ANIMAL SPECIES COMPLIANCE STATEMENT FOR THE PROPOSED CONSTRUCTION OF OUDRIFT FARM DAM ON REMAINDER PORTION 3 AND REMAINDER PORTION 13 OF FARM 143, KLEIN BRAK RIVER, WESTERN CAPE

Prepared by

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Prepared for:

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10 April 2024

DECLARATION OF SPECIALIST INDEPENDENCE

We, Mr Willem Matthee and Prof. Jan A. Venter, hereby declare that:

- we are acting as independent specialists regarding this application;
- we do not have any interest, hidden or otherwise, in the outcome of this application, apart from financial compensation for the work done to survey the proposed development area and compile this report;
- surveying the site for this faunal compliance statement was done objectively, and that this report and the facts therein contained (regardless of its impact on the application approval process) will not be affected by any outside factors;
- we have the required expertise to perform surveys and produce compliance statements as it pertains to the faunal aspect of this proposed development
- we will comply with the relevant Acts, regulations and legislation;
- we have not, and will not, engage in conflicting interests while performing our duties for this activity, and have no influence over the decision-making authorities regarding their accepting or rejecting of this proposed development;
- we undertake to disclose to the applicant and competent authority all material and information within my possession that may influence the decision-making process regarding the proposed development;
- all particulars furnished by us in this form are true and correct, and that it is an offense to present a false declaration, and that such a false declaration is punishable in terms of Section 24F of the Act; and that
- this document is to be viewed as a whole, and not misquoted out of context.

Date: 10 April 2024 Date: 10 April 2024

DATE	REVISION	STATUS	PREPARED BY	CHECKED AND APPROVED BY
10 April 2024	0	Approved for submission	Willem Matthee	Dr Jan A. Venter (SACNASP Registration Nr. 400111/14)

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1. INTRODUCTION

Kapp Environmental Consultants (Pty) Ltd was appointed to facilitate the environmental impact aspects regarding the proposed construction of Oudrift Farm Dam on Farm 143, Klipheuvel, Klein Brak River, Western Cape (S34º02'56.6"; E22º08'21.2"). The dam wall will be constructed in a narrow valley on Remainder Portion 3 of Farm 143, and will mostly flood an area on Remainder Portion 13 of Farm 143 after construction (Fig. 1).

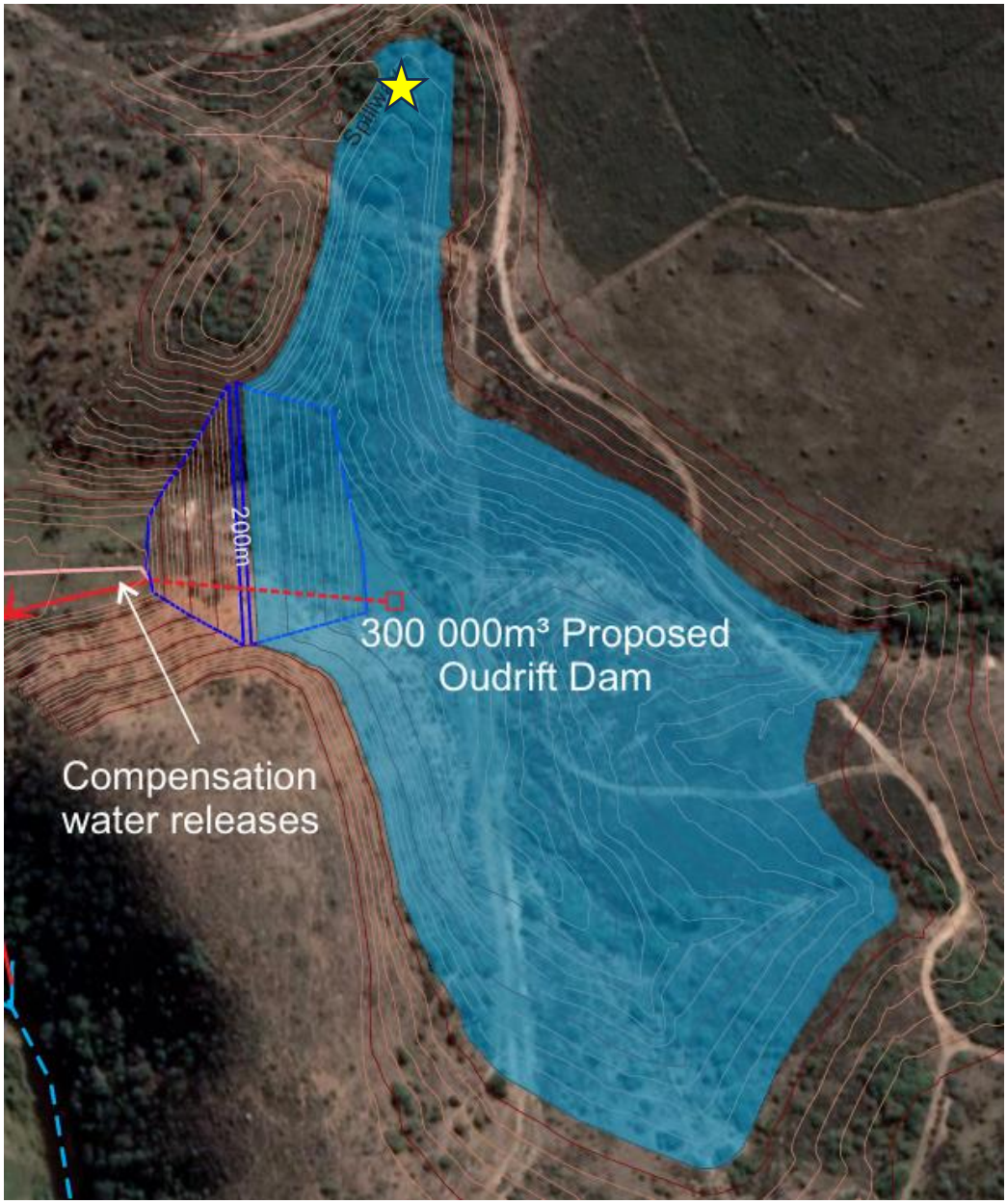


Fig. 1: The location of the proposed Oudrift Farm Dam, with the approximate area that will be flooded coloured in blue. The overflow (spillway) will be located along the northern edge (yellow star). Contour lines (orange) are at 5 m intervals.

After the dam wall is constructed, the farm dam will flood an area approximately 5.429 ha in size. The majority of this flooded area will be on Portion 3 of Farm 143, but the dam wall will be constructed in a narrow valley on Portion 13 of Farm 143. Apart from electrical pylons, boundary fences (including between Portions 3 and 13) and roads, the study area is undeveloped, and in a relatively natural state.

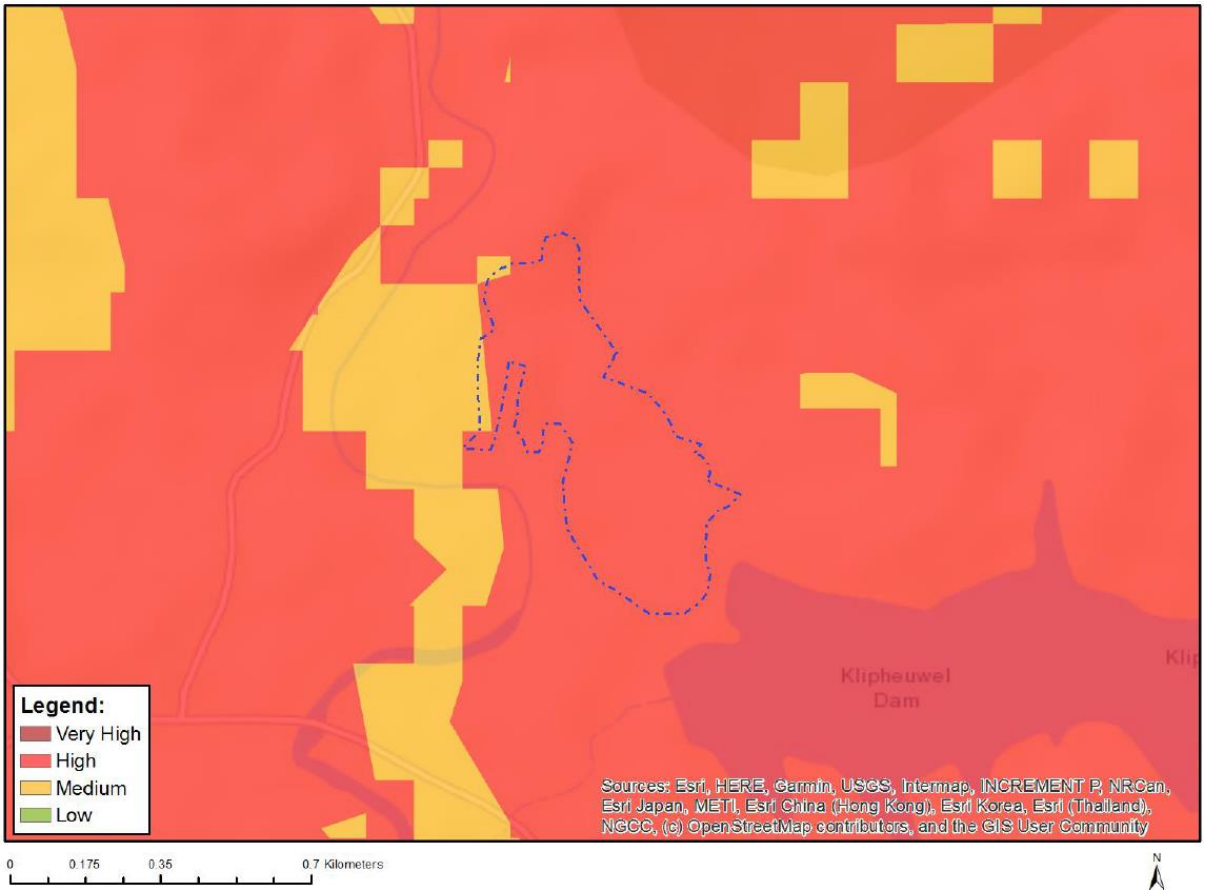


Fig. 2: The sensitivity of the study area in terms of the animal species theme, as per the DFFE screening tool report (performed 3 March 2023).

Vegetation in the study area consists predominantly of Garden Route granite fynbos (FFg5), while there is also a small section of South Outeniqua sandstone fynbos (FFs19) present. The dominant shrub in the area that will be flooded, is renosterbos (*Dicerothamnus rhinocerotis*), with *Bobartia orientalis* being the dominant geophyte recorded. The presence of Kapokbos (*Eriocephalus africanus*) was also recorded, as well as the presence of *Hermannia lavandulifolia*. In the valley sections (there are two valleys present within the study area), thicket vegetation is present, which is characterised by Sweet thorn (*Vachellia karroo*, *=Acacia karroo*), False olive (*Buddleja saligna*), and Num-num (*Carissa bispinosa*).

As per the "Protocols for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes" (hereafter called "the Protocols"), as promulgated in Government Gazette Notice 320 (Government Gazette 43110, 20 March 2020), and amended in Government Gazette Notice 3717 (Government Gazette 49028, 28 July 2023), the Protocols must be adhered to for all new applications for Environmental Authorisation.

The Department of Forestry, Fisheries and the Environment (DFFE) screening tool report (performed on 3 March 2023) classified the study area as having a High sensitivity, due to the potential presence of 14 species of conservation concern (SCC). These SCC consist of nine bird species, three insects, and two species that cannot be disclosed, and (along with their respective sensitivities) were:

- Caspian tern, *Hydroprogne caspia* (Aves) – High sensitivity
- Knysna warbler, *Bradypterus sylvaticus* (Aves) – High sensitivity
- Martial eagle, *Polemaetus bellicosus* (Aves) – High sensitivity
- African marsh-harrier, *Circus ranivorus* (Aves) – High sensitivity
- Black harrier, *Circus maurus* (Aves) – High sensitivity
- Denham’s bustard, *Neotis denhami* (Aves) – High sensitivity
- Great white pelican, *Pelecanus onocrotalus* (Aves) – High sensitivity
- Crowned eagle, *Stephanoaetus coronatus* (Aves) – Medium sensitivity
- Southern black korhaan, *Afrotis afra* (Aves) – Medium sensitivity
- Brenton copper, *Aloeides thyra orientis* (Insecta) – Medium sensitivity
- Dickson’s sylph, *Tsitana dicksoni* (Insecta) - Medium sensitivity

- Sensitive Species 5 (which cannot be disclosed) - Medium sensitivity
- Sensitive Species 8 (which cannot be disclosed) - Medium sensitivity
- Yellow-winged agile grasshopper, *Aneuryphymus montanus* (Insecta) – Medium sensitivity

The animal species site sensitivity verification report, however, reports that the study area should rather be classified as Low sensitivity, as the majority of the SCC do not occur at the study area, and the species that could occur there will not be affected significantly by the construction of the farm dam. Vegetation adjacent to the proposed farm dam (which will not be flooded by the dam) is almost identical to the vegetation that will be flooded by the dam: animal species present in the flooded area will be able to relocate to nearby suitable vegetation, and will therefore not be impacted significantly by this project.

There are no alien invasive plants (AIPs) present in the area of Remainder Portion 3 that will be flooded, nor were any observed in the neighbouring areas on Remainder Portion 3, as the AIPs that were present there historically have been removed by the landowner (there is evidence of *Eucalyptus* and *Acacia* stumps where clearing has been done).

As per the Protocols, this compliance statement is based on the findings of a desktop study (using Cape Farm Mapper, iNaturalist, BGIS and GBIF) and a site visit (used to compile the site sensitivity verification report as well as this compliance statement), to determine the presence (or likely presence) of the SCC, and the potential impacts of the development on these SCC.

2. DETAILS OF THE SPECIALISTS

Both specialists that compiled this document have experience in faunal species identification, and the identification of suitable habitats for various species, from invertebrates to large mammalian species. Their details are in the table below.

Table 1. The details and experience of the specialists involved with this report.

Specialist and contact details	Qualifications	SACNASP Registration	Experience
Prof. Jan A Venter **Email:** JanVenter@mandela.ac.za **Mobile:** 0824161096	PhD (Biology) UKZN	400111/14	25 Years' experience in faunal ecology and conservation in both the government and tertiary education sector. Current position: Associate Professor in the Department of Conservation Management at Nelson Mandela University
Willem Matthee **Email:** WillemM@mandela.ac.za **Mobile:** 084 620 4246	M.Sc. (Nature Conservation) NMU	Not registered	Willem has three years' experience in surveying amphibian populations, and an additional five years of bird surveys. He has also been involved in animal diversity surveys on an on-off basis for the past four years. He has completed his MSc in Nature Conservation in 2014. He currently lectures as a lecturer in Conservation Ecology at the Nelson Mandela University George Campus.

3. METHODS

The findings of this report are based on:

1) a desktop study to determine the potential presence of the SCC identified by the screening tool (and any SCC not identified by the screening tool) at the study site;
2) a site visit to the study site, to determine the presence of (and habitat suitability for) the SCC highlighted by the screening tool, or SCC not flagged by the screening tool.

The desktop study included the use of iNaturalist and the Global Biodiversity Information Framework (GBIF) records. Records from these resources were used to determine whether the SCC have been recorded at (or near to) the study site, but the species' actual presence or likely presence was based on the findings of the site visit.

A site visit was performed on 24 January 2024, between 09:00 and 13:00. During the site visit, the species observed (mainly animal species, but also the plant species forming part of the habitat present at the study site) were recorded. Observations were visual (i.e., the animals were observed), acoustic (the animals were heard), or based on the presence of tracks or dung. The survey consisted of walking throughout the study area, observing the study site from different vantage points, and attempting to cover the entire property sufficiently to determine the presence or absence of the SCC. The main purposes of the site visit were to determine whether:

1) any of the 14 SCC flagged by the screening tool occur at the study site;
2) the site for the proposed dam acts as a corridor for any of the SCC highlighted by the screening tool;
3) the vegetation that will be flooded by the proposed dam likely supports undetected individuals or populations of the SCC highlighted by the screening tool (that were not picked up during the desktop study); and
4) there are any SCC present at the site that were not picked up by the screening tool.

3.1. Desktop Study

3.1.1. Location and Vegetation

The site for the proposed farm dam is on Portion 3 and 13 of Farm 143, Klipheuvel, Klein Brak River (S34º02'56.6"; E22º08'21.2"). The total area that will be flooded by the farm dam is approximately 5.429 ha in size, of which the majority is located on Portion 3 of Farm 143. The dam wall, however, will be located on Portion 13 of Farm 143. Apart from electrical pylons, boundary fences (including between Portions 3 and 13) and roads, the study area is undeveloped, and in a relatively natural state.

The study area is dominated by renosterbos-dominated fynbos, predominantly Garden Route granite fynbos (though there is also South Outeniqua sandstone fynbos present in higher-lying areas). The farm borders Botlierskop Private Game Reserve (which is located to the north), a reserve with the Big 5 and other game animals. There are also two valleys with thicket vegetation present. The western thicket vegetation extends beyond the area where the dam's overflow will be located, and is dominated by Sweet thorn (*Vachellia karroo*), Falso olive (*Buddleja saligna*) and Num-num (*Carissa bispinosa*). The eastern thicket vegetation has similar species composition, but also has White milkwood (*Sideroxylon inerme*) present in low numbers.

3.1.2. Animal species sensitivity

The DFFE screening tool identified a total of 14 species of conservation concern (SCC). These species, along with their associated sensitivities were:

- Caspian tern, *Hydroprogne caspia* (Aves) – High sensitivity
- Knysna warbler, *Bradypterus sylvaticus* (Aves) – High sensitivity
- Martial eagle, *Polemaetus bellicosus* (Aves) – High sensitivity
- African marsh-harrier, *Circus ranivorus* (Aves) – High sensitivity
- Black harrier, *Circus maurus* (Aves) – High sensitivity
- Denham's bustard, *Neotis denhami* (Aves) – High sensitivity
- Great white pelican, *Pelecanus onocrotalus* (Aves) – High sensitivity
- Crowned eagle, *Stephanoaetus coronatus* (Aves) – Medium sensitivity
- Southern black korhaan, *Afrotis afra* (Aves) – Medium sensitivity
- Eastern red copper, *Aloeides thyra orientis* (Insecta) – Medium sensitivity
- Dickson's sylph, *Tsitana dicksoni* (Insecta) – Medium sensitivity

- Sensitive Species 5 (which cannot be disclosed) – Medium sensitivity
- Sensitive Species 8 (which cannot be disclosed) - Medium sensitivity
- Yellow-winged agile grasshopper, *Aneuryphymus montanus* (Insecta) – Medium sensitivity

Based on the desktop study, which included the use of iNaturalist and the Global Biodiversity Information Facility (GBIF), there are the following likelihoods of these SCC occurring at the study area:

- A very low likelihood of *H. caspia*, *A. montanus*, Sensitive Species 5, Sensitive Species 8, *T. dicksoni*, *A. thyra orientis*, *P. onocrotalus*, *S. coronatus*, and *C. ranivorus;*
- A low likelihood of *B. sylvaticus*, *N. denhami*, *Afrotis afra*, and *C. maurus*; and
- A high likelihood of *P. bellicosus* occurring at the site.

Hydroprogne caspia **(Caspian tern)** is a vulnerable species that occurs at (a) estuaries and sheltered coastal bays, or (b) large, permanent inland water bodies (Tree, 2005; Ortmann et al., 2015). The South African population is estimated at less than 1 000 mature individuals, with a generally decreasing population trend. The main threats include climatic variables, egg collection and predation by natural predators (e.g. Kelp gulls, *Larus dominicanus*) and domestic dogs. The study area currently has no permanent water body present, and it is therefore highly unlikely that this species occurs at the study area. There are 30 records of this species within a 3 km radius of the study area, with one record being an eBird observation from the Brandwag River (about 2.3 km from the study area), and the remaining 29 observations being observations from the Southern African Bird Atlas Project 2 (SABAP2) database. These SABAP2 records do not have GPS co-ordinates recorded, and are most likely from the two large rivers and associated estuaries to the south of the study area. The only large permanent water body present in the area around the study area, is the Klipheuvel Dam, located about 0.78 km from the study area. However, it is highly unlikely that the proposed Klipheuvel Farm Dam will impact this species, as it does not occur in the area that will be flooded and there are no records of this species from the immediate vicinity of the study area.

Bradypterus sylvaticus **(Knysna warbler)** is a vulnerable bird species occurring in dense thickets, including riparian vegetation and coastal thickets dominated by White milkwood, *Sideroxylon inerme* (Smith, 2005; Taylor, 2015a). This species is threatened mainly by habitat destruction, specifically the clearing of coastal clearings where it occurs. Although it mainly occurs in indigenous thickets, it may also occur in suitable thickets of exotics, such as exotic *Rubus* (bramble) and lantana (*Lantana camara*). The majority of the study area does not have suitable habitat present, with the potential exception of the two sections of thicket vegetation in the valleys. There are 33 records of this species on the GBIF database for the area around the property, with one thereof being an eBird observation with GPS co-ordinates (recorded along the Moordkuil River to the west of the farm), and the remaining 32 records being SABAP2 records without accurate GPS co-ordinates). The majority of these SABAP2 records are likely from thickets at Botlierskop Private Game Reserve, where extensive thickets are present. The thickets within the study area are possibly too small to support this species. It is also possible that suitable thicket vegetation may establish along the dam, which could support this species in future.

Polemaetus bellicosus **(Martial eagle)** is a large, endangered raptor that prefers open vegetation, and breeds in tall trees (Simmons, 2005a; Taylor, 2015b). This species is threatened mainly due to direct persecution by small livestock farmers, poisoning, and reduction of prey abundance due to habitat transformation. There are 16 records of this species in the area around the study area (all SABAP2 records without accurate GPS co-ordinates). It is very likely that these records are also from Botlierskop Private Game Reserve, though the landowner has confirmed that they have seen this species on the property twice before (one juvenile that was injured when it flew into a powerline, and one of unrecorded age). The open vegetation present in the area is likely suitable habitat for this species, but the surrounding vegetation (that will not be flooded by the proposed dam) will also be able to support this species, especially considering the amount of clearing of AIPs and restoration that has occurred in that section of the farm.

***Circus ranivorus* (African marsh-harrier)** occurs along large water bodies and in neighbouring open vegetation (Simmons, 2005b). This species is classified as Endangered in South Africa (Taylor, 2015c), with habitat loss and degradation being the most significant threat to the continued survival of this species. There are 17 records of this species on the BGIS database for the area around the study area, all from the SABAP2 database (and therefore without accurate GPS co-ordinates). These records are most likely from sightings at Botlierskop Private Game Reserve, or along the Moordkuil or Brandwag Rivers, as the habitat at the study area is not suitable for this species. *C. ranivorus* requires extensive reedbeds for breeding and feeding, which is absent from the study area. It is possible that reedbeds may establish alongside the dam in future, which could then act as suitable habitat for this species. At present, however, there is a very low likelihood that this species occurs at the study site.

***Circus maurus* (Black harrier)** is an endangered raptor (Taylor, 2015d), endemic to southern Africa. It occurs in indigenous fynbos and neighbouring cropfields (Simmons et al., 2005), and is threatened mainly by habitat destruction and fragmentation. The conservation of intact suitable habitat is therefore essential for the continued existence of this species. The majority of the property is suitable for this species, as it consists of open vegetation shrubland that is suitable foraging habitat for this species. There are only four records of this species on the GBIF database, with three SABAP2 records (without accurate GPS co-ordinates), and one georeferenced eBird observation (recorded in the farmlands to the south of the existing Klipheuvel Dam). Due to the open shrubland vegetation present on the property, there is a medium likelihood that this species occurs within the development footprint, but the rarity of records indicates that they are not commonly recorded in the general area.

***Neotis denhami* (Denham's bustard)** occurs in natural vegetation (fynbos and grasslands), pastures and agricultural fields (Allan, 2005a). It is classified as Vulnerable in South Africa (Taylor, 2015e), mainly due to powerline collisions, habitat conversion to intensive monoculture fields, and overgrazing of grassland habitats. There are nine records on the GBIF database of this species for the area around the study area, with one georeferenced record (recorded at Botlierskop Private Game Reserve), and eight SABAP2 records without accurate GPS co-ordinates. With this species preferring open shrubland (similar to *C. maurus*), there is a medium likelihood

that this species occurs at the study area. However, with few sightings in the area, they are likely not abundant in the area.

Pelecanus onocrotalus **(Great white pelican)** is classified as vulnerable (Bowker, 2015), with a breeding population of 2 500 breeding pairs in South Africa. Approximately 500 pairs occur within the Western Cape, but there are few records of this species from the study area. A total of five records exist of this species in the area around the study area. One of these records (from July 2011) was from the Great Brak River estuary, while the remaining four records were all from one individual that was recorded at a farm dam approximately 9 km northwest of
this proposed dam for the period 24 – 30 September 2017. This species is limited to large water bodies with sufficient prey, including shallow lakes, flood plains, estuaries, lagoons and coastal bays (Crawford, 2005). There is no standing water within the study area, and without suitable habitat this species is highly unlikely to occur within the study area. If it is impacted by the proposed farm dam, the impact would likely be positive, as it could provide a resting place for this highly nomadic species.

Stephanoaetus coronatus **(Crowned eagle)** is a large eagle that inhabits forested or densely-wooded areas (Simmons, 2005c). It is classified as Vulnerable in South Africa, with an estimated population size of less than 1 000 mature individuals (Taylor, 2015f). The main threat consists of persecution by humans (notably stock farmers), especially when they predate on livestock or domestic animals. In the Western Cape, they are predominantly found in indigenous southern Afrotemperate forests, but they may also occur in commercial plantations (mainly *Pinus* and *Eucalyptus* plantations). There are no records of this species from the area around the study area, as there is an absence of large extents of suitable habitat in the area. The closest records of this species is from the area near Friemersheim, approximately 11.5 km from the study area. Due to the absence of suitable habitat and records from the area, it is very unlikely that this species occurs at the study area, or will be impacted by the proposed dam construction.

***Afrotis afra* (Southern black korhaan)** is a vulnerable bird species that occurs in open fynbos and arid shrublands (Allan, 2005b; Hofmeyr & Taylor, 2015). There are no records of this species near the study area, and this species is notably absent from the section of the Garden Route between Mossel Bay and George. Though the habitat of short shrubland may initially appear suitable for this species, it is highly unlikely that it occurs at the study site, as it is very vocal (especially during the breeding season), and would have been recorded if it did occur in the area. The proposed dam is therefore unlikely to have an impact on this species.

***Aloeides thyra orientis* (Brenton copper)** occurs in the area around Knysna and Rheenendal, with an isolated likely record of this species (August 2022) from the mountains north of Friemersheim (approximately 11 km from the study site). An isolated population of this species also occurs around Still Bay to the west (approximately 80 km from the study site). It is classified as Endangered (Edge, 2018), and occurs in sandy fynbos on flat terrain close to the coast. Due to the isolated nature of the populations of this species, and the absence of the preferred habitat, it is highly unlikely to occur at the study site, and the proposed dam will not impact this species.

***Tsitana dicksoni* (Dickson's sylph)** is a rare butterfly that occurs along three mountain ranges, namely the Hawequas, Langeberg East and Outeniqua Mountains (Dobson & Dobson, 2018). There are 37 records of this species on the GBIF database, but all records are from the Hawequas Mountains population. This species occurs in grassy mountain fynbos in higher-lying areas. The lack of records of this species from the area around the study area, along with the study area being located at lower altitudes and the lack of suitable habitat at the study area indicates that this species is highly unlikely to occur at the study area, and is unlikely to be impacted by the proposed dam.

Sensitive Species 5 (which cannot be disclosed) only occurs in large, open areas where sufficient food resources are available. Although there are historic records of this species from the Western Cape (notably from Beaufort West in the 1860s), they have been extirpated from their entire range within the province (Skinner & Chimamba, 2005; Van der Merwe et al., 2016). Individuals of this species, where they occur in the Western Cape, are limited to fenced conservation areas (such as the Botlierskop Private Game Reserve), though there are no records of this species from the area around the study area. This species is therefore highly unlikely to occur in the study area, or be affected by the proposed dam.

Sensitive Species 8 (which cannot be disclosed) occurs in indigenous forests and thicket vegetation, and usually move away from areas with high levels of disturbance (Venter et al., 2016). There is one record of this species from indigenous White milkwood (*Sideroxylon inerme*) thickets around Great Brak River, but no records of this species around the study area. The study area has very little thicket vegetation present, which is too fragmented to support this species. This species is therefore highly unlikely to occur at the study area, or be impacted by the proposed dam.

Aneuryphymus montanus **(Yellow-winged agile grasshopper)** is a vulnerable grasshopper species known from only six localities (Hochkirck et al., 2018). There are no records of this species in the area on the GBIF database, with the closest record being from the Swartberg Pass, which is approximately 90 km from this site. *A. montanus* also prefers arid, sclerophyllous fynbos on rocky substrates. The fynbos vegetation at the study site has an absence of proteoids and other sclerophyllous vegetation. Due to the lack of records from the area and the lack of suitable habitat on the property, there is a very low likelihood of this species at the study site, and the species is unlikely to be impacted by the proposed development.

3.2. Site visit

3.2.1. Vegetation

The site visit, performed on 24 January 2024, confirmed that the study site and surrounding area is dominated by short fynbos vegetation, likely a mixture between Garden Route granite fynbos and South Outeniqua sandstone fynbos. This fynbos vegetation was dominated by Renosterbos (*Dicerothamnus rhinocerotis*), with *Bobartia orientalis*, *Hermannia lavandulifolia*, *Eriocephalus africanus* and a mixture of asteraceous shrubs dominating the fynbos vegetation. The thicket vegetation in the two valleys is dominated by Sweet thorn (*Vachellia karroo*), False olive (*Buddleja saligna*), Num-num (*Carissa bispinosa*) and White milkwood (*Sideroxylon inerme*). The majority of the vegetation that will be flooded by the dam is fynbos vegetation, but sections of the thicket vegetation will also be flooded (Fig. 1). During the site visit, as large an area of the study site was surveyed (Fig. 3), with particular focus on habitats that could support any of the 14 SCC.

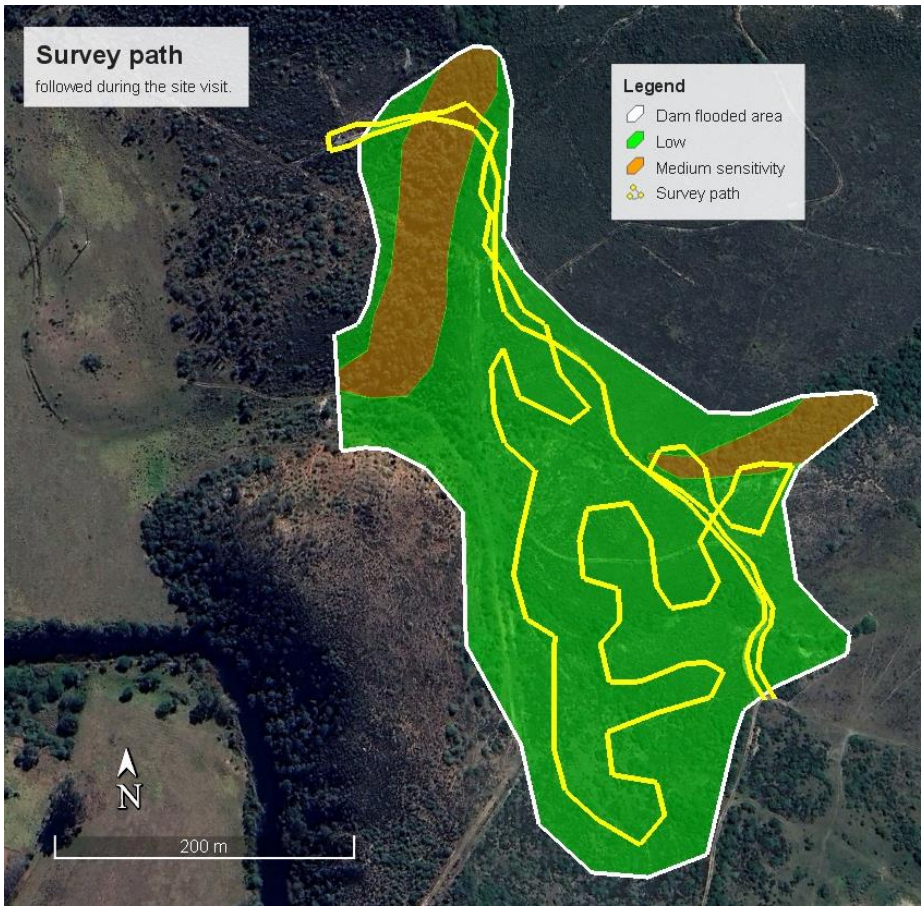


Fig. 3: The survey path (yellow) followed during the site visit. The map also indicates areas of low (green) and medium (orange) sensitivity, as per the SSVR.

Fig. 4: The view of the study area, looking from the east. The yellow line indicates the location of the proposed dam wall.

Fig. 5: The majority of the vegetation in the area that will be flooded consists of short ericoid fynbos dominated by Renosterbos and other short shrubs.

Fig. 6: The thicket vegetation in the study area is confined to two small valleys. This valley is located in the northwestern section of the study area, and located close to the proposed overflow of the dam.

Fig. 7: A number of *Erica* and other fine-leaved shrubs are also present in the area that will be flooded. The yellow line indicates the location of the proposed dam wall.

Fig. 8: The vegetation between the proposed dam wall and boundary fence between Portion 13 (where the proposed dam wall is located), and Portion 3 (from where the photograph was taken) of Farm 143 is dominated by *Vachellia karroo* and *Buddleja saligna*.

Fig. 9: The thicket in the eastern section of the study area is dominated by *Buddleja saligna*, with some *Sideroxylon inerme* present also present. It is too small and isolated to be used by the SCC for an extended period of time.

3.2.2. Animal species sensitivity

During the site visit, a single adult **Martial eagle (*Polemaetus bellicosus*)** was recorded flying overhead (Fig. 10). The individual was not flying directly over the study area, but would likely hunt within this section of vegetation as well. This species is occasionally sighted in the general area, and has large ranges (non-breeding territories can be up to 1 000 km^2 in size (Simmons, 2005a), but non-territorial individuals can range up to 44 000 km^2; Van Eeden et al., 2017). Considering the size of the area on the property that has been rehabilitated, and the abundance of prey in the surrounding landscape (particularly the neighbouring Botlierskop Private Game Reserve), coupled with the large size of territories held by individuals of this species, the footprint of the proposed dam will not have a significant impact on the continued survival of this species in the area. Prior to this sighting, the landowner recalled two other sightings of this species on the property: one juvenile, and one adult bird. There are no large trees present on the property, which can be used as breeding sites, but the electricity pylons provide potential nesting sites (though no nests have been recorded there to date). The abundance of suitable vegetation remaining on the property is adequate to compensate for the area lost to the proposed dam.

Fig. 10: The adult Martial eagle (*Polemaetus bellicosus*) that was recorded flying overhead during the site visit on 24 January 2024.

None of the other SCC were recorded during the site visit. For three of the species (***Hydroprogne caspia***, ***Circus ranivorus*** and ***Pelecanus onocrotalus***), there is an absence in the study area of the large water bodies they require, and they are highly unlikely to occur at the study area or be influenced negatively by the construction of the proposed dam. Although there are some thicket vegetation present at the study area, ***Bradypterus sylvaticus*** is also unlikely to occur at the study area, as the thicket vegetation (a) is too fragmented and isolated from thickets where this species is present, and (b) does not have the thick understorey vegetation present that this species requires.

Although the open fynbos vegetation is possibly suitable for ***Neotis denhami***, ***Afrotis afra*** and ***Circus maurus***, only *N. denhami* is likely to be present at the study area. Of these three species, *N. denhami* is the only one that regularly utilises farmland, and are able to persist in the landscape around the study area, where there is an abundance of irrigated crops and graze for livestock. There is therefore a medium likelihood that this species occurs at the study site, though the majority of the property that will not be flooded by the proposed dam consists of suitable natural vegetation for this species, and it is unlikely to be impacted negatively by the dam. *A. afra* is strangely absent from the area between Mossel Bay (to the west of the study area) and George (to the east), and is unlikely to occur at the study area, or be impacted by the construction of the proposed dam. *Circus maurus* is largely absent from the landscape around the study area, and the area is likely only used by transient individuals. The majority of the property will not be flooded by the proposed dam, and will have sufficient value as an ecological corridor to discount the section that will be lost to the proposed dam.

Stephanoaetus coronatus is highly unlikely to occur at the study site, as (a) there is no indigenous forest vegetation on the property, nor any dense woodlands capable of supporting this species, and (b) there are no records of this species from the larger area, and it is therefore highly unlikely to be impacted by the proposed dam.

The two butterfly species indicated by the DFFE screening tool report, ***Aloeides thyra orientis*** and ***Tsitana dicksoni*** are highly unlikely to occur at the study site. There are no records of either species from the area around the study site, and an absence of the preferred habitat for both these species. The vegetation at the study site consists of short ericaceous fynbos on a rocky substrate, whereas *A. thyra orientis* occurs in sandy fynbos close to the coast, and *T. dicksoni* occurs in grassy fynbos in mountainous areas. Due to the absence of records from the study area, lack of suitable habitat, and neither species being recorded during the site visit, it is concluded that there is a very low likelihood that either species occur at the study site, and that the proposed dam is highly unlikely to have a significant impact on the continued survival of these two species.

Sensitive Species 5 (which cannot be disclosed) is highly unlikely to occur at the study site, as they are (in the Western Cape) confined to large protected areas where they have been reintroduced. As no individuals of this species have been introduced to the property, this species is very highly unlikely to occur at the study site, and the proposed dam will not have an impact on the continued survival of this species.

Sensitive Species 8 (which cannot be disclosed) is also very highly unlikely to occur at the study site. This species requires large extents of forested habitat, which is absent from the study site. Though there are two sections of thicket vegetation in the two valleys, these areas are too small, fragmented and isolated to support this species. These valleys are also not connected to any larger section of forested habitat, and it is highly unlikely that this species utilises these areas as corridors between larger, more suitable areas. The proposed dam is therefore highly unlikely to have an impact on the persistence of this species in the area.

Aneuryphymus montanus is also highly unlikely to occur at the study area, as (a) there are no records of this species from the area, (b) the closest record of this species is from the Swartberg Pass, and (c) the preferred habitat is absent from the study site. This species prefers sclerophyllous fynbos vegetation, while the vegetation at the study site consists of more ericaceous vegetation. The proposed dam is therefore highly unlikely to impact this species' continued survival.

3.2.3. Other animal species

During the site visit, a total of 31 animal species were recorded (Appendix 2). These observations consisted of one arachnid, 13 bird, one gastropod, 14 insect (one Coleoptera, two Diptera, two Hymenoptera, eight Lepidoptera, and one Odonata), and two mammal species. Apart from the Martial eagle that was recorded, other interesting animals recorded included Aardvark (*Orycteropus afer*), Black sparrowhawk (*Accipiter melanoleucus*), and Jackal buzzard (*Buteo rufofuscus*). The majority of the species recorded are generalists, and will be present across the landscape in suitable habitats. Apart from the Martial eagle, no other species of conservation concern were recorded during the site visit. The species recorded (including the Martial eagle) are all widely-distributed, would make use of the vegetation outside the development footprint, and would not be impacted in the long-term by the proposed dam.

4. ANIMAL SPECIES COMPLIANCE STATEMENT

The DFFE screening tool identified the study area as having a **High sensitivity** for the animal species theme, due to the potential presence of 14 animal species of conservation concern. The desktop study and site visit, however, indicated that this property has a **LOW SENSITIVITY**, due to:

- The absence of records for most of the SCC from the area around the study site;
- The small proportion of the property that will be impacted by the proposed dam, with the majority of the property consisting of relatively pristine vegetation similar to the vegetation that will be flooded by the dam;
- Though a Martial eagle was recorded during the site visit, this species roams over extensive areas, and the remaining vegetation on the property (and on the adjacent Botlierskop Private Game Reserve) will be able to compensate for the area that will be flooded by the dam;
- The low likelihood of occurrence for some of the SCC highlighted by the screening tool report (notably *B. sylvaticus*, *C. maurus*, *A, afra*, and Sensitive Species 8); and
- The very low likelihood of occurrence for most of the SCC (*H. caspia*, *C. ranivorus*, *P. onocrotalus*, *S. coronatus*, *A. thyra orientis*, *T. dicksoni*, Sensitive Species 5, and *A. montanus*) at the study area, mainly due to the habitat not being suitable for these species

The proposed dam is unlikely to affect the SCC highlighted by the screening tool, as:

1) the lack of standing water and associated reedbeds prevent *H. caspia*, *C. ranivorus* and *P. onocrotalus* from occurring in the study area;
2) the absence of extensive forest habitats prevent *B. sylvaticus*, *S. coronatus* and Sensitive Species 8 from occurring in the study area;
3) there are no records of *C. maurus*, *S. coronatus*, *A. thyra orientis*, *T. dicksoni* or *A. montanus* within a 10 km radius of the study site; and
4) Sensitive Species 5 only occurs in fenced protected areas where they have been re-introduced, and do not occur at the study site.

The sensitivity map that has been compiled for the study site (Appendix 1) indicates the sensitivity of the area that will be flooded by the proposed dam, for the animal species theme specifically. This sensitivity map was compiled for the initial farm dam proposed, which would have flooded a larger area than the new SDP indicates (Appendix 3), with the new dam flooding an area of 5.429 ha instead of the 7.296 ha that the initial proposal indicated. With the proposed farm dam now flooding a smaller than initially proposed, the impacts on animal SCC is further reduced, and the proposed development is highly unlikely to impact any animal SCC in the area. The majority of the study area (notably the fynbos vegetation) is classified as low sensitivity, as this vegetation is present throughout the property, and any species displaced from here by the dam will be able to establish in the remaining vegetation on the property. The two valleys with thicket vegetation present are classified as medium sensitivity, as they may act as ecological corridors for animals within the greater landscape. If thicket vegetation is allowed to establish along the banks of the dam, these areas can act as ecological corridors, and the impacts of the dam mitigated.

5. RECOMMENDATIONS

The proposed farm dam will result in an area of approximately 5.429 ha being flooded. The majority of the area that will be lost is covered by fynbos, with some thicket vegetation also lost. The impacts of the dam construction on fynbos species are largely mitigated by the presence of pristine fynbos vegetation on the remainder of the property. Additionally, the impacts on thicket species can be mitigated by allowing some thicket vegetation to establish along the dam, enabling the thicket to continue acting as ecological corridors (particularly if the newly-established thicket vegetation connects the two thicket fragments already present on the property).

Although the DFFE screening tool proposed a High sensitivity in terms of the animal species theme, the site visit, along with the desktop study, indicates that the development footprint and surrounding areas instead has an overall **LOW sensitivity**. This is due to the absence of suitable habitat for (or records of) the majority of the SCC from the study site.

REFERENCES

Allan, D.G. 2005a. Denham's Bustard, *Neotis denhami*. *In* P.A.R. Hockey, W.R.J. Dean & P.G. Ryan (Eds) *Roberts - Birds of southern Africa* 7th ed. The Trustees of the John Voelcker Bird Book Fund: Cape Town.

Allan, D.G. 2005b. Southern black korhaan, *Afrotis afra*. *In* P.A.R. Hockey, W.R.J. Dean & P.G. Ryan (Eds) *Roberts - Birds of southern Africa* 7th ed. The Trustees of the John Voelcker Bird Book Fund: Cape Town.

Bowker, M.B. 2015. *Pelecanus onocrotalus*. *In* M.R. Taylor, F. Peacock & R.W. Wanless (eds). The Eskom red data book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa: Johannesburg.

Crawford, R.J.M. 2005. Great white pelican, *Pelecanus onocrotalus*. *In* P.A.R. Hockey, W.R.J. Dean & P.G. Ryan (Eds) *Roberts - Birds of southern Africa* 7th ed. The Trustees of the John Voelcker Bird Book Fund: Cape Town.

Department of Forestry, Fisheries and the Environment. 2022. The revised national list of ecosystems that are threatened an in need of protection. Government Gazette Vol. 689, No. 47526. Notice Number 2747. Government Printers: Pretoria.

Dobson, J. & Dobson, C. 2018. *Tsitana dicksoni*. Southern African Lepidoptera Conservation Assessment (SALCA). Red List of South African Species. South African Biodiversity Institute. Available from: http://speciesstatus.sanbi.org/assessment/last-assessment/262/. Accessed 7 April 2024.

Edge, D. 2018. *Aloeides thyra orientis*. Southern African Lepidoptera Conservation Assessment (SALCA). Red List of South African Species. South African Biodiversity Institute. Available from: http://speciesstatus.sanbi.org/assessment/last-assessment/372//. Accessed 7 April 2024.

Hochkirck, A., Bazelet, C. & Danielczak, A. 2018. A conservation assessment of *Aneuryphymus montanus* <online>. Available from: http://speciesstatus.sanbi.org/assessment/last-assessment/4408/ [accessed 7 April 2024].

Hofmeyr, S.D. & Taylor, M.R. 2015. *Afrotis afra*. *In* M.R. Taylor, F. Peacock & R.W. Wanless (eds). The Eskom red data book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa: Johannesburg.

National Environmental Management Act (Act Nr 107 of 1998). Protocol for the specialist assessment and minimum report content requirements for the environmental impacts on terrestrial animal species. Gazette Nr 43855: Notice Nr 1150. October 2020.

Ortmann, H.E., Hagen, C.T. & Peacock, F. 2015. *Sterna caspia*. *In* M.R. Taylor, F. Peacock & R.W. Wanless (eds). The Eskom red data book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa: Johannesburg.

Simmons, R.E. 2005a. Martial Eagle, *Polemaetus bellicosus*. *In* P.A.R. Hockey, W.R.J. Dean & P.G. Ryan (Eds) *Roberts - Birds of southern Africa* 7th ed. The Trustees of the John Voelcker Bird Book Fund: Cape Town.

Simmons, R.E. 2005b. African Marsh Harrier, *Circus ranivorus*. *In* P.A.R. Hockey, W.R.J. Dean & P.G. Ryan (Eds) *Roberts - Birds of southern Africa* 7th ed. The Trustees of the John Voelcker Bird Book Fund: Cape Town.

Simmons, R.E. 2005c. Crowned Eagle, *Stephanoaetus coronatus*. *In* P.A.R. Hockey, W.R.J. Dean & P.G. Ryan (Eds) *Roberts - Birds of southern Africa* 7th ed. The Trustees of the John Voelcker Bird Book Fund: Cape Town.

Simmons, R.E., Curtis, O.E. & Jenkins, A.R. 2005. Black Harrier, *Circus maurus*. *In* P.A.R. Hockey, W.R.J. Dean & P.G. Ryan (Eds) *Roberts - Birds of southern Africa* 7th ed. The Trustees of the John Voelcker Bird Book Fund: Cape Town.

Smith, N. 2005. Knysna Warbler, *Bradypterus sylvaticus*. *In* P.A.R. Hockey, W.R.J. Dean & P.G. Ryan (Eds) *Roberts - Birds of southern Africa* 7th ed. The Trustees of the John Voelcker Bird Book Fund: Cape Town.

Taylor, M.R. 2015a. *Bradypterus sylvaticus*. *In* M.R. Taylor, F. Peacock & R.W. Wanless (eds). The Eskom red data book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa: Johannesburg.

Taylor, M.R. 2015b. *Polemaetus bellicosus*. *In* M.R. Taylor, F. Peacock & R.W. Wanless (eds). The Eskom red data book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa: Johannesburg.

Taylor, M.R. 2015c. *Circus ranivorus*. *In* M.R. Taylor, F. Peacock & R.W. Wanless (eds). The Eskom red data book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa: Johannesburg.

Taylor, M.R. 2015d. *Circus maurus*. *In* M.R. Taylor, F. Peacock & R.W. Wanless (eds). The Eskom red data book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa: Johannesburg.

Taylor, M.R. 2015e. *Neotis denhami*. *In* M.R. Taylor, F. Peacock & R.W. Wanless (eds). The Eskom red data book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa: Johannesburg.

Taylor, M.R. 2015f. *Stephanoaetus coronatus*. *In* M.R. Taylor, F. Peacock & R.W. Wanless (eds). The Eskom red data book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa: Johannesburg.

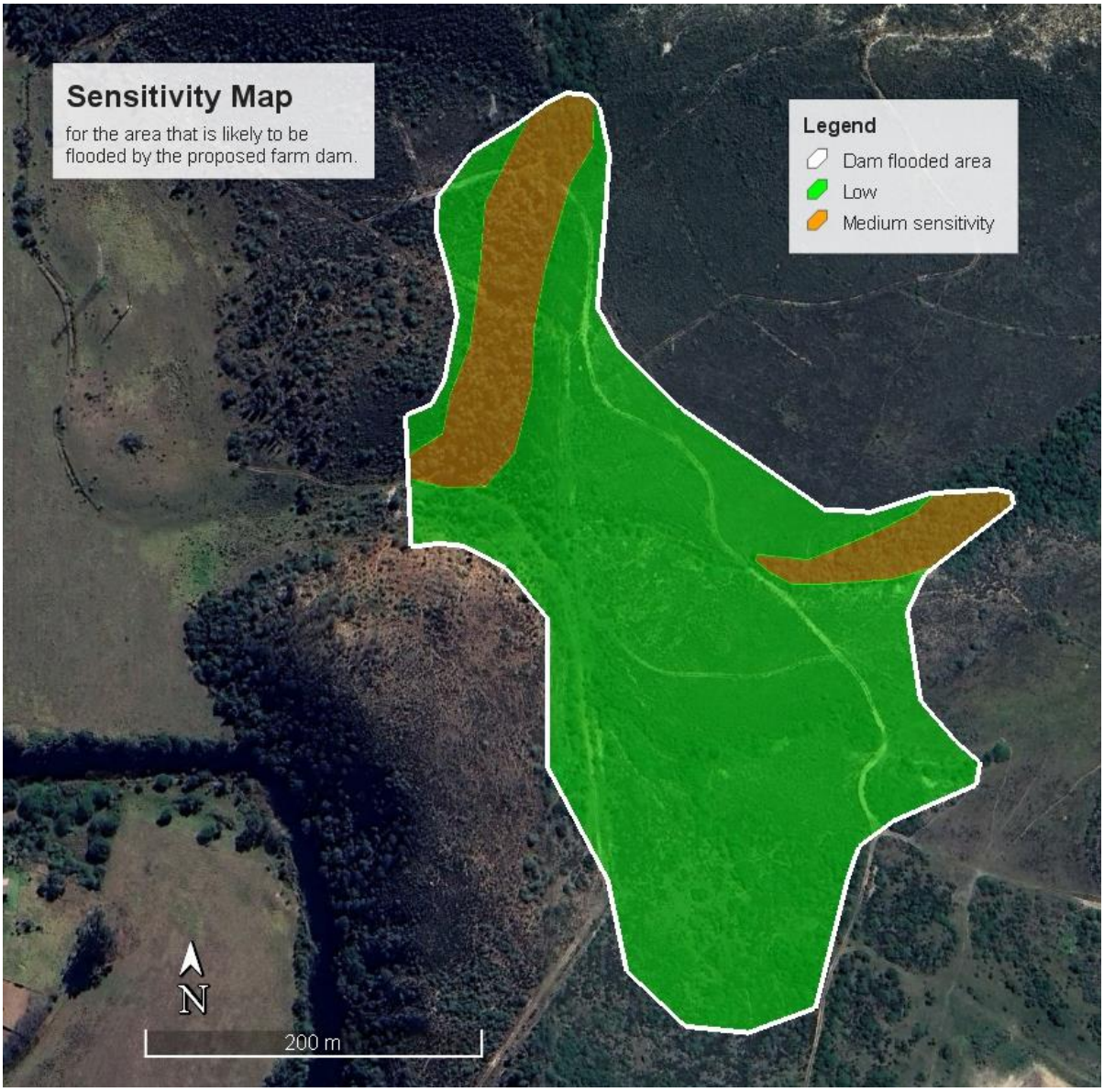
Tree, A.J. 2005. Caspian Tern, *Hydroprogne caspia*. *In* P.A.R. Hockey, W.R.J. Dean & P.G. Ryan (Eds) *Roberts - Birds of southern Africa* 7th ed. The Trustees of the John Voelcker Bird Book Fund: Cape Town.

Van Eeden, R., Whitfield, D.P., Botha, A. & Amar, A. 2017. Ranging behaviour and habitat preferences of the Martial Eagle: Implications for the conservation of a declining apex predator. *PloS one* **12**: 1 – 22.

Venter, J., Seydack, A., Ehlers-Smith, Y., Uys, R. & Child, M.F. 2016. A conservation assessment of <species name redacted>. *In* M.F. Child, L. Roxburgh, E. Do Linh San, D. Raimondo & H.T. Davies-Mostert (Eds) *The Red List of Mammals of South Africa, Lesotho and Swaziland*. SANBI & EWT: South Africa.

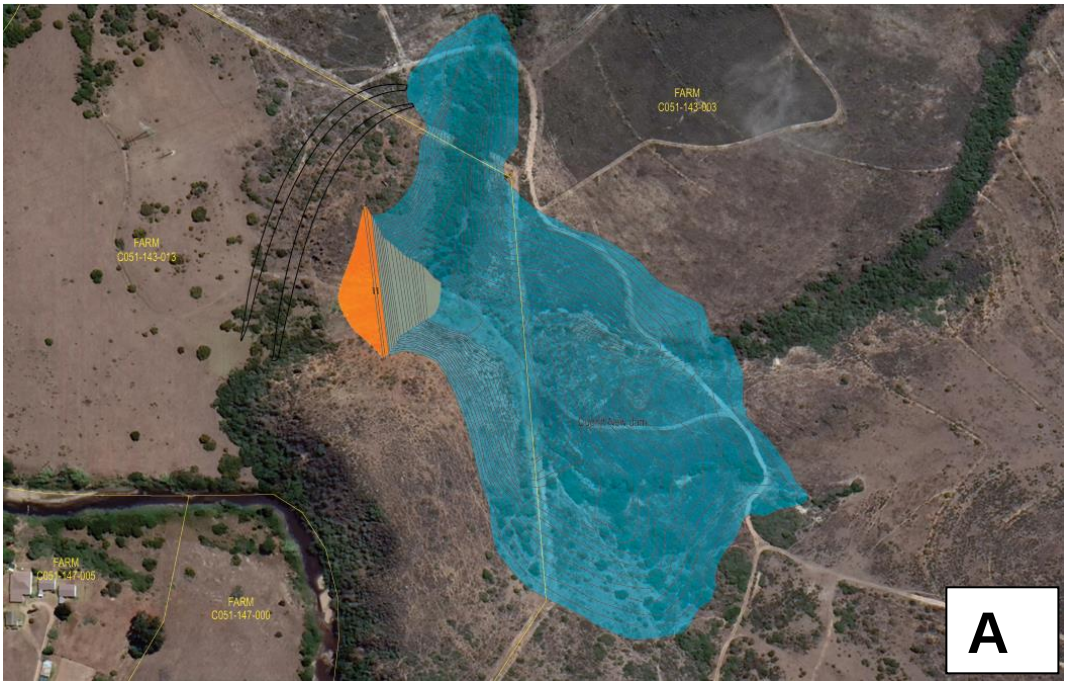
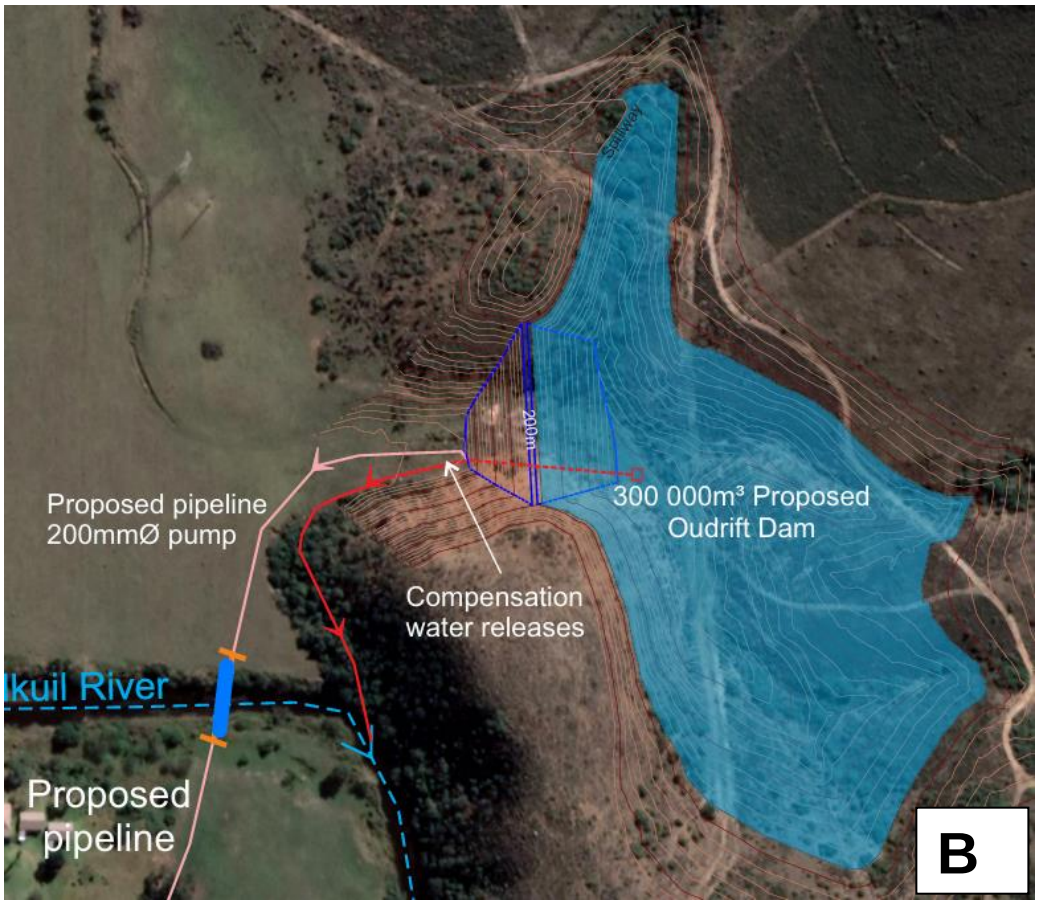
Van der Merwe, V., Marnewick, K., Bissett, C. & Mills, G. 2016. A conservation assessment of <species name redacted>. *In* M.F. Child, L. Roxburgh, E. Do Linh San, D. Raimondo & H.T. Davies-Mostert (Eds) *The Red List of Mammals of South Africa, Lesotho and Swaziland*. SANBI & EWT: South Africa.

APPENDIX 1: SENSITIVITY MAP OF THE STUDY AREA AT REMAINDER PORTIONS 3 AND 13 OF FARM 143, KLEIN BRAK RIVER, WESTERN CAPE



APPENDIX 2: ANIMAL SPECIES RECORDED AT THE AREA PROPOSED FOR THE FARM DAM ON REMAINDER PORTIONS 3 AND 13 OF FARM 143, KLEIN BRAK RIVER, WESTERN CAPE

Common Name	Scientific Name
Arachnids	
Spider, Rain	*Palystes* sp.
Birds	
Bokmakierie	*Telophorus zeylonus*
Buzzard, Jackal	*Buteo rufofuscus*
Eagle, Martial	*Polemaetus bellicosus*
Greenbul, Sombre	*Andropadus importunus*
Ibis, Hadeda	*Bostrychia hagedash*
Kite, Yellow-billed	*Milvus aegyptius*
Neddicky	*Cisticola fulvicapilla*
Prinia, Karoo	*Prinia maculosa*
Saw-wing, Black	*Psalidoprocne pristoptera*
Sparrowhawk, Black	*Accipiter melanoleucus*
Sunbird, Southern double-collared	*Cinnyris chalybeus*
Swallow, Barn	*Hirundo rustica*
Weaver, Cape	*Ploceus capensis*
Gastropods	
Snail, Zebra agate	*Cochlitoma zebra*
Insects: Coleoptera	
Beetle, CMR blister	*Hycleus oculatus*
Insects: Diptera	
Bombom, Ostrich	*Bombomyia discoidea*
Fly, House	*Musca domestica*
Insects: Hymenoptera	
Bee, Cape honey	*Apis mellifera capensis*
Bee, Double-banded carpenter	*Xylocopa caffra*

Insects: Lepidoptera	
Blue, Sooty	*Zizeeria knysna*
Bronze, Common geranium	*Cacyreus marshalli*
Migrant, African	*Catopsilia florella*
Pansy, Blue	*Jujonia orithya*
Pansy, Yellow	*Jujonia hierta*
Sandman, Mountain	*Spialia spio*
Swallowtail, Citrus	*Papilio demodocus*
Swallowtail, Green-banded	*Papilio nireus*
Insects: Odonata	
Dropwing, Dark	*Trithemis furva*
Mammals	
Aardvark	*Orycteropus afer*
Mouse, Striped field	*Rhabdomys pumilio*

APPENDIX 3: A COMPARISON BETWEEN THE AREA IMPACTED BY THE (A) ORIGINAL AND (B) UPDATED OUDRIFT DAM PROPOSAL