

**ANIMAL SPECIES COMPLIANCE STATEMENT FOR THE
PROPOSED STORMWATER INFRASTRUCTURE ON
ERVEN 139, 318 AND 326, HEROLD'S BAY, GEORGE,
WESTERN CAPE**

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18 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: 18 April 2024



Date: 18 April 2024



| DATE | REVISION | STATUS | PREPARED BY | CHECKED AND APPROVED BY |
|---------------|----------|-------------------------|--|---|
| 18 April 2024 | 0 | Approved for submission | Willem Matthee | Prof. Jan A. Venter (SACNASP Registration Nr. 400111/14) |
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1. INTRODUCTION

Cape EAPrac (Pty) Ltd was appointed to facilitate the environmental impact aspects of the application for upgrading the stormwater infrastructure on Erven 139, 318 and 326. The proposed infrastructure development will mainly be on Erven 318 and 326 (to the south and north, respectively, of S34°03'01.1"; E22°23'59.4"), Herold's Bay, where a subsoil drain (on Erf 326) and a stepped gabion basket channel (on Erf 318) are proposed.

The two main properties (Erven 318 and 326) combined are approximately 2532 m² in size (with 464 m² thereof on Erf 318, and 2 068 m² on Erf 326). Erf 139 is a large extent of undeveloped land to the south of existing infrastructure, but only a fraction thereof will be impacted by the proposed development. The vegetation on these three properties is classified as Garden Route granite fynbos (Mucina & Rutherford, 2005), but no fynbos vegetation is present on the property. Instead, the three properties are dominated by coastal thicket vegetation, with *Sideroxylon inerme* (white milkwood), *Halleria lucida* (tree fuschia), *Pteridium aquilinum* (bracken fern), *Searsia lucida* (glossy currant), and *Tarchonanthus littoralis* (coastal camphor bush) present on the property and in adjacent thicket vegetation. There is also a clump of exotic fishbone/sword ferns (*Nephrolepis cordifolia*) along the roadside (Voëlklip Street) of Erf 326. The third property (Erf 139) extends south from Erf 318, and consists predominantly of indigenous thicket vegetation, similar to Erf 318. Although Erf 139 does not have an easily-determined size (consisting of natural vegetation to the south of existing infrastructure, only approximately 255 m² of this erf will be impacted by the proposed infrastructure. Considering the extent of natural vegetation on the remaining section of this erf, a very small section thereof will be impacted by the stormwater infrastructure.

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.



Fig. 1: The cadastral boundaries of the two main properties, Erven 318 (light blue) and 326 (yellow), where the development is proposed (imagery obtained from CapeFarmMapper v.3.1.0). A section of Erf 139 (to the south of Erf 318) will also be impacted (see Appendix 1 for the sensitivity map that includes Erf 139).

The Department of Forestry, Fisheries and the Environment (DFFE) screening tool (performed on 9 November 2023) identified the site as having **High** sensitivity in terms of the animal species theme (Fig. 2), due to the potential presence of three animal species of conservation concern (SCC). These species (and their relative sensitivities) were:

- Knysna warbler, *Bradypterus sylvaticus* (Aves) – High sensitivity
- Sensitive Species 8 (which cannot be disclosed) – Medium sensitivity
- Yellow-winged agile grasshopper, *Aneuryphymus montanus* (Insecta) – Medium sensitivity

The site sensitivity verification report, however, recorded a **Low** sensitivity, due to the very low likelihood of one SCC (*A. montanus*) occurring at the site, and low likelihood of the other two SCC (*B. sylvaticus* and Sensitive Species 8) occurring at the site. These three species are **unlikely to be impacted** by the development, due to the site having incorrect vegetation present (*A. montanus* prefers arid, sclerophyllous fynbos on a rocky substrate instead of the coastal thicket vegetation on a sandy substrate present at the study site), the study site being surrounded by previously developed properties (likely reducing the likelihood that Sensitive Species 8 would utilise the study site), or the small size of the properties (reducing the likelihood that *B. sylvaticus* will be present in the vegetation). There is, however, a high likelihood of *B. sylvaticus* and Sensitive Species 8 occurring in the indigenous thicket vegetation to the south of the properties. If this development does not occur (especially the gabions on Erf 318), the erosion that is occurring on Erf 318 will likely affect the area to the south of the property, and it is therefore necessary for this development to occur.

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

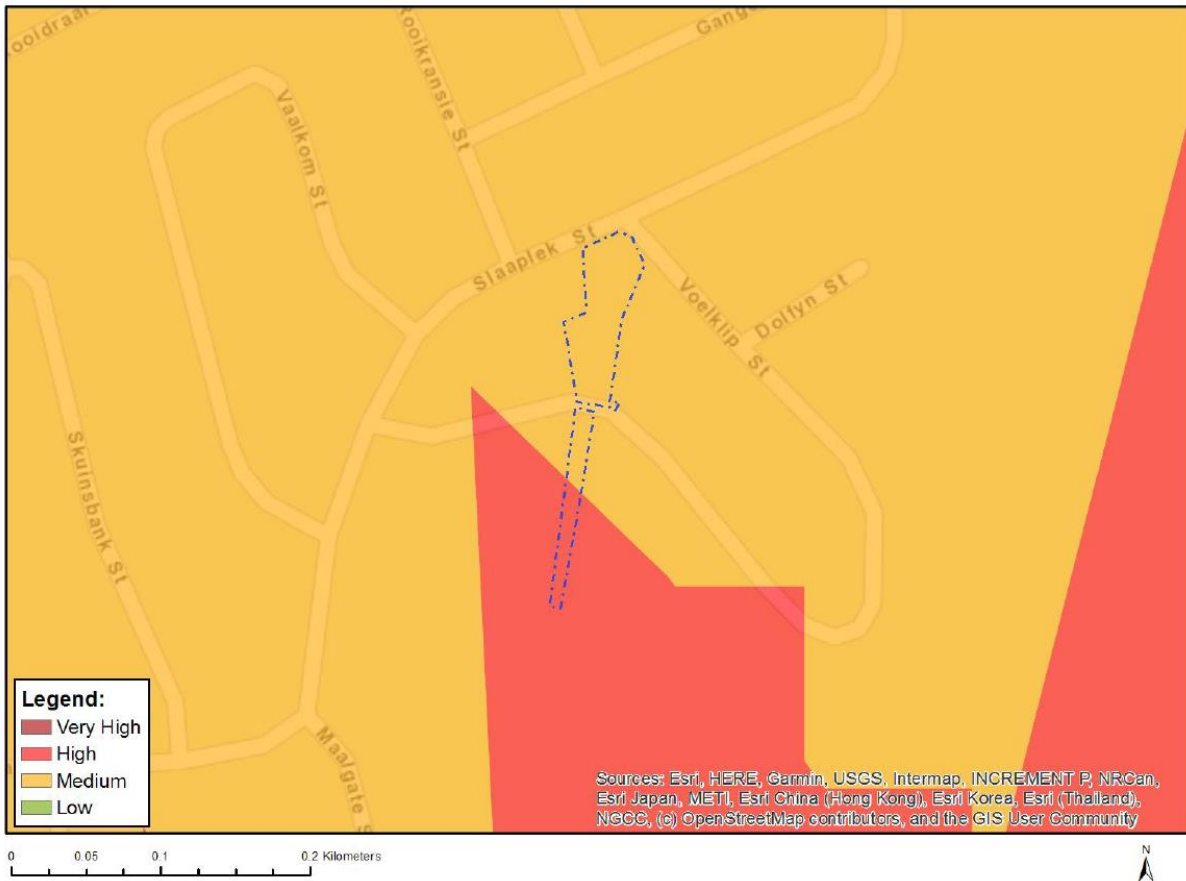


Fig. 2: The site sensitivity in terms of the animal species theme, as recorded in the DFFE screening tool (performed 9 November 2023). The majority of the two northern properties is classified as Medium sensitivity, while the southern section of Erf 318, and the section of Erf 139 that will be impacted by the infrastructure, are classified as High sensitivity, due to the possible occurrence of three species of conservation concern.

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 |
|--|---|-----------------------------|--|
| <p>Prof. Jan A. Venter Email: JanVenter@mandela.ac.za Mobile: 0824161096</p> | <p>PhD (Biology) UKZN</p> | 400111/14 | <p>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</p> |
| <p>Willem Mathee Email: WillemM@mandela.ac.za Mobile: 084 620 4246</p> | <p>M.Sc. (Nature Conservation) NMU</p> | Not registered | <p>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.</p> |

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 31 January 2024, between 09:00 and 12:00. 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 around the properties, observing the study site from different vantage points, and attempting to cover both properties 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 three SCC flagged by the screening tool occur at the study site;
- 2) the proposed site for the development acts as a corridor for any of the SCC highlighted by the screening tool;
- 3) the vegetation at the site of the proposed development 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 development is located on Erven 318 and 326, at Herold's Bay, Western Cape (S34°03'01.1"; E22°23'59.4"). The two main properties (Erven 318 and 326) are 2 532 m² in size (combined), and is located adjacent to a large extent of indigenous thicket vegetation (to the south). The third property (Erf 139) is a large extent of natural vegetation to the south of the existing infrastructure, but only a small section thereof adjacent to Erf 318 will be impacted by the construction of this infrastructure.

The vegetation on the properties is classified as Garden Route Granite Fynbos (FFg5), which is classified as Endangered (Rebello et al., 2006) due to habitat transformation for agriculture, silviculture and urban expansion. However, no fynbos vegetation is present on the three erven where the development is planned; instead, coastal thicket vegetation is present. Erf 318 is disturbed, due to its proximity to two developed properties, and the elongated shape of the erf resulting in a high edge effect occurring. Erf 326 is less disturbed and is of greater size, though the northern section of the property is slightly degraded, and the southern section (adjacent to Voëlklip Street) has some invasion by fishbone ferns (*Nephrolepis cordifolia*). Erf 139 is largely undisturbed, as it is not located directly between existing infrastructure, though the erosion occurring on Erf 318 does (and will continue to) have an impact on this property, with some signs of erosion already present on this property.

3.1.2. Animal species sensitivity

The DFFE screening tool identified three species of conservation concern (SCC). These species, along with their associated sensitivities are:

- Knysna warbler, *Bradypterus sylvaticus* (Aves) – High 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), the SSVR proposed the following likelihood of these three SCC occurring at the study site:

- A very low likelihood of *A. montanus*; and
- A low likelihood of Sensitive Species 8 and *B. sylvaticus* occurring at the site.

***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, 2015). The vegetation to the south of these properties is suitable for this species, and very likely supports a population thereof. The main threat to this species is habitat destruction, specifically the clearing of coastal clearings where it occurs. There are 30 records of this species in the surrounding area on the GBIF database, likely mainly from the *Sideroxylon inerme*-thicket vegetation present in the area around Herold's Bay. Of the 30 records, 29 are from the Southern African Bird Atlas Project 2 (SABAP2), without precise GPS coordinates, and one is a record from the eBird Observation Dataset (with the observation recorded less than a kilometre from the study site). The thicket vegetation adjacent to this development likely supports this species, but there is a low likelihood that it occurs on the three erven for which this development is proposed (particularly Erven 139 and 326, which has suitable thicket vegetation present), and this development is therefore unlikely to have an impact on this species. Due to the likely occurrence in the area (but likely absence from the development footprint itself), there is a low likelihood that it occurs at the site, and will be impacted by this development. Additionally, the significance of Erf 318 is likely negligible for this species, and Erf 326 is unlikely to support a breeding population of this species due to its relatively small size. The large, intact section of Erf 139 (to the south of the proposed development) is likely to support this species, though the development is only proposed for a very small section of this property, and the impacts are easily mitigated (see Recommendations). Additionally, the vegetation in the section of Erf 139 that falls within the development footprint is highly degraded, and unlikely to support this species, as it requires well-stratified, undisturbed indigenous vegetation in order to persist in an area.

Sensitive Species 8 (which cannot be disclosed) occurs in densely-wooded habitats, where sufficient vegetation cover and food, and low disturbance levels, are present (Venter et al., 2016). There are no records of this species at the study site or immediate surrounds, but three records of this species between Mossel Bay and George (all in coastal thicket vegetation). This species may therefore be underrepresented, due to its secretive nature and the difficulty associated with surveying habitats that may support this species. Although the three erven have suitable thicket vegetation present, Erf 318 is largely too disturbed to support this species (only its southernmost section has sufficient vegetation cover for this species), and Erf 326 is too small and isolated to support this species. Erf 326 may, however, occasionally be used as shelter, as it has sufficient vegetation cover for this species to use it as shelter. Erf 139 (notably the section to the south of the proposed development) may also support this species, as it is a larger intact section of indigenous thicket vegetation. However, this species is highly mobile in areas where suitable vegetation occurs, and would be able to move to undisturbed sections of the property during the construction phase of the proposed development.

***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 close to the study site on the GBIF database, with the closest record being from the Swartberg Mountains (approximately 80 km from this site). *A. montanus* prefers arid fynbos on rocky substrates. Due to the absence of records of this species from the area, coupled with the dense coastal thicket vegetation present on the properties, there is a very low likelihood that this species occurs at the study site.

3.2. Site visit

3.2.1. Vegetation

The site visit, performed on 31 January 2024, confirmed that the property is dominated by thicket vegetation, instead of fynbos (as it is classified by Rebelo et al., 2006). To the south of the property, a large extent of indigenous thicket vegetation occurs, likely dominated by typical Southern Cape thicket species (*Sideroxyon inerme*, *Pterocelastrus tricuspidatus*, *Pittosporum viridiflorum*, *Azima tetraantha*, *Olea exasperate*, and *Searsia chirindensis*). On both sides of the properties, as well as to the north thereof, already-developed properties (and their associated gardens) occur.

The section on Erf 318 that is earmarked for this development is heavily eroded, which makes the construction of gabions on that property a necessity. This erosion is also impacting the section of Erf 139 closest to Erf 318, with the impacts predicted to become more severe with every major rainfall event, and urgent remediation measures (the construction of the stormwater infrastructure) are therefore required.



Fig 3: The location of Erf 326 (the wooded section in the centre of the photograph), between two developed properties, situated to the north of Voëlklip Street.



Fig. 4: The location of Erf 318 (located behind the green shade cloth screen), between one developed property (on the right) and a property that is under construction (to the left). The section behind the screen is eroding rapidly, and needs to be stabilised as soon as possible.



Fig. 5: The vegetation of Erf 318 is dominated by indigenous shrubs, small trees and creepers, including *Halleria lucida* (Tree fuschia) and *Senecia tamoides* (Canary creeper). Erf 139 is located to the south of this property, and consists of indigenous thicket vegetation.



Fig. 6: The vegetation on the border of Erf 326 (where it borders Erf 343) has a dense covering of Bracken fern, *Pteridium aquilinum*, but the majority of these ferns occur on the neighbouring property.

3.2.2. *Animal species sensitivity*

During the site visit, none of the species of conservation concern (SCC) were recorded at the site. The thicket vegetation to the south of Erf 318 (on Erf 139) is, however, suitable for both **Sensitive Species 8** and *Bradypterus sylvaticus*. Of these two species, *B. sylvaticus* occurs in similar thickets less than a kilometre to the west of this property. There are, however, no records of Sensitive Species 8 from the area around the study site, though this species may be underrepresented on the GBIF database, due to its secretive nature and habitat preference (densely wooded habitats or thickets). Though the vegetation on Erf 326 is potentially suitable, it is a small fragment, and unlikely to support these two species. Regardless, it is important that areas that are cleared for the proposed infrastructure be rehabilitated to a natural state. That would allow these two species, if they are present in the area around the development, to utilise this property as a part of their ranges. Both these species have a **Low likelihood** of occurring within the development footprint, and are unlikely to be affected by the proposed development.

The other SCC (*A. montanus*) is highly unlikely to occur at the study site, as the habitat present (thicket vegetation) is not suitable for this species (which prefers sclerophyllous arid fynbos vegetation on a rocky substrate). There is therefore a **very low likelihood** of this species occurring at the study site.

With the high amount of erosion occurring on the southern properties (Erf 318 and Erf 139), it is essential that the area is stabilised with gabions to prevent further degradation. If the property does erode (and degrade) further, it would be less likely to support any SCC, and lose the conservation value it may still have. Without proper intervention, the impacts on Erf 139 will also become more severe, resulting in the degradation of an otherwise natural (and ecologically important) section of natural vegetation).

3.2.3. *Other animal species*

During the site visit, a total of seven animal species were recorded (Appendix 2). These observations consisted of three bird, three butterfly, and one arachnid species. No SCC were recorded during the survey, but the *Sideroxylon inerme*-dominated thicket to the south of the development site (on Erf 139) is suitable habitat for *B. sylvaticus*, and it is possible that this species occurs at the development site. The site visit was, however, performed outside the breeding season of this species (September to November), and this species is not very vocal outside the breeding season. There were no noteworthy observations of animal species at the site, as the development is proposed for an area that is largely surrounded by existing infrastructure, and the animal species that occur here are largely generalist species that are adapted to life in a peri-urban environment.

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 three species of conservation concern. The site visit, however, identified that this site has a **LOW SENSITIVITY** for the animal species theme, due to:

- The very low likelihood of one SCC (*A. montanus*) occurring at the site;
- The possible, but highly unlikely, presence of two SCC (Sensitive Species 8 and *B. sylvaticus*) in the area around the study site (but not within the development footprint); and
- The degree to which the southern property (Erf 318) has eroded, requiring urgent attention to prevent further degradation.

The development is unlikely to impact the continued existence of *A. montanus*, *B. sylvaticus* or Sensitive Species 8, as they are either unlikely to occur at the study site (*A. montanus*), or (with *B. sylvaticus* and Sensitive Species 8) are more likely to be present in vegetation to the south of the study site (not only Erf 139, but other undeveloped habitats around Herold's Bay as well). *A. montanus* is not known from the area, and the habitat is also not suitable for this species (it requires arid fynbos shrubland in rocky areas, while the vegetation at the study site is thicket vegetation on a sandy substrate). Though *B. sylvaticus* is known from the area (with sightings less than 1 km from the study site), no specimens were heard or seen during the site visit. The site visit was, however, conducted outside the main breeding season of this species, and it may have simply not been detected during the site visit. However, this species (as well as Sensitive Species 8) is more likely to occur in the thicket vegetation to the south of the study area, and the study area is likely only used temporarily (if at all) by these two SCC. The section of Erf 139 that will be impacted by the proposed infrastructure development is small relative to the extent of natural vegetation present to the south of the study site, and any individuals of Sensitive Species 8 that are present near the development footprint would easily be able to move to undisturbed sections of their habitat during the construction phase, and return after construction has been completed.

The sensitivity map has been drawn up for this property (Appendix 1), indicating the different sensitivities of the study site (as it relates to the animal species that are of conservation concern). Erf 318 is classified as Low sensitivity (apart from the southernmost section that borders the indigenous thicket vegetation), due to its eroded nature and proximity to developed properties reducing the likelihood that SCC occur therein. Although this property is potentially an important ecological corridor, the erosion occurring on the property must be stopped, before it loses any value as an ecological corridor. Erf 326 is a mixture of Medium (the centre of the property) and Low (the perimeter thereof) sensitivities, as determined by the vegetation present in the different sections of the property. The sections classified as Medium sensitivity in the sensitivity map have been classified as such because the vegetation there is of a higher significance to faunal species in the area (because it is the centre of the erf), and not because there is a higher likelihood of the SCC occurring there.

5. RECOMMENDATIONS

Due to the very low likelihood of *A. montanus* occurring at the study site, and the low likelihood that Sensitive Species 8 or *B. sylvaticus* will be impacted by this development, the EAPs recommend (through the desktop study and site visit) that the site has an overall **LOW sensitivity** rather than the High sensitivity assigned by the screening tool. The eroded section (Erf 318) should be stabilised as soon as possible, with indigenous thicket vegetation re-established in areas left bare after construction (to both prevent future erosion, and for this property to again act as an ecological corridor). The infrastructure proposed for Erf 326 should avoid going through the centre of the property, as that section of the property is of highest ecological value. As with Erf 318, sections of Erf 326 that are bare after construction, should be rehabilitated with indigenous thicket species, allowing the property to continue functioning as a potential habitat within an increasingly fragmented landscape. Lastly, construction should be performed outside the breeding season of *B. sylvaticus* (which breeds between September and November), to reduce the likely impacts this development may have on individuals of *B. sylvaticus* in the area.

We also recommend that an environmental control officer (ECO) is appointed for this project, and that a part of their duties will include determining the presence of SCC (particularly *B. sylvaticus*) at the site during the breeding season of that species (September-November). The presence of *B. sylvaticus* at the site can most easily be determined early mornings (between 06:00 and 09:00), as they are most vocal during that time period. This ECO should also, prior to vegetation being cleared on the site, walk through the site to ensure no animals (especially SCC) are present in the areas where vegetation is to be cleared. If any *B. sylvaticus* are observed breeding at the site, the area where the nest is should be fenced off (10m from the nest), and no disturbance occur within the exclusion zone. The ECO must also ensure that thicket vegetation, consisting of locally indigenous plant species, is re-established in the areas that were cleared (after the infrastructure has been constructed), where it will not impact the stormwater infrastructure that is being constructed.

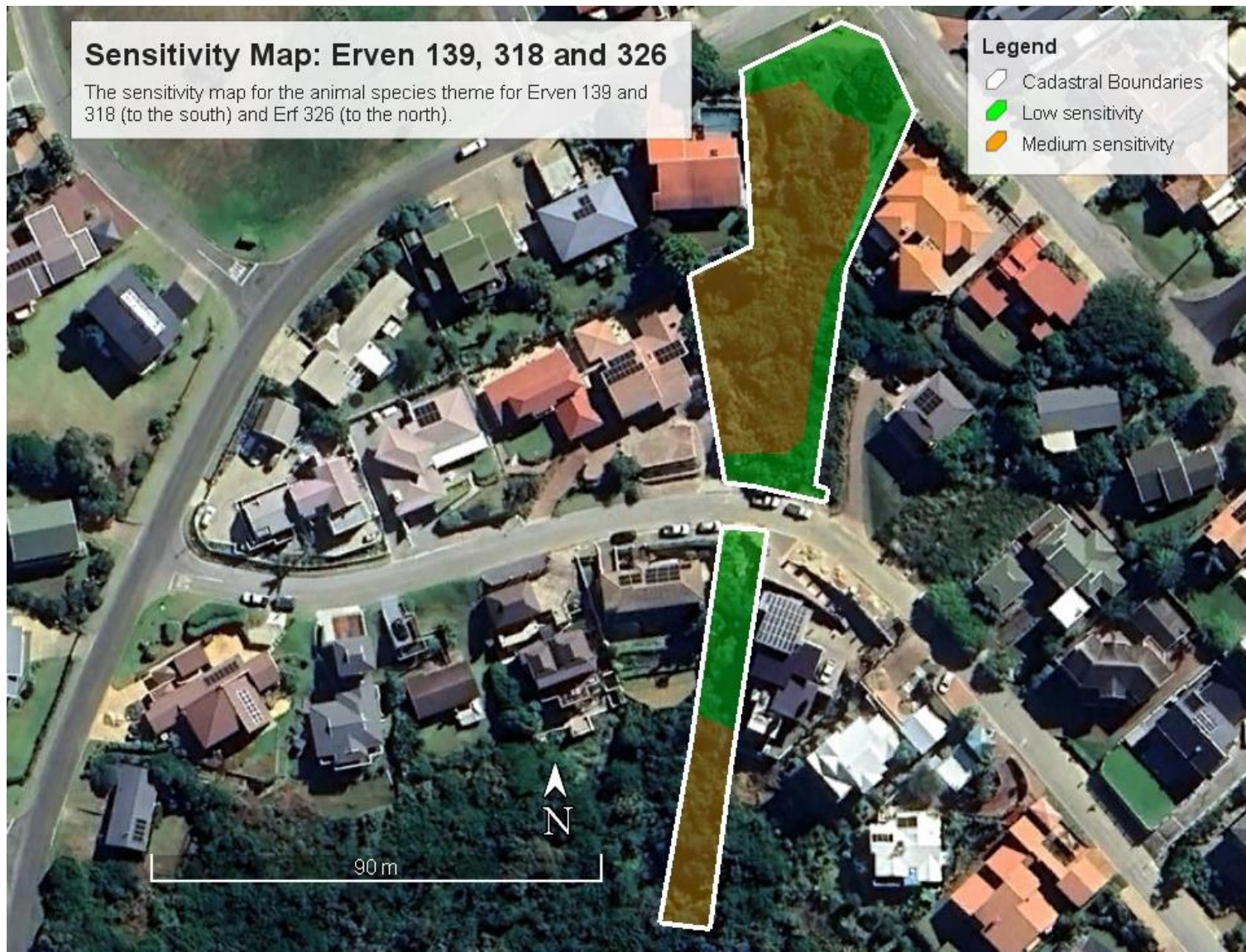
The development footprint must also be clearly demarcated, and proper hoarding must be utilised to prevent spillage into the undisturbed vegetation on Erf 139. Also, to reduce the potential impact on Sensitive Species 8 (if they are present at the site but not recorded), no individual apart from the ECO may be allowed into the undisturbed vegetation of Erf 139.

If these recommendations are followed, this development will not impact any of the SCC recorded in the DFFE screening tool report.

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APPENDIX 1: SENSITIVITY MAP OF ERVEN 139, 318 AND 326, HEROLD'S BAY



**APPENDIX 2: ANIMAL SPECIES RECORDED ON ERVEN 139, 318 AND 326,
HEROLD'S BAY, GEORGE, WESTERN CAPE**

| Common name | Scientific name |
|-----------------------------|----------------------------------|
| Arachnids | |
| Spider, Rain | <i>Palystes</i> sp. |
| Birds | |
| Dove, Red-eyed | <i>Streptopelia semitorquata</i> |
| Robin-Chat, Cape | <i>Cossypha caffra</i> |
| Waxbill, Common | <i>Estrilda astrild</i> |
| Insects: Lepidoptera | |
| Brown, Rainforest | <i>Cassionympha cassius</i> |
| Commodore, Garden | <i>Precis archesia</i> |
| White, Meadow | <i>Pontia helica</i> |