



Site Sensitivity Verification Report

Proposed Development
Framework for the Stikland
South Hospital Site, Erf 6300,
Bellville

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APPLICANT

WCG: Department of Infrastructure



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1 INTRODUCTION

1.1 Screening tool and protocols for assessment

The Minister of Environment, Forestry and Fisheries promulgated regulations requiring the compulsory submission of a report generated by the national web-based environmental screening tool when submitting applications for environmental authorisation (GN 960 of 2019) in July 2019. The screening tool generates a report based on the mapping of environmental sensitivities and on the proximity to other important features, including defence installations and civil aviation installations.

On 20 March 2020, the Minister published Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998 (GN 320 of 2020). These Procedures prescribe the general requirements for undertaking site sensitivity verification and for protocols for the assessment and minimum report content requirements of environmental impacts for specific environmental themes identified by the screening tool. Further Protocols were gazetted on 30 October 2020 for terrestrial plant and animal species assessment in GN 1150 of 2020.

1.2 Site sensitivity verification

Each set of specialist protocols provides for a Site Sensitivity Verification to be undertaken by an Environmental Assessment Practitioner (EAP) or suitable specialist, prior to commencing with specialist assessment and reporting on the identified themes. The purpose of a site sensitivity verification is to confirm the current use of the land and potential environmental sensitivity of the site, and to compare these with the sensitivity mapped or identified by the screening tool. The outcome of the verification must be recorded in the form of a site sensitivity verification report (**this report**) that is submitted together with the relevant environmental assessment report and confirms or disputes the environmental sensitivities mapped by the screening tool. The site sensitivity verification is to confirm the actual state of the site as compared with what has been identified by the screening tool. The site sensitivity verification is intended to confirm or refute the need to employ specialists as identified in the screening report.

This report is prepared in accordance with the requirements of the Protocols as published in terms of GN 320 of 2020 and GN 1150 of 2020. It has been prepared by an appointed Environmental Assessment Practitioner, Anathi Skweyiya, supervised by Tarryn Solomon of Infinity Environmental, based on a desktop analysis, site inspection, and other available information.

1.3 Methodology

A site sensitivity verification was undertaken on 17 May 2024. It consisted of the following key aspects:

- A desktop review of
 - Satellite imagery using Google Earth Pro.
 - High-resolution aerial imagery dated 2023 provided by the City of Cape Town.
- Aquatic Biodiversity Screening by EnviroSwift in 2023.
- A wetland delineation study conducted by Philip Frenzel (GEOSS), a registered Ecological Science Specialist and by Justine Ewart-Smith, a registered Ecological Science Specialist. A hydrogeological assessment of the wetlands was conducted by Jacobus Johannes van Tol (DSA), a registered Soil Science Specialist.
- Aquatic Ecosystems Impact Assessment by Nick Steytler of EnviroSwift (Pr Sci Nat 400029/02)

- Botanical Assessment by Nick Helme (Pri Sci Nat #400045/08)
- Site inspection by E.A.P

This report presents the outcomes of the site sensitivity verification as described above.

2 FINDINGS

2.1 Site information

The Western Cape Government: Department of Infrastructure intends to enable the redevelopment of Erf 6300-RE, Stikland Hospital, Cape Town, a 112-hectare property (figure 1) of which approximately 60 ha are vacant.

Infinity Environmental was appointed by ARG Design to undertake an environmental screening of the site to identify potential sensitivities that would need to be considered in the development framework. Site inspection was undertaken by Infinity, which took place after heavy rain, and much of the site was saturated, reducing the value of the presence of water near the surface as an indicator of seasonal to temporary wetland conditions. The presence of obligate wetland plants versus obligate dryland species would therefore be used as the primary indicator of wetland extent –made more challenging in this case by the frequent mowing of the site. At least one area on the site supported obligate wetland vegetation (bulrush, *Typha capensis*) and other areas along the southern boundary have some indicators of seasonal saturation. It was recommended that the delineation and characterisation of a wetland must be undertaken by an aquatic specialist duly registered with the Council for Natural Scientific Professions.

A ground truthing site visit was conducted by the aquatic specialist to verify the presence of watercourses on site by Nick Steytler. According to Steytler (2024), identifying wetlands on the site was challenging due to regular mowing, which reduced the effectiveness of using vegetation as a key determinant in wetland identification. Therefore, a geotechnical survey was recommended to confirm whether an impermeable subsurface layer was causing perched conditions. This survey would also assist in identifying hydromorphic soils and ultimately confirm the delineations. A hydrogeological study was undertaken by GEOSS, DSA and FCG. The study confirmed that perching of the water table was a key hydrological driver of the wetlands on the site, and consequently, 5 wetlands were confirmed to be present

Furthermore, a botanical screening was undertaken by Nick Helme in September 2024 to verify botanical constraints on the site. It was discovered that the site supports remnants of Cape Flats Sand Fynbos and Swartland Shale Renosterveld, which are gazetted as critically endangered, with at least five Species of Conservation Concern (SCC) being identified on the site. Following this discovery, the data were shared with the City of Cape Town's Biodiversity Branch, which has now designated these vegetation patches as critical biodiversity areas in the City of Cape Town Biodiversity Network.

The proposal will entail clearance of an area of 300 square metres or more of indigenous vegetation within a critically endangered ecosystem listed in terms of Section 52 of the NEM:BA and the partial infilling of one wetland, which is an activity that requires environmental authorisation due to the applicability of the listed activities in Listing Notice 3 (GN324 of 2017) and Listing Notice 1 (GN327 of 2017). Water use authorisation in terms of the National Water Act, 1998, in terms of sections 21 (c) and (i) of the Act was obtained. Additionally, a Heritage Impact Assessment in terms of section 38 of the National Heritage Resources Act, 1999, has been completed and will be published with the Basic

Assessment Report (BAR) for the public participation process. A final comment from Heritage Western Cape will be submitted with the final BAR.

This site is currently zoned as Community according to the City of Cape Town Zoning scheme. An application for rezoning will be required to permit the proposed development.

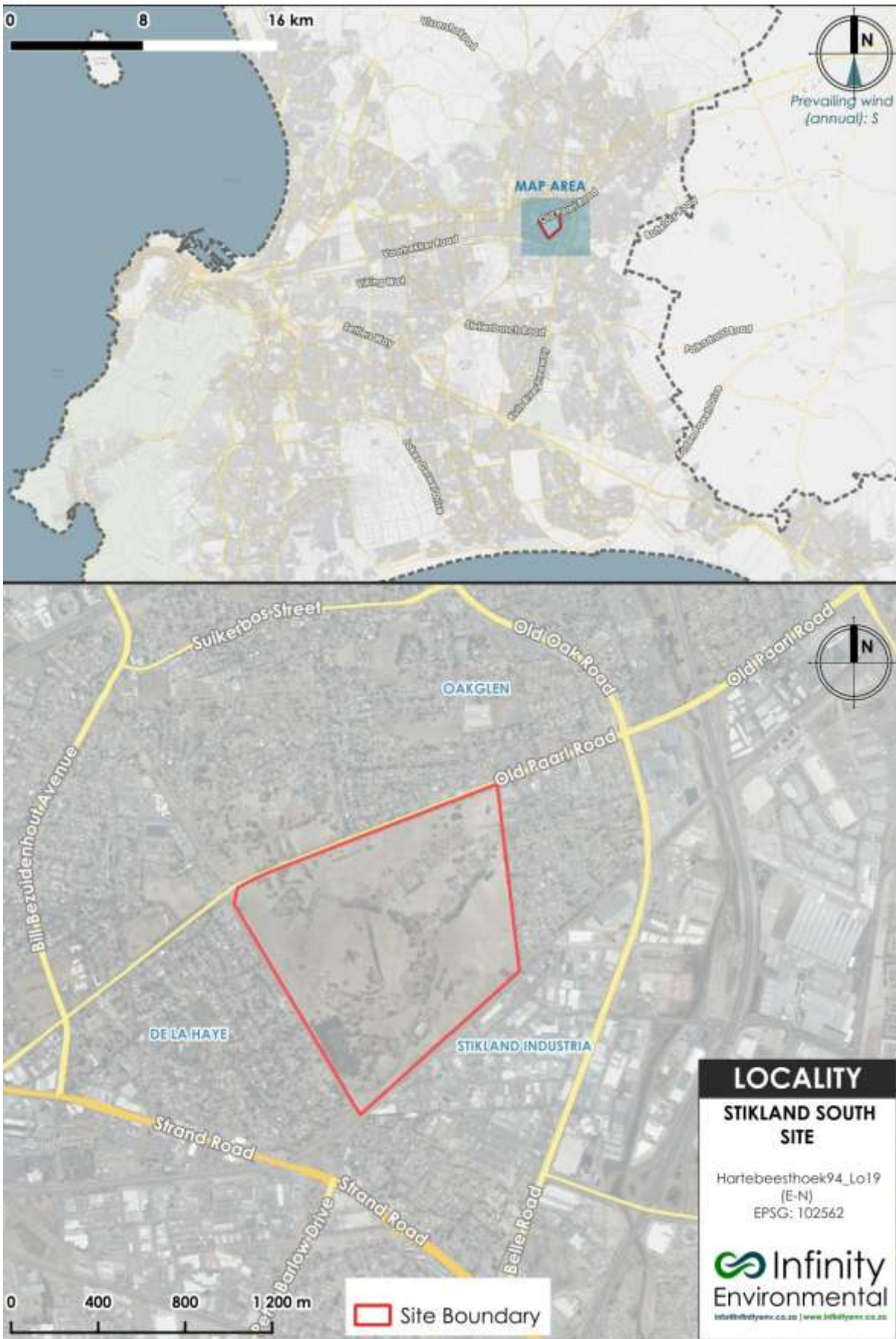


Figure 1: Locality Map (Infinity Environmental, 2025)

3 COMMENTS ON SENSITIVITIES MAPPED IN SCREENING REPORT

The Procedures for the Assessment and Minimum Report Content Requirements for Environmental Themes (GN 320 of 2020) ('the Protocols') came into effect on 9 May 2020 and 30 October 2020. These protocols mandate site sensitivity verifications for identified Themes on the site based on the National Environmental Screening Tool Report. These themes include for the subject site:

Theme	Sensitivity			
	Low	Medium	High	Very High
Agriculture Theme			X	
Animal Species Theme			X	
Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme	X			
Civil Aviation Theme			X	
Defence Theme		X		
Palaeontology Theme	X			
Plant Species Theme		X		
Terrestrial Biodiversity Theme				X

The following specialist assessments or verifications are identified by the screening tool:

- Landscape/visual impact assessment
- Archaeological and cultural heritage impact assessment
- Palaeontology impact assessment
- Terrestrial biodiversity assessment
- Aquatic biodiversity assessment
- Hydrology assessment
- Socio-economic assessment
- Plant species assessment
- Animal species assessment

In terms of the Protocols, the themes above require a site sensitivity verification followed by specialist assessments of confirmed sensitivities. The sections below provide an overview of the verified site sensitivity.

4 SENSITIVITY THEME COMMENTS

4.1 Agriculture theme

The proposed site is identified as high sensitivity for the agricultural theme due to moderate to high land capability in terms of the National Land Capability dataset that takes soil type and climate into account. Historically, the site was used for agriculture. However, due to urban development pressures, it was developed to accommodate the existing hospital. In its current land-use and abutting land uses, the site is unsuitable for agriculture. Thus, impacts on agricultural activity are unlikely. The agricultural sensitivity rating is disputed, and a specialist study for this theme will not be conducted.

4.2 Animal species theme

The site is mapped as high sensitivity for animal species due to its distribution of high sensitivity bird species and medium sensitivity of invertebrate species. The species noted in the screening tool report is listed below:

Type of animal	Species name	Species status	Explanation
Bird	<i>Circus ranivorus</i>	Near threatened (Internationally) Endangered (Regionally)	<p>The African Marsh Harrier (<i>Circus ranivorus</i>) is native to sub-Saharan Africa and is regarded as near threatened by the IUCN. They reside in wetlands, marshes and reed beds and utilise reed beds or bushes near water for breeding and nesting. Their preferred habitat is inland and coastal wetlands, although they are often absent from inland areas of the Western Cape (SANBI, 2015). These birds are partially migratory and avoid interaction with other species. However, breeding adults are relatively sedentary.</p> <p>Although the Screening Tool Report identifies the African Marsh Harrier as occurring on the site, it is largely over the centre of the site, which is a development (the Stikland Hospital) and on the western side of the site over the hospital grounds and a natural seasonal depression wetland. The wetlands on site have been mowed on regularly for a very long time and does not have any reeds nor bushes and are inundated seasonally. Therefore, it is unlikely that the African Marsh Harrier is present in this site due to high development and insufficient breeding grounds.</p>
Bird	<i>Circus maurus</i>	Endangered	<p>The Black Harrier (<i>Circus maurus</i>) is native to southern Africa and is regarded as endangered by IUCN. This species prefers cool, dry coastal and mountain fynbos, highland grasslands, open plains or Karoo subdesert habitats. Breeding usually occurs close to upland or coastal marshes in areas with reeds or shrubs.</p> <p>In the Western Cape, these birds are most abundant in coastal and montane fynbos. This species is partially migratory, with females migrating to higher elevations after breeding.</p> <p>Although the Screening Tool Report identifies the Black Harrier as occurring on the site, it is highly unlikely, as this site is not a mountainous area consisting of fynbos. Moreover, this site does not</p>

Type of animal	Species name	Species status	Explanation
			contain sufficient breeding grounds, such as reeds.
Invertebrate	<i>Pachysoma aesculapius</i>	Vulnerable	<p>The flightless beetle (<i>Pachysoma Aesculapius</i>) is native to the Western Cape, South Africa and is listed as vulnerable by the IUCN. This beetle is restricted to a small range of coastal sands in the southwest. This species is restricted to vegetated dunes, riverbanks and firm deep sand of coastal hummocks.</p> <p>It is unlikely that this beetle is present on the proposed site due to its preferred habitat, and because the site has been previously developed.</p>
Invertebrate	<i>Conocephalus peringueyi</i>	Vulnerable	<p>Peringuey's Meadow Katydid (<i>Conocephalus peringueyi</i>) is only known to be distributed in the mountainous area of the Southwestern Cape within the fynbos biome and is listed as vulnerable according to the IUCN. The main habitat type of this species is shrubland.</p> <p>This proposed site is not a mountainous area; therefore, this species is unlikely to inhabit the area.</p>
Invertebrate	<i>Bullacris obliqua</i>	Vulnerable	<p>The Bladder grasshopper (<i>Bullacris obliqua</i>) is endemic to the west coast of South Africa and occurs in the Northern Cape and Western Cape areas. This species is listed as vulnerable by the IUCN. This species is found in the fynbos biome, emerges seasonally and has a patchy distribution.</p> <p><i>Bullacris obliqua</i> is found in shrubs, with <i>Erioccephalus africanus</i> being the only confirmed host plant for this species.</p> <p>This type of vegetation is not present in the proposed site.</p>

4.3 Aquatic biodiversity

The screening tool report mapped the site as a low sensitivity for the aquatic biodiversity theme. A site visit and screening were conducted by an aquatic biodiversity specialist (EnviroSwift) in 2023, which noted the presence of several wetlands on the proposed site. The specialist highlighted that identifying wetlands on the proposed site was considered difficult given that the site is mowed regularly, which reduces the efficacy of using vegetation, a key determinant in wetland identification, as an informant. EnviroSwift recommended that a geotechnical survey be performed, as a deeper intrusive investigation would confirm whether an impermeable subsurface layer was

causing perched conditions and also assist with identifying hydromorphic soils and ultimately confirm the delineations indicated in the EnviroSwift Screening Report.

GEOSS was then appointed by ARG Design to undertake a wetland delineation study to verify the findings of the EnviroSwift Screening Report. GEOSS commissioned a hydrogeological study and wetland verification and delineation study, which were undertaken in 2024 by DSA and the Freshwater Consulting Group (FCG), respectively. The study confirmed that perching of the water table was a key hydrological driver of the wetlands on the site and that the wetland delineations presented by EnviroSwift (2023) were largely accurate. The wetland delineation presented by the FCG is considered the most accurate, given that it is based on a hydrogeological study and is accordingly used as a basis for the detailed ecological assessment. Seven wetlands were delineated; however, two were noted to have artificial origins and were not assessed.

The rating of **low sensitivity is disputed**; the site is **confirmed** to have **high aquatic sensitivity**, and as such, an aquatic assessment was undertaken.

4.4 Archaeological and Cultural Heritage Theme

The screening tool report mapped the site as low sensitivity for the archaeological and cultural heritage theme. A notification of intent to develop was submitted to HWC since the site constitutes activities listed in terms of section 38 of the National Heritage Resources Act, and the response confirmed that the development would impact on heritage resources. **A Heritage Impact Assessment was prepared and will be published for public participation with the BAR and will be submitted to HWC for their final comment.**

4.5 Civil aviation theme

The screening tool report mapped the site as high sensitivity for the civil aviation theme. The site is classified as having a high sensitivity due to being "within 15km of a civil aviation radar" and being "within 8 and 15km from a major civil aviation aerodrome". Although no further explanation is available, it is likely that if a high-rise development were constructed near an aerodrome, it may pose a risk to aircraft or inhibit the functionality of civil aviation radars. The proposed redevelopment will consist of a mixed-use area that does not include any tall structures above the maximum height of buildings in the area (45m above ground level). For this reason, **neither aircraft nor radar installations will be negatively affected as the maximum height of the development will be four storeys.**

4.6 Defence theme

The site is classified as having medium sensitivity due to its proximity to a military and defence site. The proposed site is located around 11km north of the Wentz forces military base and about 18km west of the SAS Wingfield. However, the proposed site and the bases are separated by various suburbs and developments. Therefore, it is highly unlikely that the proposed development will interfere with defence operations. **The medium sensitivity rating is disputed**, and the defence sensitivity is **confirmed to be nil. A compliance statement or a specialist study is not required.**

4.7 Palaeontology theme

The site is mapped as having a low sensitivity due to features with a low paleontological sensitivity. The screening tool does not provide the metadata indicating the reasons for such classifications.

Considering the fact that the site has undergone extensive disturbance for agriculture and for the development of the hospital, it is not feasible that there are any intact fossils in the area that would not have been destroyed or lost during previous activities. The rating of low sensitivity by the screening tool is confirmed.

4.8 Plant species theme

The site is classified as having a medium plant species sensitivity due to the presence of low to medium sensitivity vegetation. The site contains patches of critically endangered indigenous vegetation (i.e. remnants of Cape Flats Sand Fynbos and Swartland Shale Renosterveld) with at least five plant Species of Conservation Concern. The medium sensitivity rating by the screening tool is disputed as the site has high sensitive plant species. **A Botanical assessment was undertaken.**

4.9 Terrestrial biodiversity theme

The site is classified as having very high sensitivity due to Cape Flats Sand Fynbos (Endangered) and Swartland Shale Renosterveld (Critically endangered). Based on the ground-truthing by the botanical specialist, it can be confirmed that remnants of these vegetation types are present on site. The rating of very high sensitivity by screening tool is confirmed. **A Botanical assessment was undertaken.**

5 OTHER STUDIES IDENTIFIED IN THE SCREENING TOOL REPORT

Other specialist studies unrelated to the identified themes but listed in the screening tool report, included:

5.1 Landscape/visual impact assessment

A specialist landscape/visual impact assessment is identified in the Screening Tool Report as one of the studies required. A visual impact assessment will not be conducted as there is limited visual significance besides the mature trees and woodlot on site, most of which will be retained. A Landscape Master Plan (LFP) was prepared for the Stikland South development by Viridian Consulting (Pty) Ltd. The framework will provide guidance to the development process and includes comprehensive landscape guidelines. Key considerations of the LFP include preserving the botanical freshwater value of the environmental sensitive areas, integrating with the surrounding environment and the retention large mature trees as far as possible.

5.2 Socio-economic assessment

A socio-economic assessment was identified by the screening tool and as one of the studies required. A socio-economic study was undertaken.

5.3 Hydrology assessment

A hydrology assessment was identified as required by the screening tool. However, a hydrology assessment will not be conducted but a stormwater management plan is to be developed for the site likely during detailed design.

6 CONCLUSION

The site sensitivity verification is intended to confirm or refute the need to appoint and undertake specialist assessments as identified in the screening report.

Based on the findings of the site sensitivity verification for the proposed Stikland development, it is confirmed that the site has sensitivities in terms of:

- Aquatic biodiversity
- Plant Species
- Terrestrial Biodiversity
- Heritage

Specialist studies statements were therefore conducted as required for these aspects.