

TERRESTRIAL ANIMAL SPECIES COMPLIANCE STATEMENT

THE DEVELOPMENT OF A 400 MW SOLAR PHOTOVOLTAIC (PV) FACILITY AND ASSOCIATED INFRASTRUCTURE (PHASE 3) ON THE REMAINDER OF FARM GOEDE HOOP 26C, PORTION 3 OF FARM GOEDE HOOP 26C AND OTHER PROPERTIES, BETWEEN DE AAR & HANOVER, EMTHANJENI LOCAL MUNICIPALITY, PIXLEY KA SEME DISTRICT MUNICIPALITY, NORTHERN CAPE PROVINCE, SOUTH AFRICA.



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TABLE OF CONTENTS

Table of Contents	2
List of Figures.....	3
Short CV/Summary of Expertise – Simon Todd.....	4
Specialist Declaration.....	6
1 Introduction	7
1.1 DFFE Site Verification	7
1.2 Relevant Aspects of the Development.....	8
2 Methodology.....	9
2.1 Field Assessment.....	9
2.2 Limitations & Assumptions.....	10
3 Baseline Description of the Affected Environment	10
3.1 Faunal Communities.....	10
4 Proposed Impact Mitigation Actions	13
5 Conclusion & Recommendations	14
6 References.....	15

LIST OF FIGURES

Figure 1. Animal Species Theme for the Soventix Phase 3 according to the DFFE Screening Tool.....	8
Figure 2. Satellite image showing the location of the proposed Soventix Phase 3 project located off the N10 between Hanover and De Aar in the Northern Cape.	9
Figure 3. Reptiles observed within or near the Soventix Phase 3 site include clockwise from top left, Leopard Tortoise, Verrox's Tent Tortoise, Bibron's Gecko and Karoo Girdled Lizard.	12
Figure 4. Frogs observed at the site include the Karoo Pygmy Toad (top left), the Giant Bullfrog (top right) and Boettger's Dainty Frog, all of which were observed to be using small dams and pan features for breeding purposes.....	13

SHORT CV/SUMMARY OF EXPERTISE – SIMON TODD

 <p>3Foxes Biodiversity Solutions ECOLOGICAL SPECIALIST SERVICES Assessment/Management/Research</p>	<p>Simon Todd Pr.Sci.Nat Director & Principle Scientist C: 082 3326502 Simon.Todd@3foxes.co.za</p> <p>23 De Villiers Road Kommetjie 7975</p>	Ecological Solutions for People & the Environment
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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.

Recent Specialist Ecological Studies in the Vicinity of the Current Site

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.

Proposed 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: ____05 July 2022_____

1 INTRODUCTION

Soventix South Africa (Pty) Ltd is proposing the development of a 400 MW Solar Photovoltaic (PV) facility and associated infrastructure (Phase 3) on the Remainder of Farm Goede Hoop 26C, Portion 3 of Farm Goede Hoop 26C and other properties, between De Aar & Hanover, Emthanjeni Local Municipality, Pixley Ka Seme District Municipality, Northern Cape Province, South Africa. Ecoleges is conducting the required EIA process for the authorisation of the development and 3Foxes Biodiversity Solutions has been appointed by Ecoleges, on behalf of Soventix South Africa to provide fauna specialist input on the proposed solar PV facility as part of the EIA application. The DFFE Screening Tool indicates that the site is compromised entirely of medium sensitivity areas as a result of two avifaunal species, but that no terrestrial species of concern are known from the site. The low sensitivity of the site has been confirmed through the site verification study. Consequently, an Animal Species Compliance Statement is the recommended level of study for the EIA process.

1.1 DFFE SITE VERIFICATION

In terms of GN 320 and GN 1150 (20 March 2020) of the NEMA EIA Regulations of 2014 (as amended), prior to the commencement of a specialist assessment, a site sensitivity verification must be undertaken to confirm the current land use and environmental sensitivity of the proposed project areas as identified by the Screening Tool. The results of the Site Verification are provided below and indicate that the site is considered low sensitivity for the terrestrial fauna and this faunal compliance statement is therefore considered to represent the appropriate level of study for the EIA.

Table 1. Sensitivity features for the Soventix Phase 3 as defined by the DFFE Screening Tool for the site.

Sensitivity	Feature(s)
Medium	<i>Aves-Neotis ludwigii</i>
Medium	<i>Aves-Aquila rapax</i>

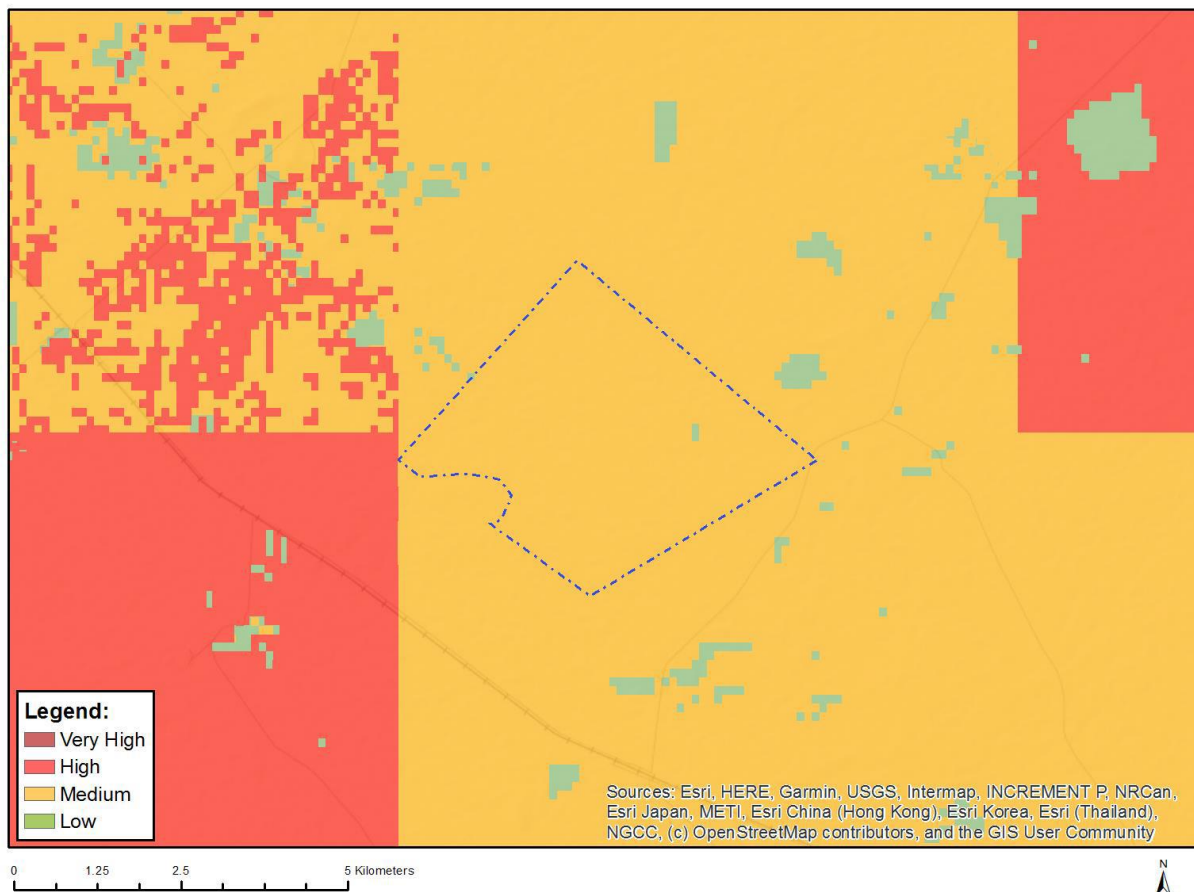


Figure 1. Animal Species Theme for the Soventix Phase 3 according to the DFFE Screening Tool.

1.2 RELEVANT ASPECTS OF THE DEVELOPMENT

The Soventix Phase 3 site is located in the Northern Cape Province, off the N10 between De Aar and Hanover. The size of the proposed development footprint for the 400 MW solar PV facility is approximately 650 ha. This area includes four interconnected 100 MW solar PV plants (ca. 125 ha each), with associated infrastructure. The PV system will be connected via transmission lines to the authorised substation on Phase 1. The substation ties into the existing ESKOM 132 kV overhead powerlines. Existing roads will be used for main access, which may need to be enlarged to allow large equipment to access the site during construction. The location of the Soventix Phase 3 PV development is illustrated below in Figure 2.

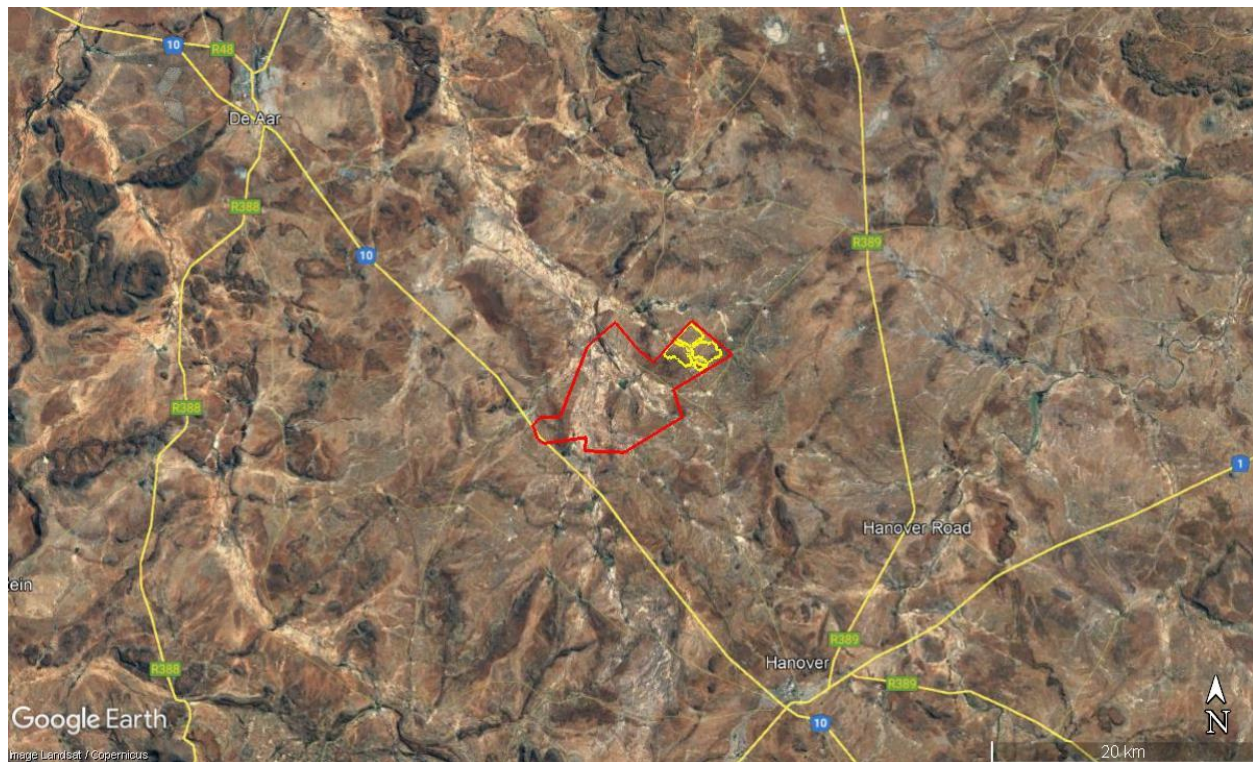


Figure 2. Satellite image showing the location of the proposed Soventix Phase 3 project located off the N10 between Hanover and De Aar in the Northern Cape. The yellow blocks indicate the footprint of the current Phase 3 project and the red, indicates the larger farm property within which the project is housed.

2 METHODOLOGY

2.1 FIELD ASSESSMENT

The site was visited for the current Phase 3 study on the 15th and 16th of March 2022. Conditions during the site visit were excellent for sampling as there had been good rains leading up to the site visit, with the result that vegetation was green and growing well and all of the pans and water bodies present on the site were filled with water. Apart from the current site visit, the wider site, but including the Phase 3 site, was also previously sampled in March 2017 over four full days. During the field assessments, all of the access roads within the site were driven and the site was investigated at various points of interest that were observed in the field or had been identified from satellite imagery of the site. This included rocky outcrops, pans, dams and gravel patches where present. These areas were searched for fauna such as amphibians and reptiles. In the 2017 survey, the site was also trapped for small mammals using Sherman live traps.

2.2 LIMITATIONS & ASSUMPTIONS

A number of limitations and assumptions are inherent in faunal studies generally and with the assessment of rare fauna. These include the following:

- It is not possible to confirm the absence of a species with 100% certainty. A species may be absent from an area during sampling but may move through the area occasionally or seasonally.
- Some species are rare or difficult to locate and it may be very difficult to confirm either the absence or presence of such species without long-term studies.
- The presence of such species are assessed based on observations of such species from the wider area in the various publically available databases and citizen science websites (Virtual Museum & INaturalist), as well as the habitat suitability, quality and condition as observed in the field.

3 BASELINE DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1 FAUNAL COMMUNITIES

Mammals

As many as 63 terrestrial mammals are listed for the wider study area in the MammalMap database. This includes the listed Black-footed Cat *Felis nigripes* (VU), South African Hedgehog *Atelerix frontalis* (NT) and the Brown Hyena *Hyaena brunnea* (NT). An analysis of the potential presence and the possible impact of the development on these species is provided below in Table 2. While these species are known from the broader area, their regular presence on the site is considered unlikely. Species that were observed in the area include Cape Porcupine *Hystrix africaeaustralis*, Steenbok *Raphicerus campestris*, Duiker *Sylvicapra grimmia*, Springbok *Antidorcas marsupialis*, Aardvark *Orycteropus afer*, Rock Hyrax *Procavia capensis*, Cape Hare *Lepus capensis*, Hewitt's Red Rock Rabbit *Pronologus saundersiae*, South African Ground Squirrel *Xerus inauris*, Springhare *Pedetes capensis*, Namaqua Rock Mouse *Aethomys namaquensis*, Black-backed Jackal *Canis mesomelas*, Bat-eared Fox *Otocyon megalotis*, Yellow Mongoose *Cynictis penicillata* and African Wild Cat *Felis silvestris*. Only two species were trapped in the 2017 small mammal trapping with the Namaqua Rock Mouse *Aethomys namaquensis* being common in the rocky areas while the Hairy Footed Gerbil *Gerbillurus paeba* was common on the plains. No listed mammals were observed on either occasion within the site and the Soventix Phase 3 site is therefore considered low sensitivity for terrestrial mammals.

Table 2. Red-listed mammals known from the broad area and their likely presence in the Soventix Phase 3 site and the likely consequence thereof.

Species	Status	Likely Presence & Consequence	
		Wider Upper Karoo	Soventix Phase 3 Site
Black-footed Cat <i>Felis nigripes</i> (VU)	VU	There are a few records from the wider area and as such it is considered present in the wider area.	This is a secretive species and while it may be present in the area, its presence within the site would be difficult to confirm. This species is likely either not present within the site or only rarely present.
South African Hedgehog <i>Atelerix frontalis</i>	NT	This species is confirmed present in the Upper Karoo from occasional records.	This species prefers areas with relative high vegetation cover and since the majority of the site consists of relatively open vegetation, it is considered unlikely that the Hedgehog is present within the site and even less so within the areas demarcated for the PV development.
Brown Hyena <i>Hyaena brunnea</i>	NT	This species occurs at a naturally low density within the Karoo but there are no recent records from the broader area.	As this species is persecuted by farmers and is rare outside of conservation areas, it is unlikely to be present within the site.

Reptiles

According to the distribution maps available in the literature and the SARCA database, as many as 31 reptiles could occur at the site. Species observed on the site include Bibron's Gecko *Chondrodactylus bibronii*, Southern Rock Agama *Agama atra*, Karoo Girdled Lizard *Karusasaurus polyzonus*, Spotted Sand Lizard *Pedioplanis lineocellata lineocellata*, Western Three-striped Skink *Trachylepis occidentalis*, Variegated Skink *Trachylepis variegata*, Marsh Terrapin *Pelomedusa subrufa*, Verroxx's Tent Tortoise *Psammobates tentorius verroxii*, Cape Cobra *Naja nivea* and Leopard Tortoise *Stigmochelys pardalis*. No listed species are known from the immediate area and no listed species were observed at the site.



Figure 3. Reptiles observed within or near the Soventix Phase 3 site include clockwise from top left, Leopard Tortoise, Verrox's Tent Tortoise, Bibron's Gecko and Karoo Girdled Lizard.

Amphibians

Eleven frog species are known from the broad area around the site and does not include any listed species. The majority of species known from the area are toads and sand frogs which are relatively independent of water except for breeding purposes, which reflects the aridity of the area. There are some natural pans and man-made shallow water bodies present in the area and are confirmed as breeding sites for amphibians. Frogs and toads observed at the site are illustrated below. The major freshwater features in close proximity to the Soventix Phase 3 site have been avoided and appropriate buffers have been included so as to limit potential negative impacts of the development on amphibians and their habitats.

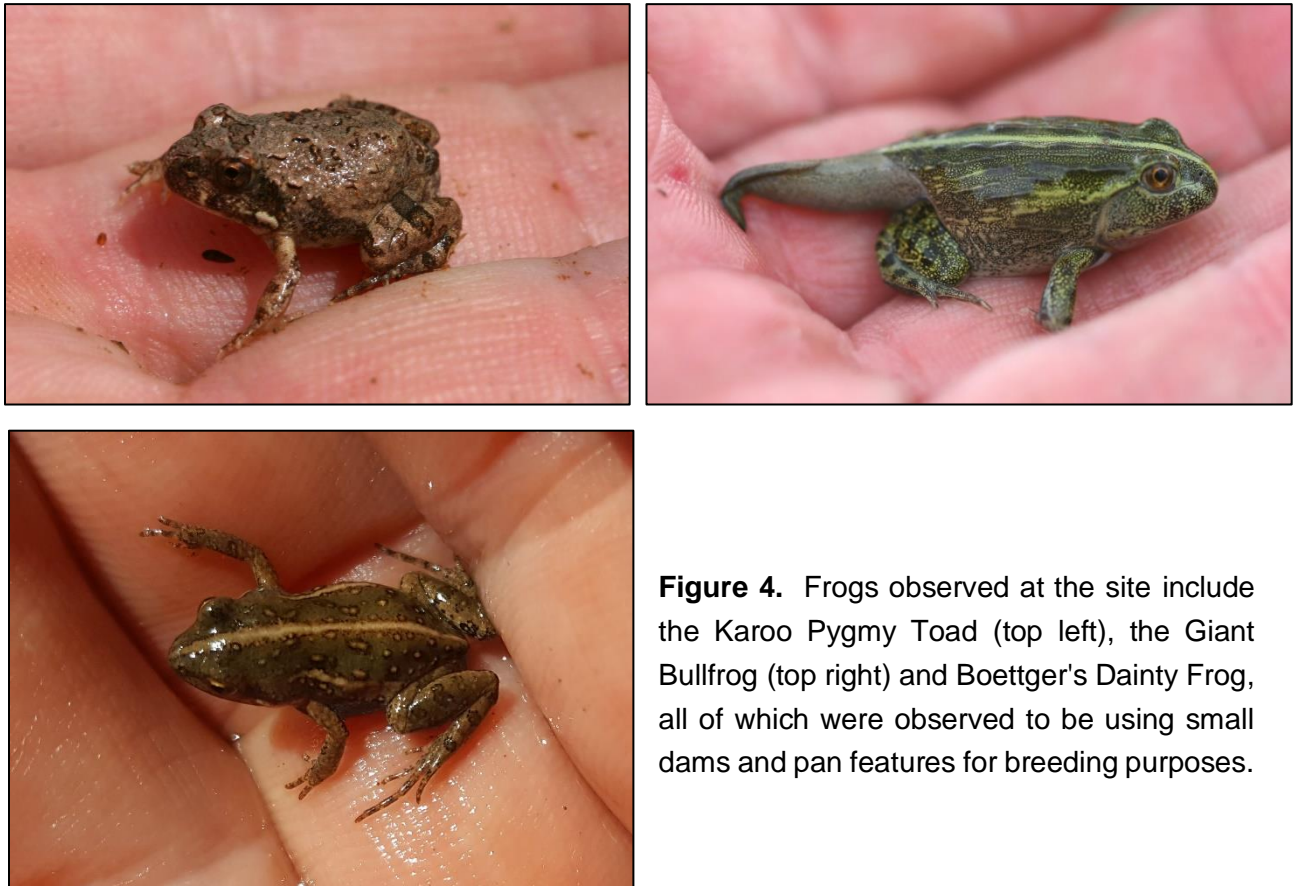


Figure 4. Frogs observed at the site include the Karoo Pygmy Toad (top left), the Giant Bullfrog (top right) and Boettger's Dainty Frog, all of which were observed to be using small dams and pan features for breeding purposes.

4 PROPOSED IMPACT MITIGATION ACTIONS

The following avoidance and mitigation measures should be included in the EMPr for the Soventix Phase 3 site in order to reduce and manage impacts on terrestrial fauna.

- All vehicles should adhere to a low speed limit on site. Heavy vehicles should be restricted to 30km/h and light vehicles to 40km/h.
- All laydown areas, construction sites etc with waste disposal bins, should be provided with lockable bins that are tamper proof by baboons, monkeys and other fauna.
- Search and rescue for reptiles and other vulnerable species during construction, before areas of intact vegetation are cleared. Such search and rescue should be conducted by relevant experts with experience in search and rescue of the faunal groups concerned.
- Limiting access to the site and ensuring that construction staff and machinery remain within the demarcated construction areas during the construction phase. Environmental induction for all staff and contractors on-site.
- No excavated holes or trenches should be left open for extended periods as fauna may fall in become trapped.

- The design should ensure that there is no electrical fencing around substations (and associated battery facilities) or other features within 30cm of the ground as tortoises become stuck against such fences and are electrocuted to death. Alternatively, a guard wire set at 20cm can be used to keep larger tortoises away from the fence.
- A log should be kept detailing all fauna-related incidences or mortalities that occur on site, including roadkill, electrocutions etc. during construction and operation. These should be reviewed annually and used to inform operational management and mitigation measures.
- There should be on-going maintenance and monitoring of the perimeter fence to ensure that there is not sedimentation or vegetation build-up that brings the electrified strands closer to the ground than the recommended 30cm. Should some fauna burrow under the fence, such burrow access-points can be allowed to remain provided that the fauna accessing the facility are causing problems inside the facility.

5 CONCLUSION & RECOMMENDATIONS

The DFFE Screening Tool identified the Soventix Phase 3 site as having a low sensitivity. The site verification confirmed the low sensitivity and it is unlikely that any red-listed fauna are present within the site. The proposed development footprint avoids areas of high sensitivity and the impact of the development on fauna is likely to be low with the application of the suggested EMPr inputs. Due to the low sensitivity of the site, there are no terrestrial faunal reasons that the Soventix Phase 3 site should not proceed into the development phase.

6 REFERENCES

Skinner, J.D. & Chimimba, C.T. 2005. *The mammals of the Southern African Subregion*. Cambridge University Press, Cambridge.

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.