AVIFAUNAL SPECIALIST STATEMENT

PART 1 EA AMENDMENT APPLICATION - SPECIALIST STATEMENT: AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED 75MW DROOGFONTEIN PHOTOVOLTAIC (PV) SOLAR ENERGY FACILITY (SEF), LOCATED NEAR PRIESKA IN THE NORTHERN CAPE PROVINCE (DFFE REFERENCE NO.: 12/12/20/2024/1/1).

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AFRIMAGE Photography (Pty) Ltd t/a:
Chris van Rooyen Consulting
VAT#: 4580238113
email: vanrooyen.chris@gmail.com
Tel: +27 (0)82 4549570 cell

Expertise of Specialist

Curriculum vitae: Chris van Rooyen

Profession/Specialisation	:	Avifaunal Specialist
Highest Qualification	:	BA LLB
Nationality	:	South African
Years of experience	:	26 years

Key Experience

Chris van Rooyen has decades of experience in the assessment of avifaunal interactions with industrial infrastructure. He was employed by the Endangered Wildlife Trust as head of the Eskom-EWT Strategic Partnership from 1996 to 2007, which has received international acclaim as a model of co-operative management between industry and natural resource conservation. He is an acknowledged global expert in this field and has consulted in South Africa, Namibia, Botswana, Lesotho, New Zealand, Texas, New Mexico and Florida. He also has extensive project management experience and he has received several management awards from Eskom for his work in the Eskom-EWT Strategic Partnership. He is the author and/or co-author of 17 conference papers, co-author of two book chapters, several research reports and the current best practice guidelines for avifaunal monitoring at wind farm sites. He has completed around 130 power line assessments; and has to date been employed as specialist avifaunal consultant on more than 50 renewable energy generation projects. He has also conducted numerous risk assessments on existing power lines infrastructure. He also works outside the electricity industry and he has done a wide range of bird impact assessment studies associated with various residential and industrial developments. He serves on the Birds and Wind Energy Specialist Group which was formed in 2011 to serve as a liaison body between the ornithological community and the wind industry.

Expertise of Specialist

Curriculum vitae: Albert Froneman

Profession/Specialisation	:	Avifaunal Specialist
Highest Qualification	:	MSc (Conservation Biology)
Nationality	:	South African
Years of experience	:	24 years

Key Qualifications

Albert Froneman **(**Pr.Sci.Nat) has more than 18 years' experience in the management of avifaunal interactions with industrial infrastructure. He holds a M.Sc. degree in Conservation Biology from the University of Cape Town. He managed the Airports Company South Africa (ACSA) – Endangered Wildlife Trust Strategic Partnership from 1999 to 2008 which has been internationally recognized for its achievements in addressing airport wildlife hazards in an environmentally sensitive manner at ACSA's airports across South Africa. Albert is recognized worldwide as an expert in the field of bird hazard management on airports and has worked in South Africa, Swaziland, Botswana, Namibia, Kenya, Israel, and the USA. He has served as the vice chairman of the International Bird Strike Committee and has presented various papers at international conferences and workshops. At present he is consulting to ACSA with wildlife hazard management on all their airports. He also an accomplished specialist ornithological consultant outside the

aviation industry and has completed a wide range of bird impact assessment studies. He has co-authored many avifaunal specialist studies and pre-construction monitoring reports for proposed renewable energy developments across South Africa. He also has vast experience in using Geographic Information Systems to analyse and interpret avifaunal data spatially and derive meaningful conclusions. Since 2009 Albert has been a registered Professional Natural Scientist (reg. nr 400177/09) with The South African Council for Natural Scientific Professions, specialising in Zoological Science.

1 BACKGROUND

South Africa Mainstream Renewable Power Droogfontein PV 3 (Pty) Ltd (hereafter referred to as "Mainstream") was issued with an Environmental Authorisation (EA) for the proposed 75MW Droogfontein Photovoltaic (PV) Solar Energy Facility (SEF), located in Kimberly within the Sol Plaatjie Local Municipality, Frances Baard District Municipality in the Northern Cape Province of South Africa on September 2012 (DFFE Reference No.: 12/12/20/2024/1/1).

Subsequent to the issuing of the original EA in September 2012, the following amendments have been undertaken and granted for the authorised SEF:

- The EA was amended on 19 September 2013 to change the details of the Environmental Authorisation holder (DFFE Reference No.: 12/12/20/2024/1/1/AM1).
- The EA was amended on 19 of June 2015 to extend the validity period of the EA and to change the contact details of the EA holder (DFFE Reference No.: 12/12/20/2024/1/1/AM2).
- The EA was amended on 11 August 2017 in order to extend the validity of the EA (DFFE Reference No.: 12/12/20/2024/1/1AM3).
- The EA was amended on 02 September 2020 in order to extend the validity of the EA (DFFE Reference No.: 12/12/20/2024/1/1AM4).

The Droogfontein Photovoltaic (PV) Solar Energy Facility is to be constructed within the project site which comprises the following farm portion:

- Portion 1 of the farm Droogfontein No. 62

The following infrastructure have been authorised by the DFFE:

- Photovoltaic (PV) panels array with a maximum 320 000 panels
- Concrete or screw pile foundations used to support the panel arrays
- The panel arrays (between 5m and 10m high) footprint of approximately 15m x 4m in area
- A single storey building with warehouse / workshop space & access (eg. 8m high, 20m long, 20m wide)
- The distribution substation of approximately 90m x 120m in size and inverters between 75 and 93
- An access road with a gravel surface from the public road onto the site
- A 5m high permanent solar resource measuring station which will measure 100m^2 to measure incoming solar radiation levels on site.
- A lay down area of maximum of 10000m^2 adjacent to the site or access route and a contractors site offices which will require a maximum of 5000m^2

See Figure 1, 2 and 3 for the location and lay-out of the proposed PV development.

Mainstream is now proposing to undertake a Part 1 EA Amendment process to extend the validity of the Environmental Authorisation by an additional 3 years.

The key motivating factor for the request to amend the EA validity period, is to ensure that the applicant has a project that is compliant with the requirements of the Department of Mineral Resources and Energy ("DMRE") (previously the Department of Energy) Renewable Energy Independent Power Producer

Procurement (“REIPPP”) Programme, specifically with regards to the requirement for a valid EA. Due to various reasons, outside of the Applicant’s control, the planned announcements and roll-out of bidding rounds have not occurred as previously planned for. As a result, the REIPPP Programme has been delayed, resulting in the project not yet being selected as a preferred bidder, further necessitating the need for the EA validity period to be extended.

Extension of the validity of the EA will ensure that the EA remains valid for the undertaking of the authorised activities such that the project can be bid into future bidding rounds of the REIPPP Programme or similar programmes.

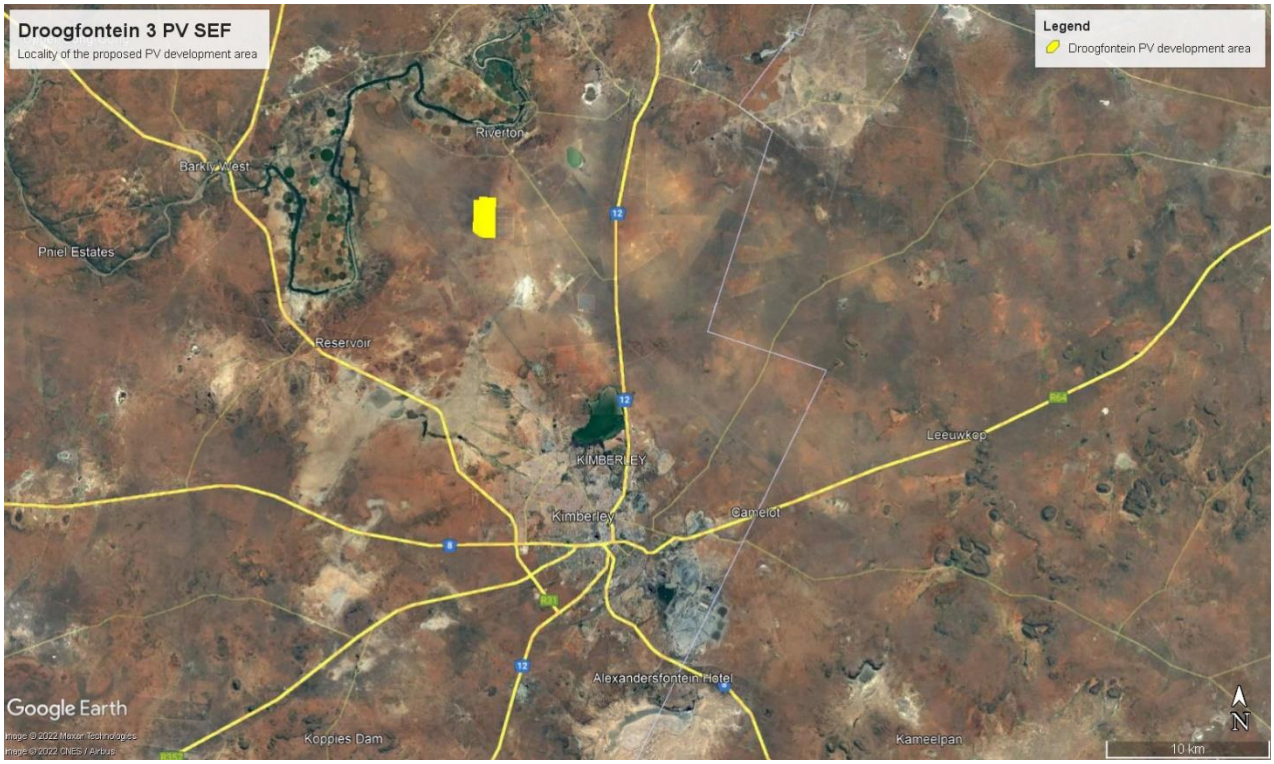

Figure 1: The locality of the proposed development area, showing the location of the Kronos Substation and existing high voltage powerlines.

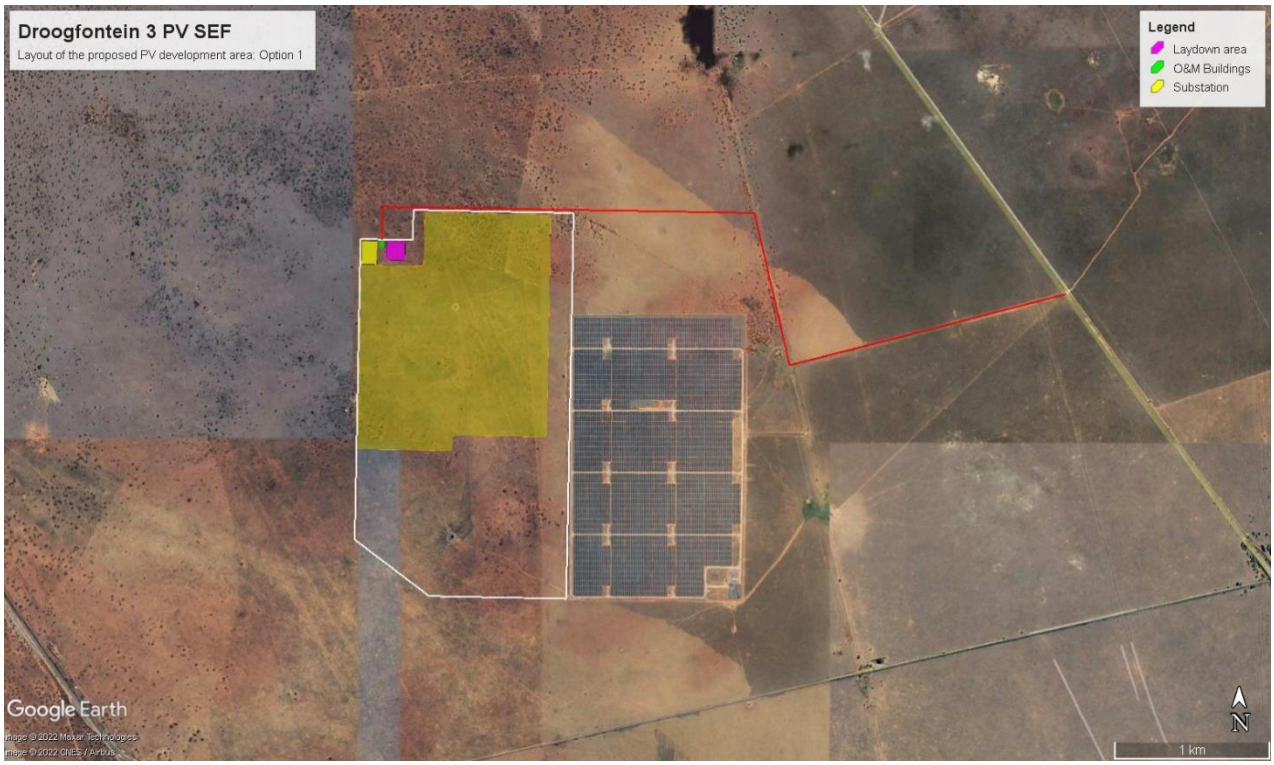

Figure 2: The layout of the proposed Droogfontein 3 PV development: Option 1.

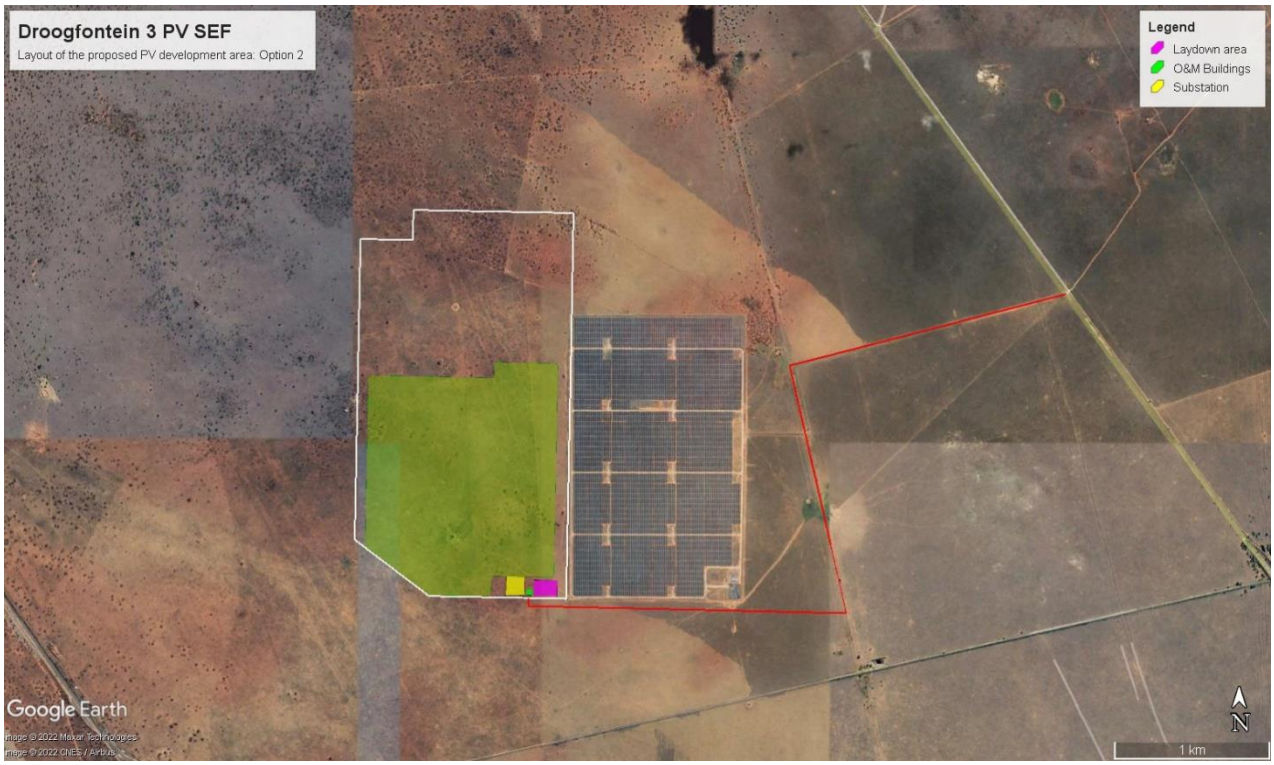

Figure 3: The layout of the proposed Droogfontein 3 PV development: Option 2.

2 TERMS OF REFERENCE

The following terms of reference are applicable to this specialist comment:

- Undertake a site visit to the authorised Droogfontein 3 PV project site and compile a specialist comment/ statement addressing the following:

    - The implications of the proposed amendment, if any, in terms of the potential impacts within your area of expertise;
    - An investigation to determine if the baseline environment has changed significantly since the original assessment, which was conducted approximately 10 years ago. This will be required for the proposed amendment to extend the validity period of the EA.
    - A statement as to whether or not the proposed amendments will result in an increased level or change in the nature of the impact, which was initially assessed and considered when application was made for the environmental authorisation.
    - If the mitigation measures provided in the initial assessment are still applicable; or if there are any new mitigation measures which need to be included into the EA, should the request to extend the commencement period be granted by the Department.

3 FINDINGS OF PREVIOUS ASSESSMENTS

The key findings in the original ecological impact assessment report, which included the avifauna, by Liesl Koch (SiVEST 2011) are summarised below:

- The development area is located closely to two Important Bird Areas (IBAs), namely the Dronfield (SA 031) and Kamfers Dam (SA032). The Dronfield IBA is approximately 7880 ha and is a nature reserve. Kamfers Dam is approximately 400h in size and is centred around the Kamfers Dam, a proposed Ramsar site.
- The vegetation at the development area is characterised a well-developed tree layer is present dominated by Camel thorn (*Vachellia erioloba*), Umbrella thorn (*Vachellia tortillis*) and Shepherds tree (*Boscia albitrunca*). Grass is present however a large amount of exposed soil is present.
- There is a marked difference between the areas of thornveld vegetation and the grasslands on the site in terms of avifaunal sensitivity with the former being much higher sensitivity. This is because the bird sampling found a much greater species diversity, and probably also a greater number of actual birds in this habitat. The grasslands do however provide habitat for bird species depending on this habitat i.e. Northern Black Korhaans which were noted in abundance on the site.
- Vulture activity on the site is limited to the thornveld areas as well as the existing power lines on the site. Several vultures were noted at Dronfield during field work.
- The construction phase is likely to result in some habitat loss for bird species occupying the site, particularly smaller species which were noted on site. However due to the site not being completely cleared these species are likely to remain to some extent. The surrounding area however provides sufficient habitat for these species to move into and the development would not be to the detriment of these species.
- A number of Red Data species could occur at the site. These are listed in Table 1:

Table 1: Red Data species potentially occurring at in the broader area, including the Droogfontein PV 3 site (SiVEST 2011)

Species	***Scientific Name***	**Conservation Status (Taylor *et al.* 2015)**	**Recorded on the site?**
White-backed Vulture	*Gyps africanus*	Critically endangered	x

Saddle-billed Stork	*Ephippiorhynchus senegalensis*		
Cape Vulture	*Gyps coprotheres*	Endangered	
Lappet-faced Vulture	*Torgos tracheliotis*	Endangered	
Tawny Eagle	*Aquila rapax*	Endangered	
Martial Eagle	*Polemaetus bellicosus*	Endangered	
African Marsh Harrier	*Circus ranivorus*	Endangered	
Blue Crane	*Grus paradisea*	Near threatened	
Kori Bustard	*Ardeotis kori*	Nera threatened	
Lesser Flamingo	*Phoenicopterus minor*	Near threatened	
Secretarybird	*Sagittarius serpentarius*	Vulnerable	
Lanner Falcon	*Falco biarmics*	Vulnerable	

An impact table was prepared in terms of impacts of the PV facility on fauna and flora, including avifauna, with specific emphasis on Red Data species. This is presented below.

Table 2: Rating of impacts related to loss of habitat for red data / general species occurring at in the broader area, including the Droogfontein PV 3 site (SiVEST 2011)

IMPACT TABLE	
Environmental Parameter	Biodiversity
IMPACT TABLE	
Issue/Impact/Environmental Effect/Nature	Loss of habitat for red data / general species
Extent	The impact is only expected to affect the site.
Probability	The impact may occur (Between a 25% to 50% chance of occurrence).
Reversibility	The impact is partly reversible but more intense mitigation measures are required.
Irreplaceable loss of resources	The impact will result in marginal loss of resources
Duration	The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10 – 50 years)
Cumulative effect	The impact would result in minor cumulative effects

Intensity/magnitude	Impact alters the quality, use and integrity of the system/component but system/ component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).
Significance Rating	**Prior to mitigation measures:** There will be a negative Low impact i.e. the anticipated impact will have negligible negative effects however mitigation measures must be implemented. **After mitigation measures:** After mitigation measures, the negative low impact persists.

	Pre-mitigation impact rating	**Post mitigation impact rating**
Extent	1	1
Probability	2	1
Reversibility	2	1
Irreplaceable loss	2	1
Duration	3	1
Cumulative effect	3	1
Intensity/magnitude	2	1
Significance rating	-26 (low negative)	-6(low negative)
Mitigation measures	▪ Maintain footprint strictly during construction ▪ Appoint Environmental Control Officer (ECO) for the duration of construction. ▪ Conduct construction walk down prior to construction to conduct a search and rescue exercise. ▪ Existing indigenous vegetation must be retained where possible. ▪ Remove and relocate any plants of botanical or ecological significance (these must be indicated by the ECO) ▪ Vegetation to be removed as it becomes necessary ▪ No vegetation to be used for firewood. ▪ Demarcation of sensitive areas prior to construction activities starting.	

4 SUBSEQUENT ASSESSMENTS

The site was inspected on 04 October 2022 to assess whether the conditions at the site have changed materially from when the original assessment was done in August 2010 and March 2011. The development area was inspected with a 4 x 4 vehicle and on foot for one day. Photographs of the development area were taken to record the habitat and a bird list was compiled.

5 RECEIVING ENVIRONMENT

5.1 DFFE National Screening Tool

The project development area is classified as **High** sensitivity for avifauna, according to the DFFE online screening tool. The development sites contain confirmed habitat for species of conservation concern (SCC), as defined in the Protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial animal species (Government Gazette No 43855, 30 October 2020)[1], namely listed on the IUCN Red List of Threatened Species or South Africa's National Red List website as Critically Endangered, Endangered, Vulnerable, Near threatened or Data Deficient. The classification of High sensitivity is linked to the potential occurrence of Martial Eagle (Globally and Regionally Endangered), White-backed Vulture (Globally and Regionally Critically Endangered) and Ludwig's Bustard (Globally and Regionally Endangered) (Figure 3).

The occurrence of SCC was confirmed during the original surveys in August 2010 and March 2011, namely White-backed Vulture. Martial Eagle was recorded during the subsequent site visit in October 2022, and it was confirmed that the habitat has not changed for the above listed SCC at the development area. The classification High sensitivity is assessed to be accurate as far as the potential presence of SCC is concerned, based on actual conditions recorded on the ground during the site visits in August 2010 and March 2011, and the subsequent site visit conducted in October 2022.

See Appendix 1 for the Site Sensitivity Report

[1] The wind theme is only applicable to developments that are located in Renewable Energy Development Zones.

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY

Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Neotis ludwigii
Medium	Aves-Sagittarius serpentarius
Medium	Aves-Gyps africanus

Figure 4: The classification of the Project Site according to the animal species theme in the DFFE National Screening Tool. The High sensitivity is linked to the possible occurrence of Ludwig's Bustard *Neotis ludwigii* (Globally and Regionally Endangered), Secretarybird *Sagittarius serpentarius* (Globally Endangered Regionally Vulnerable) and White-backed Vulture *Gyps africanus* (Globally and Regionally Critically endangered).

5.2 Avifauna

Bird distribution data of the South African Bird Atlas 2 (SABAP 2) was obtained from the University of Cape Town (2022), as a means to ascertain which species occur within the broader area i.e., within a block consisting of 4 pentads where the proposed project development area will be located (Figure 4). A pentad grid cell covers 5 minutes of latitude by 5 minutes of longitude (5'× 5'). Each pentad is approximately 8 × 7.6 km. From 2007 to date, a total of 90 full protocol lists (i.e., surveys lasting a minimum of two hours each)

have been completed for this area. In addition, 84 ad hoc protocol lists (i.e., surveys lasting less than two hours but still yielding valuable data) have been completed. The broader area was selected on the basis of the number of checklists that had been completed, in order to get a more representative view of the avifauna that could occur at the project site.

According to the SABAP2 projects, a total of 261 species occurs in the broader area (Table 1). The species that were recorded on and around the project development area during the site visit on 5 October 2022 are listed in Table 1.

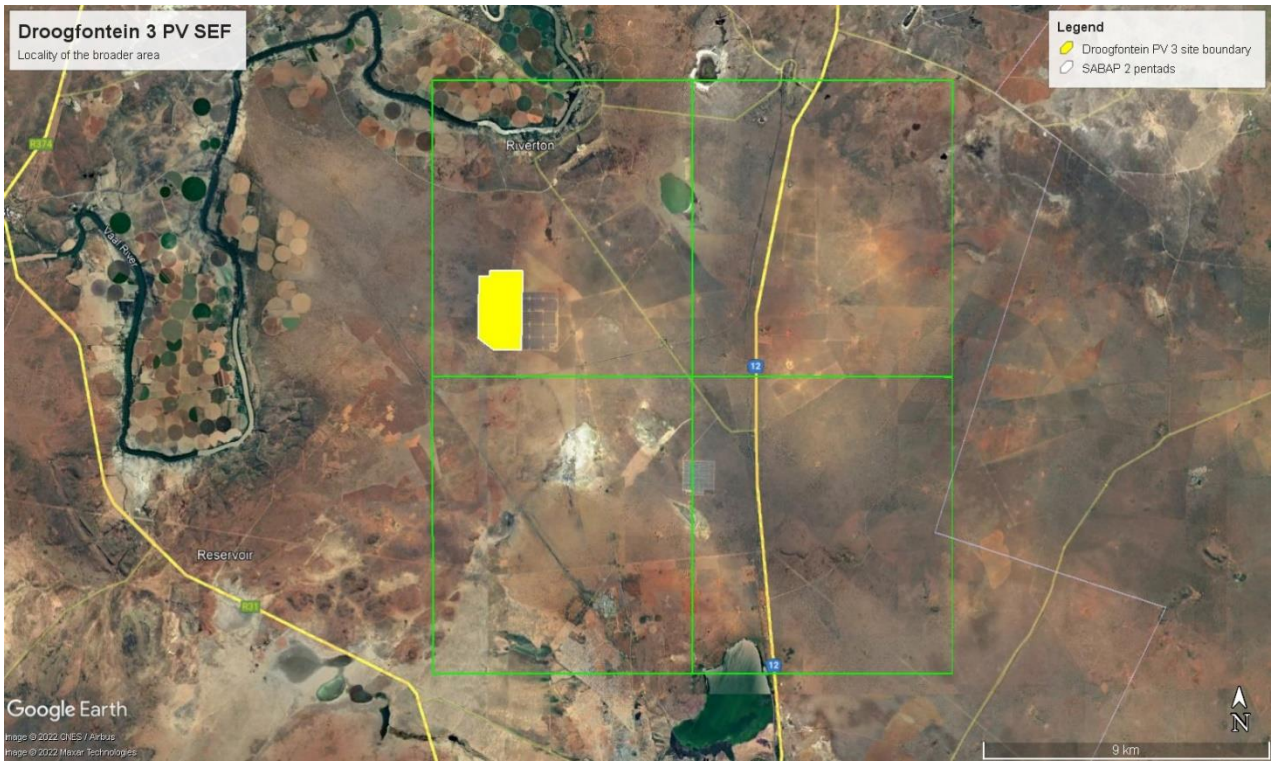

Figure 5: The broader area where the project development area is located.

Table 3: Avifauna recorded by SABAP 2 and during surveys in the broader area in July 2011 and at the Droogfontein PV 3 development area in October 2022. Species of conservation concern (SCC) are shaded in green

Species name	Scientific name	SABAP 2 Full protocol reporting rate	SABAp2 Ad hoc protocol reporting rate	Global status	Regional status	Recorded during surveys in 2010/2011	Recorded during surveys in 2022
Abdim's Stork	*Ciconia abdimii*	4.44	1.19	-	NT		
Acacia Pied Barbet	*Tricholaema leucomelas*	81.11	14.29	-	-	x	
African Black Swift	*Apus barbatus*	2.22	0.00	-	-		
African Cuckoo	*Cuculus gularis*	11.11	2.38	-	-		
African Darter	*Anhinga rufa*	15.56	2.38	-	-		
African Fish Eagle	*Haliaeetus vocifer*	15.56	2.38	-	-		
African Grey Hornbill	*Lophoceros nasutus*	1.11	0.00	-	-		
African Hoopoe	*Upupa africana*	65.56	5.95	-	-		
African Jacana	*Actophilornis africanus*	4.44	0.00	-	-		
African Marsh Harrier	*Circus ranivorus*	1.11	0.00	-	EN		
African Palm Swift	*Cypsiurus parvus*	43.33	7.14	-	-		
African Paradise Flycatcher	*Terpsiphone viridis*	1.11	0.00	-	-		

Species name	Scientific name	SABAP 2 Full protocol reporting rate	SABAp2 Ad hoc protocol reporting rate	Global status	Regional status	Recorded during surveys in 2010/2011	Recorded during surveys in 2022
African Pipit	*Anthus cinnamomeus*	43.33	9.52	-	-		x
African Red-eyed Bulbul	*Pycnonotus nigricans*	78.89	10.71	-	-		
African Reed Warbler	*Acrocephalus baeticatus*	12.22	1.19	-	-		
African Sacred Ibis	*Threskiornis aethiopicus*	13.33	3.57	-	-		
African Snipe	*Gallinago nigripennis*	1.11	0.00	-	-		
African Spoonbill	*Platalea alba*	2.22	0.00	-	-		
African Stonechat	*Saxicola torquatus*	6.67	1.19	-	-		
African Swamphen	*Porphyrio madagascariensis*	1.11	0.00	-	-		
Alpine Swift	*Tachymarptis melba*	22.22	3.57	-	-		
Amur Falcon	*Falco amurensis*	14.44	0.00	-	-		
Ant-eating Chat	*Myrmecocichla formicivora*	74.44	19.05	-	-	x	x
Ashy Tit	*Melaniparus cinerascens*	66.67	7.14	-	-		
Banded Martin	*Riparia cincta*	13.33	0.00	-	-		
Barn Swallow	*Hirundo rustica*	52.22	10.71	-	-		
Barred Wren-Warbler	*Calamonastes fasciolatus*	2.22	0.00	-	-		
Black Crake	*Zapornia flavirostra*	6.67	0.00	-	-		
Black Cuckoo	*Cuculus clamosus*	10.00	0.00	-	-		
Black-chested Prinia	*Prinia flavicans*	84.44	9.52	-	-		
Black-chested Snake Eagle	*Circaetus pectoralis*	6.67	0.00	-	-		
Black-crowned Night Heron	*Nycticorax nycticorax*	0.00	1.19	-	-		
Black-faced Waxbill	*Brunhilda erythronotos*	15.56	1.19	-	-		
Black-headed Heron	*Ardea melanocephala*	3.33	1.19	-	-		
Black-necked Grebe	*Podiceps nigricollis*	10.00	0.00	-	-		
Blacksmith Lapwing	*Vanellus armatus*	41.11	4.76	-	-		
Black-throated Canary	*Crithagra atrogularis*	47.78	3.57	-	-		
Black-winged Kite	*Elanus caeruleus*	55.56	10.71	-	-		
Black-winged Stilt	*Himantopus himantopus*	10.00	4.76	-	-		
Blue Waxbill	*Uraeginthus angolensis*	2.22	1.19	-	-		
Blue-billed Teal	*Spatula hottentota*	0.00	1.19	-	-		
Bokmakierie	*Telophorus zeylonus*	23.33	0.00	-	-		
Booted Eagle	*Hieraaetus pennatus*	2.22	0.00	-	-		
Bradfield's Swift	*Apus bradfieldi*	15.56	2.38	-	-		
Brown Snake Eagle	*Circaetus cinereus*	1.11	0.00	-	-		
Brown-backed Honeybird	*Prodotiscus regulus*	1.11	0.00	-	-		
Brown-crowned Tchagra	*Tchagra australis*	42.22	4.76	-	-		
Brown-hooded Kingfisher	*Halcyon albiventris*	11.11	1.19	-	-		
Brown-throated Martin	*Riparia paludicola*	20.00	2.38	-	-		
Brubru	*Nilaus afer*	71.11	11.90	-	-		
Buffy Pipit	*Anthus vaalensis*	21.11	1.19	-	-		
Burchell's Coucal	*Centropus burchellii*	4.44	0.00	-	-		
Burchell's Sandgrouse	*Pterocles burchelli*	13.33	1.19	-	-		
Cape Bunting	*Emberiza capensis*	2.22	0.00	-	-		
Cape Eagle-Owl	*Bubo capensis*	1.11	0.00	-	-		
Cape Penduline Tit	*Anthoscopus minutus*	14.44	0.00	-	-		
Cape Robin-Chat	*Cossypha caffra*	17.78	0.00	-	-		
Cape Shoveler	*Spatula smithii*	15.56	1.19	-	-		
Cape Sparrow	*Passer melanurus*	47.78	2.38	-	-		
Cape Starling	*Lamprotornis nitens*	80.00	20.24	-	-		
Cape Teal	*Anas capensis*	15.56	1.19	-	-		

Species name	Scientific name	SABAP 2 Full protocol reporting rate	SABAp2 Ad hoc protocol reporting rate	Global status	Regional status	Recorded during surveys in 2010/2011	Recorded during surveys in 2022
Cape Turtle Dove	*Streptopelia capicola*	91.11	16.67	-	-	x	
Cape Vulture	*Gyps coprotheres*	10.00	9.52	VU	EN		
Cape Wagtail	*Motacilla capensis*	34.44	3.57	-	-		
Capped Wheatear	*Oenanthe pileata*	8.89	0.00	-	-		
Cardinal Woodpecker	*Dendropicos fuscescens*	28.89	2.38	-	-		
Caspian Tern	*Hydroprogne caspia*	2.22	0.00	-	VU		
Chat Flycatcher	*Melaenornis infuscatus*	6.67	1.19	-	-		
Chestnut-banded Plover	*Charadrius pallidus*	5.56	2.38	-	NT		
Chestnut-vented Warbler	*Curruca subcoerulea*	91.11	16.67	-	-	x	
Cinnamon-breasted Bunting	*Emberiza tahapisi*	12.22	0.00	-	-		
Cloud Cisticola	*Cisticola textrix*	13.33	1.19	-	-		
Common Buzzard	*Buteo buteo*	23.33	7.14	-	-		
Common Greenshank	*Tringa nebularia*	3.33	0.00	-	-		
Common House Martin	*Delichon urbicum*	1.11	0.00	-	-		
Common Moorhen	*Gallinula chloropus*	23.33	2.38	-	-		
Common Myna	*Acridotheres tristis*	15.56	2.38	-	-		
Common Ostrich	*Struthio camelus*	47.78	4.76	-	-		
Common Quail	*Coturnix coturnix*	3.33	0.00	-	-		
Common Ringed Plover	*Charadrius hiaticula*	3.33	0.00	-	-		
Common Scimitarbill	*Rhinopomastus cyanomelas*	68.89	13.10	-	-		
Common Starling	*Sturnus vulgaris*	4.44	0.00	-	-		
Common Swift	*Apus apus*	7.78	0.00	-	-		
Common Waxbill	*Estrilda astrild*	6.67	1.19	-	-		x
Crested Barbet	*Trachyphonus vaillantii*	31.11	0.00	-	-		
Crimson-breasted Shrike	*Laniarius atrococcineus*	51.11	2.38	-	-		
Crowned Lapwing	*Vanellus coronatus*	71.11	10.71	-	-		x
Desert Cisticola	*Cisticola aridulus*	63.33	5.95	-	-		
Diederik Cuckoo	*Chrysococcyx caprius*	38.89	3.57	-	-		
Double-banded Courser	*Rhinoptilus africanus*	6.67	0.00	-	-		x
Dusky Sunbird	*Cinnyris fuscus*	6.67	0.00	-	-		x
Eastern Clapper Lark	*Mirafra fasciolata*	60.00	8.33	-	-		
Egyptian Goose	*Alopochen aegyptiaca*	42.22	7.14	-	-		
Eurasian Hobby	*Falco subbuteo*	1.11	0.00	-	-		
European Bee-eater	*Merops apiaster*	54.44	8.33	-	-		
European Roller	*Coracias garrulus*	5.56	0.00	-	NT		
Fairy Flycatcher	*Stenostira scita*	10.00	0.00	-	-	x	x
Familiar Chat	*Oenanthe familiaris*	62.22	8.33	-	-		
Fawn-colored Lark	*Calendulauda africanoides*	55.56	7.14	-	-	x	
Fiscal Flycatcher	*Melaenornis silens*	84.44	14.29	-	-		
Fork-tailed Drongo	*Dicrurus adsimilis*	75.56	0.00	-	-	x	
Gabar Goshawk	*Micronisus gabar*	13.33	2.38	-	-		
Giant Kingfisher	*Megaceryle maxima*	4.44	1.19	-	-		
Glossy Ibis	*Plegadis falcinellus*	14.44	2.38	-	-		
Golden-breasted Bunting	*Emberiza flaviventris*	32.22	1.19	-	-		
Golden-tailed Woodpecker	*Campethera abingoni*	37.78	3.57	-	-		
Goliath Heron	*Ardea goliath*	0.00	1.19	-	-		
Great Crested Grebe	*Podiceps cristatus*	1.11	0.00	-	-		
Great Egret	*Ardea alba*	1.11	0.00	-	-		
Great Reed Warbler	*Acrocephalus arundinaceus*	2.22	0.00	-	-		

Species name	Scientific name	SABAP 2 Full protocol reporting rate	SABAp2 Ad hoc protocol reporting rate	Global status	Regional status	Recorded during surveys in 2010/2011	Recorded during surveys in 2022
Greater Flamingo	*Phoenicopterus roseus*	24.44	10.71	-	NT		
Greater Honeyguide	*Indicator indicator*	3.33	0.00	-	-		
Greater Kestrel	*Falco rupicoloides*	17.78	0.00	-	-		
Greater Striped Swallow	*Cecropis cucullata*	48.89	8.33	-	-		
Green Wood Hoopoe	*Phoeniculus purpureus*	5.56	1.19	-	-		
Green-winged Pytilia	*Pytilia melba*	11.11	0.00	-	-		
Grey Go-away-bird	*Crinifer concolor*	1.11	0.00	-	-		
Grey Heron	*Ardea cinerea*	3.33	1.19	-	-		
Grey-backed Cisticola	*Cisticola subruficapilla*	2.22	0.00	-	-		
Grey-backed Sparrow-Lark	*Eremopterix verticalis*	3.33	0.00	-	-		
Grey-headed Gull	*Chroicocephalus cirrocephalus*	21.11	7.14	-	-		
Groundscraper Thrush	*Turdus litsitsirupa*	5.56	0.00	-	-		
Hadada Ibis	*Bostrychia hagedash*	52.22	8.33	-	-		
Hamerkop	*Scopus umbretta*	4.44	1.19	-	-		
Helmeted Guineafowl	*Numida meleagris*	65.56	13.10	-	-		x
House Sparrow	*Passer domesticus*	22.22	2.38	-	-		
Icterine Warbler	*Hippolais icterina*	2.22	0.00	-	-		
Intermediate Egret	*Ardea intermedia*	2.22	0.00	-	-		
Jacobin Cuckoo	*Clamator jacobinus*	18.89	2.38	-	-		
Kalahari Scrub Robin	*Cercotrichas paena*	90.00	11.90	-	-	x	
Karoo Scrub Robin	*Cercotrichas coryphoeus*	8.89	2.38	-	-		
Karoo Thrush	*Turdus smithi*	17.78	2.38	-	-		
Kittlitz's Plover	*Charadrius pecuarius*	5.56	1.19	-	-		
Klaas's Cuckoo	*Chrysococcyx klaas*	2.22	0.00	-	-		
Kori Bustard	*Ardeotis kori*	5.56	1.19	NT	NT		
Lanner Falcon	*Falco biarmicus*	4.44	0.00	-	VU		
Lappet-faced Vulture	*Torgos tracheliotos*	16.67	2.38	EN	EN		
Lark-like Bunting	*Emberiza impetuani*	11.11	0.00	-	-		
Laughing Dove	*Spilopelia senegalensis*	72.22	22.62	-	-		
Layard's Warbler	*Curruca layardi*	1.11	0.00	-	-		
Lesser Flamingo	*Phoeniconaias minor*	35.56	16.67	NT	NT		
Lesser Grey Shrike	*Lanius minor*	42.22	5.95	-	-		
Lesser Honeyguide	*Indicator minor*	2.22	0.00	-	-		
Lesser Kestrel	*Falco naumanni*	24.44	5.95	-	-		
Lesser Swamp Warbler	*Acrocephalus gracilirostris*	24.44	2.38	-	-		
Levaillant's Cisticola	*Cisticola tinniens*	20.00	1.19	-	-		
Lilac-breasted Roller	*Coracias caudatus*	5.56	0.00	-	-		
Little Bee-eater	*Merops pusillus*	1.11	0.00	-	-		
Little Egret	*Egretta garzetta*	2.22	2.38	-	-		
Little Grebe	*Tachybaptus ruficollis*	21.11	1.19	-	-		
Little Stint	*Calidris minuta*	4.44	1.19	-	-		
Little Swift	*Apus affinis*	46.67	8.33	-	-		x
Long-billed Crombec	*Sylvietta rufescens*	36.67	2.38	-	-		
Ludwig's Bustard	*Neotis ludwigii*	2.22	0.00	EN	EN		
Maccoa Duck	*Oxyura maccoa*	4.44	0.00	EN	NT		
Magpie Shrike	*Urolestes melanoleucus*	2.22	0.00	-	-		
Malachite Kingfisher	*Corythornis cristatus*	11.11	3.57	-	-		
Marico Flycatcher	*Melaenornis mariquensis*	38.89	3.57	-	-		
Martial Eagle	*Polemaetus bellicosus*	6.67	1.19	EN	EN		x

Species name	Scientific name	SABAP 2 Full protocol reporting rate	SABAp2 Ad hoc protocol reporting rate	Global status	Regional status	Recorded during surveys in 2010/2011	Recorded during surveys in 2022
Monotonous Lark	*Mirafra passerina*	4.44	1.19	-	-		
Montagu's Harrier	*Circus pygargus*	1.11	0.00	-	-		
Mountain Wheatear	*Myrmecocichla monticola*	2.22	0.00	-	-		
Namaqua Dove	*Oena capensis*	51.11	7.14	-	-		
Namaqua Sandgrouse	*Pterocles namaqua*	11.11	1.19	-	-		
Natal Spurfowl	*Pternistis natalensis*	2.22	0.00	-	-		
Neddicky	*Cisticola fulvicapilla*	72.22	5.95	-	-	x	
Nicholson's Pipit	*Anthus nicholsoni*	5.56	0.00	-	-		
Northern Black Korhaan	*Afrotis afraoides*	75.56	20.24	-	-	x	x
Orange River Francolin	*Scleroptila gutturalis*	26.67	3.57	-	-		
Orange River White-eye	*Zosterops pallidus*	18.89	1.19	-	-		
Pale Chanting Goshawk	*Melierax canorus*	38.89	5.95	-	-		
Pearl-breasted Swallow	*Hirundo dimidiata*	4.44	2.38	-	-		
Pearl-spotted Owlet	*Glaucidium perlatum*	5.56	0.00	-	-		
Pied Avocet	*Recurvirostra avosetta*	3.33	1.19	-	-		
Pied Crow	*Corvus albus*	53.33	20.24	-	-	x	x
Pied Kingfisher	*Ceryle rudis*	13.33	3.57	-	-		
Pied Starling	*Lamprotornis bicolor*	16.67	7.14	-	-		
Pink-billed Lark	*Spizocorys conirostris*	2.22	0.00	-	-		
Pin-tailed Whydah	*Vidua macroura*	7.78	0.00	-	-		
Plain-backed Pipit	*Anthus leucophrys*	22.22	3.57	-	-		
Pririt Batis	*Batis pririt*	66.67	9.52	-	-		x
Quailfinch	*Ortygospiza atricollis*	22.22	0.00	-	-		
Rattling Cisticola	*Cisticola chiniana*	1.11	0.00	-	-		
Red-backed Shrike	*Lanius collurio*	24.44	1.19	-	-		
Red-billed Firefinch	*Lagonosticta senegala*	4.44	0.00	-	-		
Red-billed Quelea	*Quelea quelea*	34.44	2.38	-	-		
Red-billed Teal	*Anas erythrorhyncha*	10.00	1.19	-	-		
Red-breasted Swallow	*Cecropis semirufa*	16.67	1.19	-	-		
Red-capped Lark	*Calandrella cinerea*	3.33	1.19	-	-		
Red-crested Korhaan	*Lophotis ruficrista*	41.11	7.14	-	-	x	
Red-eyed Dove	*Streptopelia semitorquata*	25.56	7.14	-	-		
Red-faced Mousebird	*Urocolius indicus*	55.56	5.95	-	-		
Red-headed Finch	*Amadina erythrocephala*	28.89	0.00	-	-		
Red-knobbed Coot	*Fulica cristata*	16.67	3.57	-	-		
Reed Cormorant	*Microcarbo africanus*	14.44	4.76	-	-		
Rock Dove	*Columba livia*	6.67	0.00	-	-		
Rock Kestrel	*Falco rupicolus*	4.44	1.19	-	-		
Rock Martin	*Ptyonoprogne fuligula*	25.56	2.38	-	-	x	x
Rose-ringed Parakeet	*Psittacula krameri*	0.00	1.19	-	-		
Ruff	*Calidris pugnax*	4.44	0.00	-	-		
Rufous-cheeked Nightjar	*Caprimulgus rufigena*	18.89	3.57	-	-		
Rufous-eared Warbler	*Malcorus pectoralis*	3.33	0.00	-	-		
Rufous-naped Lark	*Mirafra africana*	60.00	10.71	-	-		
Sabota Lark	*Calendulauda sabota*	27.78	2.38	-	-	x	
Sand Martin	*Riparia riparia*	1.11	0.00	-	-		
Scaly-feathered Weaver	*Sporopipes squamifrons*	65.56	11.90	-	-		x
Secretarybird	*Sagittarius serpentarius*	14.44	1.19	EN	VU		
Shaft-tailed Whydah	*Vidua regia*	4.44	0.00	-	-		

Species name	Scientific name	SABAP 2 Full protocol reporting rate	SABAp2 Ad hoc protocol reporting rate	Global status	Regional status	Recorded during surveys in 2010/2011	Recorded during surveys in 2022
Short-toed Rock Thrush	*Monticola brevipes*	7.78	0.00	-	-		
Sociable Weaver	*Philetairus socius*	13.33	0.00	-	-		
South African Cliff Swallow	*Petrochelidon spilodera*	25.56	3.57	-	-		
South African Shelduck	*Tadorna cana*	26.67	3.57	-	-		
Southern Fiscal	*Lanius collaris*	57.78	3.57	-	-	x	
Southern Grey-headed Sparrow	*Passer diffusus*	48.89	3.57	-	-		
Southern Masked Weaver	*Ploceus velatus*	71.11	11.90	-	-		
Southern Pochard	*Netta erythrophthalma*	7.78	1.19	-	-		
Southern Red Bishop	*Euplectes orix*	40.00	8.33	-	-		x
Southern White-faced Scops Owl	*Ptilopsis granti*	3.33	0.00	-	-		
Southern Yellow-billed Hornbill	*Tockus leucomelas*	13.33	2.38	-	-		
Speckled Mousebird	*Colius striatus*	1.11	0.00	-	-		
Speckled Pigeon	*Columba guinea*	58.89	4.76	-	-		x
Spike-heeled Lark	*Chersomanes albofasciata*	31.11	3.57	-	-	x	x
Spotted Eagle-Owl	*Bubo africanus*	7.78	0.00	-	-		
Spotted Flycatcher	*Muscicapa striata*	32.22	0.00	-	-		
Spotted Thick-knee	*Burhinus capensis*	22.22	3.57	-	-		
Spur-winged Goose	*Plectropterus gambensis*	15.56	1.19	-	-		
Stark's Lark	*Spizocorys starki*	1.11	0.00	-	-		
Striated Heron	*Butorides striata*	10.00	3.57	-	-		
Striped Kingfisher	*Halcyon chelicuti*	1.11	0.00	-	-		
Swainson's Spurfowl	*Pternistis swainsonii*	23.33	3.57	-	-		
Swallow-tailed Bee-eater	*Merops hirundineus*	42.22	8.33	-	-		
Tawny Eagle	*Aquila rapax*	4.44	0.00	VU	EN		
Temminck's Courser	*Cursorius temminckii*	4.44	0.00	-	-		x
Three-banded Plover	*Charadrius tricollaris*	12.22	2.38	-	-		
Verreaux's Eagle-Owl	*Bubo lacteus*	1.11	1.19	-	-		
Violet-eared Waxbill	*Granatina granatina*	34.44	2.38	-	-		
Wattled Starling	*Creatophora cinerea*	37.78	3.57	-	-		
Western Barn Owl	*Tyto alba*	31.11	4.76	-	-		
Western Cattle Egret	*Bubulcus ibis*	55.56	16.67	-	-		x
Whiskered Tern	*Chlidonias hybrida*	5.56	0.00	-	-		
White Stork	*Ciconia ciconia*	1.11	0.00	-	-		
White-backed Mousebird	*Colius colius*	47.78	1.19	-	-		
White-backed Vulture	*Gyps africanus*	74.44	36.90	CR	CR	x	
White-bellied Sunbird	*Cinnyris talatala*	15.56	0.00	-	-		
White-breasted Cormorant	*Phalacrocorax lucidus*	11.11	0.00	-	-		
White-browed Sparrow-Weaver	*Plocepasser mahali*	82.22	15.48	-	-	x	
White-faced Whistling Duck	*Dendrocygna viduata*	10.00	3.57	-	-		
White-fronted Bee-eater	*Merops bullockoides*	12.22	0.00	-	-		
White-rumped Swift	*Apus caffer*	28.89	2.38	-	-		x
White-throated Canary	*Crithagra albogularis*	2.22	0.00	-	-		
White-throated Robin-Chat	*Cossypha humeralis*	1.11	0.00	-	-		
White-throated Swallow	*Hirundo albigularis*	18.89	3.57	-	-		x
White-winged Tern	*Chlidonias leucopterus*	4.44	0.00	-	-		
Willow Warbler	*Phylloscopus trochilus*	5.56	0.00	-	-		
Wood Sandpiper	*Tringa glareola*	1.11	1.19	-	-		
Yellow Canary	*Crithagra flaviventris*	70.00	5.95	-	-		

Species name	Scientific name	SABAP 2 Full protocol reporting rate	SABAp2 Ad hoc protocol reporting rate	Global status	Regional status	Recorded during surveys in 2010/2011	Recorded during surveys in 2022
Yellow-bellied Eremomela	*Eremomela icteropygialis*	16.67	1.19	-	-		
Yellow-billed Duck	*Anas undulata*	18.89	3.57	-	-		
Yellow-billed Stork	*Mycteria ibis*	1.11	0.00	-	EN		
Yellow-crowned Bishop	*Euplectes afer*	5.56	0.00	-	-		
Zitting Cisticola	*Cisticola juncidis*	23.33	3.57	-	-		

6 CUMULATIVE IMPACTS

Cumulative effects are commonly understood to be impacts from different projects that combine to result in significant change in an area, which could be larger than the sum of all the individual impacts. The assessment of cumulative effects therefore needs to consider all renewable energy projects within a 30 km radius that have received an EA or are in process at the time of starting the environmental impact process, as well as the proposed Mierdam SEF. There are currently ten (10) renewable energy projects authorised, operational or in process within a 30 km radius around the proposed Droogfontein PV 3 SEF (excluding those who have been withdrawn, lapsed or refused) (Table 3 and Figure 5). The projects were identified using the latest (2022) Renewable Energy EIA Application Database for SA from the Department of Fisheries, Forestry and Environment (DFFE).

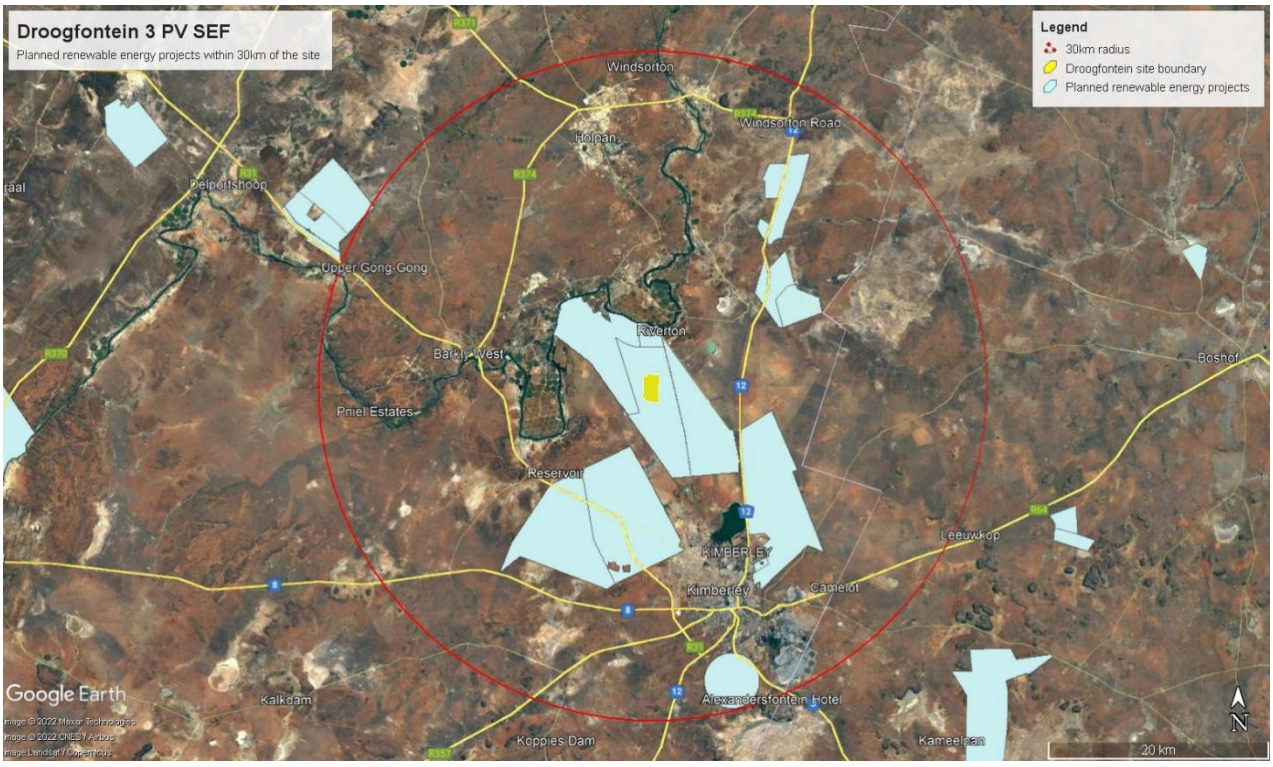

Figure 6: The planned renewable energy project land parcels within a 30km radius around the proposed Droogfontein PV 3 project site.

Table 4: Planned renewable energy projects within 30km of the proposed Droogfontein PV 3 site

Project name	DFFE registration	Status
Proposed Establishment Of A Photovoltaic (Pv) Installation At The Kimberley Airport, Northern Cape Province	12/12/20/2148	Approved
Proposed Kabi Kimberly PV Solar Energy Facility and associated infrastructure on a site East of Kimberly, Northern Cape Province	12/12/20/2124	Approved
South Africa Mainstream Renewable Power Droogfontein	12/12/20/2024/2	Approved
Poposed Construction of a 75 MW Photovoltaic (PV) Plant near Kimberly within the Sol Plaatjie Local Municipality, Northern Cape Province	12/12/20/2024/1/1	Approved
Construction of a CSP and CPV/ PV Plant in, Kimberley, Northern Cape Province	12/12/20/2024	Approved
Proposed construction of 100MW compact linear Fresnel reflector facility on the farm Platfontein 68 and Wildebeestkuil 69 within Sol Plaaitjie Local Municipality, Northern Cape Provice	12/12/20/2251/2	Approved
Amendment for the construction of the 75MW Photovoltaic facility on the farm Platfontein No 68, Northen Cape Province	12/12/20/2251/1	Approved
The Construction Of A 75mw Photovoltaic Solar Facility On A Portion Of Portion 1 Of The Farm Hanskopfontein 40 Rd Near Kimberley, Northern Cape Province	14/12/16/3/3/2/307	Approved
The Proposed Construction Of A 19.5mw Photovoltaic Solar Facility And Its Associated Infrastructure On A Portion Of Portion 24 Of The Farm Zoutpansfontein 34, Registration Division Rd, Northern Cape Province	14/12/16/3/3/1/505	Approved
Solar energy facility on morgenzon farm- phase 2(75mw), Northern Cape Province	14/12/16/3/3/2/257/2	In process

The total affected land parcel area taken up by authorised and planned renewable energy projects within the 30 km radius, including the Droogfontein PV 3 Project is approximately 352 km². The total affected land parcel area affected by the Droogfontein PV 3 Project equates to approximately 43 km². The proposed Droogfontein PV 3 Project land parcel area thus constitute 12% of the total areas taken up by the authorised and planned renewable energy projects. The cumulative impact of the proposed Droogfontein PV 3 Project is thus anticipated to be **low**.

The total area within the 30km radius around the proposed Droogfontein PV 3 Project equates to about 2507km² of similar habitat (excluding urban, industrial and irrigated areas). The total combined size of the land parcels potentially affected by renewable energy projects will equate to approximately 14% of the available similar habitat in the 30km radius. Assuming that all the projects are actually constructed, the cumulative impact of all the proposed renewable energy projects is estimated to be **medium**. However, the actual physical footprint of the renewable energy facilities will be much smaller than the land parcel areas themselves. Furthermore, several of these projects must still be subjected to a competitive bidding process where only the most competitive projects will win a power purchase agreement required for the project to proceed to construction. If all mitigation measures listed in the specialist reports are strictly implemented the cumulative impact could be reduced to **low**.

7 FINDINGS AND CONCLUSIONS

- No new avifaunal sensitivities were recorded during the site inspection in October 2022 that had not already been identified previously in the Avian Impact Assessment Report (SiVEST 2011).
- No nests of Red Data priority species were recorded during the site inspection in October 2022.
- The site inspection in October 2022 confirmed that the findings of the Avian Impact Assessment Report (SiVEST 2021) are still valid and applicable, as the receiving environment had not changed in any material way.
- It is recommended that the validity of the Environmental Authorisation be extended by an additional 3 years.

8 RECOMMENDATION

The only additional mitigation measures which will be required should the extension be granted, other than what was recommended in the original Avian Impact Assessment Report (SiVEST 2011) is the following:

- Avifaunal pre-construction monitoring must be implemented at the development area in accordance with Guidelines for the Implementation of the Terrestrial Flora (3c) & Terrestrial Fauna (3d) Species Protocols for EIAs in South Africa produced by the South African National Biodiversity Institute on behalf of the Department of Environment, Forestry and Fisheries (2020) and the BirdLife South Africa (BLSA) Guidelines for assessing and monitoring the impact of solar power generating facilities on birds in southern Africa. BirdLife South Africa by Jenkins, A.R., Ralston-Patton, Smit- Robinson, A.H. 2017 should be consulted to determine the level of survey effort that is required.

9 REFERENCES

- Koch, L. 2011. Construction of a CSP and CPV/ PV Plant in, Kimberley, Northern Cape Province of South Africa. Final Environmental Impact Report. - Ref #12/12/20/2024'
- University Of Cape Town. 2022. The southern African Bird Atlas Project 2. University of Cape Town. http://sabap2.adu.org.za.
- Taylor, M.R., Peacock F, & Wanless R.W (eds.) 2015. The Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland. BirdLife South Africa, Johannesburg, South Africa.
- IUCN. 2022 IUCN Red List of Threatened Species 2022.1 (http://www.iucnredlist.org/).

APPENDIX 1: SITE SENSITIVITY VERIFICATION REPORT

SITE SENSITIVITY VERIFICATION REPORT (IN TERMS OF THE PROCEDURES FOR THE ASSESSMENT AND MINIMUM CRITERIA FOR REPORTING ON IDENTIFIED ENVIRONMENTAL THEMES PUBLISHED IN GN 1150 ON 30 OCTOBER 2020)

1 Introduction

In accordance with the National Environmental Management Act (Act 107 of 1998, as amended) (NEMA) Environmental Impact Assessment (EIA) Regulations of 2014, a site verification visit has been undertaken in order to confirm the current land use and environmental sensitivity of the proposed project area as identified by the National Web-Based Environmental Screening Tool (Screening Tool).

2 Site Sensitivity Verification

The following methods and sources were used to compile this report:

- Bird distribution data of the South African Bird Atlas 2 (SABAP 2) was obtained from the University of Cape Town (2022), as a means to ascertain which species occur within the broader area i.e., within a block consisting of 4 pentads. A pentad grid cell covers 5 minutes of latitude by 5 minutes of longitude (5'× 5'). Each pentad is approximately 8 × 7.6 km. From 2007 to date, a total of 90 full protocol lists (i.e. surveys lasting a minimum of two hours each) have been completed for this area. In addition, 84 ad hoc protocol lists (i.e., surveys lasting less than two hours but still yielding valuable data) have been completed.
- The national threatened status of all priority species was determined with the use of the most recent edition of the Red Data Book of Birds of South Africa (Taylor *et al.* 2015).
- The global threatened status of all priority species was determined by consulting the (2022) IUCN Red List of Threatened Species (http://www.iucnredlist.org/).
- A classification of the vegetation in the SEF application site was obtained from the Atlas of Southern African Birds 1 (SABAP 1) (Harrison *et al.* 1997) and the National Vegetation Map (2018) from the South African National Biodiversity Institute website (Mucina & Rutherford 2006 & http://bgisviewer.sanbi.org).
- Satellite imagery (Google Earth ©2022) was used in order to view the broader area on a landscape level and to help identify sensitive bird habitat.
- The DFFE National Screening Tool was used to determine the assigned avian sensitivity of the SEF application site.
- A one-day site survey was conducted in October 2022 to assess the habitat and record the avifauna at the development area. See Appendix 1 for the avifauna recorded during the site survey.

3 Outcome of Site Sensitivity Verification

The proposed site is situated approximately 5km south of the town of Riverton, in the Northern Cape Province. The habitat at the development area consists of Kimberly Thornveld. This vegetation type is characterised by rolling topography but more often very flat. A well-developed tree layer is present dominated by Camel thorn

(*Vahchellia erioloba*), Umbrella thorn (*Vachellia tortillis*) and Shepherds tree (*Boscia albitrunca*). Grass is present however a large amount of exposed soil is present (SANBI 2018). The development area is located to two Important Bird Areas (IBAs), namely the Dronfield (SA 031) and Kamfers Dam (SA032). The Dronfield IBA is approximately 7880 ha and is a nature reserve. Kamfers Dam is approximately 400h in size and is centred around the Kamfers Dam, a proposed Ramsar site. No White-backed Vultures were recorded during the site visit, but they are known to be breeding in the Dronfield IBA and in the surrounding farmland. Two high voltage lines run to the south of the development area, namely the Weir - Kimberley 132kV and the Ulco – Kimberley 132kV high voltage lines. These lines are used by White-backed Vultures for roosting.

Figures 1 and 2 below are a sample of the typical habitat at the Droogfontein 3 PV development area.

Figure 1: Kimberley Thornveld, the dominant habitat at the proposed Droogfontein PV 3 development area.

Figure 2: The Weir - Kimberley 132kV and the Ulco – Kimberley 132kV high voltage lines, which run just east of the proposed development area. These powerlines are used by White-backed Vultures for roosting.

4 National Environmental Screening Tool

The project development area is classified as **High** sensitivity for avifauna, according to the DFFE online screening tool. The development sites contain confirmed habitat for species of conservation concern (SCC), as defined in the Protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial animal species (Government Gazette No 43855, 30 October 2020)[2], namely listed on the IUCN Red List of Threatened Species or South Africa's National Red List website as Critically Endangered, Endangered, Vulnerable, Near threatened or Data Deficient. The classification of High sensitivity is linked to the potential occurrence of Martial Eagle (Globally and Regionally Endangered), White-backed Vulture (Globally and Regionally Critically Endangered) and Ludwig's Bustard (Globally and Regionally Endangered) (Figure 3).

The occurrence of SCC was confirmed during the original surveys in August 2010 and March 2011, namely White-backed Vulture. Martial Eagle was recorded during the subsequent site visit in October 2022 and it was confirmed that the habitat has not changed for the above listed SCC at the development area. The classification High sensitivity is assessed to be accurate as far as the potential presence of SCC is concerned, based on actual conditions recorded on the ground during the site visits in March 2011, and the subsequent site visit conducted in October 2022.

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY

Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Neotis ludwigii
Medium	Aves-Sagittarius serpentarius
Medium	Aves-Gyps africanus

Figure 7: The classification of the Project Site according to the animal species theme in the DFFE National Screening Tool. The High sensitivity is linked to the possible occurrence of Ludwig's Bustard *Neotis ludwigii* (Globally and Regionally Endangered), Secretarybird *Sagittarius serpentarius* (Globally Endangered Regionally Vulnerable) and White-backed Vulture *Gyps africanus* (Globally and Regionally Critically endangered).

5 Conclusion

The proposed classification of **High Sensitivity** in the screening tool was confirmed during the site sensitivity verification survey which was conducted on 4 October 2021.

6 References

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APPENDIX A: AVIFAUNA RECORDED DURING THE SITE SENSITIVITY SURVEY

Species name	Scientific name	SABAP 2 Full protocol reporting rate	SABAP2 Ad hoc protocol reporting rate	Global status	Regional status	Recorded during surveys in 2012
African Pipit	*Anthus cinnamomeus*	43.33	9.52	-	-	x
Ant-eating Chat	*Myrmecocichla formicivora*	74.44	19.05	-	-	x
Common Waxbill	*Estrilda astrild*	6.67	1.19	-	-	x
Crowned Lapwing	*Vanellus coronatus*	71.11	10.71	-	-	x
Double-banded Courser	*Rhinoptilus africanus*	6.67	0.00	-	-	x
Dusky Sunbird	*Cinnyris fuscus*	6.67	0.00	-	-	x
Fairy Flycatcher	*Stenostira scita*	10.00	0.00	-	-	x
Helmeted Guineafowl	*Numida meleagris*	65.56	13.10	-	-	x
Little Swift	*Apus affinis*	46.67	8.33	-	-	x
Martial Eagle	*Polemaetus bellicosus*	6.67	1.19	EN	EN	x
Northern Black Korhaan	*Afrotis afraoides*	75.56	20.24	-	-	x
Pied Crow	*Corvus albus*	53.33	20.24	-	-	x
Pririt Batis	*Batis pririt*	66.67	9.52	-	-	x
Rock Martin	*Ptyonoprogne fuligula*	25.56	2.38	-	-	x
Scaly-feathered Weaver	*Sporopipes squamifrons*	65.56	11.90	-	-	x
Southern Red Bishop	*Euplectes orix*	40.00	8.33	-	-	x
Speckled Pigeon	*Columba guinea*	58.89	4.76	-	-	x
Spike-heeled Lark	*Chersomanes albofasciata*	31.11	3.57	-	-	x
Temminck's Courser	*Cursorius temminckii*	4.44	0.00	-	-	x
Western Cattle Egret	*Bubulcus ibis*	55.56	16.67	-	-	x
White-rumped Swift	*Apus caffer*	28.89	2.38	-	-	x
White-throated Swallow	*Hirundo albigularis*	18.89	3.57	-	-	x