



GEORGE
TEL: +27 (0) 44 873 4923 FAX: +27 (0) 44 874 5953
EMAIL: info@sesc.net WEBSITE: www.sesc.net
ADDRESS: Unit 17 Cathedral Square,
Cathedral Street, George, 6530
PO BOX: 9087, George, 6530

CAPE TOWN
TEL: +27 (0) 21 554 5195 FAX: +27 (0) 86 575 2869
EMAIL: betsy@sesc.net WEBSITE: www.sesc.net
ADDRESS: Tableview, Cape Town, 7441
PO BOX: 443, Milnerton, 7435

SITE SENSITIVITY VERIFICATION REPORT

FOR THE

PROPOSED REMOVAL AND REPLACEMENT OF EXISTING ROAD AND CULVERT INFRASTRUCTURE LOCATED ALONG DIVISION ROADS (DR) 1602 KM 8.48, KLEINPLAAS ROAD, CROSSING FARM 338 AND PORTION 6 OF FARM 220 IN MOSSEL BAY LOCAL MUNICIPALITY, GARDEN ROUTE DISTRICT.



Applicant: Western Cape Government Department of Infrastructure: Transport Infrastructure
Environmental Consultant: Sharples Environmental Services CC
Author: Madeleine Knoetze (EAPASA: 2021/3230)
Assisted by: Jessica Gossman (Candidate EAPASA: 2022/6154)
Reviewer: Betsy Ditcham (EAPASA: 2020/1480)
SES Reference Number: CT6/SSVR/04/26
DEADP Reference: 16/3/3/6/7/1/D6/29/0098/25
Date: 2026/04

TABLE OF CONTENTS

| | | |
|-----|---|-----------|
| 1. | Introduction..... | 4 |
| 2. | Project Description | 4 |
| 3. | Description of the proposed activity | 5 |
| 4. | Findings from the Screening Tool Reports | 5 |
| 5. | Wind and Solar Developments..... | 5 |
| 6. | Environmental Management Frameworks..... | 5 |
| 7. | Relevant development incentives, restrictions, exclusions, or prohibitions..... | 5 |
| 8. | DR1602 km 8.4 Kleinplaas Road – Summary Tables | 8 |
| 9. | Specialist assessments identified for DR1602 km 8.4 (Kleinplaas Road) | 9 |
| 10. | Site Verification | 9 |
| | 10.1 Agriculture Theme | 10 |
| | 10.2 Faunal Theme..... | 11 |
| | 10.3 Aquatic Biodiversity | 13 |
| | 10.4 Archaeological and Cultural Heritage | 16 |
| | 10.5 Civil Aviation | 17 |
| | 10.6 Defence | 18 |
| | 10.7 Palaeontology Impact Assessment..... | 18 |
| | 10.8 Plant Species Theme | 20 |
| | 10.9 Terrestrial Biodiversity Theme | 22 |
| | 10.10 Landscape/Visual Impact Assessment | 24 |
| | 10.11 Socio-economic | 24 |
| | 10.12 Noise | 24 |
| | 10.13 Traffic..... | 25 |
| | 10.14 Geotechnical..... | 25 |
| | 10.15 Ambient Air Quality | 25 |
| 11. | Summary of applicable specialist studies..... | 26 |
| 12. | Conclusion | 27 |

LIST OF FIGURES

| | | |
|------------|---|----|
| Figure 1: | Locality map of the proposed infrastructure works along DR1602. | 4 |
| Figure 2: | The site within the Gouritz Cluster Biosphere Reserve | 6 |
| Figure 3: | Strategic Gas Corridors of South Africa. | 7 |
| Figure 4. | Agriculture Theme Sensitivity..... | 10 |
| Figure 5. | Faunal Sensitivity Theme Sensitivity..... | 11 |
| Figure 6. | Aquatic Biodiversity Theme Sensitivity | 13 |
| Figure 7. | DR1602 Aquatic biodiversity map (CBA, ESA, and Wetlands), Western Cape Biodiversity Spatial Plan (Cape Farm Mapper, 2026). | 14 |
| Figure 8. | DR1602 delineated aquatic habitat within the 500m radius, (Upstream Consulting, 2023). | 15 |
| Figure 9. | Archaeological and Cultural Heritage Theme Sensitivity..... | 16 |
| Figure 10. | Civil Aviation Theme Sensitivity | 17 |
| Figure 11. | Defence Theme Sensitivity | 18 |
| Figure 12. | SAHRIS PalaeoSensitivity Map, 2026. | 19 |
| Figure 13. | Plant Species theme sensitivity | 20 |

Figure 14. Terrestrial Biodiversity Theme Sensitivity 22
 Figure 15. CBAs, ESAs and rivers, (Cape Farm Mapper, 2026). 23
 Figure 16. DR1602 km 8.4 CBA, ESA and NFEPA, (Cape Farm Mapper, 2026). 23

LIST OF TABLES

Table 1: Property Details of Proposed Development Location for DR1602 km 8.4: 5
 Table 2: Site sensitivity and features for the proposed site DR1602 km 8.4 Kleinplaas Road. 8
 Table 3: Screening Tool Recommended Specialist Studies for the proposed site: (Themes indicated in green will be assessed only). 9
 Table 4. Faunal species found on site in accordance with the screening tool. 11
 Table 5. SAHRIS PalaeoSensitivity Table:..... 19



1. Introduction

Sharples Environmental Services cc (SES) has been appointed by Hatch Consulting Engineers, on behalf of the Western Cape Department Infrastructure: Transport Infrastructure Directorate (Previously referred to as the Western Cape Department of Road Design, Transport and Infrastructure) to undertake the environmental assessment in accordance with the Environmental Impact Assessment (EIA) Regulations of 2014, as amended (GNR 326 of 2017; GNR 517 of 2021) promulgated in terms of the National Environmental Management Act, 1998 (NEMA; Act 107 of 1998), as amended, to oversee the environmental processes required for the proposed re-establishment of a causeway along Division Road (DR) 1602 8.5km (Kleinplaas Road)) on Farm 338 and Portion 6 of Farm 220. The site is located within the Mossel Bay Local Municipality, Garden Route District Municipality, Western Cape.

Several roads in the Garden Route suffered flood damage during a flood event in November 2021. The proposed development forms part of the strategy toward repairing and upgrading the affected sections of these roads. The proposed development forms part of the overarching project and is aimed towards preventing future damage to the ecological resources and service infrastructure, as well as to mitigate the road safety implications of the existing infrastructure.

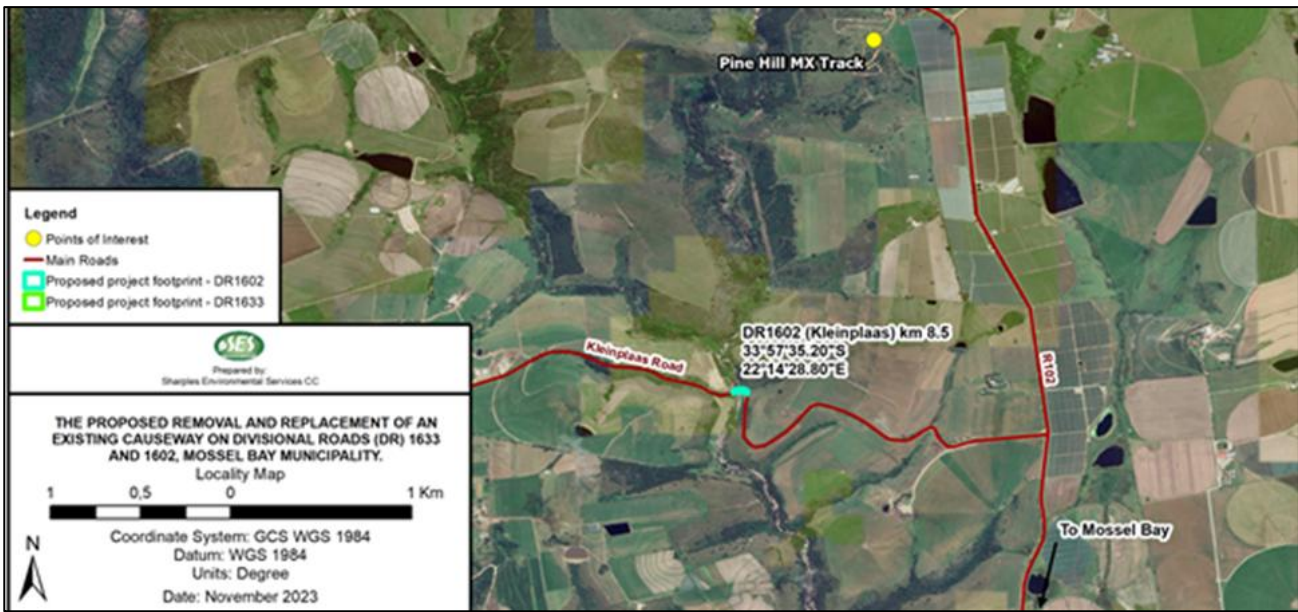


Figure 1: Locality map of the proposed infrastructure works along DR1602.

2. Project Description

Several roads in the Garden Route suffered flood damage during a flood event in November 2021. The proposed project forms part of the strategy aimed toward repairing and upgrading the affected sections of these roads. The proposed project forms part of the overarching project and is aimed toward preventing future damage to the ecological resources and services infrastructure, as well as to mitigate the road safety implications of the existing infrastructure.

Located at DR 1602 (Kleinplaas Road), the existing causeway sees its starting coordinates at 33°57'35.28\"S 22°14'28.41\"E, its end coordinates at 33°57'35.22\"S 22°14'29.21\"E and is located within a road reserve with a width of 20 m. In order to effectively re-establish and upgrade the existing causeway, it is required that a bypass be installed north of the existing road. The bypass will be 4 m in width, however, only approximately 2.5 m of the proposed bypass will be located outside of the existing road reserve (excluding the 2 m working corridor). The bypass will see its starting coordinates at 33°57'35.50\"S 22°14'27.51\"E and its end coordinates at 33°57'35.71\"S 22°14'30.06\"E.

Although the re-establishment of the causeway does lie under the ambit of the definition of commencement of an original activity, the construction of the additional bypass (road), specifically the portion located outside of the existing road reserve does trigger one or more listed activities in terms of Environmental Impact Assessment (EIA) Regulations of 2014, as amended (GNR 326 of 2017; GNR 517 of 2021).

3. Description of the proposed activity

Table 1: Property Details of Proposed Development Location for DR1602 km 8.4:

| No | Farm Name | Farm/ Erf No | Portion | Latitude | Longitude | Property Type |
|---|-----------|--------------|---------|--------------|--------------|---------------|
| DR1602 km 8.4 Kleinplaas Road – Farm 338 ERFAG | | | | | | |
| 1 | ERFAG | 338 | 0 | 33°57'31.79S | 22°14'53.13E | Farm |
| 2 | ERFAG | 338 | 0 | 33°57'31.79S | 22°14'53.13E | Farm Portion |

A Environmental Sensitivity Screening Tool Report was produced for the proposed project using the Department of Forestry, Fisheries and the Environment's (DFFE) Web-based National Environmental Screening Tool (2025). This Site Sensitivity Verification Report (SSVR) reports on the ground truthing undertaken to verify the indicated sensitivity ratings of the screening report, and to motivate why some of the specialist studies recommended by the screening report, will or will not be undertaken for the proposed development upgrades.

4. Findings from the Screening Tool Reports

The National Sector Classification Category selected to produce the Screening Tool Report, dated 17th of February 2025 and updated on the 15th of April 2026.

Any activities within or close to a watercourse.

5. Wind and Solar Developments

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area.

| No | EIA Reference No | Classification | Status of application | Distance from proposed area (km) |
|----|-------------------------|----------------|-----------------------|----------------------------------|
| 1 | 12/12/20/2536/AM3 | Wind | Approved | 29.9 |
| 2 | 14/12/16/3/3/1/1292/AM1 | Solar PV | Approved | 17 |
| 3 | 12/12/20/2536 | Wind | Approved | 29.9 |
| 4 | 12/12/20/2536/AM4 | Wind | Approved | 29.9 |
| 5 | 14/12/16/3/3/1/1292 | Solar PV | Approved | 17 |

6. Environmental Management Frameworks

No Environmental Management Frameworks for the areas.

7. Relevant development incentives, restrictions, exclusions, or prohibitions

| Incentives, restriction or prohibition | Implication |
|--|-------------|
| | |

| | |
|---|---|
| Strategic Gas Pipeline Corridors-Phase 2: Mossel Bay to Coega | https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf |
|---|---|

- South African Conservation Areas
The site is located within the Gouritz Cluster Biosphere Reserve (GCBR) as seen in the figure below.

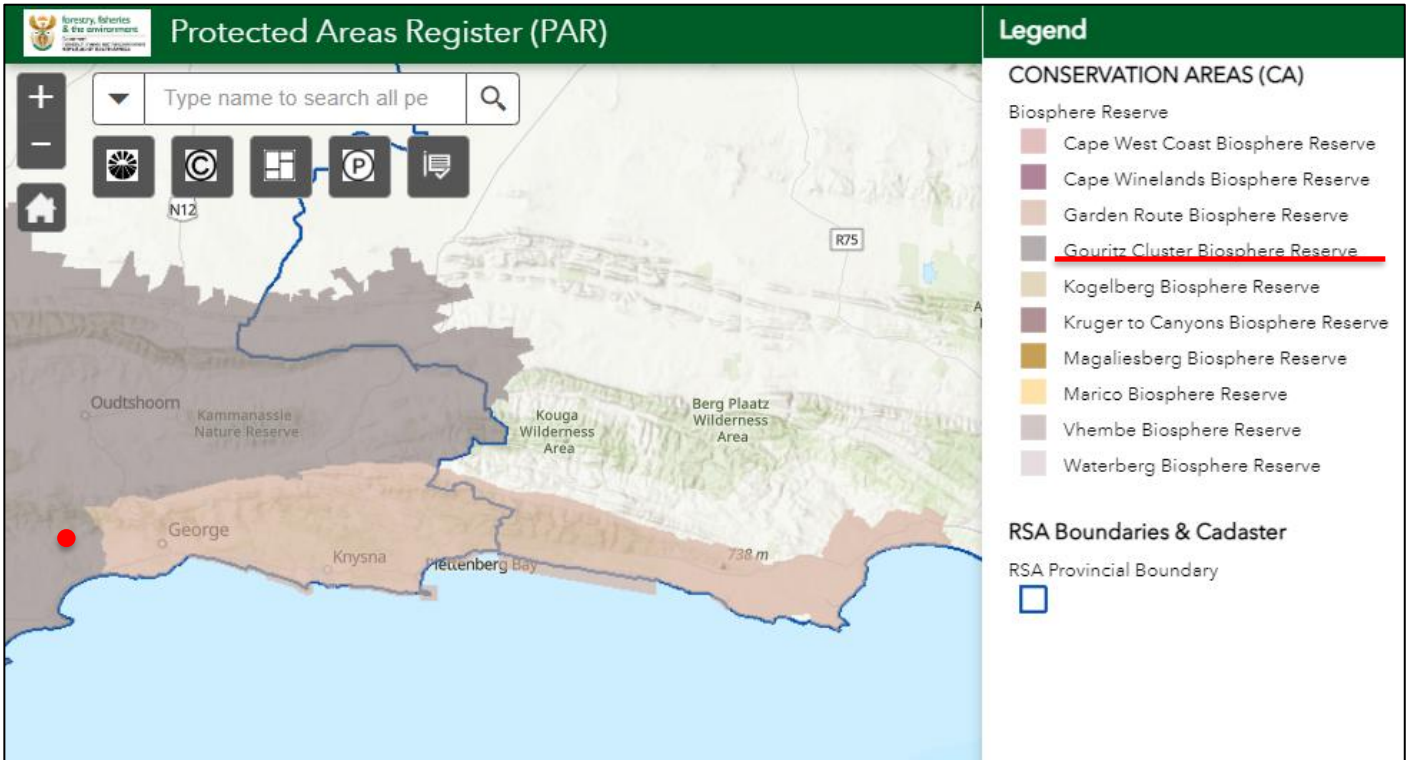


Figure 2: The site within the Gouritz Cluster Biosphere Reserve

- Strategic Gas Pipeline Corridors-

The site is located within the Phase 2: Mossel Bay Strategic Gas Pipeline Corridor as seen in the figure below This does not restrict the replacement of existing structures.

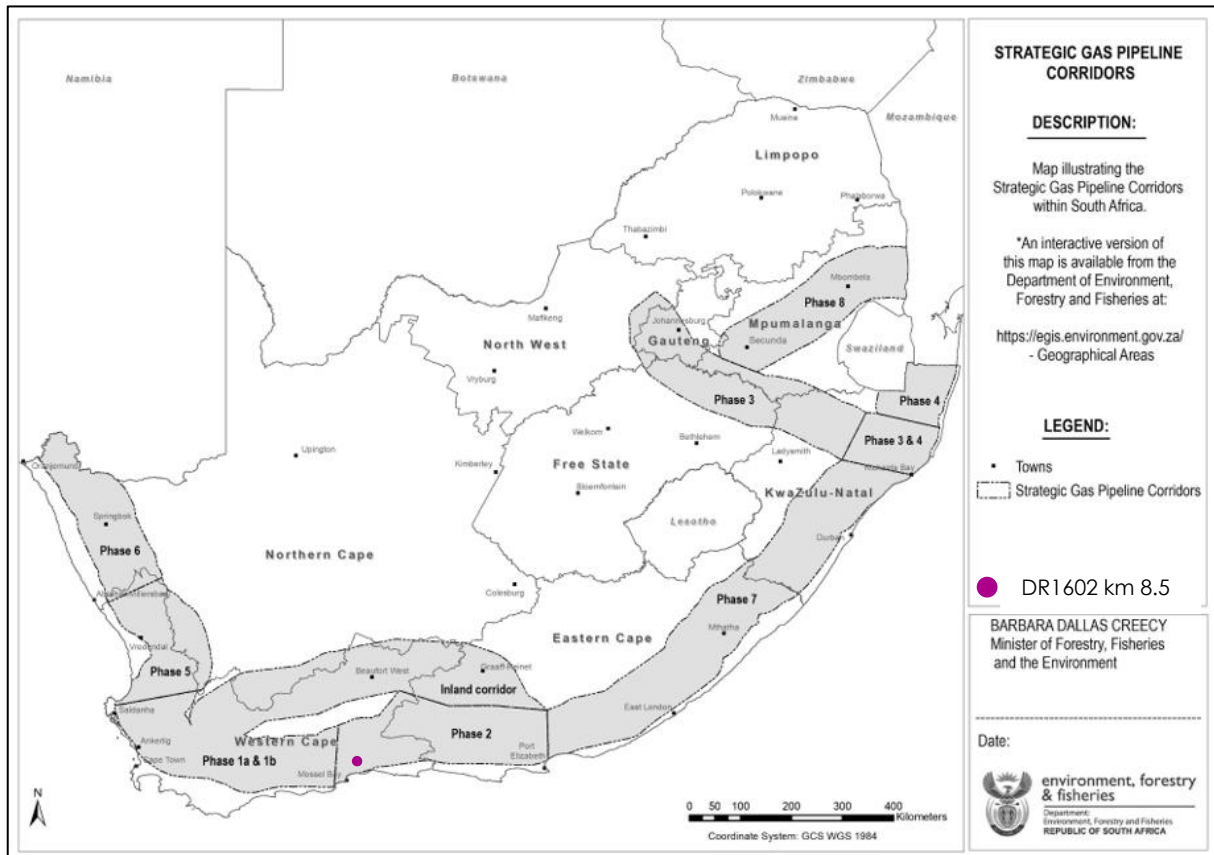


Figure 3: Strategic Gas Corridors of South Africa.

8. DR1602 km 8.4 Kleinplaas Road – Summary Tables

The following summary of the development footprint environmental sensitivities is identified by the screening tool report (2025) for DR1602 km 8.4 (Kleinplaas road). The footprint environmental sensitivities for the proposed development area as identified by the screening tool report, are indicative only and must be verified on-site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Table 2: Site sensitivity and features for the proposed site DR1602 km 8.4 Kleinplaas Road.

| Theme | Sensitivity | | | | Features |
|-----------------------------------|-------------|------|--------|-----|--|
| | Very High | High | Medium | Low | |
| Agriculture | X | | | | Very High: Land capability; 06. Low-Moderate/ Groot Brak-George PAA |
| Animal Species | | X | | | High: <ul style="list-style-type: none"> Aves-<i>Bradypterus sylvaticus</i> Aves-<i>Neotis denhami</i> Medium: <ul style="list-style-type: none"> Aves-<i>Circus ranivorus</i> Sensitive species 13 Invertebrate-<i>Aneuryphymus montanus</i> |
| Aquatic Biodiversity | X | | | | Very high: <ul style="list-style-type: none"> CBA: Wetland Wetlands_Channelled valley-bottom |
| Archaeological, Cultural Heritage | | | | X | Low |
| Civil Aviation | | X | | | High: <ul style="list-style-type: none"> Within 15 km of a civil aviation radar Between 8 and 15 km from a major civil aviation aerodrome |
| Defence | | | | X | Low |
| Plant Species | | | X | | Medium: <ul style="list-style-type: none"> <i>Lampranthus pauciflorus</i> <i>Freesia fergusoniae</i> <i>Diosma passerinoides</i> Sensitive species 683 |
| Terrestrial Biodiversity | X | | | | Very High: <ul style="list-style-type: none"> CBA: Terrestrial CBA2: Terrestrial CR_Garden Route Granite Fynbos |

9. Specialist assessments identified for DR1602 km 8.4 (Kleinplaas Road)

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist studies including the provision of photographic evidence of the footprint situation.

Table 3: Screening Tool Recommended Specialist Studies for the proposed site: (Themes indicated in green will be assessed only).

| No. | Specialist Assessment | Assessment Protocol |
|-----|--|----------------------------|
| 1. | Agricultural Impact Assessment | General |
| 1. | Landscape/Visual Impact Assessment | General |
| 2. | Archaeological and Cultural Heritage Impact Assessment | General |
| 3. | Palaeontology Impact Assessment | General |
| 4. | Terrestrial Biodiversity Impact Assessment | Terrestrial |
| 5. | Aquatic Biodiversity Impact Assessment | Aquatic |
| | Noise Impact Assessment | Noise Impact Assessment |
| | Traffic Impact Assessment | General |
| | Geotechnical Assessment | General |
| 7. | Socio-Economic Assessment | General |
| 8. | Plant Species Assessment | Terrestrial Plant Species |
| | Ambiant Air Quality Impact Assessment | General |
| 9. | Animal Species Assessment | Terrestrial Animal Species |

10. Site Verification

The initial site inspection for this report was conducted on August 4, 2022, by Ms. Carla Swanepoel (Candidate EAPASA Registration: 2021/3267). A desktop study, along with additional information and summarised specialist findings, was provided by Jessica Gossman (Candidate EAPASA Registration: 2022/6154) and verified by Madeleine Knoetze (EAPASA Registration: 2021/3230) in December 2023. The findings were re-evaluated by Jessica Gossman and reviewed by Betsy Ditcham (EAPASA Registration: 2020/1480) on April 15, 2026, 2025. After thorough analysis, various specialists have been appointed to verify and assess the environmental impacts of the project, aiming to develop a comprehensive understanding of the best plan from an environmental perspective.

10.2 Faunal Theme

Findings from the Screening Tool: The report rated the site of high sensitivity. The proposed site may have evidence of faunal Species of Conservation Concern. An animal species specialist has been appointed to undertake an animal species assessment of the site.

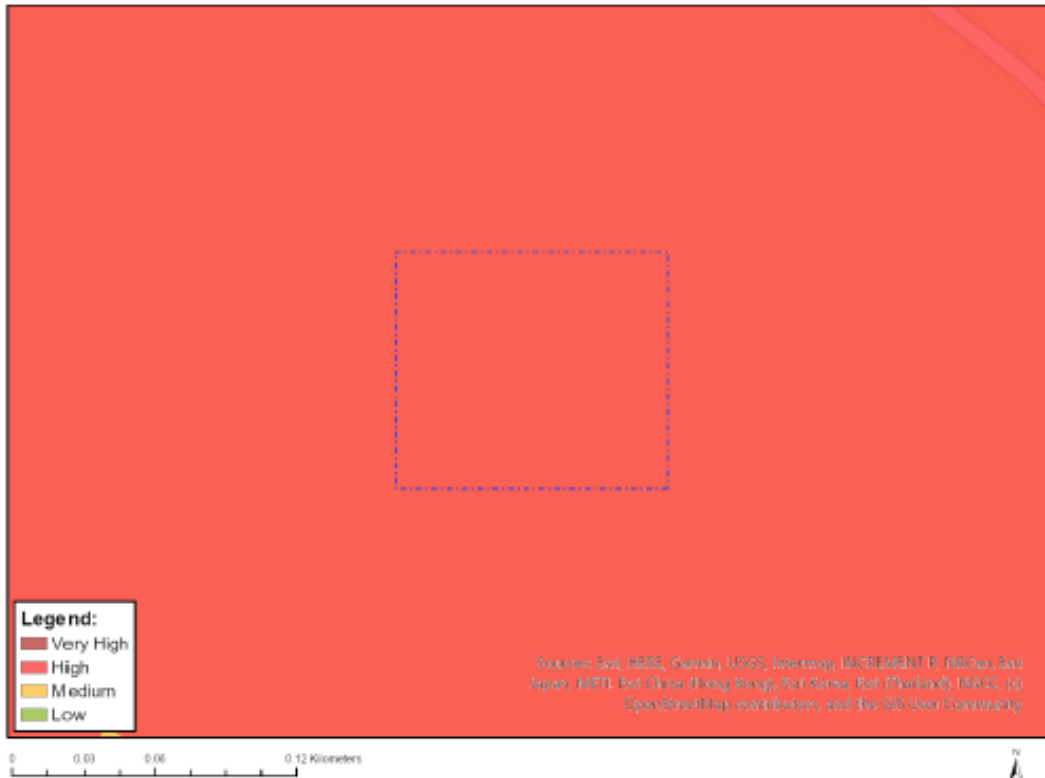


Figure 5. Faunal Sensitivity Theme Sensitivity

Table 4. Faunal species found on site in accordance with the screening tool.

| Sensitivity | Feature(s) | Common Name | IUCN | Habitat preference | iNaturalist |
|--|---|---------------------------------|---------------|--|---|
| High | <i>Aves-Bradypterus sylvaticus</i> | Knysna Warbler | Vulnerable | Forest and Fynbos | Not Found within iNaturalist data. |
| High | <i>Aves-Neotis denhami</i> | Denham's Bustard | Vulnerable | Forest, Grassland | |
| Medium | <i>Aves-Circus ranivorus</i> | African Marsh Harrier | Endangered | Permanent wetlands (roosting) and fynbos (hunting) | |
| Medium | <i>Sensitive species 13</i> | - | Vulnerable | Forest | |
| Medium | <i>Invertebrate-Aneuryphymus montanus</i> | Yellow-winged Agile Grasshopper | Vulnerable | Fynbos | |
| iNaturalist data of the study area, not found within the DFFE Screening Tool: | | | | | |
| No data | <i>Orthertrum Julia</i> | Julia Skimmer | Least Concern | Freshwater, inland waters/terrestrial | Identified within the proposed project footprint from iNaturalist data. |
| | <i>Allocnemis Leucosticta</i> | Goldtail | Least Concern | Wooded/forested streams and rivers | |
| | <i>Chlorolestes Tessellatus</i> | Forest Malachite | Least Concern | Vegetated and shaded streams, | |

| | | | | | |
|--|--------------------------------|---------------------|------------------|----------------------------------|--|
| | | | | pristine/ near pristine banks | |
| | <i>Elattonaneura Frenulata</i> | Sooty Threadtail | Least Concern | Freshwater, inland water | |
| | <i>Pseudagrion Furcigerum</i> | Palmiet Sprite | Least Concern | Freshwater, inland water | |
| | <i>Pseudagrion Kersteni</i> | Powder-faced Sprite | Least Concern | Freshwater, inland water | |

EAPs observation:

Based on the desktop study of the area a Faunal and Avifaunal specialist will need to conduct an assessment to verify the species on site. Based on the screening tool map the site is largely regarded as having high faunal sensitivity. During the site visit conducted by the EAP, no Species of Conservation Concern (SCC) were identified.

Specialist Findings: MORA Ecological Services (Pty) Ltd (Mokgatla Molepo) was appointed to undertake the site sensitivity verification of the faunal and avifaunal species present within the proposed development footprint for DR1602 km 8.4. Before the site visit took place the specialist confirmed from the DFFE screening tool (2023) that three species have been identified as possible highly likely finds on site, *Bradypterus sylvaticus*, *Circus ranivorus* and *Neotis denhami*.

The specialist conducted their faunal and avifaunal site visits on the 30th and the 29th of October 2023. During the site visits, the appointed specialist confirmed that there were no sensitive faunal and avifaunal species on site and that 5 bird species were recorded and no identified sensitive bird species from the DFFE Screening Tool report were observed during the site visits. The *Bradypterus sylvaticus* has a medium chance of likelihood of occurrence, while the *Circus ranivorus* is regarded as being low and the *Neotis denhami* as being very low in the likelihood of occurrence. Based on the faunal species there were no Species of Conservation concern (SCC) observed during the site visit nor the likelihood of finding them on the construction footprint.

Conclusions: Based on the area already being disturbed it is predicted that the likelihood of faunal and avifaunal species being impacted on is regarded as being low. There were no sensitive bird species and faunal species that were found in the DFFE Screening Tool on site and no habitant species within the development footprint were to be sensitive. The specialist indicated that should there be any faunal species on site they will likely seek alternative habitation within the surrounding areas. The specialists confirmed that an Animal Species Compliance Statement will be required for the proposed site. Furthermore, CapeNature will also be included as an I&AP during public participation.

10.3 Aquatic Biodiversity

Findings from the Screening Tool: DR1602 km 8.4 is regarded as having a very high sensitivity, and the nature of the site being over a watercourse. An aquatic specialist will be appointed to undertake an Aquatic Impact Assessment.

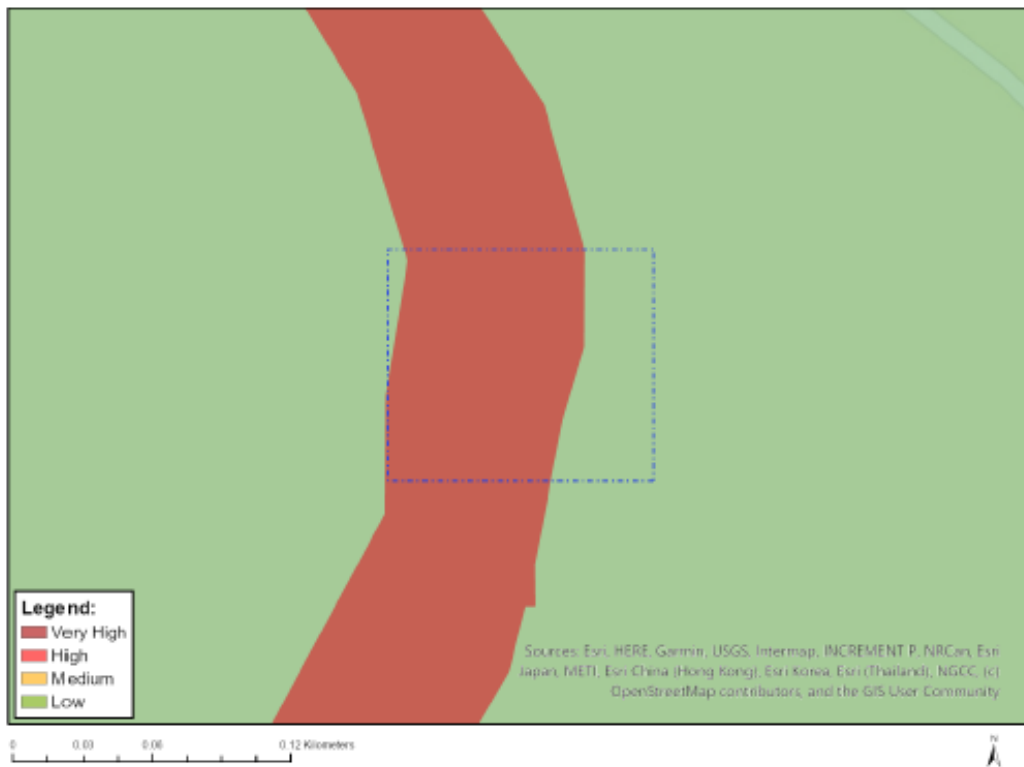


Figure 6. Aquatic Biodiversity Theme Sensitivity

| Sensitivity | Feature(s) |
|-------------|-----------------------------------|
| Very High | CBA : Wetland |
| Very High | Wetlands_Channelled valley-bottom |

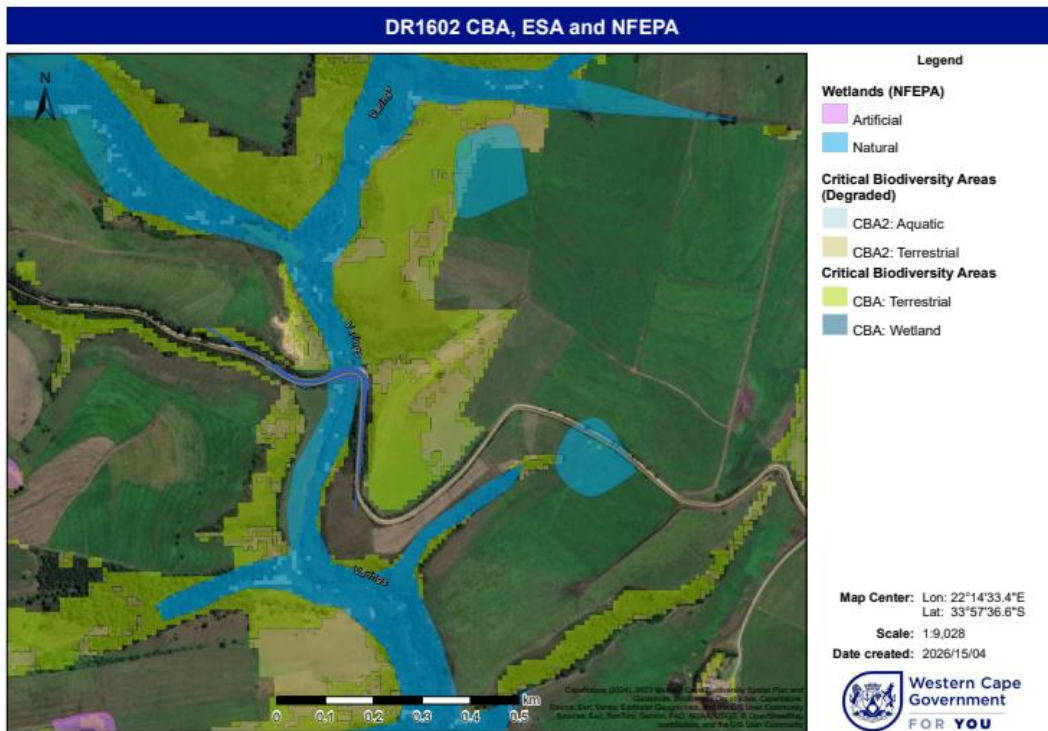


Figure 7. DR1602 Aquatic biodiversity map (CBA, ESA, and Wetlands), Western Cape Biodiversity Spatial Plan (Cape Farm Mapper, 2026).

EAPs observation:

Based on the desktop study of DR1602 km 8.5 the site is located within a Critical Biodiversity Area for Wetlands (Figure 7). The proposed site crosses the Varings River that is mapped as Aquatic Biodiversity Area 1 and is within a wetland classified as a Fresh Water Priority Area.

Specialist findings:

Upstream Consulting (Debbie Fordham) was appointed to conduct the aquatic site sensitivity verification for DR1602 km 8.5. The sensitivity verification site visit was conducted on the 4th of November 2023 in order to confirm the findings of the desktop assessment.

The specialist confirmed the presence of four Hydrogeomorphic (HGM) Units within the 500-meter radius of DR1602 km 8.5 study area, with regards to the construction footprint, the Varings River is directly affected (HGM1). In the lower area, the channeled valley bottom wetland has been established. The construction footprint on both sides (Left and right) has a seep wetland that is regarded as HGM4 and HGM5, both enter the Varings River and have been disturbed by the causeway. Upstream from the proposed construction footprint HGM6, is a tributary channeled valley bottom wetland that forms within the Varings River that is located within DR1602 km 8.5 study area. See Figure 8 below regarding the aquatic assessment found within the study area of DR1602 km 8.5.

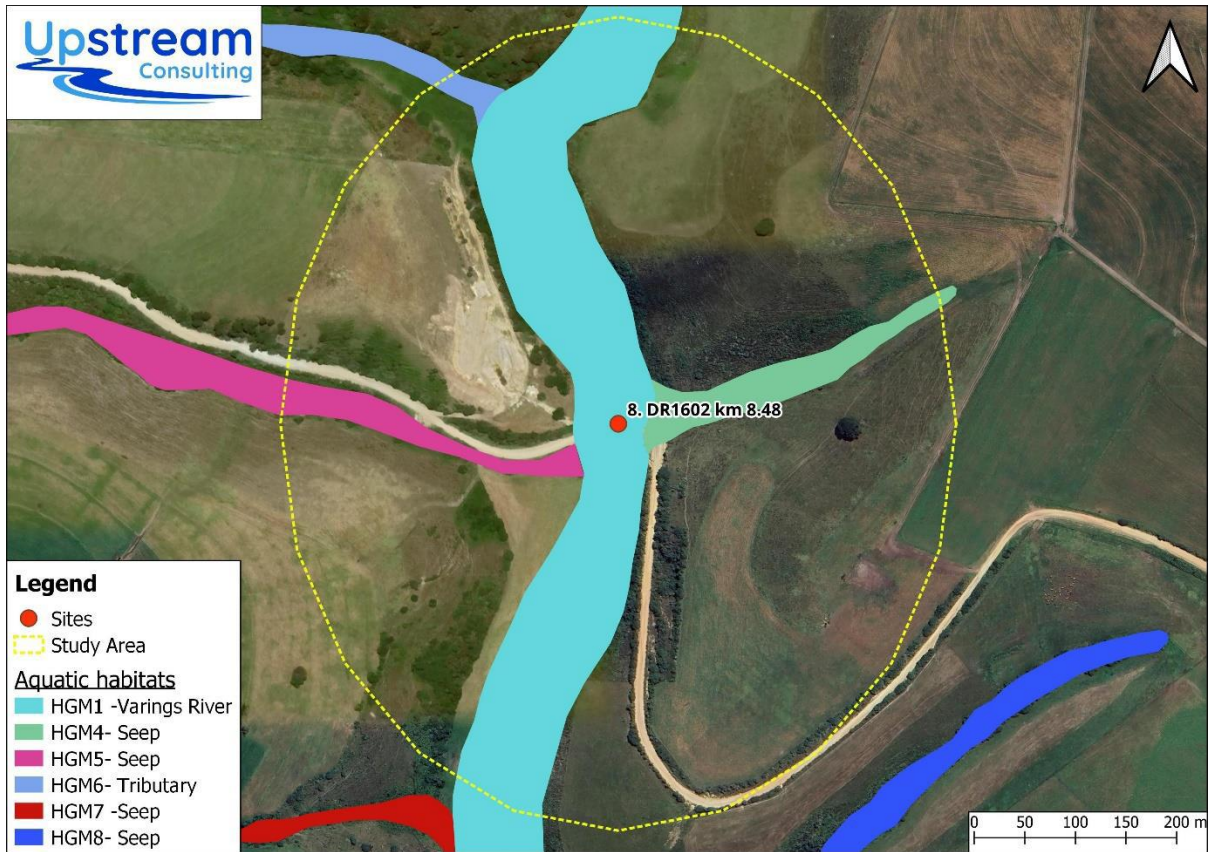


Figure 8. DR1602 delineated aquatic habitat within the 500m radius, (Upstream Consulting, 2023).

Conclusion: A specialist will be appointed to conduct an Aquatic Biodiversity Impact Assessment for the proposed development area. Additionally, the proposed project requires a Water Use License in terms of Chapter 4 and Section 21 of the National Water Act No. 36 of 1998, the project falls within the ambit of a General Authorisation for Section 21(c) and (i) water use. The Breede-Olifants Catchment Management Agency (BOCMA) will also be included as a Stakeholder during the public participation process.

10.4 Archaeological and Cultural Heritage

Findings from the Screening Tool: the Archaeological and cultural heritage theme has a low sensitivity. The DFFE Screening Tool suggests that an archaeological assessment to be conducted. The proposed repairs and riverbank reinstatement will be undertaken on existing footprints and previously disturbed areas, additionally the proposed activities do not trigger Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with regards to the site.

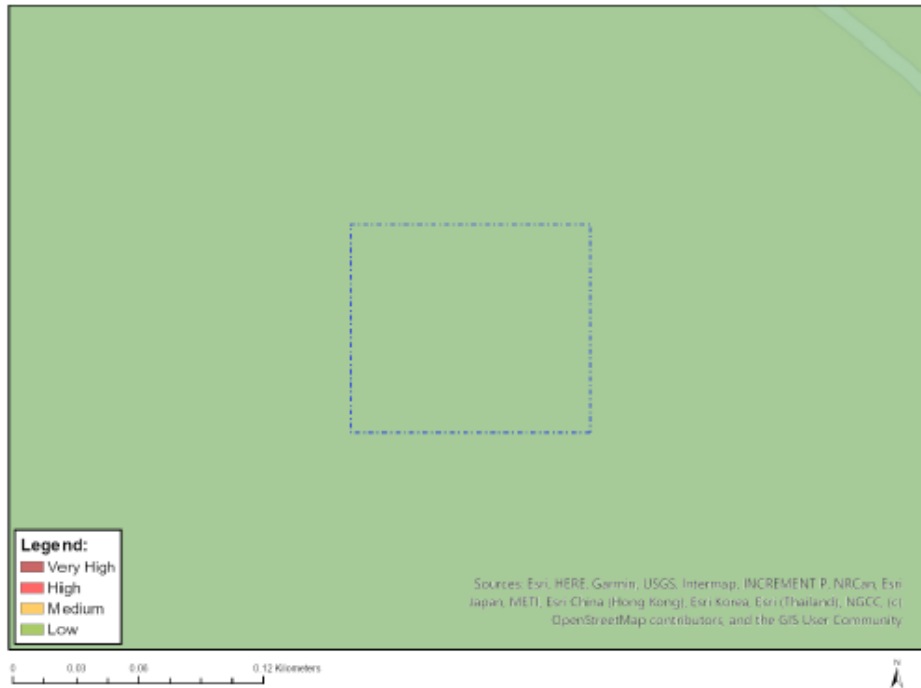


Figure 9. Archaeological and Cultural Heritage Theme Sensitivity

| Sensitivity | Features(s) |
|-------------|-----------------|
| Low | Low Sensitivity |

EAPs observation:

During the site visit, the EAP did not observe any features of cultural heritage concern. At the time of the site visit, the age of the causeways on site was unknown. Further investigations with regard to the ages of the causeway infrastructure will be undertaken during the Environmental Impact Assessment Phase in order to ascertain the requirement of a demolition permit for the site.

Specialist Findings:

Dr Peter Nillsen of Point of Human Origins - It was confirmed by the appointed Heritage Consultant that the proposed activities do not trigger Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999). Therefore, the Heritage consultant confirmed that it was not required to submit a Notice of Intent to Develop (NID) to the HWC. The specialist indicated that it may be required that to verify if a demolition permit may be required in accordance with Section 34 of the National Heritage Resource Act (NHRA).

Conclusion: Based on the findings of the specialist, a NID will not be required to be completed for the proposed project. However, a statement will be obtained from the specialist regarding the Heritage Sensitivity for the site. Furthermore, Heritage Western Cape (HWC) will be included as an Interested and Affected party of the project during all public participation processes.

10.5 Civil Aviation

Findings from the Screening Tool: The Civil Aviation Theme is of high sensitivity for the proposed site.

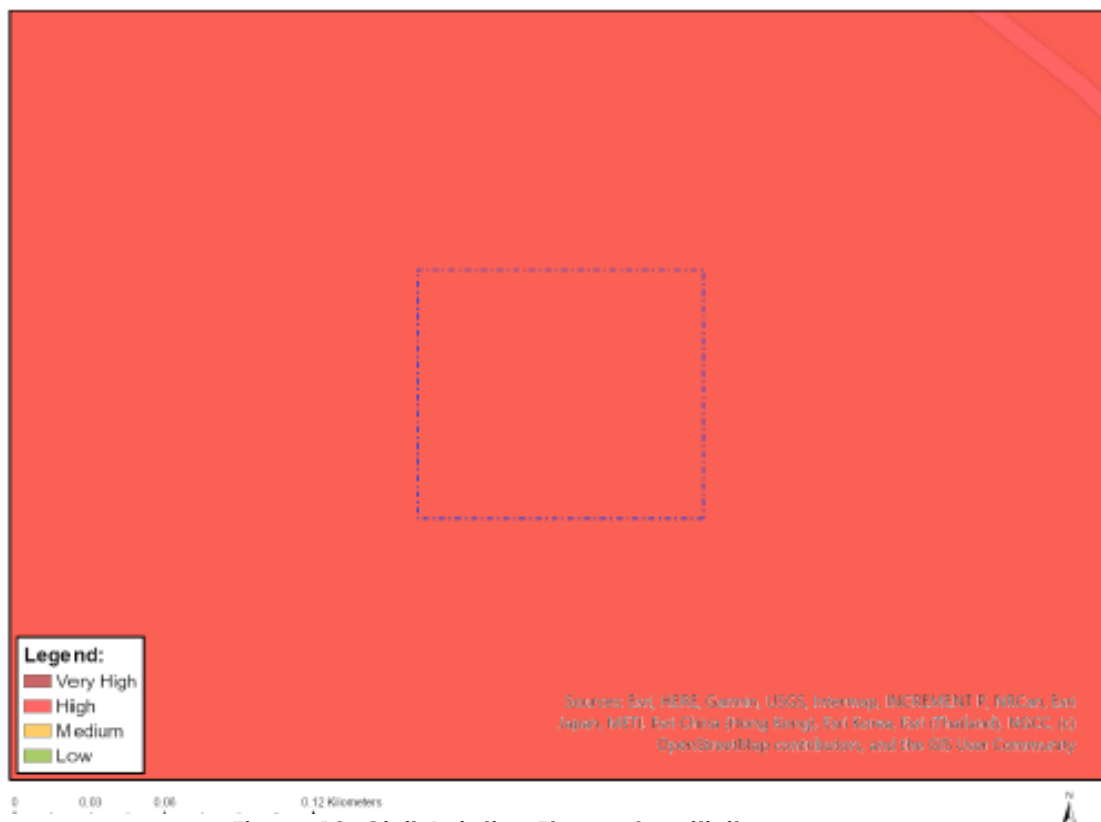


Figure 10. Civil Aviation Theme Sensitivity

| Sensitivity | Feature |
|-------------|---|
| High | Within 15 km of a civil aviation radar |
| High | Between 8 and 15 km from a major civil aviation aerodrome |

EAPs observation:

George Airport is approximately 13.8 km from the proposed site, located in the southeastern direction. The flight strip and landing area are not aligned with the site at DR1602 km 8.5. Additionally, Mossel Bay Aerodrome (FAMO) and Mossel Bay Aero Club are situated 26.9 km from the proposed site, and their landing and flight strips do not fall within the area of concern regarding the proposed construction.

Conclusion: A dedicated civil aviation assessment will not be conducted, as the proposed development is not expected to impact the flight paths of the airport or aerodrome. The South African Civil Aviation Authority (CAA) will be included as Interested and Affected Parties (I&APs), and no further action is necessary.

10.6 Defence

Findings from the Screening Tool: The defence theme is of Low Sensitivity for DR1602 km 8.5. The DFFE Screening Tool has not indicated an assessment is needed and no impacts on existing Defence areas were noted on site, as such, no further action will be undertaken.

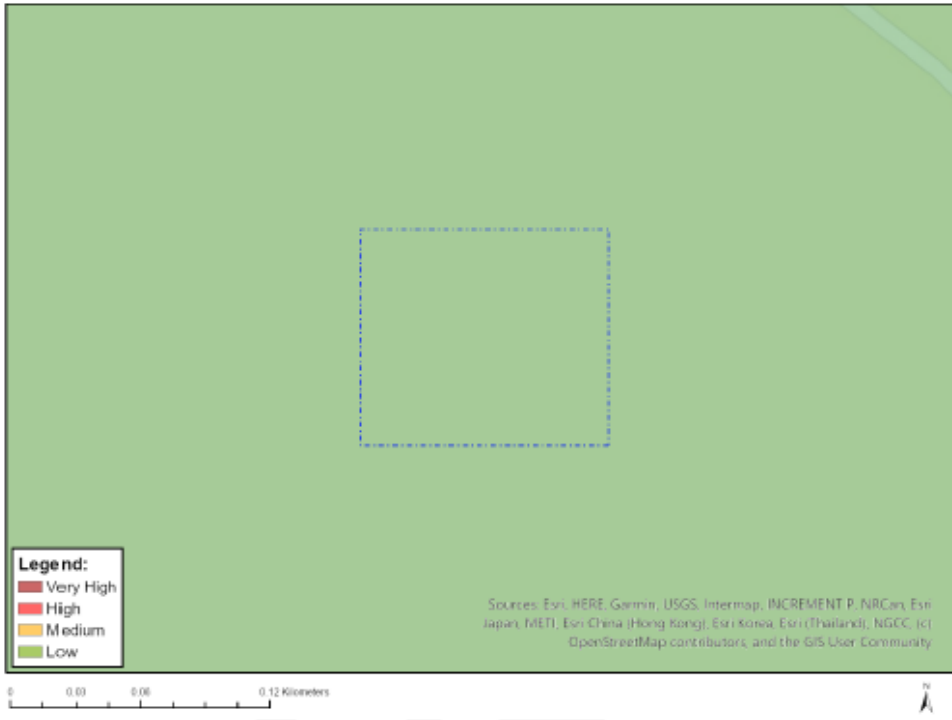


Figure 11. Defence Theme Sensitivity

| Sensitivity | Feature |
|-------------|-----------------|
| Low | Low Sensitivity |

10.7 Palaeontology Impact Assessment

Findings from the Screening Tool: The proposed study area does not have any data regarding the palaeontology within the study area.

EAPs Observation:

The proposed repairs and riverbank reinstatement will be undertaken on existing footprints and previously disturbed areas, additionally the proposed activities do not trigger Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) for DR1602 km 8.5.



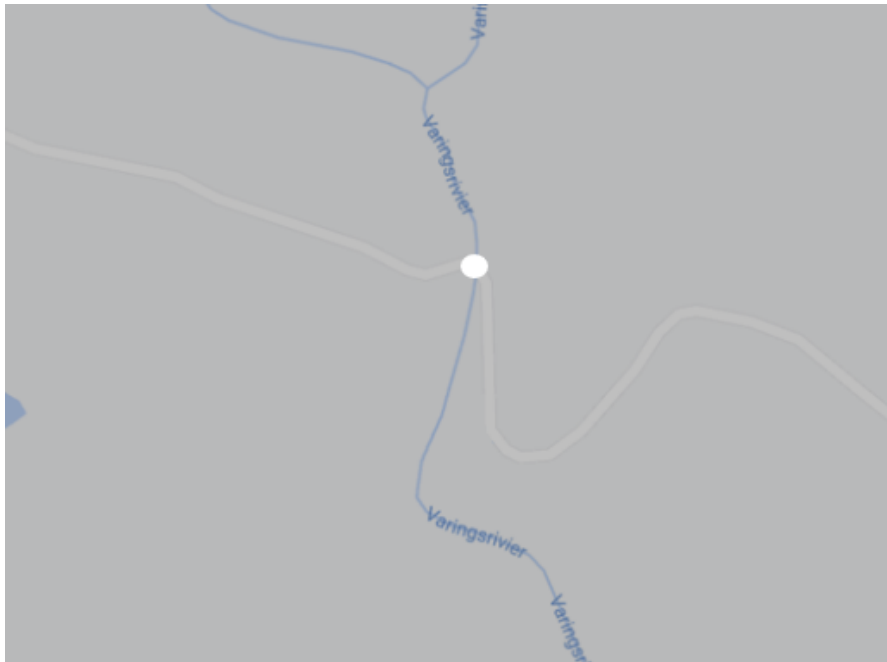


Figure 12. SAHRIS PalaeoSensitivity Map, 2026.

Table 5. SAHRIS PalaeoSensitivity Table:

| Colour | Sensitivity | Required Action |
|---------------|--------------------|---|
| RED | VERY HIGH | field assessment and protocol for finds is required |
| ORANGE/YELLOW | HIGH | desktop study is required and based on the outcome of the desktop study, a field assessment is likely |
| GREEN | MODERATE | desktop study is required |
| BLUE | LOW | no palaeontological studies are required however a protocol for finds is required |
| GREY | INSIGNIFICANT/ZERO | no palaeontological studies are required |
| WHITE/CLEAR | UNKNOWN | these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map. |

Conclusion: Based on desktop observation and sourced images from the South African Heritage Resources Information System (SAHRIS) the site has no features of palaeontological significance and regarding the nature of the already disturbed area is to replace and repair existing infrastructure, the likelihood of interacting with fossils can be considered insignificant for the proposed site. However, should remains be found further information and procedures will be included in the Environmental Management Programme (EMPr) to minimise risk and disturbance.

10.8 Plant Species Theme

Findings from the Screening Tool: The plant species theme as a medium sensitivity for sensitive plant species for the proposed development area. 4 sensitive plant species are documented within the Screening Tool. A plant species specialist will be appointed as the repair works will include the removal of some vegetation along the riverbanks and could have evidence of SCCs on site based on the Screening Tool findings.

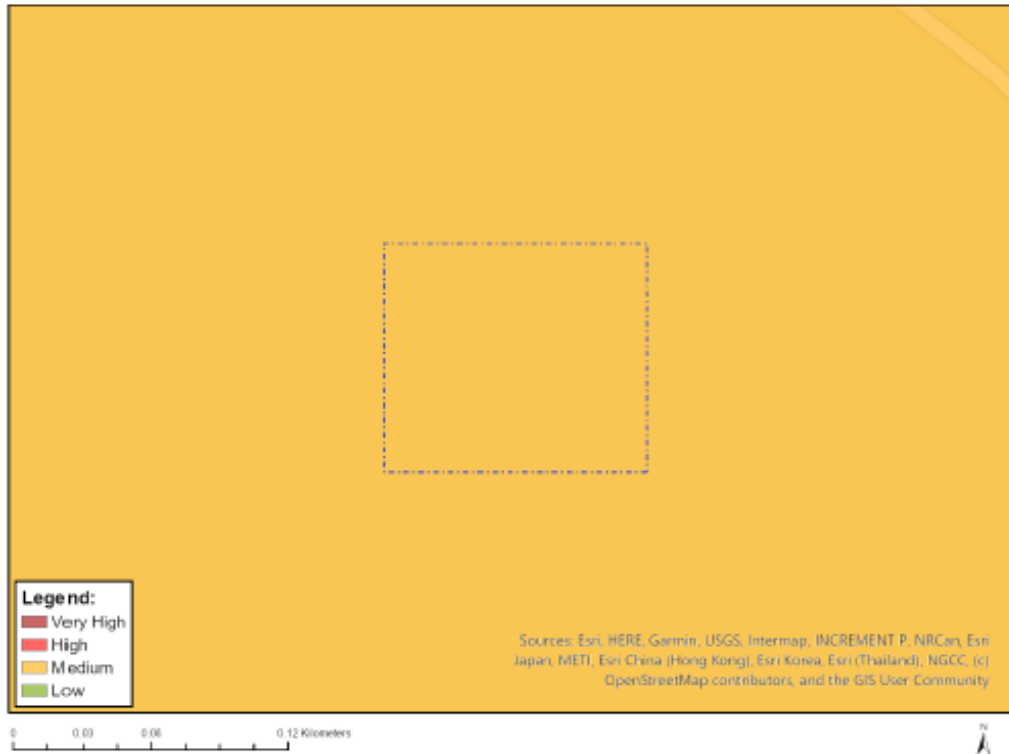


Figure 13. Plant Species theme sensitivity

Sensitivity Features:

| Sensitivity: | Feature(s) | Red List Status | Habitat | iNaturalist |
|---------------|--------------------------------|-----------------|--|------------------------------------|
| DR1602 | | | | |
| Medium | <i>Lampranthus pauciflorus</i> | Endangered | Groot Brak Dune Strandveld, Blombos Strandveld, Overberg Dune Strandveld, Potberg Sandstone Fynbos, Garden Route Granite Fynbos, Alberfinia Sand Fynbos, Knysna Sand Fynbos, Hartenbos Strandveld, Goukamma Dune Thicket | Not Found within iNaturalist data. |
| Medium | <i>Freesia fergusoniae</i> | Vulnerable | Mossel Bay Shale Renosterveld, Eastern Ruens Shale Renosterveld, Ruens Silcrete Renosterveld, Central Ruens Shale Renosterveld, Garden Route Shale Fynbos, Swellendam Silcrete Fynbos, Montagu Shale Renosterveld, Garden Route Granite Fynbos, Potberg Ferricrete Fynbos | |
| Medium | <i>Diosma passerinoides</i> | Vulnerable | Ruens Shale Renosterveld, Elim Ferricrete Fynbos, Potberg Ferricrete Fynbos, Garden Route Granite Fynbos, Breede Alluvium Renosterveld, Ruens Silcrete Renosterveld, Swellendam Silcrete Fynbos, Central Ruens Shale Renosterveld, Breede, Shale Renosterveld, Mossel Bay Shale Renosterveld, Uniondale Shale Renosterveld, Langkloof Shale Renosterveld, Baviaanskloof Shale Renosterveld, Matjiesfontein Shale Renosterveld, Montagu Shale Renosterveld, Western | |

| Sensitivity: | Feature(s) | Red List Status | Habitat | iNaturalist |
|--|-----------------------------------|-----------------|---|--------------------------------|
| | | | Ruens Shale Renosterveld | |
| Medium | <i>Sensitivity Species</i> 683 | Least Concern | seasonally moist grasslands and open, sandy or loamy soils, often in areas with winter rainfall; typically occurs in disturbed or cultivated landscapes as well as natural veld.. | |
| iNaturalist data of the study area, not found within the DFFE Screening Tool: | | | | |
| No data found | <i>Family Asteraceae</i> | No data | Found within diverse habitat, ranging between tropical rainforests to arid desert. | Found within iNaturalist data. |
| | <i>Subfamily Mimosoideae</i> | No data | Tropical and subtropical climates. | |
| | <i>Family Cyperaceae</i> | | Perennial herbs rarely annual; perennating by means of creeping rhizomes or tubers. The members are inhabitants of damp areas. | |
| | <i>Gomphocarpus Fruiticosus</i> | Least Concern | Grassland and savannas | |
| | <i>Pteridium aquilinum</i> | Least Concern | Temperate and subtropical regions widely distributed. | |
| | <i>Berzelia Intermedia</i> | Least Concern | Reede Sand Fynbos, Hawequas Sandstone Fynbos, Garden Route Shale Fynbos, Cape Winelands Shale Fynbos, Garden Route Granite Fynbos, Robertson Granite Fynbos. | |
| | <i>Cliffortia Ordorata</i> | Least Concern | Reede Sand Fynbos, Hawequas Sandstone Fynbos, Garden Route Shale Fynbos, Cape Winelands Shale Fynbos, Garden Route Granite Fynbos, Robertson Granite Fynbos, Pondoland-Ugu Sandstone Coastal Sourveld, Boland Granite Fynbos, South Sonderend Sandstone Fynbos, Hangklip Sand Fynbos, Cape Flats Sand Fynbos, Atlantis Sand Fynbos, Knysna Sand Fynbos. | |

EAP's Observation

Based on the area already being disturbed, and working on the existing road and culverts, vegetation will still need to be cleared in order to construct and develop the new infrastructure. It is important that a specialist is appointed to verify the plant species on site. The EMPr will also address a Search and Rescue programme if indigenous plants are found on site, and an alien invasive management programme. During the site visit conducted for the respective site, no plant SCCs were identified on site.

Specialist Findings: Enviroworks (Megan Smith and Edmari Lewis) conducted a site visit on the 30th of October 2023. Based on the site visit the specialist saw no Species of Conservation Concern (SCC) within the development footprint of DR1602 km 8.5. The specialist noted that the screening tool regarded the area as having a very high sensitivity rating and has assessed and recommended that the area is of medium sensitivity. Alien species have been recorded to be prevalent in the area, and that the Garden Route Alien Invasive Species Management plan to be implemented. It's also important to note that the site is degraded and has been disturbed, and therefore the project is more of a restoration of the infrastructure and will not be impacting on the Ecological Support Area.

Conclusion: The specialist noted that the site is existing infrastructure and that additional inspections are not needed. The specialist noted that a compliance statement will be required for the proposed site. CapeNature will also be included as a Stakeholder during public participation.

10.9 Terrestrial Biodiversity Theme

Findings from the Screening Tool: The areas sensitivity is regarded as Very High. A specialist has been appointed to undertake the Terrestrial Biodiversity Assessment.

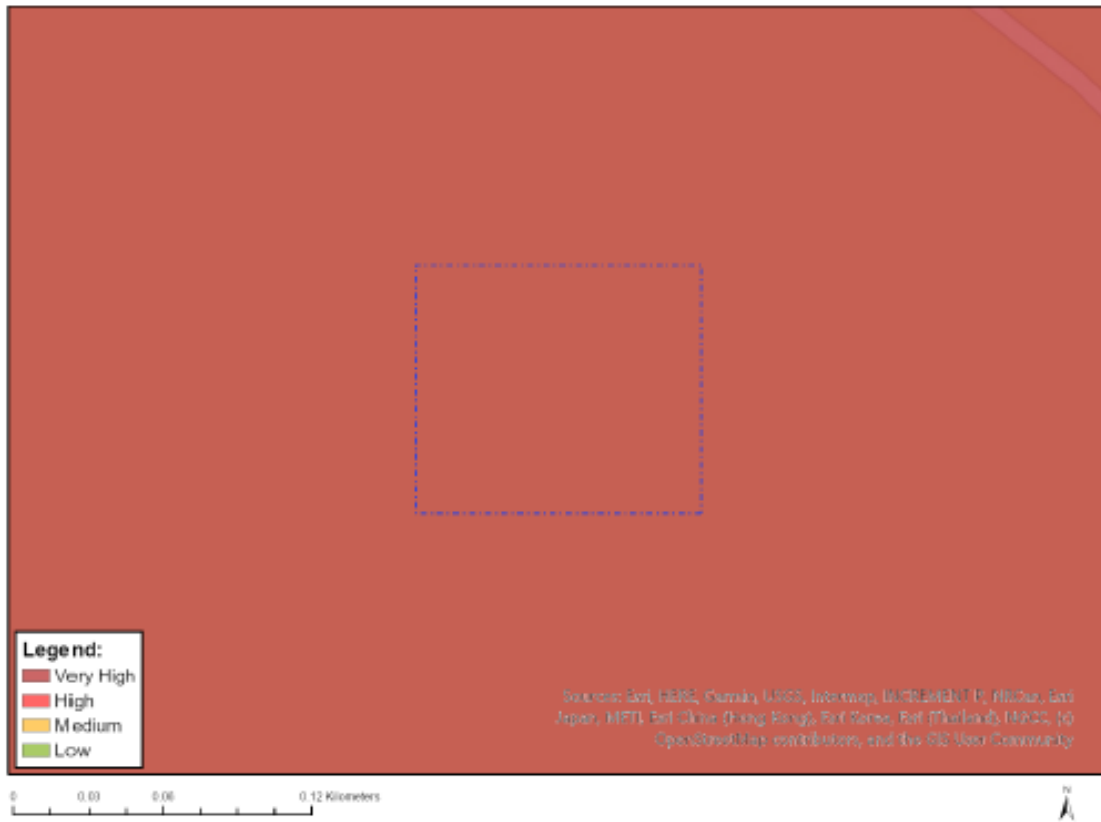


Figure 14. Terrestrial Biodiversity Theme Sensitivity

| Sensitivity: | Feature(s) |
|--------------|--------------------------------|
| Very High | CBA: Terrestrial |
| Very High | CBA2: Terrestrial |
| Very High | CR_Garden Route Granite Fynbos |

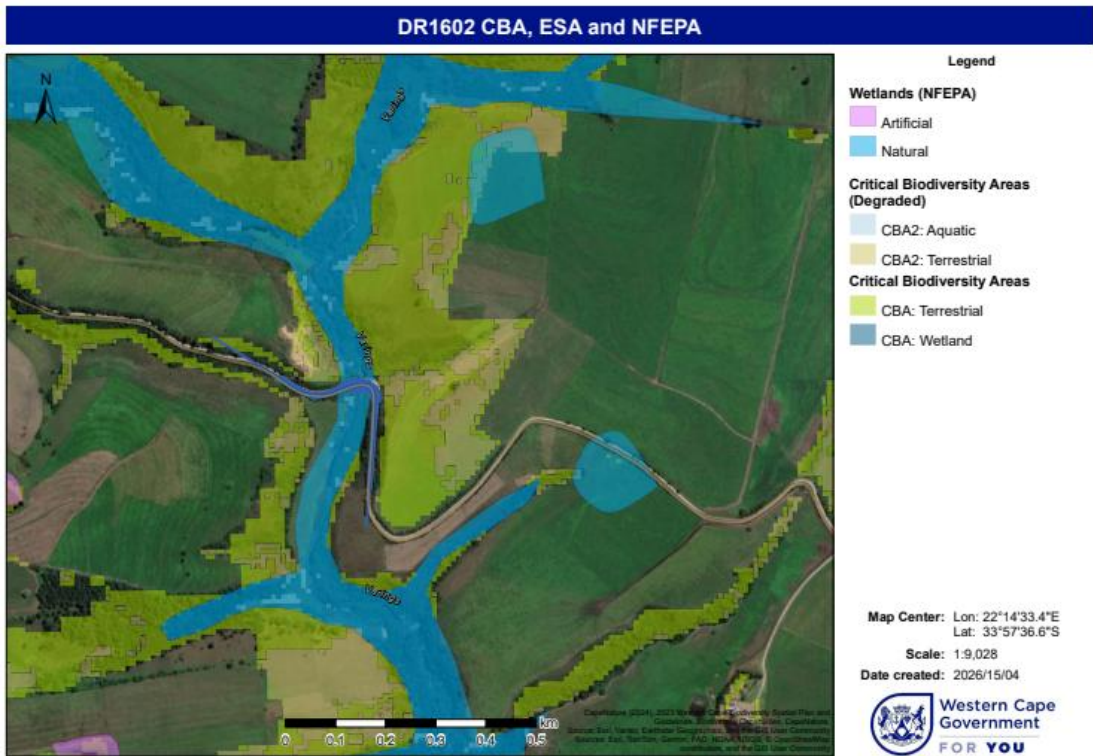


Figure 15. CBAs, ESAs and rivers, (Cape Farm Mapper, 2026).

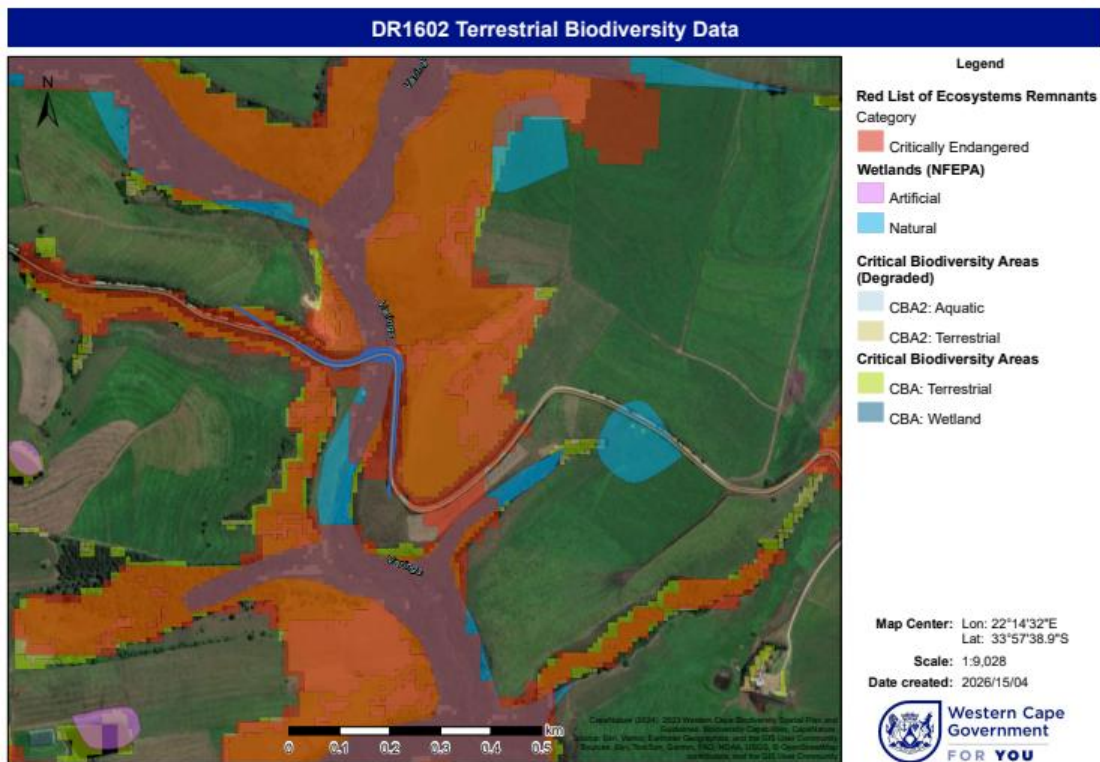


Figure 16. DR1602 km 8.4 CBA, ESA and NFEPA, (Cape Farm Mapper, 2026).

EAP's Observation:

The proposed project site (DR1602 km 8.4) is located within the Garden Route Granite Fynbos, that is classified as Critically Endangered B1(i) (Figure 16). The Ecological Support Area that is to be restored and managed to minimise the impact the ecology of the area. Based on Figure 15, it is important to note that the area is also located over the Varings River watercourse and associated Critical Biodiversity Area. Based on the findings for the site the specialist will need to assess the impact on the terrestrial ecology of the site.

Specialist findings:

Enviroworks (Megan Smith and Edmari Lewis) conducted a site visit for DR1602 km 8.5 on the 30th of October 2023, and verified the site terrestrial findings. The DFFE Screening Tool suggested that the site is of very high terrestrial significance, however based on the site visit findings the area is of medium concern.

The specialist verified that the Site Ecological Importance (SEI) is rated low. This is due to the area having a low biodiversity value and ecological functioning and medium recovery rate.

The vegetation of DR1602 is within Critically Endangered Garden Route Granite Fynbos, however there is a large amount of alien invasive species in the area that has altered the ecology. There is still a chance that the ecosystem may have some ecological importance as the buffer area does fall outside the road reserve. According to the specialist the chances of finding SCC on site are of low likelihood of occurring.

Conclusion: The specialist has stated that the site has been confirmed to be classified as being low sensitivity for the Terrestrial Biodiversity Theme. Based on the area having a high alien invasive species and the site being already disturbed and the existing infrastructure. A compliance statement will be required.

10.10 Landscape/Visual Impact Assessment

Findings from the Screening Tool: The report indicates that a Visual Impact Assessment should be undertaken for DR1602 km 8.5. This assessment will not be undertaken as the proposed activities are to repair existing infrastructure, therefore after rehabilitation, the site will revert to the visual setting prior to the flood damage.

10.11 Socio-economic

Findings from the Screening Tool: It is not expected that this environmental process related to the proposed project will have a detrimental effect on the socio-economics of the area as it is anticipated that the project (upon completion) will greatly benefit road users and the ecology in the area. The proposal is to repair flood damage to existing infrastructure and riverbanks. The socio-economic aspects of the proposal are thus known and straight forward in nature and as such an assessment will not be undertaken. No further action will be undertaken.

10.12 Noise

EAP's Observation and Conclusion:

It is not expected that this environmental process related to the proposed upgrades will have a detrimental effect on the noise levels within the area as it is anticipated that the project (upon completion) will greatly benefit road users and the ecology in the area. The proposal is to repair flood damage to existing infrastructure and riverbanks. The noise aspects of the proposal are thus negligible and temporary in nature, and as such an assessment will not be undertaken. No further action will be undertaken.

10.13 Traffic

EAP's Observation and Conclusion:

It is not expected that this environmental process related to the proposed upgrades will have a detrimental effect on traffic management within the area as it is anticipated that the project (upon completion) will greatly benefit road users and the ecology in the area. The proposal is to repair flood damage to existing infrastructure and riverbanks. A temporary by-pass will be constructed to avoid road closures. The proposal is thus negligible and temporary in nature, and as such an assessment will not be undertaken. No further action will be undertaken.

10.14 Geotechnical

EAP's Observation and Conclusion:

For this current environmental process, a geotechnical assessment is not anticipated to be required as the planned construction should not have significant geological impacts due to the surface level nature of the project. Additionally, the screening tool did not identify any geologically or geotechnically relevant sensitive features. Due to the lack of relevant sensitive features and the nature of the proposed development, a Geotechnical Assessment will not be undertaken.

10.15 Ambient Air Quality

EAP's Observation and Conclusion:

For this current environmental process, an air quality assessment is not anticipated to be required as the planned construction should not have significant air quality emissions impact due to the nature of the proposed works to repair and replace damaged road and culverts. Additionally, the screening tool did not identify any air quality relevant sensitive features. Due to the nature of the proposed development, an air quality assessment will not be undertaken.

11. Summary of applicable specialist studies

| Specialist assessment | Applicability | Assessment Protocol |
|--|--|---|
| Agriculture Impact Assessment | No | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf |
| Landscape/Visual Impact Assessment | No | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf |
| Archaeological and Cultural Heritage Impact Assessment | No, a statement will be obtained from the specialist regarding the site sensitivity. | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf |
| Palaeontology Impact Assessment | | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf |
| Terrestrial Biodiversity Impact Assessment | Yes | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf |
| Aquatic Biodiversity Impact Assessment | Yes | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf |
| Noise Impact Assessment | No | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Noise_Impacts_Assessment_Protocol.pdf |
| Traffic Impact Assessment | No | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf |
| Geotechnical Assessment | No | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf |
| Ambient Air Quality Impact Assessment | No | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf |
| Socio-Economic Assessment | No | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf |
| Plant Species Assessment | Yes, (as part of Terrestrial Biodiversity Impact Assessment) | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf |
| Animal Species Assessment | Yes | https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf |

12. Conclusion

From the findings of this report, SES proposes to only undertake the following assessments:

| |
|---|
| Terrestrial Biodiversity Impact Assessment/ Compliance Statement |
| Aquatic Biodiversity Impact Assessment |
| Plant Species Assessment/ Compliance Statement |
| Animal Species Assessment/ Compliance Statement |

The relevant specialist assessments will be undertaken and will contribute to the environmental assessment. Following consultation with the competent authority, additional assessments may be advised and undertaken.

All assessments will be undertaken in line with the protocols as promulgated for the respective themes. The requirements of the protocols have been incorporated into the Terms of References of the various specialists.