nuweveld Collector Substation and are the subject of separate applications.

In order to expand the capacity of the Eskom grid and improve the functionality of the grid in the area, an additional 400 kV grid connection is required from the Nuweveld Collector Substation to the Gamma Substation, ~90 km to the east of the project site. This additional line will improve functionality by creating a 400 kV ring-line between the Droërivier Substation, Gamma Substation and Nuweveld projects, and create opportunities for other wind farm developments (such as the proposed Hoogland projects) to tie-into the grid either at the Nuweveld Collector Substation or along the new 400 kV line. As such, the proposed new line will allow Eskom to release further renewable energy potential in an area that is becoming a renewable energy development node in South Africa, thereby helping to alleviate South Africa's power crisis. A 300 m x 300 m expansion to the Gamma Substation (including transformers and other standard substation infrastructure) and access tracks for construction and maintenance of the line will also be required and form components of the project.

As part of the required studies for an application for environmental authorisation, 3Foxes Biodiversity Solutions has been appointed to do a site verification survey and of the assessment Corridor, and advise on whether a Species Impact Assessment or Compliance Statement is required. The DFFE Screening Tool indicates that portions of the site in the north west of the corridor fall within areas classified as low sensitivity for the Plant Species Theme, with the remainder of the grid corridor classified as Medium Sensitivity due to the potential presence of *Isolepis expallescens* (VU), Sensitive Species 945 (Rare), *Tridentea virescens* (Rare) and *Hereroa concava* (VU). However, none of these species were observed during the site verification and fieldwork conducted within the grid corridor. As a result, the corridor is considered to be low sensitivity for these species. Since no other plant species of significant concern were observed within the corridor, and powerline infrastructure can be micro-sited post decision-making by the DFFE to avoid populations of sensitive plant species, a Plant Species Compliance Statement is the recommended level of study for the BA process (refer to the Site Sensitivity Verification Report for Terrestrial Ecology and is not repeated here).

## **2 SCOPE OF STUDY**

In terms of the GN 1150 30 October 2020, *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, when applying for environmental authorisation*, the Terrestrial Plant Species Compliance Statement should include the following details:

- The compliance statement must be prepared by a SACNASP registered specialist under one of the two fields of practice (Botanical Science or Ecological Science).
- The compliance statement must:
  - be applicable within the study area;
  - confirm that the study area is of “low” sensitivity for terrestrial plant species; and
  - indicate whether or not the proposed development will have any impact on SCC.
- The compliance statement must contain, as a minimum, the following information:
  - contact details and relevant experience as well as the SACNASP registration number of the specialist preparing the compliance statement including a curriculum vitae;
  - a signed statement of independence by the specialist;
  - a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment;
  - a description of the methodology used to undertake the site survey and prepare the compliance statement, including equipment and modelling used where relevant;
  - where required, proposed impact management actions and outcomes or any monitoring requirements for inclusion in the EMPr;
  - a description of the assumptions made and any uncertainties or gaps in knowledge or data;
  - the mean density of observations/ number of samples sites per unit area; and
  - any conditions to which the compliance statement is subjected.
- A signed copy of the Terrestrial Plant Species Compliance Statement must be appended to the Basic Assessment Report or the Environmental Impact Assessment Report.

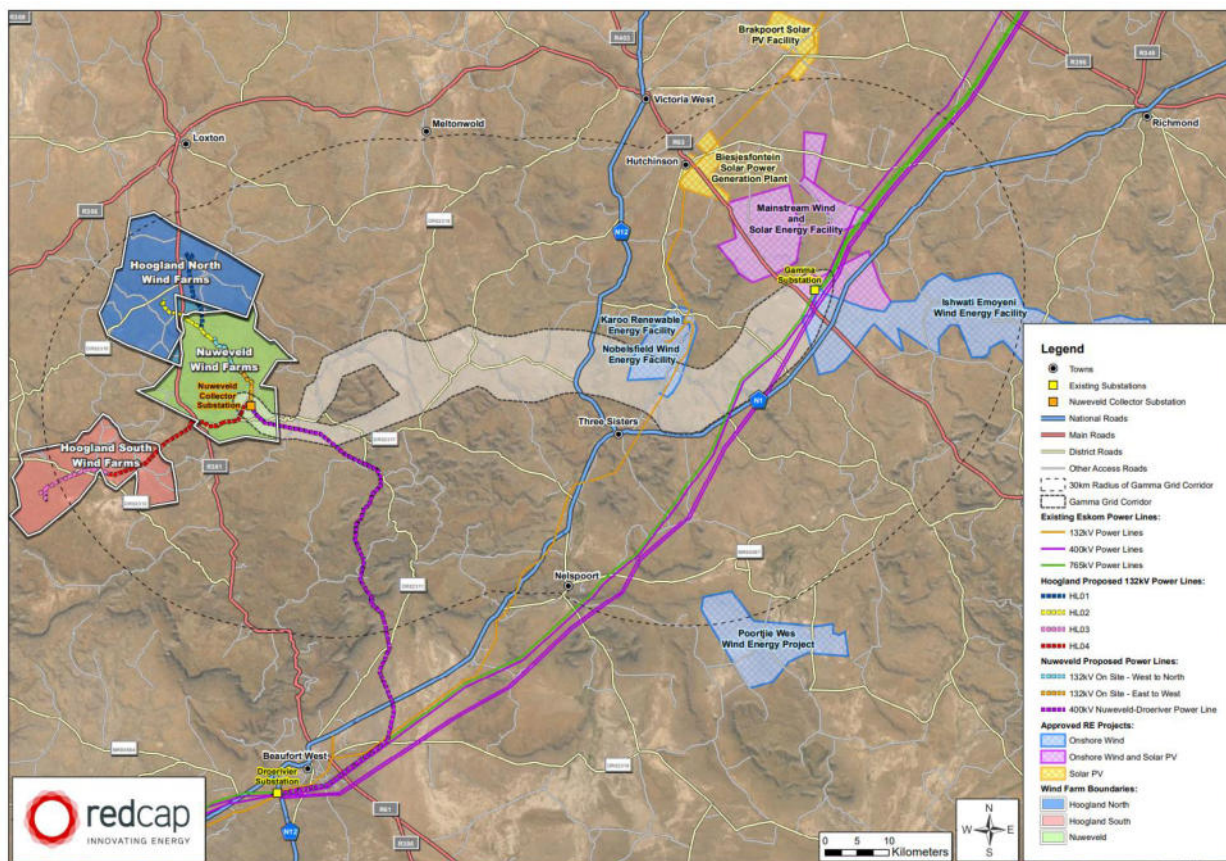
### **3 METHODOLOGY**

#### **3.1 RELEVANT ASPECTS OF THE DEVELOPMENT**

The approved (but not yet developed) Nuweveld Collector Substation is located north of Beaufort West in the Western Cape Province. The existing Gamma Substation is located ~90 km to the east of the Nuweveld Collector Substation. Although the gridline starts in the Western Cape (Central Karoo District Municipality and Beaufort West Local Municipality), portions of the line would traverse land in the Northern Cape (Pixley ka Seme District Municipality and Ubuntu Local Municipality). The Gamma 400kV Gridline Corridor is illustrated below in **Figure 1**.

Electricity will be stepped-up to 400 kV at the Nuweveld Collector Substation for evacuation via the proposed ~110 km Gamma Gridline to the existing Gamma Substation (as well as via the

approved (but not yet constructed) Nuweveld Gridline)). The new gridline will form part of the national grid. The route of the line must be pre-negotiated with the respective landowners, which includes obtaining in-principle agreements from the landowners that the line (within a servitude) may go over their land. While every effort will be made to stick to the provisional route, deviations within the corridor are possible following post-authorisation specialist micro-siting.



**Figure 1.** Image showing the regional context and location of the proposed Gamma 400kV Gridline Corridor which links the Nuweveld Collector Substation with the Eskom Gamma Substation in the east.

**Table 1.** Summary of the components and approximate areas of impact within the Gamma Grid Connection Corridor

Component	Description	Ha
Substation Infrastructure	300 m x 300 m expansion to the Gamma Substation (including transformers and other standard substation infrastructure)	9 ha (permanent)
Overhead lines and pylons	There will be a 400 kV overhead line supported by mostly lattice structure pylons. The spans (distance between pylons) on the pylons are on average 400 m. Each pylon is conservatively assumed to have a footprint of 100 m <sup>2</sup>	110 km 2.75 ha (permanent)
Access roads and tracks	Existing access roads and tracks (upgraded to ± 2-4 m wide where needed) will be used as far as possible and new access tracks would be created where needed (±2-4 m wide).	46 ha (permanent)

Component	Description	Ha
Temporary areas	Temporary laydown areas will be identified along the alignment, with the main equipment and construction yards being located along the alignment or based in one of the surrounding towns. It is anticipated that the total area required for the temporary laydown areas is up to 5 ha.	5 ha (temporary)
<b>Total disturbance footprint: Temporary</b>		<b>5 ha</b>
<b>Total disturbance footprint: Permanent</b>		<b>57.75 ha</b>

### 3.1 SITE VISITS & FIELD ASSESSMENT DATES

The Gamma 400kV gridline corridor was visited several times for the current study and numerous sections of the grid corridor have also been sampled in the past for a variety of other projects, most notably for the EWT Drylands Programme which included an assessment of riparian and terrestrial vegetation composition and health at several sites within the corridor. An initial field assessment of the corridor was conducted on the 8<sup>th</sup> of June 2022, which was aimed at identifying areas of potential concern. A follow-up field assessment was conducted on the 27<sup>th</sup> and 28<sup>th</sup> of June 2022 and a final field assessment focussed on checking various pinch-points and verifying the extent of high and very high sensitivity areas at these locations on the 26<sup>th</sup> of August 2022. The total overall amount of time spent within the corridor for the current as well as other projects is in excess of 10 full days.

### 3.2 SAMPLING LIMITATIONS AND ASSUMPTIONS

The conditions during the current field assessment were excellent for sampling following exceptional rains across the majority of the corridor. As a result, the vegetation included a large abundance of forbs, annuals and grasses. The corridor is however large and it is clearly not possible to check the entire corridor for cryptic plant species, which represents the majority of the species of concern that are listed by the DFFE Screening Tool as potentially present. As a result, it is not possible to definitively rule the presence of these species within the corridor out. However, the consultant has spent an extensive amount of time within the corridor and if present these species are certainly not common or widespread and very unlikely to be significantly impacted by the construction and operation of the grid connection. Furthermore, a key recommendation of this statement is that pylons and access roads are micro-sited to avoid populations of SCC.

### 3.3 FIELD SAMPLING APPROACH

Sensitivity mapping of the corridor was conducted by the consultant based on satellite imagery of the site as well as previous knowledge of the affected area. The identification of potentially sensitive areas included the mapping of wetlands and drainage features, steep slopes, mountains, rocky hills and larger areas of rock pavements. The sensitivity mapping was used to guide fieldwork within the corridor and the primary objective was to aid in the identification of

gridline routes that would minimise the potential impact on sensitive habitats and associated species of concern through avoidance of these areas. As a result, the preliminary alignment is, in effect, a mitigated route that aims to reduce negative ecological impacts of the power line as far as the various different constraints allow.

### **3.4 DATA SOURCING AND REVIEW**

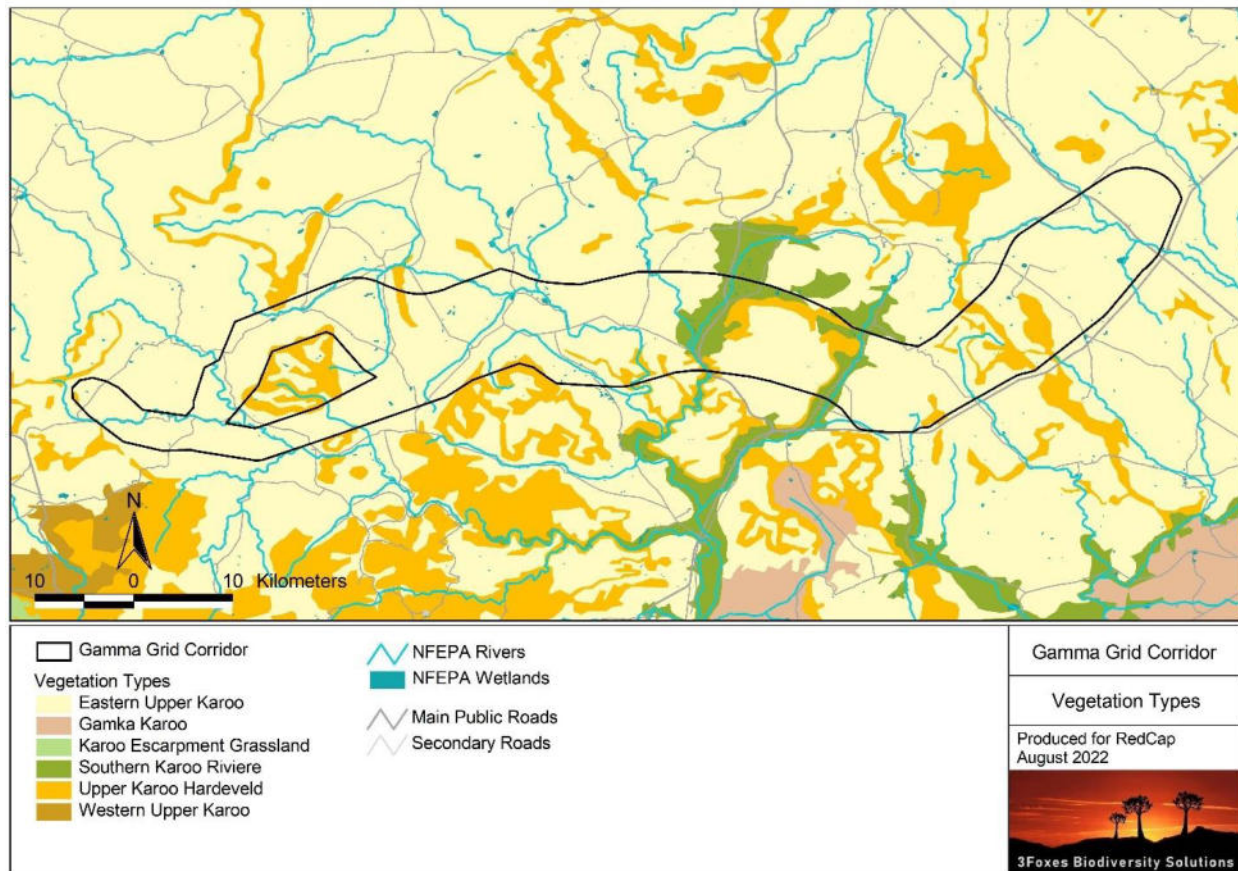
Data sources from the literature consulted and used where necessary in the study includes the following:

- Vegetation types and their conservation status were extracted from the South African National Vegetation Map (2018 update).
- Information on plant and animal species recorded for the wider area was extracted from the South African Biodiversity Information Facility (SABIF)/ SANBI Integrated Biodiversity Information System (SIBIS) database hosted by the South African National Biodiversity Institute (SANBI). Data was extracted for a significantly larger area than the study area, but this is necessary to ensure a conservative approach.
- The International Union for Conservation of Nature (IUCN) conservation status of the species in the list was also extracted from the database and is based on the Threatened Species Programme, Red List of South African Plants (2021).

## **4 BASELINE DESCRIPTION OF THE AFFECTED ENVIRONMENT**

### **4.1 VEGETATION TYPES**

The national vegetation map (Mucina & Rutherford 2006 & SANBI 2018 update) for the study area is depicted below in Figure 2. The majority of the Gamma 400kV Gridline Corridor is classified as falling within the Eastern Upper Karoo vegetation type with scattered sections of Upper Karoo Hardeveld across the route and some areas mapped as Southern Karoo Riviere along the larger drainage features. This is an oversimplification of the vegetation of the site and based on the fieldwork on the site and site validation, there are more extensive tracts of Upper Karoo Hardeveld within the corridor than mapped, as well as more extensive areas of riparian vegetation which would be considered to be the Southern Karoo Riviere vegetation type. These three vegetation types are described and illustrated briefly below.



**Figure 2.** The national vegetation map (SANBI 2018 Update) for the Gamma 400kV Gridline Corridor and surrounding area.

### *Eastern Upper Karoo*

The majority of the Gamma 400kV Gridline n Corridor site is mapped under the Vegmap as falling within the Eastern Upper Karoo vegetation type. Eastern Upper Karoo has an extent of 49 821 km<sup>2</sup> and is the most extensive vegetation type in South Africa and forms a large proportion of the central and eastern Nama Karoo Biome. This vegetation type is classified as Least Threatened, and about 2% of the original extent has been transformed largely for intensive agriculture. Eastern Upper Karoo is however poorly protected and less than 1% of the 21% target has been formally conserved. Mucina & Rutherford (2006) list eight endemic species for this vegetation type, which considering that it is the most extensive unit in the country, is not very high. As a result, this is not considered to represent a sensitive vegetation type.

Dominant and characteristic species observed within the areas of Eastern Upper Karoo vegetation include low woody shrubs such as *Pentzia globosa*, *Rosenia humulis*, *Asparagus capensis*, *Eriocephalus ericoides*, *Pteronia sordida*, *Pteronia incana*, *Plinthus karooicus*, *Helichrysum luciloides*, *Felicia muricata*, with a varying density of low succulent shrubs such as *Roepera lichtensteinii*, *Aridaria noctiflora* and *Ruschia spinosa*, with a variable grass layer dominated by *Aristida adscenionis*, *Stipagrostis ciliata*, *Stipagrostis obtusa*, *Enneapogon desvauxii* and *Tragus berteronianus*.



**Figure 3.** Typical open plains present within the Gamma 400kV Gridline Corridor, corresponding with the Eastern Upper Karoo vegetation type. The typical plains of the study area are considered low sensitivity.

#### *Upper Karoo Hardeveld*

Although there are relatively limited areas mapped under the Vegmap as Upper Karoo Hardeveld within the grid corridor, the majority of rocky hills within the area can be considered to represent this vegetation type. The Upper Karoo Hardeveld vegetation type is associated with 11 734 km<sup>2</sup> of the steep slopes of koppies, buttes mesas and parts of the Great Escarpment covered with large boulders and stones. The vegetation type occurs as discrete areas associated with slopes and ridges from Middelpos in the west and Strydenburg, Richmond and Nieu-Bethesda in the east, as well as most south-facing slopes and crests of the Great Escarpment between Teekloofpas and eastwards to Graaff-Reinet. Altitude varies from 1000-1900m. Mucina & Rutherford (2006) list 17 species known to be endemic to the vegetation type. This is a high number given the wide distribution of most karoo species and illustrates the relative sensitivity of this vegetation type compared to the surrounding Eastern Upper Karoo.

Upper Karoo Hardeveld usually consists of very rocky ground and is often associated with steep slopes, with the result that it is considered vulnerable to disturbance and is also an important habitat for fauna. Although it contains a higher diversity of species than the adjacent areas of Eastern Upper Karoo, no red-listed plant species were observed within these areas.



**Figure 4.** Dolerite ridge within the Gamma 400kV Gridline Corridor, with the Upper Karoo Hardeveld vegetation type.

#### *Southern Karoo Riviere*

The vegetation along the major drainage lines of the corridor can be considered to represent the Southern Karoo Riviere vegetation type. This vegetation type is associated with the rivers of the central karoo such as the Buffels, Bloed, Dwyka, Gamka, Sout, Kariega and Sundays Rivers. About 12% has been transformed as a result of intensive agriculture and the construction of dams. Although it is classified as Least Threatened, it is associated with rivers and drainage lines and as such represents areas that are considered ecologically significant. Within the grid corridor, these areas are of particular significance due to the association with the Riverine Rabbit which is a species of high conservation concern. Typical and dominant species observed within the drainage lines of the area includes *Vachellia karroo*, *Searsia lancea*, *S. burchellii*, *Cenchrus ciliaris*, *Stipagrostis namaquensis*, *Melianthus comosus*, *Lycium oxycarpum* and *Salsola aphylla*.



**Figure 5.** Riparian vegetation considered to represent the Southern Karoo Riviere vegetation type, observed here along the Krom River.

#### **4.2 DFFE SENSITIVE PLANT SPECIES**

The DFFE Screening Tool lists four sensitive plant species as potentially present within the site, which has medium sensitivity for these species (Table 2). The medium sensitivity indicates the potential presence of these species in the area based on the confirmed presence of these species in other areas of similar habitat, but within the corridor itself. None of these species were observed within the corridor and as a result, the grid corridor is considered low sensitivity for these species. Some of these species are however cryptic and it is possible that given the large extent of the site, that some of these species may have been missed in some part of the grid corridor. When such a large grid corridor needs to be surveyed, this is inevitable as it is not possible to exhaustively search such large areas for small cryptic species. The low sensitivity of the grid corridor is therefore based on the likely absence of these species from the corridor, but also considers the low potential negative consequence of missing such species and the required level of confidence as related to the threat likely posed by the development on these species. Finally, a preconstruction walk-through of the final development footprint would enable any affected individuals of these species to be avoided, should they ultimately prove to be present. The cryptic species are associated with specialised habitats with the result that they tend to be highly localised and hence can be effectively avoided through micro-siting of pylons and access roads if required.



**Table 2.** Sensitive Species as listed by the DFFE Screening Tool for the Gamma 400kV Gridline Corridor. None of these species were observed within the corridor.

DFFE Site Status	Name	Distribution/Habitat	Possible presence within the Gamma 400kV Grid Corridor
Medium	<i>Isolepis expallescens</i> (Vulnerable)	Nuweveld Mountains between Fraserburg and Victoria West. Its' distribution range is botanically very poorly explored. It is a localized habitat specialist, and current records indicate that it is endemic to the Nuweveld Mountains. It is associated with damp areas along stream channels.	This species was not observed within the corridor. The habitat associated with this species would be avoided by the development with the result that the development would not pose a significant threat to this species even if present. The corridor is considered low sensitivity for this species.
Medium	Sensitive species 945 (Rare)	Rare This seasonal geophyte species is associated with dolerite outcrops in high-lying areas of the Sneeuberg, Agter-Sneeuberg and Nuweveld Mountains.	It was not observed within the Gamma 400kV Corridor and there is little to no habitat deemed suitable for this species within the corridor. As a result, this species is considered absent from the site and hence the site is considered low sensitivity for this species.
Medium	<i>Hereroa concava</i> (VU)	Appears to be endemic to a small area in the Great Karoo between Beaufort West, Richmond and De Aar. Plants occur sheltered among shrubs on flats and plateaus with shale outcrops. There are very few records of this species, scattered over a wide area. The most recent collection, dating from 1988 indicate that it is common in the Karoo National Park. Its abundance elsewhere is not known. It may be overlooked due to taxonomic uncertainty in <i>Hereroa</i> , and also because its range is botanically poorly explored.	Although this species was not observed during the field assessment, it is considered plausible that this species is present within some parts of the corridor. However, the development is not considered to represent a threat to this species and as such the corridor is considered low sensitivity for this species.
Medium	<i>Tridentea virescens</i> (Rare)	A widespread species that occurs as sporadic small subpopulations of up to six	This species was not observed within the corridor. However, as this species is inconspicuous,

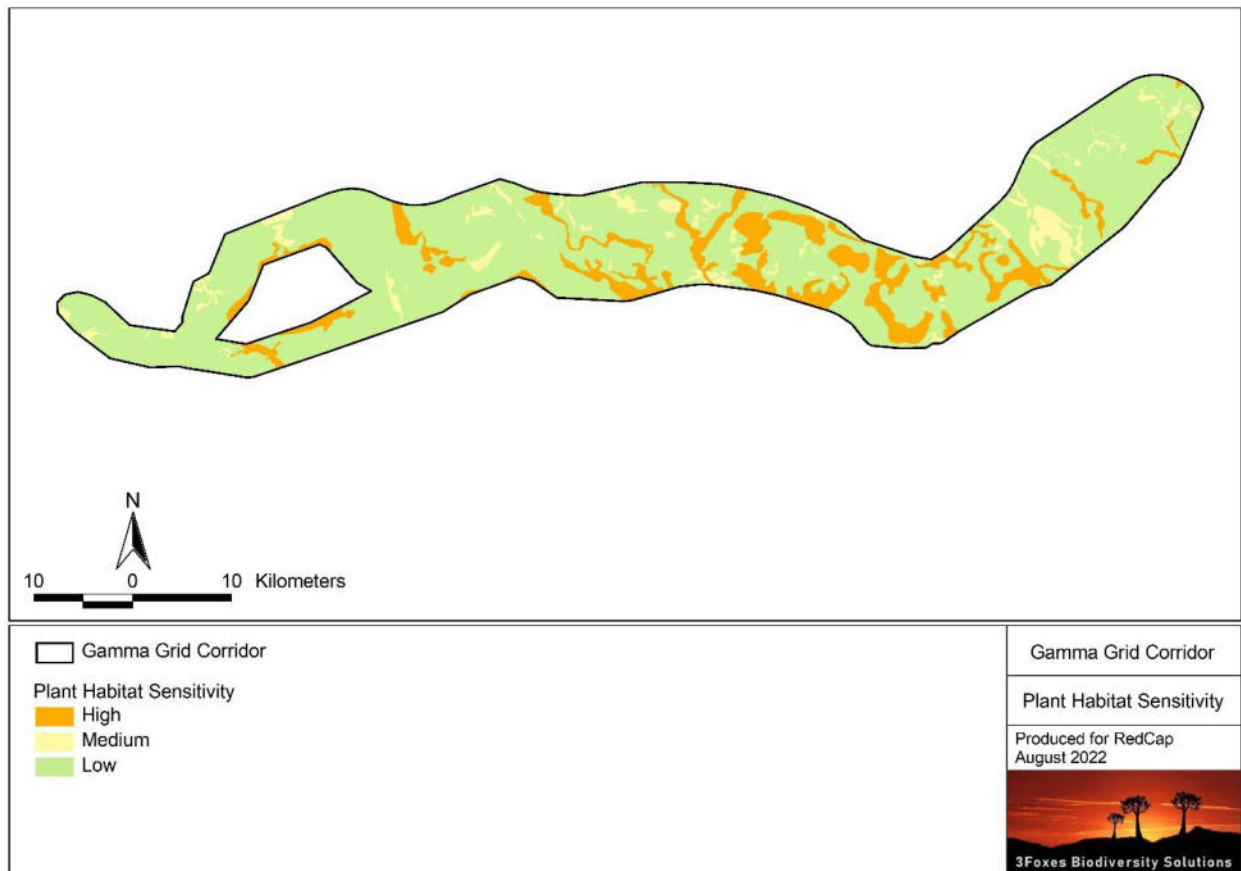
		plants. No threats are known to impact this species. Stony ground, or hard loam in floodplains.	it is easily overlooked, even when searched for. Its' presence within some parts of the corridor therefore cannot be entirely excluded but if present at all, the development of the grid would not be likely to impact this species, with the result that the corridor is considered low sensitivity for this species.
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The only plant species of potential concern observed within the corridor was *Rhinephyllum broomii* which is classified as Data Deficient. According to SANBI, this species is “A poorly known taxon from the central parts of the Karoo Basin, it has been recorded from only three collection localities with an extent of occurrence of 5388 km<sup>2</sup>. Only one recent record of this species exists, nothing is known about the current status and trends of the population, it is potentially threatened by livestock overgrazing and trampling and also possibly by future shale gas fracking.” Its range has been listed as being from Carnarvon to Fraserburg Road and Beaufort West, where the habitat is listed as “bare stony, gentle slopes, in shale”. This is a seldom observed species and SANBI notes that “Nothing is known about the populations size and current status there is only one recent record for this species collected from Carnarvon in 2013, this record has no notes on population status or abundance. Other records predate 1950 are from Fraserburg and Beaufort West.” A small population of this species numbering approximately 30 individuals was observed in the west of the corridor, on a small shale outcrop near to the Krom River. The affected area has been demarcated as a No-Go area with the result that the grid would not affect this species in any way. A record of this observation has been submitted to iNaturalist and can be viewed at the following link: <https://www.inaturalist.org/observations/129512390>.



**Figure 6.** A small population of the dwarf succulent *Rhinephyllum broomii* was observed within the corridor. As this species is vulnerable to illegal collection, the exact location has not been shared.

A plant habitat sensitivity map for the project area was developed in order to guide the developer and aid in reducing the overall impact of the development. The map is illustrated in Figure 7 below and shows areas that are considered to represent more sensitive areas from a plant habitat perspective. It is important to note that these areas are not areas where plant SCC have been observed, but rather habitats that are considered more vulnerable to disturbance due to their higher plant diversity or lower tolerance of disturbance. As such, this is not the same as the site verification exercise which is focussed on the specific presence of plant SCC and which finds the corridor to have a low sensitivity. However, the habitat sensitivity map has been used by the developer to inform the routing of the line and would aid in reducing impacts on sensitive plant habitats and other areas of general ecological significance. Such impacts on habitat-level features is not assessed here, but is covered in the Terrestrial Biodiversity Assessment.



**Figure 7.** Plant habitat sensitivity map for the Gamma Gridline Corridor, illustrating areas with habitats of higher sensitivity that should be avoided as much as possible by the development.

## 5 PROPOSED IMPACT MITIGATION ACTIONS

The following avoidance and mitigation measures should be included in the EMP for the Gamma Gridline Corridor in order to avoid, reduce and manage impacts on vegetation and plant species:

- Develop and implement alien vegetation, soil erosion, revegetation and rehabilitation management plans based on the site attributes and environmental constraints. This can be developed post-authorisation once the project is certain to go ahead.
- Ensure that all vegetation-related preconstruction permits have been obtained, and surveys and walk-throughs have been conducted prior to the commencement of construction activity.
- Preconstruction walk-through of the final development footprint to check the final pylon footprint areas and access road routes to verify that sensitive habitats are being avoided as much as possible and also provide certainty as to the zero expected impact on plant SCC. If any SCC are found to be present, these would be identified and located during the preconstruction walk-through of the alignment and micro-siting of roads and pylon footprints implemented to ensure no direct impact on such species if present.

- Annual rehabilitation activities in line with the Generic EMPr requirements (for example, any erosion problems observed on-site should be rectified as soon as possible using appropriate revegetation and erosion control works).

## **6 CONCLUSION & RECOMMENDATIONS**

- This compliance statement is applicable to the Gamma 400kV Gridline Corridor development with specific reference to the layout as provided for the assessment.
- The vegetation of the site is mapped as Eastern Upper Karoo, Upper Karoo Hardeveld and Southern Karoo Riviere. There are no threatened vegetation types present within the corridor. There are however some habitats present that are considered sensitive but which are covered under the Combined Terrestrial Biodiversity Theme Impact Assessment Report for the project.
- A single species of potential concern, *Rhinephyllum broomii* (Data Deficient) was observed within the corridor. The area where this species occurs has been demarcated as a no-go area and would be entirely avoided by the grid. As such, there would be no impact on this species, with the result that the corridor is considered low sensitivity for this species and hence still subject to this compliance statement.
- No plant species of conservation concern as identified by the DFFE Screening Tool were observed within the Corridor, and based on the available information for these species identified as potentially present, it is unlikely that any of these are present within the corridor as there is little suitable habitat present within the corridor for most of these species. The Corridor is therefore considered low sensitivity from a Plant Species Theme perspective.
- Given the low assessed sensitivity of the corridor to plant SCC and negligible likely impact of the development on plant SCC, there are no reasons that the development should not go ahead from a plant ecology perspective.

## **7 REFERENCES**

- Department of Environmental Affairs and Tourism, 2007. National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004): Publication of lists of Critically Endangered, Endangered, Vulnerable and Protected Species. Government Gazette, Republic of South Africa.
- Mucina L. & Rutherford M.C. (eds) 2006. *The Vegetation of South Africa, Lesotho and Swaziland*. Strelitzia 19. South African National Biodiversity Institute, Pretoria.
- Nel, J.L., Murray, K.M., Maherry, A.M., Petersen, C.P., Roux, D.J., Driver, A., Hill, L., Van Deventer, H., Funke, N., Swartz, E.R., Smith-Adao, L.B., Mbona, N., Downsborough, L. and Nienaber, S. (2011). Technical Report for the National Freshwater Ecosystem Priority Areas project. WRC Report No. K5/1801.
- South African National Biodiversity Institute (SANBI). 2020. Species Environmental Assessment Guideline. Guidelines for the implementation of the Terrestrial Fauna and Terrestrial Flora Species Protocols for environmental impact assessments in South Africa. South African National Biodiversity Institute, Pretoria. Version 1.2020.



## environmental affairs

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

### DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

File Reference Number:	(For official use only)
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

#### PROJECT TITLE

**GAMMA 400KV GRIDLINE CORRIDOR PROJECT**

#### Kindly note the following:

1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at <https://www.environment.gov.za/documents/forms>.
3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
5. All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

#### Departmental Details

##### Postal address:

Department of Environmental Affairs  
Attention: Chief Director: Integrated Environmental Authorisations  
Private Bag X447  
Pretoria  
0001

##### Physical address:

Department of Environmental Affairs  
Attention: Chief Director: Integrated Environmental Authorisations  
Environment House  
473 Steve Biko Road  
Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:  
Email: [EIAAdmin@environment.gov.za](mailto:EIAAdmin@environment.gov.za)

1. SPECIALIST INFORMATION

Specialist Company Name:	3Foxes Biodiversity Solutions			
B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	4	Percentage Procurement recognition	100%
Specialist name:	Simon Todd			
Specialist Qualifications:	BSc. (Zool. & Bot.), BSc Hons (Zool.), MSc (Cons. Biol.)			
Professional affiliation/registration:	SACNASP 400425/11			
Physical address:	23 De Villiers Road, Kommetjie 7975			
Postal address:	23 De Villiers Road, Kommetjie			
Postal code:	7975	Cell:	082 3326502	
Telephone:		Fax:		
E-mail:	Simon.Todd@3foxes.co.za			

2. DECLARATION BY THE SPECIALIST

I, Simon Todd, 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 Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, 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; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



Signature of the Specialist

3Foxes Biodiversity Solutions

Name of Company:

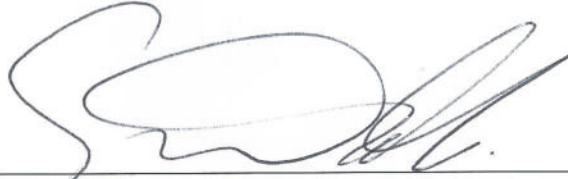
11 November 2022

Date



3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, Simon Todd, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.



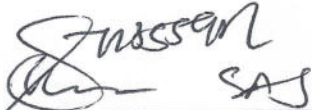
Signature of the Specialist

3Foxes Biodiversity Solutions

Name of Company

11 November 2022

Date



Signature of the Commissioner of Oaths

2022-11-11

Date

