

ANNEXURE I 1: SITE SENSITIVITY VERIFICATION REPORT

SITE SENSITIVITY VERIFICATION REPORT FOR:

**THE PROPOSED DECOMMISSIONING OF AN
AQUACULTURE FACILITY ON FARM NO. 1259,
MALMESBURY DIVISION**

**SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS
REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE
ENVIRONMENTAL SENSITIVITY**

EIA Reference number: 16/3/3/1/F4/15/3018/26

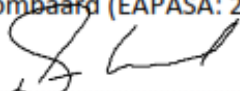
Project name: DECOMMISSIONING OF THE AQUACULTURE FACILITY AND REUSE OF BUILDINGS
ON A PORTION OF FARM 1259, MALMESBURY (PATERNOSTER)

Project title: BASIC ASSESSMENT REPORT

Date screening report generated: 12/05/2026 06:20:07

Applicant: PATERNOSTER GROEPBELANGE LTD

Compiler: Dupré Lombaard (EAPASA: 2019/304) for Viridus Works Environmental (Pty) Ltd

Compiler signature: 
.....

Application Category: Agriculture_Forestry_Fisheries|Aquaculture|Marine|Indigenous

Report terms of the Protocols for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes (Government Notice No. 320 of 20 March 2020).

Western Cape Department of Environmental Affairs and Development Planning Reference:
16/3/3/1/F4/15/3018/26

06 July 2026

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SITE SENSITIVITY VERIFICATION REPORT FOR: THE PROPOSED DECOMMISSIONING OF AN AQUACULTURE FACILITY ON FARM NO. 1259, MALMESBURY DIVISION SG Code: C04600000000125900000 / Location: Lat: 32° 48' 25.295" S Lon: 17° 53' 0.29" E	
<u>Applicant:</u> Paternoster Groepbelange Ltd Reg. No. 1984/009223/06 Represented by: Mr JF Pienaar Telephone: +27 22 752 2616 / +27 82 340 9294 E-mail: kobus@paternostergroep.co.za Address: 1 Kreeftegang, Paternoster, 7381	<u>EAP:</u> Virdus Works Environmental (Pty) Ltd Reg. No. 2019/133896/07 Represented by: Mr Dupré Lombaard SACPLAN: B/8076/1998 // EAPASA: 2019/304 Mobile: +27 82 895 6362 E-mail: dupre.lombaard@virdus.com Address: 11 Elektron Street, Techno Park, Stellenbosch, 7600

1. INTRODUCTION

The proposed decommissioning¹ of an existing aquaculture facility on Farm 1259, Malmesbury RD to allow for the future rezoning of the property from Industrial Zone I to Business Zone I and reuse of the vacated buildings for mixed-use business and residential accommodation purposes complementary of the abutting waterfront development on Erf 2063, Paternoster requires Environmental Authorisation (EA).

The Minister of Forestry, Fisheries and the Environment (DFFE) published Regulations Laying Down the Procedure to be Followed for the Adoption of Spatial Tools or Environmental Management Instruments, in Government Notice No. 542 of 5 April 2019 in terms of the National Environmental Management Act, 1998, Act 107 of 1998 (NEMA). In terms thereof, prior to making any application for activities listed in terms of the Environmental Impact Assessment (EIA) Regulations, 2014 or undertaking any assessment of a subject site, the environmental sensitivities of the site have to be determined by the use of the environmental screening tool. Such screening report has been prepared for the decommissioning of the aquaculture facility on a 1,21 ha portion of Farm 1259, which has an area of 3,12 ha.

The Minister further published requirements for undertaking of site sensitivity assessments and verification thereof where environmental authorisation is required in terms of NEMA EIA Regulations. In terms of the Site Sensitivity Verification Requirements where a Specialist Assessment is Required but no Specific Assessment Protocol has been Prescribed, the current land use and environmental sensitivity of the subject site must be confirmed by a site sensitivity verification. The Assessment Protocol determines that where any part of the site is indicated as having a "high" or "very high" sensitivity, the requirements prescribed for such sensitivity must be followed, unless the site sensitivity verification report (SSVR) can show that the required specialist assessment is not required.

¹ **"decommissioning"** means to take out of active service permanently or dismantle partly or wholly, or closure of a facility to the extent that it cannot be readily re-commissioned; Environmental Impact Assessment Regulations Listing Notice 1 of 2014 as amended.

In terms of the Protocol, the appointed independent environmental assessment practitioner (EAP) may prepare the SSVR, as is presented herewith.

1.1 Details of the EAP

Virdus Works Environmental (Pty) Ltd, Reg No. 2019/133896/07 assigned the project to Dupré Lombaard as registered EAP and planner (EAPASA 2019/304 / SACPLAN B/8076/1998) following appointment by the Paternoster Group. Dupré Lombaard has been in environmental practice since 2000. Since then, he has prepared and submitted many environmental authorisation applications and undertaken assessment and management processes.

Education and training

- M.Sc. (Earth Sciences), 2000 – 2002 (cum laude) - University of the Western Cape. Focus on Fluvial Geomorphology, Hydrogeology, GIS, and Environmental Law.
- M.A. (Geography), 1985 – 1989 - University of the Orange Free State. Research in Urban Geography.
- Honns. B.A. (Geography), 1981 – 1982 - University of South Africa.
- B.Mil. (Economics and Geography), 1978 – 1980 - Military Academy (Faculty of Military Science, University of Stellenbosch).

Other certified training courses

- Introduction to nature conservation, 1979 - Cape Provincial Administration.
- Transport and traffic engineering, 1991- SA Institute for Town and Regional Planners.
- Project Management for Environmental Managers, 2009 - University of the Free State.
- Integrated Water Resource Management, 2010 - University of the Western Cape.
- Accredited Green Building Professional, 2010 – Green Building Council of South Africa.
- SAMTRAC (SHEQ), 2010 - National Occupational Safety Association.
- Municipal Minimum Competency Training, 2014 - University of Stellenbosch.
- Commercial Mediation, 2016 - University of Cape Town.

Membership of professional and registration bodies

- Registered Planner - SA Council for Town and Regional Planners since 1998 (B/8076/1998).
- Registered Environmental Assessment Practitioner - Environmental Assessment Practitioners Association of South Africa since 2021 (2019/304).
- Member of IAIA SA since 2001 (member 1060).

1.2 Details of the site

The site is a part of Remainder Farm 1259, Malmesbury RD in Paternoster. It forms a part of the larger waterfront area (Erf 2063) with access off Kreeftegang. It was until recently used for aquaculture purposes (fish farming and crayfish holding), currently only for crayfish holding tanks. The farm has an area of 3,12ha. The

existing buildings and aquaculture facilities on the site are in buildings with a combined floor area of approximately 4 200m² and cover an area of roughly 1,2ha.

Site locality: SG Code: C04600000000125900000 / Location: Lat: 32° 48' 25.295" S
| Lon: 17° 53' 0.29" E.



Figure 1: Farm 1259 locality

The facility consists of large concrete buildings with asbestos-cement roofs. The crayfish factory was built in the early 1900's. When the Paternoster Visserye company was established in the early 1960's it took over the factory and in the mid 1980's the company established the aquaculture (fish farming) activities. The aquaculture activities remained in full operation until its closure in 2019.

To process the crayfish, they have to be kept alive in tanks filled with sea water from delivery to packing. Inside the building there are twenty concrete tanks (2m² and 1m deep) holding 40m³ of fresh sea water. Water is extracted from the sea on the Bekbaai (western) side of the facility and pumped into the tanks and flows back into the sea under gravity. When crayfish is held in the tanks, fresh sea water is constantly pumped into the tanks. In this way several thousand crayfish can be kept alive for a week or more to be purged and exported live.

Some of the buildings are under-utilised and only partially used for aquaculture (crayfish holding) purposes. The fish farming aquaculture facility was not sustainable and led to the cessation of activities in 2019. This, combined with continual crayfish quota reductions has led to a more compact operation and

building use, requiring less space and the need to reconfigure and better utilise the existing buildings and infrastructure.



Figure 2: Farm 1259 decommissioning site locality

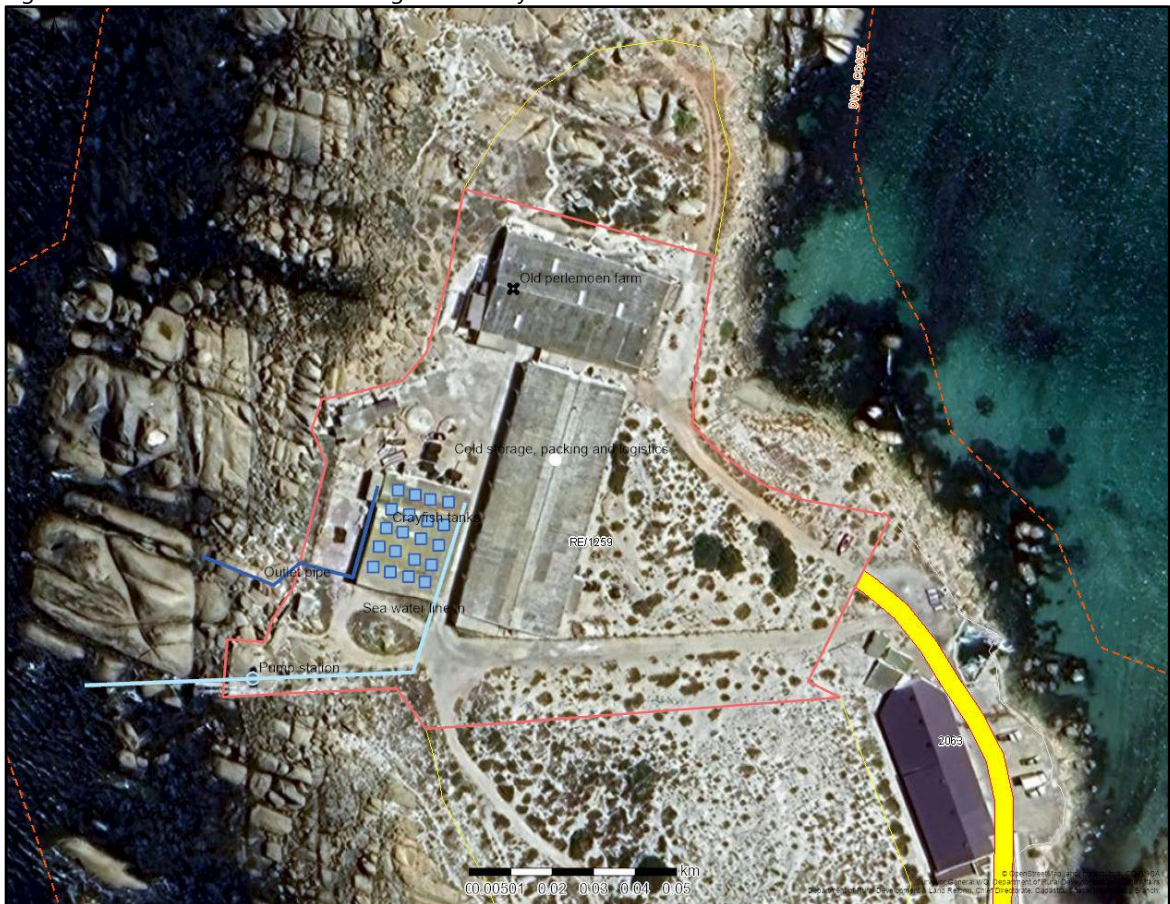


Figure 3: Farm 1259 aquaculture setup

The proposal is to convert the existing under-utilised buildings that are large warehouse type structures, to contain 11 flats (apartments) at ground level. A laundry to service the waterfront, recreational facilities, and an upgrade of the surrounding area with parking and landscaping are also planned for the under-utilised buildings and the transformed area of the site. The majority of the building conversions will occur internally, but the facades will also change, with new doors and windows inserted to the walls of the existing building to fit the internal alterations. One building containing the crayfish tanks will be retained as an operational and exhibition area and used as an attraction. The conversions will occur over time and a smaller more compact aquaculture facility with a maximum capacity of 10 000kg wet weight per annum and related product stores will be retained for the time being.

The existing access, parking and loading areas, municipal and other services infrastructure will be retained and improved. The existing labourers' accommodation, laboratories, store rooms, and offices on the site are proposed for upgrading and accommodation purposes. Access will, for the time being, remain through the existing waterfront on the registered access servitude using the existing roads.

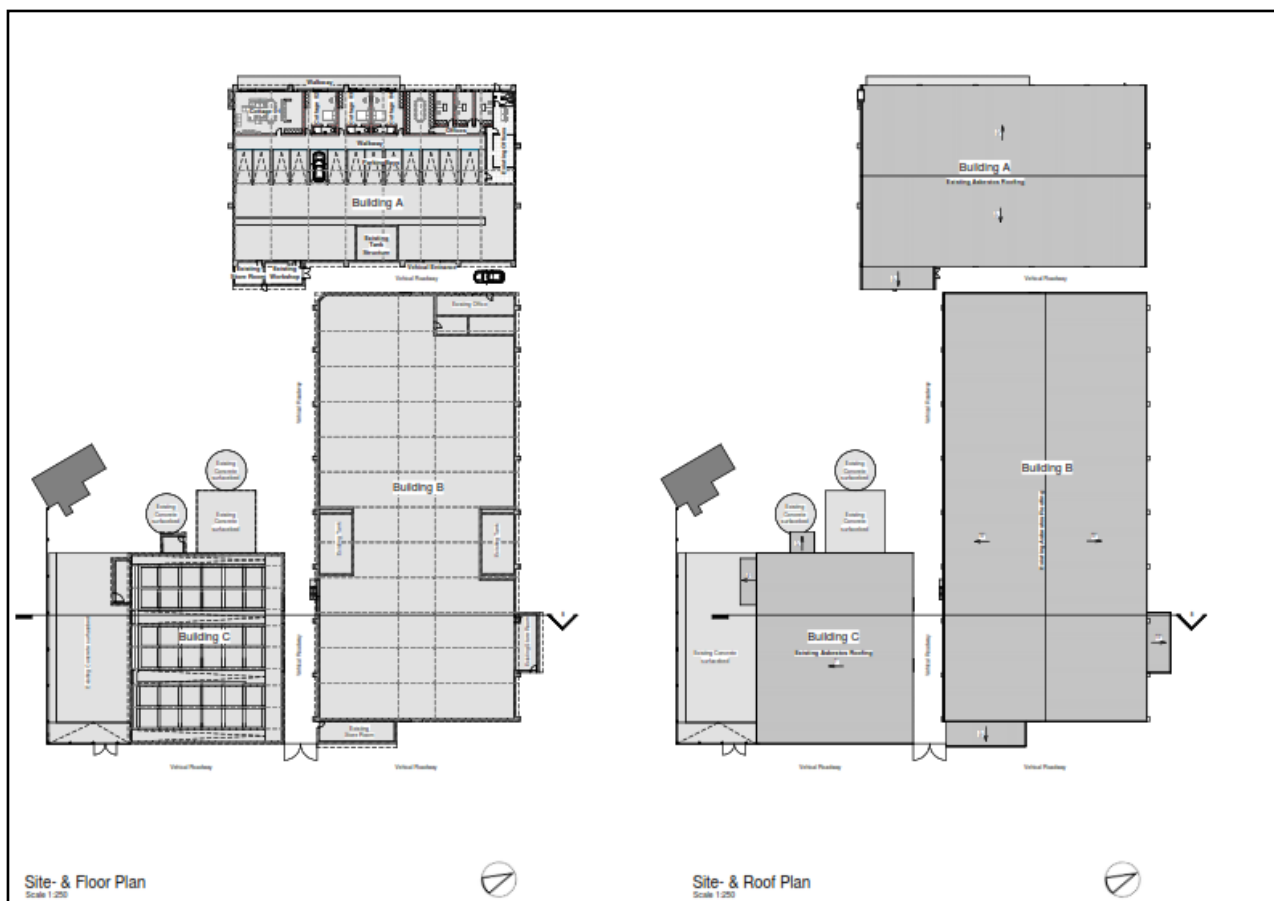


Figure 4: Site development plan

1.3 Screening report details of the site

The site screening report returned the following outcome:

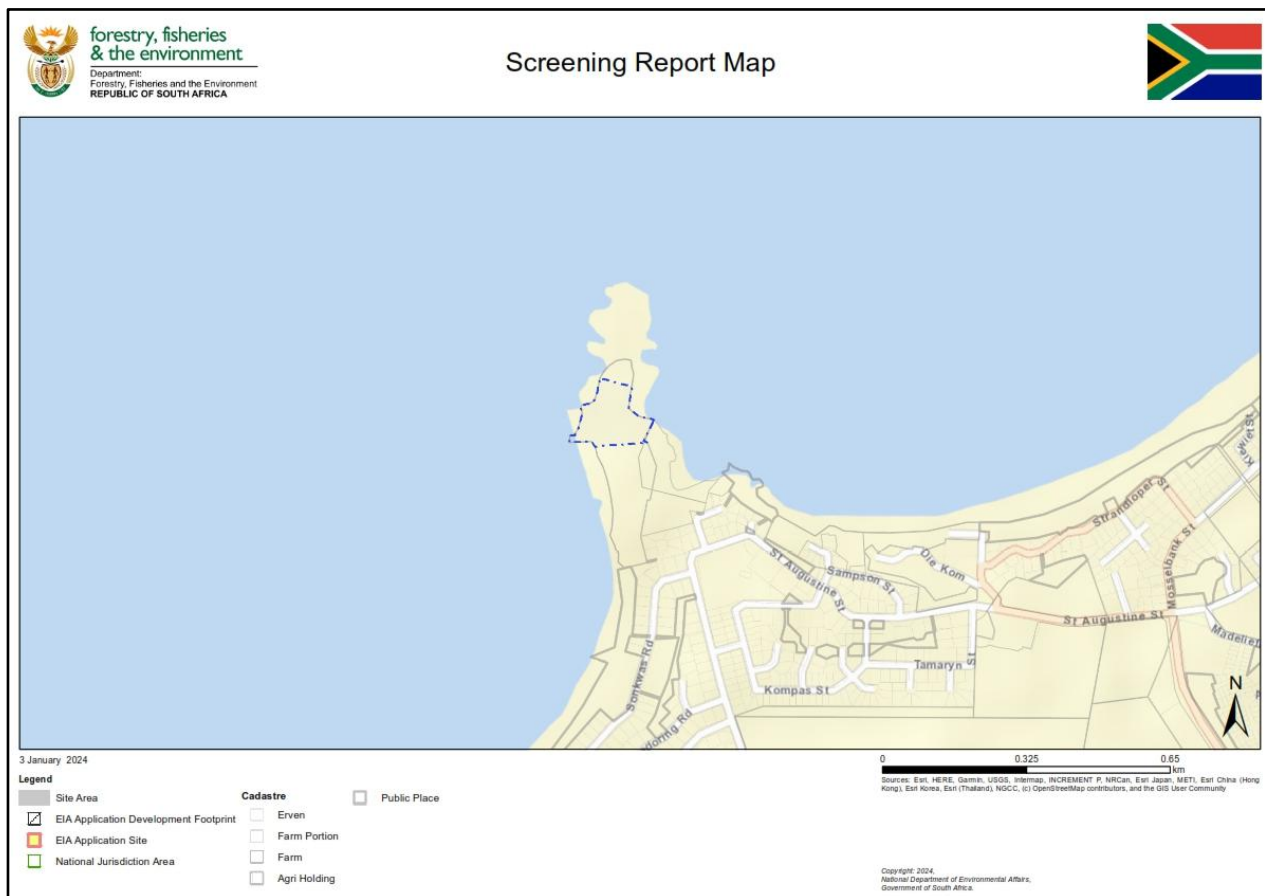


Figure 5: Site screening report map

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very high sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Animal Species Theme				X
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme	X			
Civil Aviation Theme		X		
Defence Theme				X
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Based on the selected classification, and the known impacts associated with the proposed development, 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 study including the provision of photographic evidence of the site situation.

1.3.1 Marine Impact Assessment; and

1.3.2 Socio-economic Assessment.

2. SITE VERIFICATION

2.1 Specialist assessment

The Biodiversity Company, an independent consultant with specialists registered in accordance with the requirements of the South African Council for Natural Scientific Professions, conducted site sensitivity assessments in accordance with the amendments to the Environmental Impact Assessment Regulations (2014) (GNR 326, 7 April 2017) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). The approach has taken cognisance of the recently published Government Notices (GN) 320 (20 March 2020) and GN 1150 (30 October 2020) in terms of NEMA, dated 20 March and 30 October 2020: "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, when applying for Environmental Authorisation" (Reporting Criteria).

The relevant reports are annexed hereto in the place of the previous reports by Nicolaas Hanekom and should inform and guide decision making with regard to the ecological viability of the proposed development and related activities.

The site sensitivity verification assessments (compliance statements) confirm that the site has been significantly altered and that the terrestrial biodiversity for site should be assigned a 'Very Low' **Terrestrial Theme Sensitivity** for the Irreversibly Modified habitat and a 'Low' Terrestrial Theme Sensitivity for the Disturbed Strandveld habitat type.

The **Animal Species Theme** sensitivity for the site was allocated as 'Low' by the National Environmental Screening Tool, and this was subsequently reviewed through field verification. The Irreversibly Modified habitat is assigned a 'Very Low' Animal Species Theme sensitivity, while the Disturbed Strandveld is assigned a 'Low' Animal Species Theme sensitivity. One (1) avifauna SCC was observed outside the Site. The Crowned Cormorant (*Microcarbo coronatus*) was observed on the boulders outside the site, and the proposed decommissioning of the Aquaculture Facility is not expected to have a significant impact on the species.

The **Plant Species Theme** sensitivity is 'Medium' for the site as allocated by the National Environmental Screening Tool, which was disputed for both habitats. The Irreversibly Modified habitat is assigned a 'Very Low' Plant Species Theme sensitivity, while the Disturbed Strandveld is assigned a 'Low' Plant Species Theme sensitivity. Two (2) flora SCC were observed in the ornamental gardens within the Irreversibly Modified habitat; *Aloe distans* (VU) and *Aloe thraskii* (NT). These species however were introduced to the site for ornamental purposes.

The site overlaps with the EN Langebaan Dune Strandveld vegetation type. However, due to the Site largely consisting of existing infrastructure and being in an irreversibly modified and disturbed state, it no longer represents the EN

Langebaan Dune Strandveld vegetation type. Similarly, the site overlaps with the Cape West Coast Biosphere Reserve, but due to the existing infrastructure and irreversibly modified state of the Site, the proposed activities is not expected to have a significant impact on the receiving environment.

2.2 Aquatic Biodiversity Theme

The Biodiversity Company also assessed the aquatic biodiversity theme and confirms that the decommissioning of the facility and the change in use within the transformed site will have no effect on the aquatic environment. No water resources occur on or near the site. It is also unlikely that groundwater resources would be affected, given the site locality on the peninsula.

It is the opinion of the specialist that the project can be favourably considered and is not subject to any conditions given the absence of natural freshwater watercourse within 500 m of the site and the development within an already developed and disturbed footprint.

2.3 Marine Theme

No rating is given to the Marine Theme in the Screening Report, yet it determines that a specialist assessment should be undertaken.

In view of the Screening Report finding the Biodiversity Company assessed the Marine Theme with due consideration of the envisaged reduction in the volume of pumped sea water and the need to obtain more certainty regarding the potential risks relating to the marine environment. According to the desktop analysis, field observations, and acquired knowledge the specialist finds that the marine environment is not pristine, the expected reduction in impact from the downsizing of the facility and with reference to the verified aquatic and terrestrial sensitivities, the marine sensitivity of the site is determined to be Low. This rating reflects the absence of critical marine habitats, the typical nature of West Coast rocky shore ecosystems present, and the net reduction in marine impacts resulting from facility decommissioning.

It is the opinion of the specialist that the project can be favourably considered as the main marine-related risks associated with the proposed activity are expected to relate to decommissioning and construction-phase disturbance, including the potential for accidental spills, inappropriate waste handling, contaminated stormwater runoff, and short-term localised effects on marine water quality.

2.4 Archaeological and Cultural Heritage Theme

Rating: Very High.

Agreement with the rating in general but **recommended that it be medium or low** in view of the existing buildings and transformation of the land.

The site is covered by more than 4 200m² of buildings and it is completely transformed and used for industrial (aquaculture) purposes. The decommissioning

occurs inside of the existing buildings and no change to the buildings is recommended. Nonetheless, the surrounding area is rich in cultural heritage, as shell middens and other artefacts are often found in the immediate vicinity. The site is also located within 2km of a Grade II Heritage site.

Heritage Western Cape has issued a permit and agrees with the lower rating.

2.5 Civil Aviation Theme

Rating: High.

Disagree with the rating. It is **recommended that it be negligible or very low** in view of the existing use and distance to any civil aviation infrastructure.

There are no landing strips or airfields within 15km of the site. The nearest airfield, located between Vredenburg and Saldanha, has a runway oriented north-south and it does not align towards the site. The Langebaan Air Force Base and Flying School airfield is even further away, and its runways likewise do not align to the site.

2.6 Defence Theme

Rating: Low.

Agreement with the rating in general. It is **recommended that it be negligible or very low** in view of the existing use and distance to any defence infrastructure.

The site is not located close to any national key point, or strategic infrastructure and the intended use thereof does not pose a threat to national security.

3. SPECIALIST STUDIES REQUIRED

3.1 Marine Impact Assessment

The requirement for a specialist study is based on the standard screening tool assumption (algorithm) that a development will occur, i.e., some form of transformation and higher intensity of use, i.e., increased potential for impact. The screening tool does not allow for specification of a decommissioning, i.e., a reduction in the activity related to the marine environment and a decrease in the potential impact.

The site photograph below shows the existing seawater pump (inlet) system on the left, the gravity return flow chamber in the centre with the crayfish holding facility on the right. This facility will be retained with a maximum throughput capacity of 10 000kg wet weight per annum that is below the listed activity threshold, hence the decommissioning application. The facility previously functioned with a wet weight throughput of more than 60 000kg wet weight. The existing infrastructure of the previous trout farm was converted and used for the subsequent abalone farm as recorded in AN 229/25/4 Erf 26 dated 19 June 2001. It was then recorded that the property had been used as a trout breeding farm for years and that the

infrastructure already exists on the terrain. Moreover, the impact from the effluent discharge into the sea, was screened and monitored from by the competent authorities, none of which returned negative effects.



Seawater is currently pumped through the crayfish holding tanks at a rate of approximately 40m³ per hour (11l/s) through 120mm pipes when the tanks are in use during the permitted crayfish season. The inlet and outlet systems are installed on the subject property while the inlet and outlet pipes occur on the coastal public property. The system in its current state will be retained for as long as the crayfish quotas or other rational use reasons justify it.

The sea water pumped into, circulated through the facility, and released back into the sea has reduced by more or less by 80% since cessation of the fish farming and abalone operations. This reduction is already effective, as the total volume of crayfish kept in the facility is already less than 10% of the capacity of the original facility due to the lowering in the quotas for harvesting crayfish and the disuse of the fish farming facility.

A marine impact assessment will therefore not be undertaken, as the outcome of the EA is a predictable lowering of any potential impact.

3.2 Socio-economic Assessment

A socio-economic assessment was prepared for the original application, assessing the effects of the outcome of the decommissioning, namely the redevelopment of the site as a tourist facility. This specialist assessment has been updated to consider the smaller scale project relevant to the reuse of the existing buildings only.

As above, the screening tool algorithms are set up for increased activity and potential impacts, not for reduction. It is obvious that the decommissioning will theoretically result in a lower economic benefit for the local community, but in this instance it is not caused by the decommissioning. The cause of the decline in economic benefit is the decline in the crayfish resource, the allowable catch (quota) and the unsustainability of the fish farming operations..

The socio-economic impact assessment will form part of the basic assessment process.

3.3 Archaeological and Cultural Heritage Impact Assessment

Due to the provisions of Section 38 of the National Heritage Resources Act, 1999, Act 25 of 1999, authorisation is required for the redevelopment of the site due to the rezoning of more than 10 000m² from an industrial zone to a business zone. The requirement for the authorisation application is a heritage permit, which is not required in terms of the screening tool but has already been obtained from Heritage Western Cape as the competent authority. HWC thus agreed that the site sensitivity from heritage perspective is very low to negligible.

4. CONCLUSION

In view of the above, only one specialist assessment is recommended for the basic assessment process. The recommended specialist assessment is not of relevance to the authorisation application (decommissioning) but to the use of the property for short stay holiday accommodation once the site has been decommissioned and the buildings renovated.

There are valid reasons for not undertaking the recommended marine impact assessment and it is recommended that its exclusion be accepted by the competent authority.



**PROPOSED DECOMMISSIONING OF AN
AQUACULTURE FACILITY AND SUBSEQUENT
MIXED-USE REDEVELOPMENT ON A PORTION OF
THE FARM NO. 1259 COMPLIANCE STATEMENT:**

Plant Species Theme

Animal Species Theme

Biodiversity Theme

**Saldanha Bay Local Municipality, West Coast
District Municipality, Western Cape Province,
South Africa**

03/06/2026

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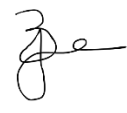
Report Name	PROPOSED DECOMMISSIONING OF AN AQUACULTURE FACILITY AND SUBSEQUENT MIXED-USE REDEVELOPMENT ON A PORTION OF THE FARM NO. 1259 COMPLIANCE STATEMENT:	
Specialist Theme	Terrestrial Biodiversity, Plant and Animal Theme	
Project Reference	Aquaculture Facility Decommissioning	
Report Version	Draft 1 / 2026-06-17	
Environmental Assessment Practitioner		
Responsible Specialist	Dr Candyce Areington (Pr. Sci. Nat. 167868)	
	Wesley Black (Pr. Sci. Nat. 147190)	
Technical Support	Grietjie Stander (Cert. Sci. Nat. 162039)	
	Brittney Jamieson (Cand. Sci. Nat. 178794)	
Declaration	The Biodiversity Company and its associates operate as independent consultants under the auspice of the South African Council for Natural Scientific Professions. We declare that we have no affiliation with or vested financial interests in the proponent, other than for work performed under the Environmental Impact Assessment Regulations, 2017. We have no conflicting interests in the undertaking of this activity and have no interests in secondary developments resulting from the authorisation of this project. We have no vested interest in the project, other than to provide a professional service within the constraints of the project (timing, time and budget) based on the principals of science.	

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1 Introduction

1.1 Background

The Biodiversity Company was appointed by Viridus Works Environmental (Pty) Ltd to undertake a terrestrial biodiversity assessment for the proposed decommissioning of an existing aquaculture facility on the Remainder of Farm 1259, Malmesbury Road, Paternoster, Saldanha Bay Local Municipality, West Coast District Municipality, Western Cape Province (Figure 1-1). The area assessed (Project Area) is based on the layout provided by the client and is illustrated in Figure 1-2.

To determine the baseline ecological state of the assessed area and to present a detailed description of the receiving environment, a desktop assessment and field survey (conducted on the 14th of May 2026) were completed in tandem. Both the desktop assessment and field survey involved the detection, identification, and description of any locally relevant sensitive receptors. The potential risks that the proposed development would have on the sensitive features were also investigated.

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment Regulations, 2014 (No. 326, 7 April 2017) of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998). The approach has taken cognisance of the recently published Government Notice 320 in terms of NEMA dated 20 March 2020 as well as the Government Notice 1150 in terms of NEMA dated 30 October 2020: "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, when applying for Environmental Authorisation." The National Web based Environmental Screening Tool has characterised the terrestrial theme sensitivity of the Project Area as follows:

- Terrestrial Biodiversity Theme sensitivity – Very High;
- Plant Species Theme sensitivity – Medium; and
- Animal Species Theme sensitivity – Low.

The purpose of conducting the specialist study is to provide relevant input into the Environmental Authorisation application process, with a focus on the proposed activities and the impacts associated with the project. This report, after taking into consideration the findings and recommendations provided by the specialist stipulated herein, should inform and guide the Registered Environmental Assessment Practitioner (EAP) and regulatory authorities, enabling informed decision making as to the ecological viability of the proposed project.

Based on the findings of the specialist, the environmental themes listed above are presented as a **joint environmental compliance statement**.

Aquaculture Facility Decommissioning

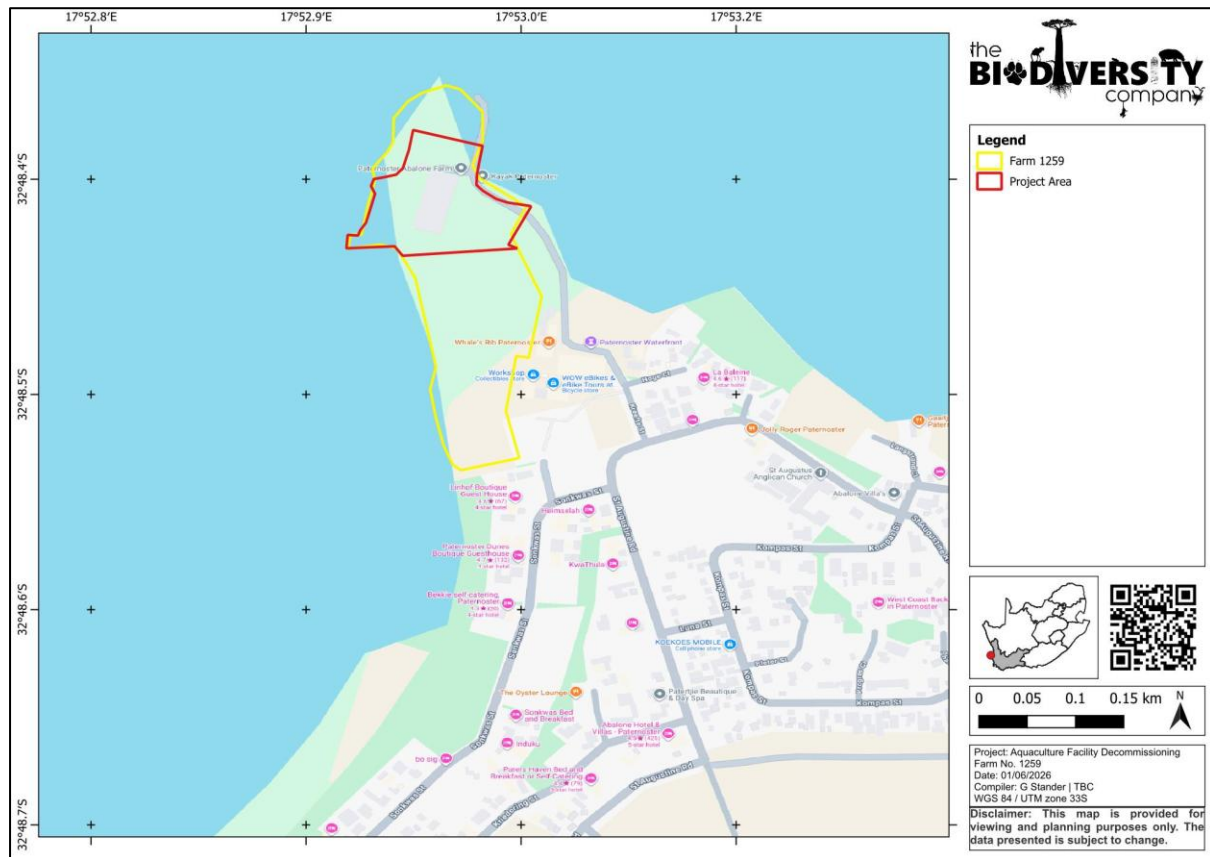


Figure 1-1 Map illustrating the regional context of the project

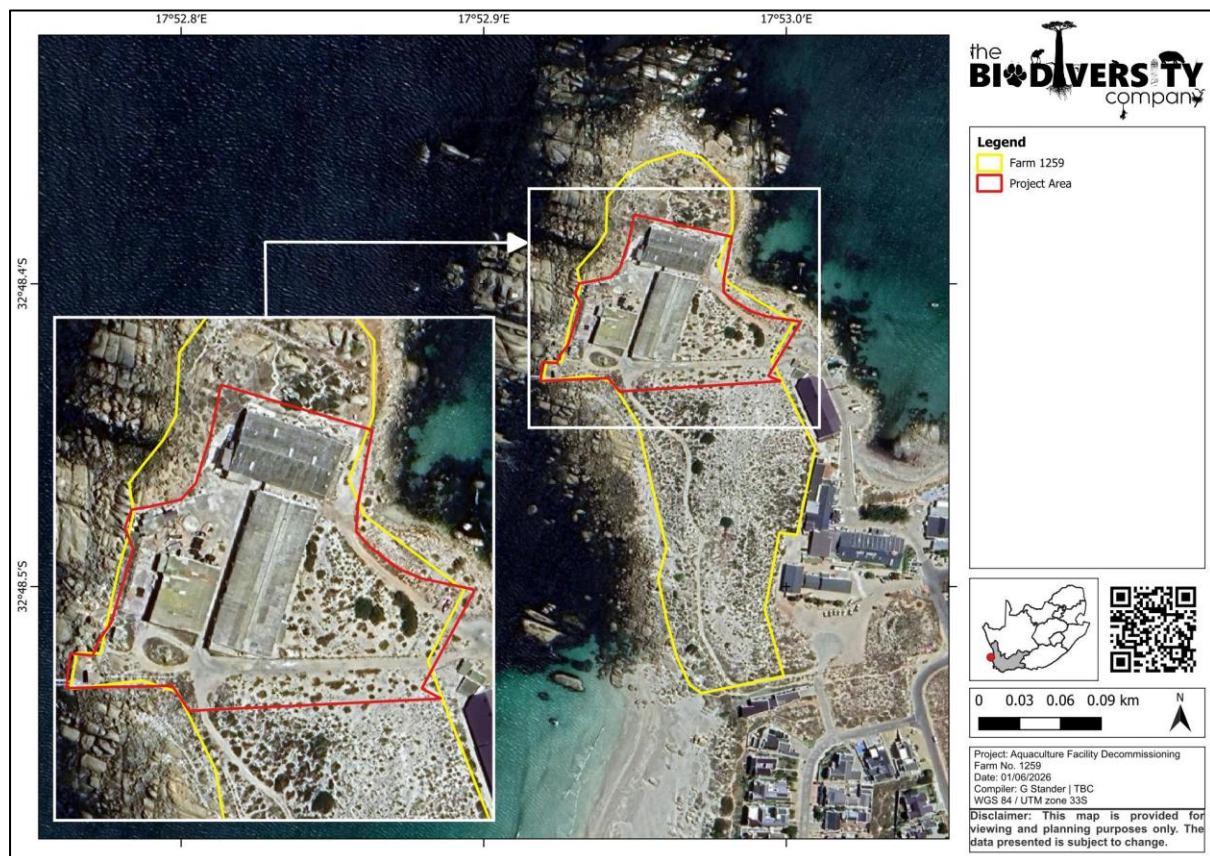


Figure 1-2 Map depicting the Project Area

1.2 Project Description

The following information pertains to the project details as provided by Virdus Works Environmental (Pty) Ltd (2026).

The proposed project entails the decommissioning of the existing aquaculture facility on Farm 1259, Malmesbury Road, to support the future rezoning of the property from Industrial Zone I to Business Zone I. The vacated buildings would then be repurposed for mixed-use business and residential accommodation, complementary to the adjacent waterfront development on Erf 2063. Figure 1-3 illustrates the Aquaculture Facilities site to be decommissioned as provided by Virdus Works Environmental (Pty) Ltd (2026).

The site is a part of Remainder Farm 1259, Malmesbury Road in Paternoster. It forms a part of the larger waterfront area (Erf 2063) with access off Kreeftegang. Until recently, it was used for aquaculture purposes, including fish farming and crayfish holding; it is now used only for crayfish holding tanks. The farm has an area of 3.12 ha. The existing buildings and aquaculture facilities on the site are in buildings with a combined floor area of approximately 4 200 m² and cover an area of roughly 1.2 ha.

The facility consists of large concrete buildings with asbestos-cement roofs. The crayfish factory was built in the early 1900's. When the Paternoster Visserye company was established in the early 1960's it took over the factory and in the mid 1980's the company established the aquaculture (fish farming) activities. The aquaculture activities remained in full operation until its closure in 2019.

To process the crayfish, they have to be kept alive in tanks filled with sea water from delivery to packing. Inside the building there are twenty concrete tanks (2 m² and 1 m deep) holding 40 m³ of fresh sea water. Water is extracted from the sea on the Bekbaai (western) side of the facility and pumped into the tanks and flows back into the sea under gravity. When crayfish is held in the tanks, fresh sea water is constantly pumped into the tanks. In this way several thousand crayfish can be kept alive for a week or more to be purged and exported live.

Some of the buildings are under-utilised and only partially used for aquaculture (crayfish holding) purposes. The fish farming aquaculture facility was not sustainable and led to the cessation of activities in 2019. This, combined with continual crayfish quota reductions has led to a more compact operation and building use, requiring less space and the need to reconfigure and better utilise the existing buildings and infrastructure. The vacated building space can be better utilised to complement the waterfront development. The buildings are all connected to the municipal services infrastructure and are accessed via a servitude road through the existing waterfront on Erf 2063.



Figure 1-3 Map illustrating the Project Area as provided by Viridus Works Environmental (Pty) Ltd (2026).

1.3 Scope of Work

The aim of the biodiversity assessment was to provide information to guide the risk of the proposed development on the current state of the associated ecosystems of the area to be decommissioned; Aquaculture Facility site. The biodiversity assessment culminates in the compilation of a combined Compliance Statement (this report) which covers the terrestrial biodiversity, plant species and animal species themes in accordance with the *Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes*.

This was achieved through the following:

- Desktop assessment to identify the ecologically important terrestrial features within the Project Area;
- Desktop assessment to identify possible Species of Conservation Concern (SCC) that may occur within the Project Area;
- Field survey to identify and record flora and fauna species, (especially SCC) within the Project Area;
- Determine the Site Ecological Importance (SEI) - also commonly referred to as the sensitivity – of the Project Area; and
- The prescription of mitigation measures for identified risks associated with the proposed decommissioning.

1.4 Assumptions and Limitations

The following assumptions and limitations are applicable for this assessment:

- It is assumed that all information received from the client and landowner is accurate;

- All datasets accessed and utilised for this assessment are considered to be representative of the most recent and suitable data for the intended purposes;
- The assessment area (Project Area) was based on the footprint area as provided for by the EAP, and any alterations to the area and/or missing Global Information System (GIS) information pertaining to the assessment area would have affected the area surveyed and hence the results of this assessment;
- A single site survey conducted on the 14th of May 2026 constituting a late summer (early wet season) survey. Therefore, this assessment does not consider temporal/seasonal trends. It is possible that owing to the seasonal constraints stipulated that certain flora species were undetected during the field survey. However, owing to the largely modified and disturbed state of the receiving environment, this is unlikely and the site survey is deemed sufficient to derive a meaningful baseline;
- Whilst every effort was made to cover as much of the assessment area (Project Area) as possible within time limitations, sufficient representative sampling was completed. Consequently, it is possible that some fauna and flora species present within the assessment area (Project Area) may have not been recorded during the field survey. However, the site survey is deemed sufficient to derive a meaningful baseline; and
- The Global Positioning System (GPS) used in the assessment has an accuracy of 5 m.

1.5 Legislative Framework

1.5.1 Terrestrial Biodiversity

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial biodiversity, as per Government Notice 320 published in terms of NEMA, dated 20 March 2020: “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, when applying for Environmental Authorisation” – section 3, subsection 1:

- An applicant intending to undertake an activity identified in the scope of the protocol, on a site identified by The Screening Tool as being of a ‘Very High’ terrestrial biodiversity sensitivity, is required to submit a Terrestrial Biodiversity Specialist Assessment; however
- Where the information gathered from the site sensitivity verification differs from the designation of ‘Very High’ terrestrial biodiversity sensitivity on the screening tool and is instead found to be of a ‘Low’ sensitivity, then a Terrestrial Biodiversity Compliance Statement must be submitted.

The information obtained from a site sensitivity verification, which involved both a desktop assessment as well as a field survey, confirmed that the proposed development footprint is of an overall ‘Low’ and ‘Very Low’ terrestrial sensitivity. These findings dispute the sensitivities from the DFFE screening tool report. Therefore, this report constitutes a Terrestrial Biodiversity Compliance Statement.

1.5.2 Animal Species Theme

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial animal species, as per Government Notice 1150 published in terms of NEMA, dated 30 October 2020: “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, when applying for Environmental Authorisation” – section 3, subsection 1:

- An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of 'Low' sensitivity for terrestrial animal species must submit a Terrestrial Animal Species Compliance Statement.

The information obtained from a site sensitivity verification, which involved both a desktop assessment as well as a field survey, confirmed that the proposed development footprint is of an overall 'Very Low' and 'Low' Animal Species Theme sensitivity with no SCC recorded within the Project Area during the field survey and presence within the Project Area being unlikely. These findings validate the sensitivities from the DFFE screening tool report. Therefore, this report constitutes a Terrestrial Animal Species Compliance Statement.

1.5.3 Plant Species Theme

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial animal species, as per Government Notice 1150 published in terms of NEMA, dated 30 October 2020: "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, when applying for Environmental Authorisation" – section 3, subsection 1:

- An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of 'Medium sensitivity' for terrestrial plant species, must submit either a Terrestrial Plant Species Specialist Assessment Report or a Terrestrial Plant Species Compliance Statement, depending on the outcome of a site inspection undertaken in accordance with paragraph 4, which states:
 - Where no SCC are found on site during the investigation or if the presence is confirmed to be unlikely, a Terrestrial Plant Species Compliance Statement must be submitted.

The information obtained from a site sensitivity verification, which involved both a desktop assessment as well as a field survey, confirmed that the proposed development footprint is of an overall 'Very Low' and 'Low' plant Species Theme sensitivity with no SCC recorded during the field survey and presence within the Project Area being unlikely. These findings dispute the sensitivities from the DFFE screening tool report. Therefore, this report constitutes a Plant Species Compliance Statement.

1.6 Report Requirements

As per sections 2 and 3 of the protocols discussed above (section 1.5), the required information which need to be included in a Terrestrial Biodiversity Compliance Statement, Animal Species Compliance Statement and Plant Species Compliance Statement is listed in Table 1-1 to Table 1-3 below.

1.6.1 Terrestrial Biodiversity

Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report are listed in Table 1-1 below.

Table 1-1 *Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.*

Information to be Included (as per GN 320, 20 March 2020)	Report Section
Methodology used to undertake the site assessment and survey, and prepare the compliance statement, including relevant equipment and modelling used	7.1
Description of the assumptions and any uncertainties or gaps in knowledge or data	1.4
A baseline profile description of biodiversity and ecosystems of the site	3.3
Site sensitivity verification: Desktop Analysis using satellite imagery and available information	3.1
A statement on the duration, date, and season of the site inspection	2.1

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Site sensitivity verification: Onsite inspection, including a description of current land use and vegetation found on-site	3.6
Site sensitivity verification: Photographs/evidence of environmental sensitivity	3.6
Screening tool confirmation/dispute: The assessment must verify the "Low" sensitivity of the site, in terms of plant, animal, and terrestrial biodiversity themes	3.6.1
Proposed impact management outcomes or monitoring requirements for inclusion in the EMPr	0
Indicate whether the proposed development will have any impact on the terrestrial environment, animals and/or plants	0
A signed statement of independence by the specialist	7.3
Specialist details, including a CV	7.4

A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

1.6.2 Animal Species Theme

Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report are listed in Table 1-2 below.

Table 1-2 *Animal Species Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.*

Information to be Included (as per GN 320, 30 October 2020)	Report Section
Methodology used to undertake the site assessment and survey, and prepare the compliance statement, including relevant equipment and modelling used	7.1
Description of the assumptions and any uncertainties or gaps in knowledge or data	1.4
A baseline profile description of biodiversity and ecosystems of the site	3.1
Site sensitivity verification: Desktop Analysis using satellite imagery and available information	3.1 and 3.2
A statement on the duration, date, and season of the site inspection	2.1
Site sensitivity verification: Onsite inspection, including a description of current land use and vegetation found on-site	3.5 and 3.6
Site sensitivity verification: Photographs/evidence of environmental sensitivity	3.5 and 3.6
Screening tool confirmation/dispute: The assessment must verify the "Low" sensitivity of the site, in terms of plant, animal, and terrestrial biodiversity themes	3.6.2
Proposed impact management outcomes or monitoring requirements for inclusion in the EMPr	0
Indicate whether the proposed development will have any impact on the terrestrial environment, animals and/or plants	0
A signed statement of independence by the specialist	7.3
Specialist details, including a CV	7.4

A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

1.6.3 Plant Species Theme

Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report are listed in Table 1-3 below.

Table 1-3 *Plant Species Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.*

Information to be Included (as per GN 320, 30 October 2020)	Report Section
Methodology used to undertake the site assessment and survey, and prepare the compliance statement, including relevant equipment and modelling used	7.1
Description of the assumptions and any uncertainties or gaps in knowledge or data	1.4
A baseline profile description of biodiversity and ecosystems of the site	3.1
Site sensitivity verification: Desktop Analysis using satellite imagery and available information	3.1 and 3.3
A statement on the duration, date, and season of the site inspection	2.1
Site sensitivity verification: Onsite inspection, including a description of current land use and vegetation found on-site	3.5 and 3.6
Site sensitivity verification: Photographs/evidence of environmental sensitivity	3.5 and 3.6
Screening tool confirmation/dispute: The assessment must verify the "Low" sensitivity of the site, in terms of plant, animal, and terrestrial biodiversity themes	3.6.3
Proposed impact management outcomes or monitoring requirements for inclusion in the EMPr	0
Indicate whether the proposed development will have any impact on the terrestrial environment, animals and/or plants	0
A signed statement of independence by the specialist	7.3
Specialist details, including a CV	7.4

A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

2 Fieldwork

2.1 Biodiversity Field Assessment

A single season field survey was conducted on the 14th of May 2026 – constituting a late summer (early wet season) survey – to delineate the various habitat types and determine their associated sensitivities, and to assess the presence of any local fauna and flora SCC within the Project Area. Every effort was made to cover all the respective habitat types within the Project Area within the limits of time. The site visit conducted by the specialist stipulated herein is considered sufficient for the proposed decommissioning project (Figure 2-1).

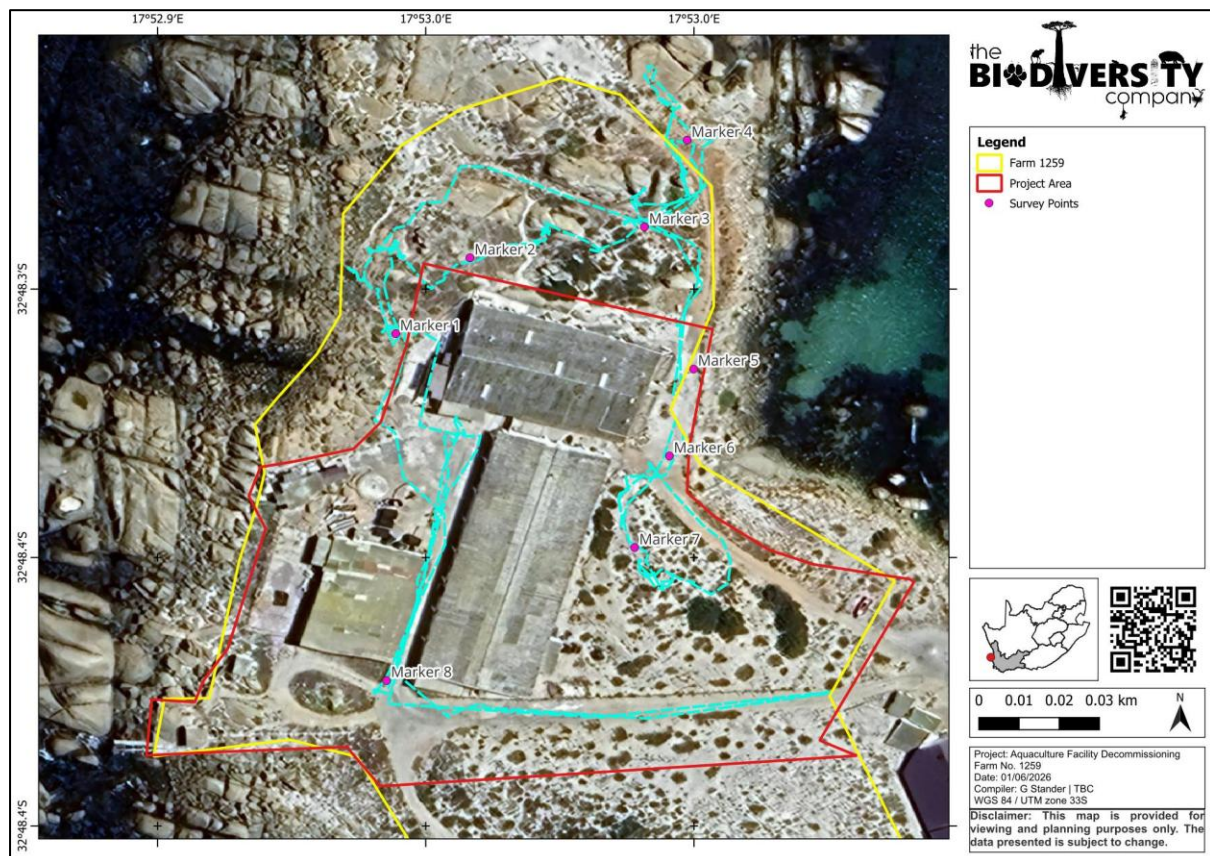


Figure 2-1 Map depicting the survey tracks and survey points within the Project Area and surrounds

3 Results & Discussion

3.1 Ecologically Important Landscape Features

Table 3-1 below has been produced from the spatial data collected and analysed as provided for by relevant sources. It presents a summative breakdown of the ecological boundaries considered and the associated relevance that each has to the region or Aquaculture Facility site.

Table 3-1 *Summary of relevance of the proposed project to ecologically important landscape features.*

Desktop Information Considered	Relevance	Reasoning
Ecosystem Threat Status	Relevant	The Project Area overlaps with an Endangered (EN) (Langebaan Dune Strandveld) ecosystem.
Ecosystem Protection Level	Relevant	The Project Area overlaps with a Well Protected (WP) ecosystem.
Provincial Conservation Plan	Relevant	The Project Area marginally overlaps and borders with CBA 1 (Threatened Ecosystem).
South African Protected Areas Database (SAPAD) & South African Conservation Areas Database (SACAD)	Relevant	The Project Area overlaps with the Cape West Coast Biosphere Reserve. The Columbine Nature Reserve is located ~1.7 km southwest of the Project Area, while the Groot Paternoster Private Nature Reserve is located ~4.2 km northeast of the Project Area.
National Protected Areas Expansion Strategy (NPAES)	Irrelevant	The Project Area does not overlap with any listed Priority Focus Areas.
Key Biodiversity Areas (KBA)	Relevant	The Project Area is located ~600 m north of the West Coast Biosphere Reserve KBA.
South African Inventory of Inland Aquatic Ecosystems (SAIIAE)	Irrelevant	The Project Area does not overlap with any listed Inland Aquatic Ecosystems.
National Freshwater Priority Area (NFEPA)	Irrelevant	The Project Area does not overlap with any classified NFEPA Wetlands or Rivers.
Strategic Water Source Areas (SWSA)	Irrelevant	The Project Area does not overlap with any SWSA.

3.2 Fauna Species of Conservation Concern (SCC)

The Screening Tool allocated a low Animal Theme sensitivity for the Project Area (Figure 3-1). No faunal species of conservation concern (SCC) are listed by the Screening Tool and the probability of occurrence of fauna SCC within the Project Area is assessed as low.

3.3 Flora Species of Conservation Concern (SCC)

The Screening Tool indicates that 14 Medium sensitivity flora species could occur within the Project Area (Table 3-2). Owing to the extensively modified and disturbed condition of the Project Area, as well as human ingress, the probability of occurrence of flora SCC within the Project Area is assessed as low.

Please note that the Screening Tool report includes lists of bird, mammal, reptile, amphibian, butterfly and plant species of conservation concern known or expected to occur on the proposed development footprint. Some of these SCC are sensitive to illegal harvesting. Such species have had their names obscured and are listed as sensitive plant unique number / sensitive animal unique number. As per the best practise guideline that accompanies the protocol and screening tool, please, remember that the **name of the sensitive species may not appear in the final EIA report nor any of the specialist reports released into the public domain**. It should be referred to as *sensitive plant* or *sensitive animal* and its threat status may be included, e.g. *critically endangered sensitive plant* or *endangered sensitive animal*.

Table 3-2 **Threatened flora species that are expected to occur within the Project Area. VU = Vulnerable**

Family Name	Species Name	Regional Conservation Status (SANBI)	Habitat	Screening Tool Sensitivity	Likelihood Of Occurrence	Reason
Aizoaceae	<i>Cephalophyllum rostellum</i>	EN	Coastal areas, on limestone and very occasionally on granites.	Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
Asteraceae	<i>Cineraria angulosa</i>	EN	Granite and shallow granite sands on granite outcrops near the sea, 30 m.	Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
Iridaceae	<i>Ferraria densepunctulata</i>	VU	Rocky or calcareous sandy sites near the coast, as well as limestone pavements on the Vredenburg Peninsula.	Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
Asteraceae	<i>Helichrysum dunense</i>	VU	Coastal calcareous dunes.	Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
Iridaceae	<i>Ixia purpureo rosea</i>	VU	Coastal limestone and calcrete pavements.	Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
Plumbaginaceae	<i>Limonium acuminatum</i>	VU	Coastal limestone outcrops and occasionally on calcareous coastal sands.	Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
Polygalaceae	<i>Muraltia harveyana</i>	VU	Calcrete and associated sands.	Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
Hypoxidaceae	<i>Pauridia linearis</i>	VU	Swartberg Shale Renosterveld, Cape Flats Dune Strandveld, Langebaan Dune Strandveld, Saldanha Limestone Strandveld, Saldanha Flats Strandveld, Saldanha Granite Strandveld, Atlantis Sand Fynbos	Medium	Low	Project Area is largely modified. Limited to no suitable habitat.

Aquaculture Facility Decommissioning

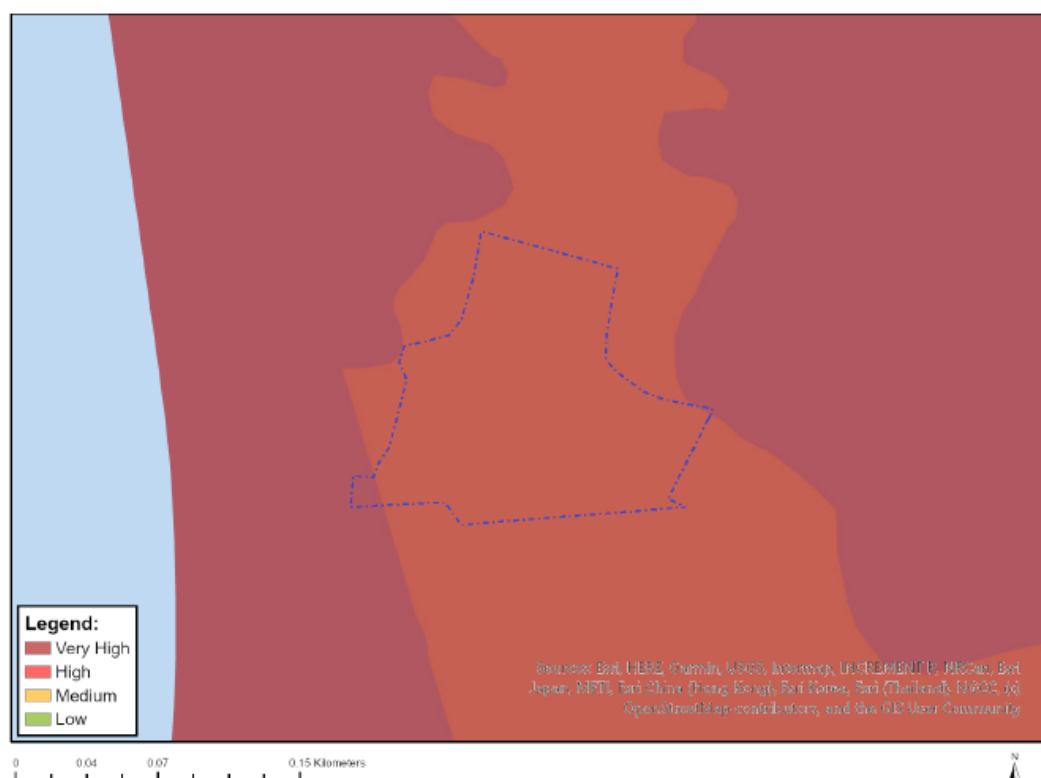
Rhamnaceae	<i>Phyllica greyii</i>	EN	Coastal limestones.	Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
	Sensitive species 1059	VU		Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
	Sensitive species 1308	VU		Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
	Sensitive species 583	VU		Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
	Sensitive species 698	EN		Medium	Low	Project Area is largely modified. Limited to no suitable habitat.
	Sensitive species 986	CR		Medium	Low	Project Area is largely modified. Limited to no suitable habitat.

3.4 Desktop Ecological Sensitivity

The following is deduced from the National Web-based Environmental Screening Tool Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended):

- Terrestrial Biodiversity Theme sensitivity for the Project Area is 'Very High' due to its overlap with CBA 1 (Terrestrial), CBA 2 (Terrestrial) and the Endangered Langebaan Dune Strandveld vegetation type (Figure 3-1);
- Animal Species Theme sensitivity is 'Low' for the Project Area with no fauna SCC species expected to occur (Figure 3-2); and
- Plant Species Theme sensitivity is 'Medium' for the Project Area with the potential of 14 SCC predicted to occur (Figure 3-3).

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	CBA: Terrestrial
Very High	CBA2: Terrestrial
Very High	EN_Langebaan Dune Strandveld

Figure 3-1 Map depicting the relative terrestrial biodiversity theme sensitivity for the Project Area as generated for by the environmental screening tool.

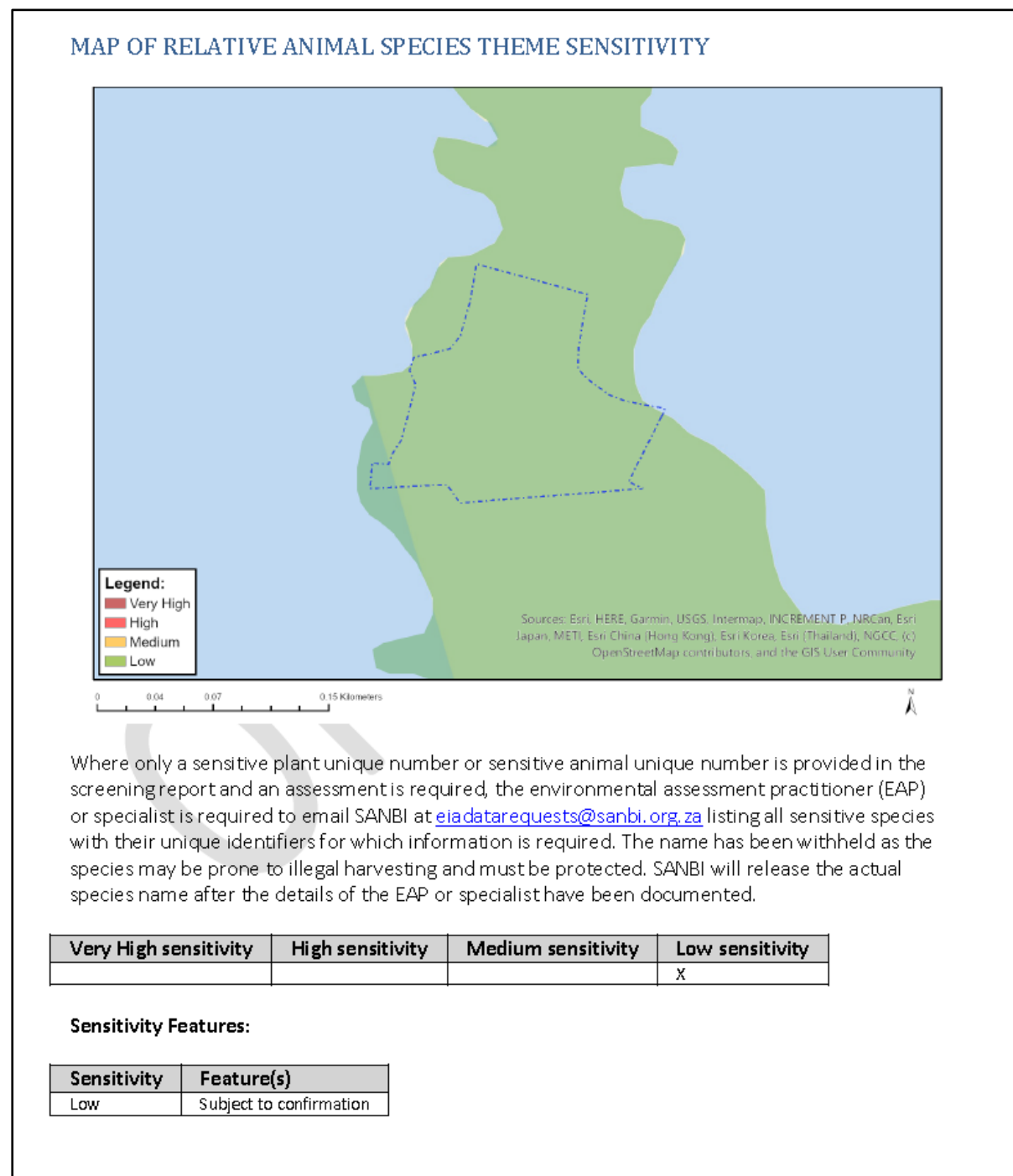
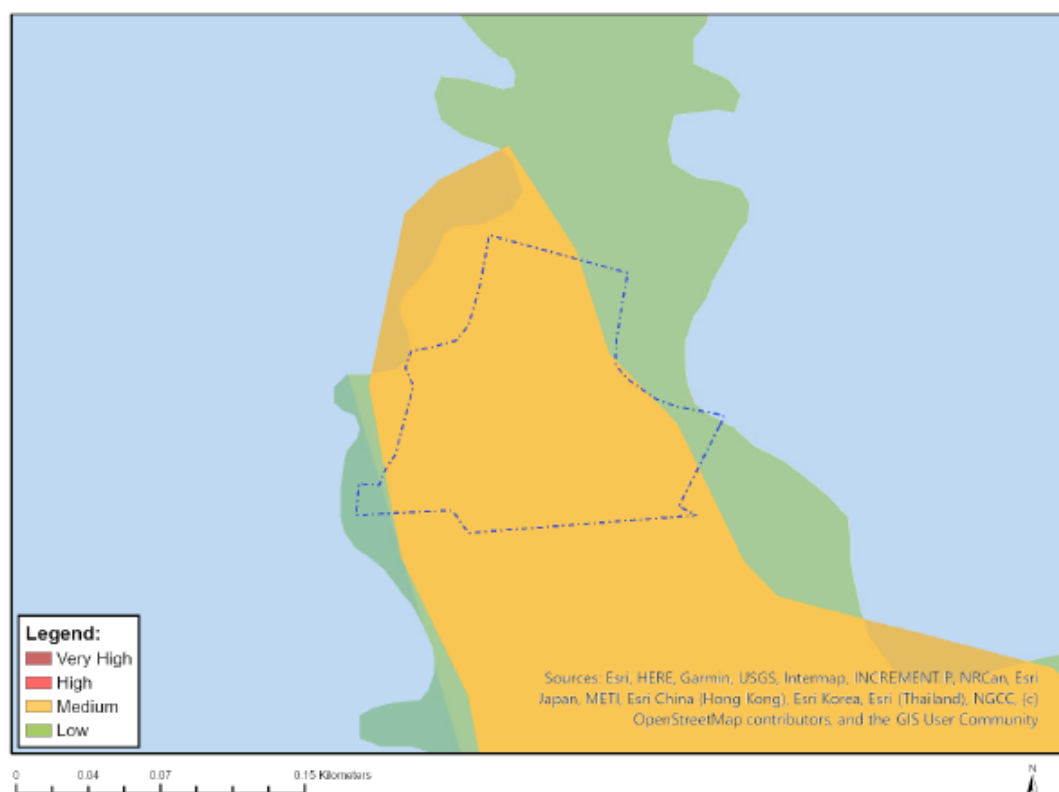


Figure 3-2 Map depicting the relative animal theme sensitivity for the Project Area as generated for by the environmental screening tool.

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



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

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Cephalophyllum rostellum
Medium	Sensitive species1059
Medium	Sensitive species698
Medium	Sensitive species1308
Medium	Sensitive species986
Medium	Pauridia linearis
Medium	Ferraria densepunctulata
Medium	Ixia purpureo-rosea
Medium	Sensitive species583
Medium	Phyllaea greyii
Medium	Helichrysum dunense
Medium	Muraltia harveyana

Medium	Limonium acuminatum
Medium	Cineraria angulosa

Figure 3-3 Map depicting the relative plant theme sensitivity for the Project Area site as generated for by the environmental screening tool.

3.5 Biodiversity Field Survey

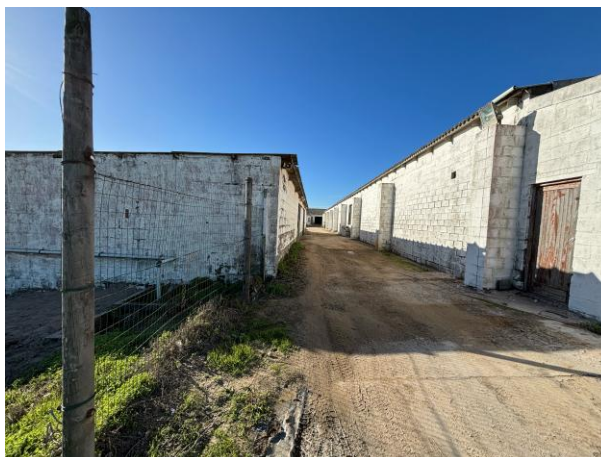
3.5.1 Terrestrial Biodiversity

A summary of the terrestrial field assessment is provided in Table 3-3. The Project Area was surveyed to establish the overall ecological condition of the vegetation and to determine the likelihood of any flora and fauna SCC occurring within the area. Any potential sensitive habitat features were also assessed. Table 3-3 shows a summary of the survey points recorded during the site assessment. Figure 3-4 illustrates the habitats defined within the Project Area.

Table 3-3 *Summary of field survey conducted within the Project Area*

Habitat	Description & condition	Ecosystem processes & services
Irreversibly Modified (~ 0.8 ha)	Modified habitat is associated with the existing Aquaculture Facility buildings and associated infrastructure, as well as existing roads. These structures along with its associated activities, have resulted in a landscape that is extensively modified and disturbed. No fauna SCC were detected. Flora SCC were observed within the ornamental gardens, which suggests that they were introduced for ornamental/decorative purposes in an already irreversibly modified environment (see section 3.5.3). No fauna or naturally occurring flora SCC are expected to occur. This habitat is no longer a viable constituent of the ecosystem it overlaps.	The ecological services provided by this habitat are limited due to the modification and clearance of vegetation for the existing buildings and infrastructure.

Date:14/05/2026
Ref: Marker 8
GPS Coordinates:
-32.8064671,
17.8829626



Date:14/05/2026
Ref: Marker 6
GPS Coordinates:
-32.8059633,
17.8835512



Habitat	Description & condition	Ecosystem processes & services
Date:14/05/2026 Ref: Marker 5 GPS Coordinates: -32.8057586, 17.8836256		
Date:14/05/2026 Ref: Marker 10 GPS Coordinates: -32.8060138, 17.8830094		
Disturbed Strandveld (~ 0.4 ha)	This habitat covers a small section of the Project Area and is considered to be in a disturbed condition with Alien and Invasive Plant (AIP) invasion. <i>Acacia cyclops</i> (Rooikrans Wattle) was recorded within this habitat unit. Common indigenous species observed include <i>Osteospermum moniliferum</i>, <i>Chenolea diffusa</i>, <i>Berkheya rigida</i>, <i>Lachenalia punctata</i> and <i>Ruschia macowanii</i>. The disturbed condition of this habitat unit is largely contributed to human ingress from the surrounding residential areas, existing Aquaculture Facilities and anthropogenic impacts associated with the facility. The disturbed condition is further exacerbated by the invasion and spread of AIP species. This habitat is no longer a viable constituent of the ecosystem it overlaps.	Provides refuge, grazing and foraging resources for indigenous fauna. Aids in the filtration of water permeating through the soil and provides erosion control. Contribute to the processes of pollination and seed dispersal.
No flora or fauna SCC were observed, and none are expected.		

Habitat	Description & condition	Ecosystem processes & services
Date: 14/05/2026 Ref: Marker 7 GPS Coordinates: -32.8061628, 17.8835009		
Date: 14/05/2026 Ref: Marker 7 GPS Coordinates: -32.8061628, 17.8835009		
Date: 14/05/2026 Ref: Marker 9 GPS Coordinates: -32.8062560, 17.8837274		

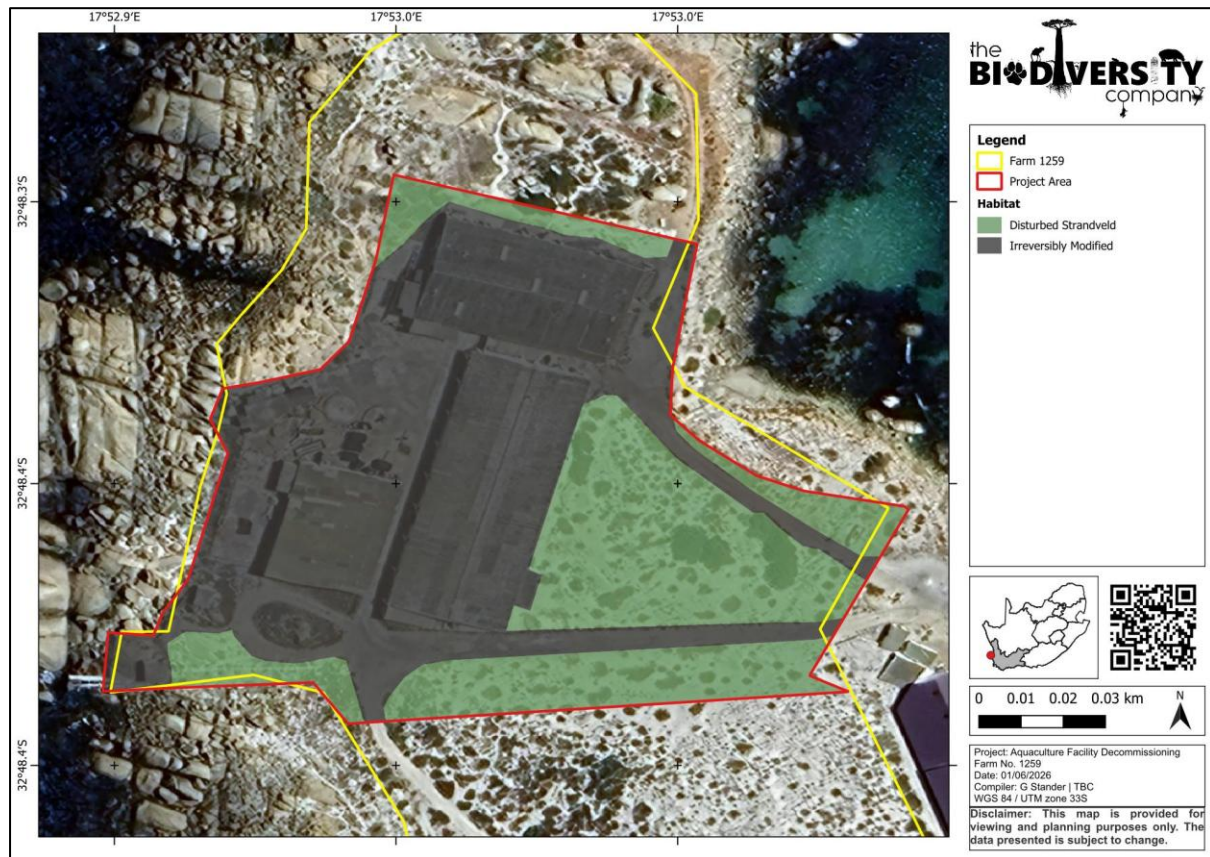


Figure 3-4 Map depicting the habitat types defined within the Project Area

3.5.2 Animal Species Theme

The Project Area was surveyed to establish the presence of fauna SCC and to determine if any are likely to occur within the area. Approximately 0.8 ha of the Project Area has been largely and irreversibly modified, comprising existing large concrete buildings and associated aquaculture infrastructure. The remaining 0.4 ha consist of Disturbed Strandveld habitat. The presence of the built environment, together with ongoing human ingress within the Project Area and anthropogenic activities in the surrounding area, has reduced habitat quality and ecological integrity in the immediate vicinity of the Project Area. The Project Area is surrounded by boulders and the ocean to the west and north, while areas surrounding the Project Area to the south and east is Disturbed Strandveld habitat type. Consequently, the Project Area is characterised by a predominance of irreversibly modified habitats, which are less likely to support fauna SCC. The remaining Disturbed Strandveld habitat is unlikely to provide suitable habitat for fauna SCC. No fauna SCC were recorded within the Project Area during the field survey and none are expected.

One (1) avifauna SCC was observed outside the Project Area. The Crowned Cormorant (*Microcarbo coronatus*) was observed on the boulders outside the Project Area, however no nests were observed during the field survey. (Figure 3-5). This species is classified as VU regionally (BirdLife, 2025) and LC globally (IUCN, 2021). Crowned Cormorants are found on the coast and at sea mainly in inshore waters (< 5 km). They breed mainly on islands and islets, but also on the mainland on old building roofs or walls, on old jetties, or atop high rocks and dolosse (McInnes et. al., 2025). As the activities involved in the proposed project are limited to decommissioning and are expected to be confined to the Project Area, no significant impact on this species is anticipated. No vegetation clearance or expansion of existing infrastructure is expected for the decommissioning of the existing aquaculture facility, rezoning the site for business use, and converting the empty buildings into mixed-use business and residential space linked to the neighbouring waterfront development. Nevertheless, mitigation measures have been recommended in section 4.

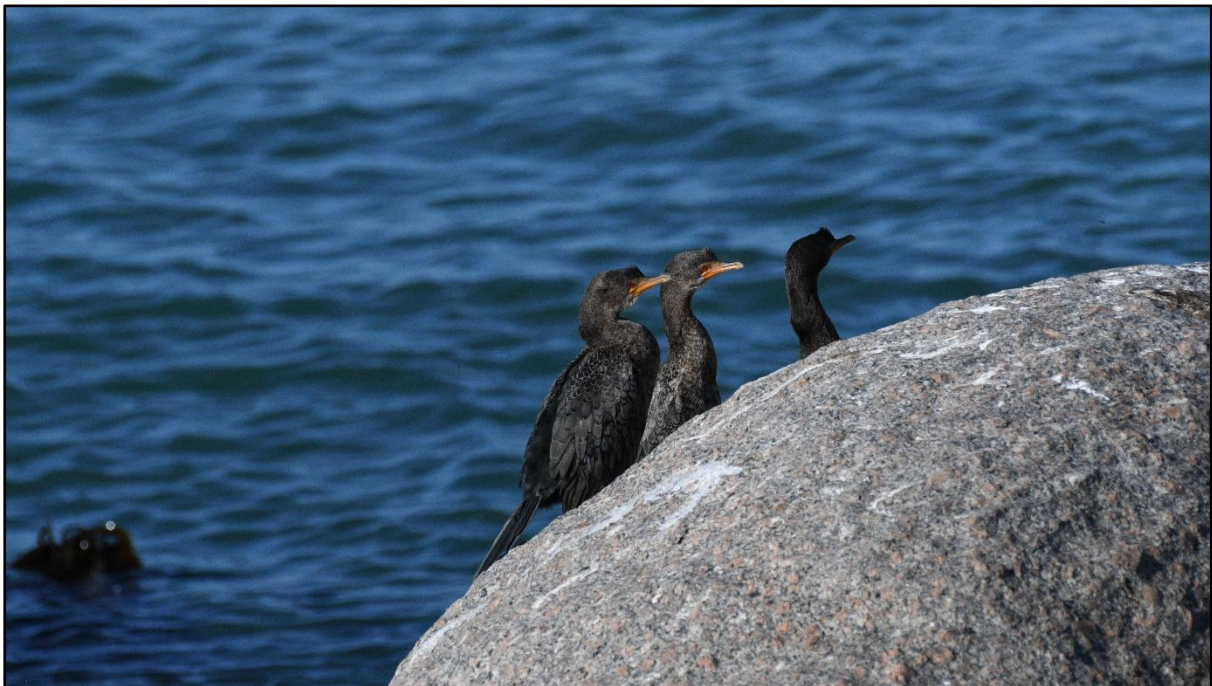


Figure 3-5 **Photograph illustrating Crowned Cormorants (VU) observed on boulders outside the Project Area**

3.5.3 Plant Species Theme

With the preface of the above mentioned within the Animal species Theme the Project Area was surveyed to establish the presence of flora SCC and to determine if any are likely to occur within the area. The Project Area is characterised by a predominance of irreversibly modified habitats, which are less likely to support flora SCC. The remaining Disturbed Strandveld habitat is unlikely to provide suitable habitat for flora SCC.

Two (2) flora SCC were observed within the ornamental gardens in the Project Area; *Aloe distans* (VU) and *Aloe thraskii* (NT). These species were not recorded outside the areas converted and modified for landscaping purposes, which suggests that they were introduced for ornamental purposes in an already irreversibly modified environment. These species are not expected to occur naturally within the Project Area. Refer to section 4 for mitigation measures that have been recommended.

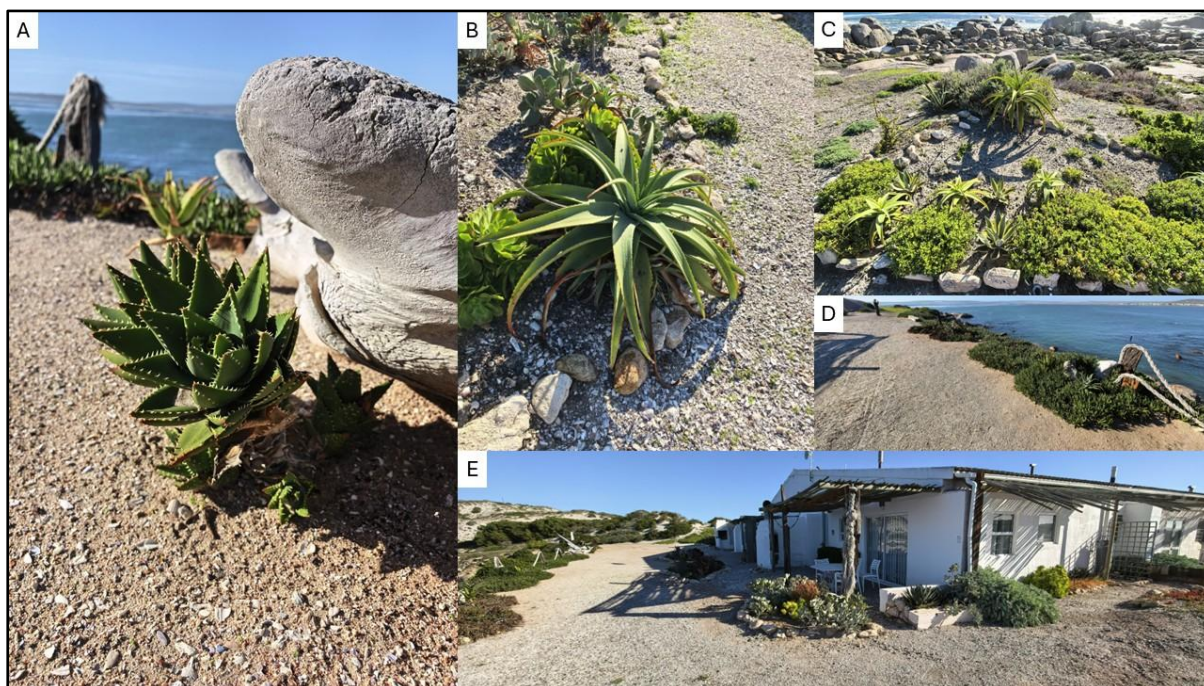


Figure 3-6 Photographs illustrating A) *Aloe distans* (VU), B) *Aloe thraskii* (NT) and C to E) some of the gardens within the Project Area

3.6 Site Sensitivity Verification

3.6.1 Terrestrial Biodiversity

Based on the criteria provided in Appendix B of this report, all habitats within the Project Area were assigned a sensitivity category, i.e. a SEI category. The findings of the field survey assign a sensitivity of Very Low (Irreversibly Modified) and Low (Disturbed Strandveld) for the areas within the Project Area (Table 3-4 and Figure 3-7). The findings of this assessment therefore dispute the findings set forth by the Screening Tool with regards to the combined Terrestrial Biodiversity Theme Sensitivity, which allocated a Very High sensitivity to the Project Area.

It is important to note that the map depicted in Figure 3-7 does not replace any local, provincial, or national government legislation relating to these areas or the land use capabilities or sensitivities of these environments.

Table 3-4 Summary of habitat types and associated SEIs delineated within the Project Area.

Habitat Type	Conservation Importance (CI)	Functional Integrity (FI)	Biodiversity Importance (BI)	Receptor Resilience (RR)	Site Ecological Importance (SEI) Guidelines for interpreting SEI in the context of the proposed development activities
Irreversibly Modified	<u>Very Low</u> No confirmed and highly unlikely populations of range-restricted species. No natural habitat remaining.	<u>Very Low</u> No habitat connectivity except for flying species or flora with wind-dispersed seeds. Several major current negative ecological impacts.	Very Low	<u>Very High</u> Habitat that can recover rapidly (~ less than 5 years) to restore > 75% of the original species composition and functionality of the receptor functionality	<u>Very Low</u> Minimisation mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.
Disturbed Strandveld	<u>Low</u> < 50% of receptor contains natural habitat with limited potential to support SCC. No confirmed or highly likely populations of SCC.	<u>Low</u> Several minor and major current negative ecological impacts.	Low	<u>Medium</u> Habitat that will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality	<u>Low</u> Minimisation and restoration mitigation – development activities of medium to high impact acceptable followed by appropriate restoration activities.

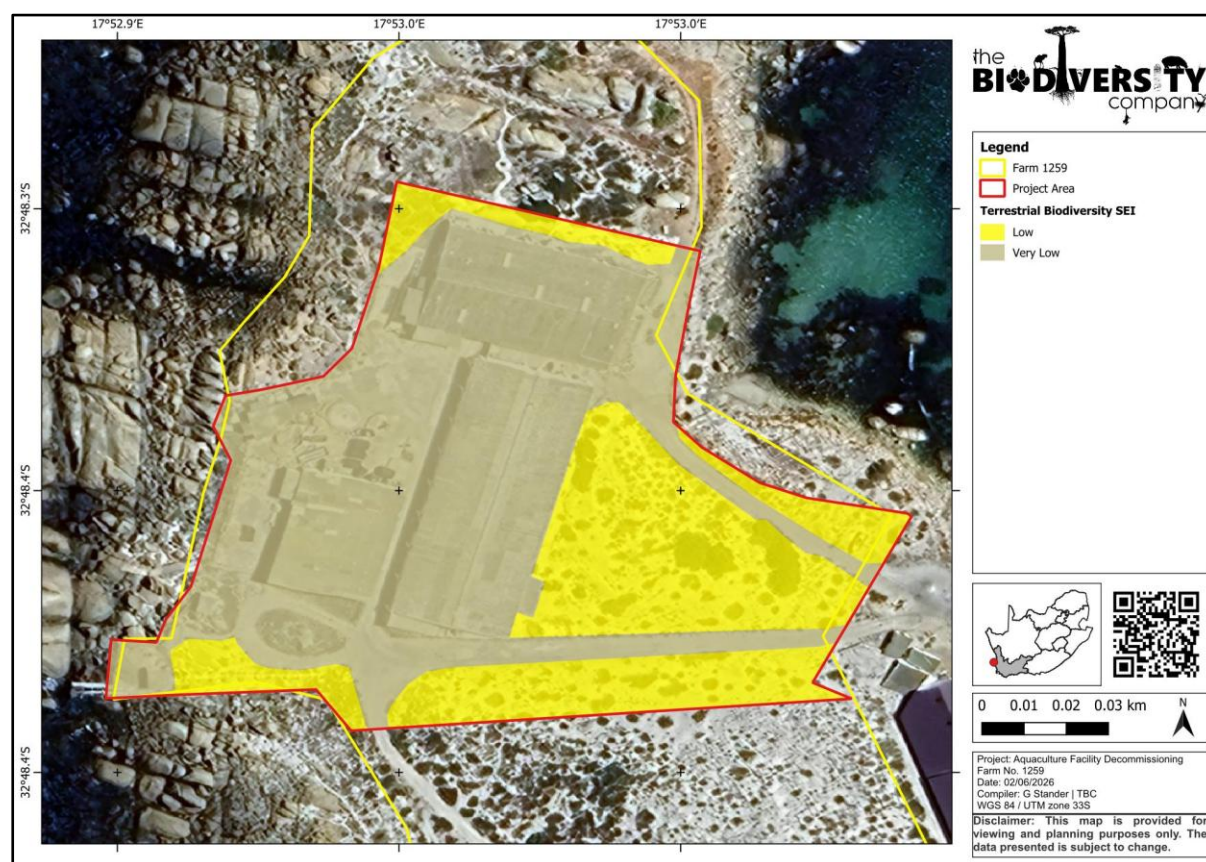


Figure 3-7 Map depicting the Terrestrial Biodiversity Site Ecological Importance (SEI) sensitivity for the Project Area

3.6.2 Animal Species Theme

The Animal Species Theme sensitivity is Low for the Project Area according to the Screening Tool (see section 3.4). The findings of this assessment disputes and validate the findings set forth by the Screening Tool with regards to the Animal Theme Sensitivity. The findings of the field survey allocate a sensitivity of Very Low (Irreversibly Modified) and Low (Disturbed Strandveld) for the areas within the Project Area.

It is important to note that the map depicted in Figure 3-8 does not replace any local, provincial, or national government legislation relating to these areas or the land use capabilities or sensitivities of these environments.

Table 3-5 *Summary of habitat types and associated SEIs delineated within the Project Area.*

Habitat Type	Conservation Importance (CI)	Functional Integrity (FI)	Biodiversity Importance (BI)	Receptor Resilience (RR)	Site Ecological Importance (SEI) Guidelines for interpreting SEI in the context of the proposed development activities
Irreversibly Modified	<u>Low</u> No confirmed or highly likely populations of SCC.	<u>Low</u> Several minor and major current negative ecological impacts.	Low	<u>High</u> Habitat that can recover relatively quickly (~ 5–10 years) to restore > 75% of the original species composition and functionality of the receptor functionality.	<u>Very Low</u> Minimisation mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.
Disturbed Strandveld	<u>Low</u> < 50% of receptor contains natural habitat with limited potential to support SCC. No confirmed or highly likely populations of SCC.	<u>Low</u> Several minor and major current negative ecological impacts.	Low	<u>Medium</u> Habitat that will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality.	<u>Low</u> Minimisation and restoration mitigation – development activities of medium to high impact acceptable followed by appropriate restoration activities.

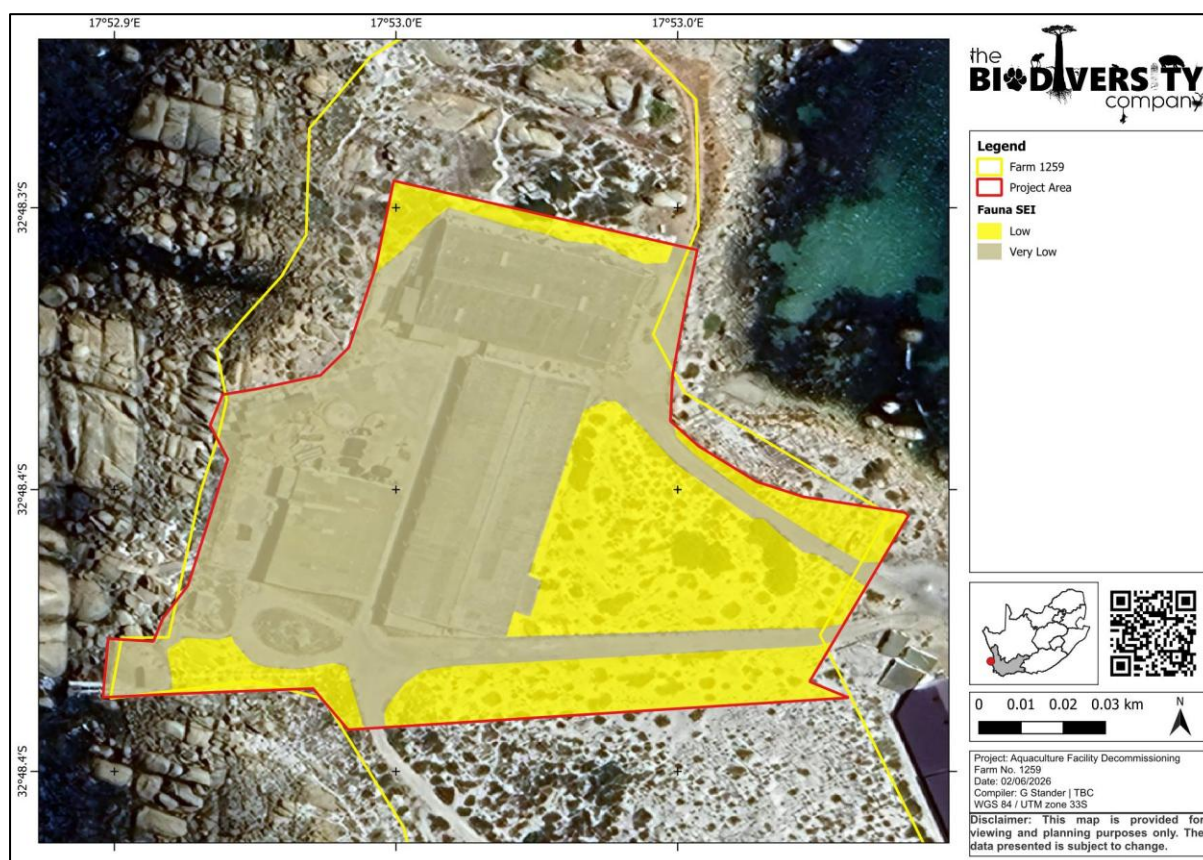


Figure 3-8 Map depicting the Animal Theme sensitivity for the Project Area

3.6.3 Plant Species Theme

The Plant Species Theme sensitivity is Medium for the Project Area (see section 3.4). The findings of this assessment disputes the findings set forth by the Screening Tool with regards to the Plant Theme Sensitivity and allocates a sensitivity of Very Low (Irreversibly Modified) and Low (Disturbed Strandveld) for the areas within the Project Area.

It is important to note that the map depicted in Figure 3-9 does not replace any local, provincial, or national government legislation relating to these areas or the land use capabilities or sensitivities of these environments.

Table 3-6 Summary of habitat types and associated SEIs delineated within the Project Area.

Habitat Type	Conservation Importance (CI)	Functional Integrity (FI)	Biodiversity Importance (BI)	Receptor (RR)	Resilience	Site Ecological Importance (SEI) Guidelines for interpreting SEI in the context of the proposed development activities
Irreversibly Modified	<u>Very Low</u> No confirmed and highly unlikely populations of range-restricted species. No natural habitat remaining.	<u>Very Low</u> No habitat connectivity except for flying species or flora with wind-dispersed seeds. Several major current negative	Very Low		<u>High</u> Habitat that can recover relatively quickly (~ 5–10 years) to restore > 75% of the original species composition and functionality of the receptor functionality.	<u>Very Low</u> Minimisation mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.

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Habitat Type	Conservation Importance (CI)	Functional Integrity (FI)	Biodiversity Importance (BI)	Receptor (RR)	Resilience	Site Ecological Importance (SEI) Guidelines for interpreting SEI in the context of the proposed development activities
		ecological impacts.				
Disturbed Strandveld	<u>Low</u> < 50% of receptor contains natural habitat with limited potential to support SCC. No confirmed or highly likely populations of SCC.	<u>Low</u> Several minor and major current negative ecological impacts.	Low	<u>Medium</u> Habitat that will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality	<u>Low</u> Minimisation and restoration mitigation – development activities of medium to high impact acceptable followed by appropriate restoration activities	

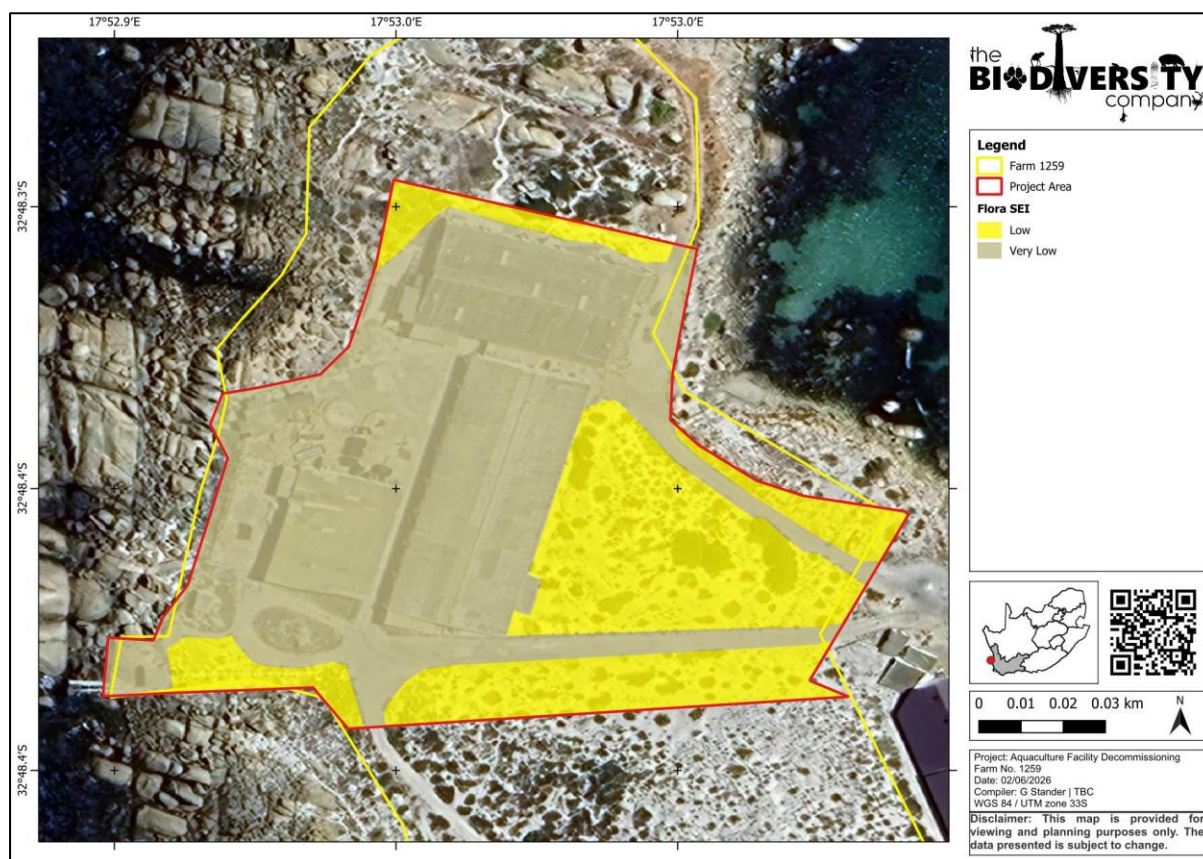


Figure 3-9 Map depicting the Plant Theme sensitivity for the Project Area

3.6.4 Screening Tool Comparison

The allocated sensitivities for each of the relevant themes are either disputed or validated in Table 3-7 below. A summative explanation for each result is provided as relevant. The specialist-assigned sensitivity ratings are based largely on the SEI process followed in the previous section, and consideration is given to any observed or likely presence of SCC or protected species.

Table 3-7 Summary of the screening tool vs specialist assigned sensitivities.

Screening Tool Theme	Screening Tool	Habitat	Specialist	Tool Validated or Disputed by Specialist - Reasoning
Terrestrial Theme	Very High	Irreversibly Modified	Very Low	Disputed – This habitat is highly modified due to existing Aquaculture Facility infrastructure and anthropogenic impacts. No natural vegetation exists and habitat has lost most ecosystem functionality.
		Disturbed Strandveld	Low	Disputed – Habitat is disturbed due to human ingress from the surrounding residential areas, existing Aquaculture Facilities and anthropogenic impacts associated with the facility as well as AIP infestation. Habitat has lost some ecosystem functionality but still provides limited services.
Animal Theme	Low	Irreversibly Modified	Very Low	Disputed – This habitat is highly modified due to existing Aquaculture Facility infrastructure and anthropogenic impacts. No fauna SCC were detected or are expected to occur within this habitat.
		Disturbed Strandveld	Low	Validated – Habitat is disturbed due to human ingress from the surrounding residential areas, existing Aquaculture Facilities and anthropogenic impacts associated with the facility as well as AIP infestation. Habitat has lost some ecosystem functionality but still provides limited services. No fauna SCC observed or expected.
Plant Theme	Medium	Irreversibly Modified	Very Low	Disputed – This habitat is highly modified due to existing Aquaculture Facility infrastructure and anthropogenic impacts. No natural occurring flora SCC were detected or are expected to occur naturally within this habitat.
		Disturbed Strandveld	Low	Disputed – This habitat is disturbed due to human ingress from the surrounding residential areas, existing Aquaculture Facilities and anthropogenic impacts associated with the facility as well as AIP infestation. Habitat has lost some ecosystem functionality but still provides limited services. No flora SCC observed or expected.

4 Impacts

4.1 Impacts Observed and Potential Impacts

Numerous impacts were observed within the Project Area, the most significant being anthropogenic disturbances such as existing infrastructure. Additional impacts include waste dumping, alien invasive plant (AIP) infestation, littering and human ingress. It is not anticipated that the proposed project, which entails the decommissioning of the Aquaculture Facility, will have any significant impact on fauna or flora SCC.

4.2 Impact Management and Mitigation Plan

The aim of the management outcomes is to present mitigation actions in such a way that they can be incorporated into the Environmental Management Programme (EMPr), and possible biodiversity management programme, for the project, which should in turn allow for a more successful implementation and auditing of the mitigation measures and monitoring guidelines. Table 4-1 and Table 4-2 presents the recommended mitigation measures relative to the terrestrial assessment.

The focus of the mitigation measures is to reduce the significance of the likely impacts associated with the development, and thereby:

- Prevent the further loss and fragmentation of indigenous vegetation communities within the ecosystem in and around the Project Area;
- Reduce the negative fragmentation effects of the development and facilitate the safe movement of fauna species;
- Prevent the direct and indirect loss and disturbance of flora and fauna species and communities; and
- Adequately follow the guidelines for interpreting the SEI ratings assigned to the Project Area.

Table 4-1 Project specific mitigation measures.

Anticipated Impact	Destruction, further loss and fragmentation of the of habitats, ecosystems and vegetation community
Mitigation Objective	Avoidance / minimisation of the disturbance and degradation of vegetation and ecosystems
Mitigation: Action/control	
- Laydown and construction preparation activities for the upgrade of infrastructure and buildings (such as cement mixing, temporary toilets, etc.) must be limited to already modified (Very Low SEI) areas and should take up the smallest footprint possible. - Areas of indigenous vegetation, even secondary or disturbed communities outside of the direct project footprint, should not be fragmented or disturbed further. - All activities must be restricted to within the authorised areas. No clearing of indigenous vegetation is allowed outside the direct footprint and authorised areas. - Materials may not be stored for extended periods of time and must be removed from the Project Area once the construction activities for the upgrade of infrastructure and buildings have been concluded. No storage of vehicles or equipment will be allowed outside of the designated laydown areas. - A habitat rehabilitation plan must be implemented, and areas of bare ground must be revegetated with species indigenous to the region. - No alien invasive plant species are allowed to be used for landscaping purposes or in ornamental gardens. If landscaping is required, only species indigenous to the region is allowed to be used. Water – wise landscaping (drought – tolerant species) need to be considered and incorporated where possible. - No further propagation, removal, translocating, replanting, disturbance or destruction of the two (2) flora SCC [<i>Aloe distans</i> (VU) and <i>Aloe thraskii</i> (NT)] recorded within the ornamental gardens is allowed without applying for the appropriate permits. - If roads are to be upgraded, the areas disturbed must be included in the habitat rehabilitation plan. - Areas that are denuded during decommissioning activities or upgrade of infrastructure and buildings, need to be re-vegetated with indigenous vegetation according to a habitat rehabilitation plan, to prevent erosion during flood and wind events. This will also reduce the likelihood of encroachment by alien invasive plant species. - It must be made an offence for any staff member to remove any indigenous plant species from the Project Area or bring any alien species in, apart from rehabilitation purposes. This is to prevent the further spread of exotic or alien species or the illegal collection of plants. - Ensure that all personnel and contractors undergo Environmental Awareness Training. A signed register of attendance must be kept for proof. - Training must include awareness about not collecting species, removing or bring in flora species apart from rehabilitation purposes. - Training must include awareness of the VU <i>Aloe distans</i> and NT <i>Aloe thraskii</i>	
Anticipated Impact	Introduction of alien and invasive species, especially plants
Activity/risk source	Land clearing, waste, fire and dust.
Mitigation Objective	Avoidance / minimisation of the disturbance and degradation of vegetation and ecosystems
Mitigation: Action/control	
- Compile and implement an alien vegetation management plan for the Project Area. The plan must identify areas for action (if any) and prescribe the necessary removal methods and frequencies to be applied. This plan must also include a monitoring plan and be updated as/when new data is collated. - No alien invasive plant species are allowed to be used for landscaping purposes or in ornamental gardens. If landscaping is required, only species indigenous to the region is allowed to be used. - All invasive plant species must be removed from the existing ornamental gardens. This will avoid the spread of these species in the Project Area as well as the surrounding areas. The removal of invasive plant species from ornamental gardens must be included in the alien vegetation management plan. The monitoring of alien vegetation must include monitoring of ornamental gardens and any area transformed for landscaping purposes. - If not already in existence, a stormwater plan must be implemented for all existing infrastructure. The stormwater plan must consider the upgrades made to existing infrastructure and be updated if needed. - Temporary storage of domestic and construction waste, if applicable, shall be in covered waste skips.	

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Due to the Project Area overlapping with a Protected Area (West Coast Biosphere Reserve) the development should consider prohibiting pets and other domestic animals, particularly cats.	
Anticipated Impact	Displacement of faunal community due to habitat loss, direct mortalities and disturbance (road collisions, noise, dust, vibration and poaching)
Activity/risk source	Land clearing, Fire and human presence as well as roads.
Mitigation Objective	Avoidance / minimisation of the disturbance and mortality of fauna
Mitigation: Action/control	
- All the parts of the infrastructure must be nest proofed and anti-perch devices placed on areas that can lead to electrocution. - All decommissioning activities as well as building or infrastructure upgrades must be conducted outside the breeding season of the VU Crowned Cormorant (<i>Microcarbo coronatus</i>). Activities and upgrades need to take place between April to November. - Outside lighting must be designed and limited to minimize impacts on fauna. All outside lighting should be directed away from highly sensitive areas, such as boulders. Fluorescent and mercury vapor lighting should be avoided, and sodium vapor (red/green) lights should be used. - Clearly mark construction zones to prevent impact on surrounding areas, using physical barriers like safety tape and signs instead of painted lines. - Limit vehicle speeds to 40 km/h to prevent accidents and install appropriate speed control measures and signage. - Driving on roads at night should be restricted to maximum 20 km/h to reduce or prevent wildlife road mortalities which occur more frequently during this period. - Cover any open holes overnight to prevent wildlife from falling in. Inspect these areas before backfilling. - Implement noise and light mitigation measures for any nighttime decommissioning, construction and/or upgrading activities to minimise disturbances to nocturnal species expected in the area. - No trapping, killing, or poisoning of any wildlife is to be allowed and signs must be put up to enforce this. Monitoring must take place in this regard. - Ensure that all personnel and contractors undergo Environmental Awareness Training. A signed register of attendance must be kept for proof. - Training must include awareness about not harming or collecting species. - Training must include awareness of the VU Crowned Cormorant (<i>Microcarbo coronatus</i>).	

Table 4-2 General mitigation measures for the project.

Mitigation: Action/control
- Demarcate work areas during the decommissioning, construction and/or upgrading phases to avoid affecting outside areas. Use physical barriers e.g., safety tape, not painted lines, and use signage. - Disturbance and clearing outside the designated footprint should be minimised as far as possible. Any areas disturbed beyond the designated footprint must be rehabilitated in accordance with the habitat rehabilitation plan. Additionally, Alien and Invasive Plant species in these areas must be managed in line with the alien vegetation management plan. - Do not clear areas of indigenous vegetation outside of the direct project footprint. - Environmental Officer (EO) to provide supervision and oversight of vegetation clearing activities. - Dust-reducing mitigation measures must be put in place and must be strictly adhered to, for all roads and bare (unvegetated) areas. - Reduce the dust generated by operational vehicles and earth moving machinery, through wetting (preferably with 'dirty water') the soil surface and putting up signs to enforce speed limits to enforce reduced speeds. - No non-environmentally friendly suppressants may be used as this could result in pollution of water sources. - Toilets at the recommended Health and Safety standards must be provided. These should be emptied regularly and once no longer required, they must be pumped dry to prevent leakage into the surrounding environment and removed from site. - Litter, spills, fuels, chemical and human waste in and around the Project Area must be minimised and controlled according to the waste management plan. - No waste dumping and littering is allowed within the Project Area and into the surrounding ocean. Monitoring of this need to take place and be included in the waste management plan. - Leaking equipment and vehicles must be repaired immediately or be removed from Project Area to facilitate repair. - A hydrocarbon spill management plan must be put in place to ensure that should there be any chemical spill out or over that it does not run into the surrounding areas. The Contractor shall be in possession of an emergency spill kit that must always be complete and available on site.

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- Drip trays or any form of oil absorbent material must be placed underneath vehicles/machinery and equipment when not in use.
- No servicing of equipment on site unless necessary.
- All contaminated soil / yard stone shall be treated in situ or removed and be placed in containers.
- Appropriately contain any generator diesel storage tanks, machinery spills (e.g., accidental spills of hydrocarbons oils, diesel etc.) in such a way as to prevent them from leaking and entering the environment.
- Construction activities and vehicles could cause spillages of lubricants, fuels and waste material negatively affecting the functioning of the ecosystem. All vehicles and equipment must be maintained, and all re-fuelling and servicing of equipment is to take place in demarcated areas outside of the Project Area.

5 Conclusion

The habitats within the Project Area have been significantly altered due to historical development of the existing Aquaculture Facility and associated infrastructure. Overall, the completion of this terrestrial biodiversity assessment led to a dispute of the 'Very High' Terrestrial Biodiversity Theme Sensitivity as set out in the National Environmental Screening Tool. The Project Area is assigned a 'Very Low' Terrestrial Theme Sensitivity for the Irreversibly Modified habitat and a 'Low' Terrestrial Theme Sensitivity for the Disturbed Strandveld habitat type.

The Animal Species Theme sensitivity for the Project Area was allocated as 'Low' by the National Environmental Screening Tool, and this was subsequently reviewed through field verification. The Irreversibly Modified habitat is assigned a 'Very Low' Animal Species Theme sensitivity, while the Disturbed Strandveld is assigned a 'Low' Animal Species Theme sensitivity. One (1) avifauna SCC was observed outside the Project Area. The Crowned Cormorant (*Microcarbo coronatus*) was observed on the boulders outside the Project Area, and the proposed decommissioning of the Aquaculture Facility is not expected to have a significant impact on the species.

The Plant Species Theme sensitivity is 'Medium' for the Project Area as allocated by the National Environmental Screening Tool, which was disputed for both habitats. The Irreversibly Modified habitat is assigned a 'Very Low' Plant Species Theme sensitivity, while the Disturbed Strandveld is assigned a 'Low' Plant Species Theme sensitivity. Two (2) flora SCC were observed in the ornamental gardens within the Irreversibly Modified habitat; *Aloe distans* (VU) and *Aloe thraskii* (NT). These species however were introduced to the Project Area for ornamental purposes.

The Project Area overlaps with the EN Langebaan Dune Strandveld vegetation type. However, due to the Project Area largely consisting of existing infrastructure and being in an irreversibly modified and disturbed state, it no longer represents the EN Langebaan Dune Strandveld vegetation type. Similarly, the Project Area overlaps with the Cape West Coast Biosphere Reserve, but due to the existing infrastructure and irreversibly modified state of the Project Area, the proposed activities is not expected to have a significant impact on the receiving environment.

5.1 Impact Statement

The location, state and size of the ecosystem suggests that it is unlikely that any functional habitat or SCC will be lost as a result of the impacts arising from the proposed activities. These assumptions only pertain to the terrestrial habitat within the Project Area.

The activities involved in the proposed project are limited to decommissioning and are expected to be limited to the Project Area. It is further expected that impacts will be limited to the existing Aquaculture Facility and associated infrastructure (Irreversibly Modified habitat type). No vegetation clearance or expansion of existing infrastructure is expected for the decommissioning of the existing aquaculture facility, rezoning the site for business use, and converting the empty buildings into mixed-use business and residential space linked to the neighbouring waterfront development

5.2 Specialist Opinion

Provided that the mitigation measures outlined in this and other specialist reports are implemented, no significant impacts are anticipated from the proposed decommissioning of the existing aquaculture facility, rezoning the site for business use, and converting the empty buildings into mixed-use business and residential space linked to the neighbouring waterfront development.

6 References

Bates, M.F., Branch, W.R., Bauer, A.M., Burger, M., Marais, J., Alexander, G.J & de Villiers, M.S. (Eds). 2014. Atlas and Red List of Reptiles of South Africa, Lesotho and Swaziland. Suricata 1. South African Biodiversity Institute, Pretoria.

BirdLife International. 2021. *Microcarbo coronatus*. The IUCN Red List of Threatened Species 2021: e.T22696730A181721741. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T22696730A181721741.en>. Accessed on 01 June 2026.

Department of Forestry, Fisheries and the Environment (DFFE). 2025. SACAD (South Africa Conservation Areas Database) and SAPAD (South Africa Protected Areas Database). <http://egis.environment.gov.za>.

Department of Forestry, Fisheries and the Environment (DFFE). 2022. National Protected Areas Expansion Strategy <http://egis.environment.gov.za>.

Du Preez, L.H. & Carruthers, V. 2009. A Complete Guide to the Frogs of Southern Africa. Struik Nature, Cape Town.

Fish, L., Mashau, A.C., Moeaha, M.J. & Nembudani, M.T. 2015. Identification Guide to Southern African Grasses: An Identification Manual with Keys, Descriptions, and Distributions. SANBI, Pretoria.

McInnes AM, Crawford RJM, Makhado AB 2025. Crowned Cormorant. In: Lee ATK, Rose S, Banda S, Bezeng SB, Maphalala MI, Maphisa DH, Smit-Robinson H (eds), The 2025 Red Data Book of Birds of South Africa, Lesotho and Eswatini. Johannesburg, South Africa: BirdLife South Africa. Available at: <https://www.birdlife.org.za/red-list/crowned-cormorant/>

Mucina, L. & Rutherford, M.C. (Eds.). 2006. The vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African National Biodiversity Institute, Pretoria, South African.

Mucina, L. & Rutherford, M.C. 2006. The vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African National Biodiversity Institute, Pretoria, South African.

Mucina, L., Rutherford, M.C. & Powrie, L.W. (Eds.). 2007. Vegetation map of South Africa, Lesotho and Swaziland. 1:1 000 000 scale sheet maps. 2nd ed. South African National Biodiversity Institute, Pretoria.

National Biodiversity Assessment spatial data. 2018. <http://bgis.sanbi.org/>. Accessed May 2026

Nel JL, Murray KM, Maherry AM, Petersen CP, Roux DJ, Driver A, Hill L, Van Deventer H, Funke N, Swartz ER, Smith-Adao LB, Mbona N, Downsborough L and Nienaber S. 2011. Technical Report for the National Freshwater Ecosystem Priority Areas project. WRC Report No. K5/1801.

NEMBA. 2014. Government Gazette, Volume 584. No 37320. www.gpwonline.co.za. Accessed May 2026

Raimondo, D., von Staden, L., Foden, W., Victor, J.E., Helme, N.A., Turner, R.C., Kamundi, D.A. and Manyama, P.A. 2009. Red List of South African Plants. Strelitzia 25. South African National Biodiversity Institute, Pretoria.

SANBI. 2022. Red List of South African Plants version 2020. redlist.sanbi.org

SANBI-BGIS. 2017. Technical guidelines for CBA Maps: Guidelines for developing a map of Critical Biodiversity Areas & Ecological Support Areas using systematic biodiversity planning.

Skinner, J.D. & Chimimba, C.T. 2005. The Mammals of the Southern African Sub-region. Cambridge University Press, Cape Town.

Skowno, A.L. & Monyeki, M.S. 2021. South Africa's Red List of Terrestrial Ecosystems (RLEs). Land, 10, 1048, 1-14.

Skowno, A.L., Raimondo, D.C., Poole, C.J., Fizzotti, B. & Slingsby, J.A. (eds.). 2019. South African National Biodiversity Assessment 2018 Technical Report Volume 1: Terrestrial Realm. South African National Biodiversity Institute, Pretoria.

Taylor A, Cowell C, Drouilly M, Schulze E, Avenant N, Birss C, Child MF. 2016. A conservation assessment of *Pelea capreolus*. In Child MF, Roxburgh L, Do Linh San E, Raimondo D, Davies-Mostert HT, editors. The Red List of Mammals of South Africa, Swaziland and Lesotho. South African National Biodiversity Institute and Endangered Wildlife Trust, South Africa.

Van Deventer H, Smith-Adao L, Collins NB, Grenfell M, Grundling A, Grundling P-L, Impson D, Job N, Lötter M, Ollis D, Petersen C, Scherman P, Sieben E, Snaddon K, Tererai F. and Van der Colff D. 2019. *South African National Biodiversity Assessment 2018: Technical Report. Volume 2b: Inland Aquatic (Freshwater) Realm*. CSIR report number CSIR/NRE/ECOS/IR/2019/0004/A. South African National Biodiversity Institute, Pretoria. <http://hdl.handle.net/20.500.12143/6230>.

7 Appendix Items

7.1 Appendix A: Methods

7.1.1 Desktop Dataset Assessment

7.1.1.1 Ecologically Important Landscape Features

Existing ecologically relevant data layers were incorporated into a GIS to establish how the proposed development might interact with any ecologically important entities. Emphasis was placed around the following spatial datasets:

- National Biodiversity Assessment 2018 (Skowno et al, 2019) - The purpose of the National Biodiversity Assessment (NBA) is to assess the state of South Africa's biodiversity based on best available science, with a view to understanding trends over time and informing policy and decision-making across a range of sectors. The NBA deals with all three components of biodiversity: genes, species and ecosystems; and assesses biodiversity and ecosystems across terrestrial, freshwater, estuarine and marine environments. The two headline indicators assessed in the NBA are:
 - Ecosystem Threat Status – indicator of an ecosystem's wellbeing, based on the level of change in structure, function or composition. Ecosystem types are categorised as Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT) or Least Concern (LC), based on the proportion of the original extent of each ecosystem type that remains in good ecological condition. Red List of Ecosystems (RLE) 2021 – The list was first published in 2011 and has since been substantially revised by authors Dr Andrew Skowno and Mrs Maphale Monyeki (SANBI, 2022). This list is based on assessments that followed the International Union for Conservation of Nature (IUCN) Red List of Ecosystems Framework (version 1.1) and covers all 456 terrestrial ecosystem types described in South Africa by Mucina and Rutherford (2006). A total of 120 of the 456 terrestrial ecosystem types assessed are categorised as threatened and together make up approximately 10% of the remaining natural habitat in the country. Of these 120 ecosystem types, 55 are Critically Endangered (CR), 51 Endangered (EN) and 14 are Vulnerable (VU). The remainder are categorised as Least Concern (LC) (SANBI, 2022; Skowno & Monyeki, 2021).
 - Ecosystem Protection Level – indicator of the extent to which ecosystems are adequately protected or under-protected. Ecosystem types are categorised as Well Protected (WP), Moderately Protected (MP), Poorly Protected (PP), or Not Protected (NP), based on the proportion of the biodiversity target for each ecosystem type that is included within one or more protected areas. Not Protected, Poorly Protected or Moderately Protected ecosystem types are collectively referred to as under-protected ecosystems.
- Protected areas:
 - South Africa Protected Areas Database (SAPAD) and South Africa Conservation Areas Database (SACAD) (DFFE, 2025a) – The South African Protected Areas Database (SAPAD) and South Africa Conservation Areas Database (SACAD) contains spatial data for the conservation of South Africa. It includes spatial and attribute information for both formally protected areas and areas that have less formal protection. The database is updated on a continuous basis and forms the basis for the Register of Protected Areas which is a legislative requirement under the National Environmental Management: Protected Areas Act, Act 57 of 2003.

- National Protected Areas Expansion Strategy (NPAES) (DFFE, 2022b) – The National Protected Area Expansion Strategy (NPAES) provides spatial information on areas that are suitable for terrestrial ecosystem protection. These focus areas are large, intact and unfragmented and are therefore, of high importance for biodiversity, climate resilience and freshwater protection.
- Conservation/Biodiversity Sector Plans:
 - The purpose of the Western Cape Biodiversity Spatial Plan (BSP) (2023) is to inform land-use planning and development on a provincial scale and to aid in natural resource management. One of the outputs is a map of Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs). These are classified into different categories, namely CBA1 areas, CBA2 areas, ESA areas and Other Natural Areas (ONAs) based on biodiversity characteristics, spatial configuration, and requirements for meeting targets for both biodiversity patterns and ecological processes.
- A new set of Key Biodiversity Areas (KBA) specific to South Africa has been identified using the Global Standard for the Identification of Key Biodiversity Areas version 1.2 (IUCN 2016), applied to South African species and ecosystems. KBAs are critical sites that play a vital role in maintaining global biodiversity by serving as essential habitats for species. The identification of KBAs enables governments and civil society to pinpoint key locations crucial for species and their habitats worldwide. This understanding facilitates collaborative efforts to manage and conserve these areas, thereby safeguarding global biological diversity and supporting international biodiversity objectives; and
- Freshwater Ecology:
 - Strategic Water Source Areas (SWSAs) (Le Maitre et al, 2018) – SWSAs are defined as areas of land that supply a quantity of mean annual surface water runoff in relation to their size and therefore, contribute considerably to the overall water supply of the country. These are key ecological infrastructure assets and the effective protection of surface water SWSAs areas is vital for national security because a lack of water security will compromise national security and human wellbeing.
 - South African Inventory of Inland Aquatic Ecosystems (SAIIAE) (Van Deventer et al, 2018) – A South African Inventory of Inland Aquatic Ecosystems (SAIIAE) was established during the National Biodiversity Assessment of 2018. It is a collection of data layers that represent the extent of river and inland wetland ecosystem types as well as pressures on these systems.
 - National Freshwater Ecosystem Priority Area (NFEPA) (Nel et al., 2011) – The NFEPA database provides strategic spatial priorities for conserving the country's freshwater ecosystems and associated biodiversity as well as supporting sustainable use of water resources.

7.1.2 Field Survey

7.1.2.1 Fauna Survey

The faunal component of this report pertains terrestrial animal species. The faunal field survey utilised a variety of sampling techniques, including but not limited to:

- Visual and auditory searches: This involves strategic meandering and the use of binoculars and specialist camera equipment to view species from a distance without them being disturbed;

- Active hand-searches: Used for species that shelter in or under particular micro-habitats (typically rocks, exfoliating rock outcrops, fallen trees, leaf litter, bark etc.); and
- The identification of tracks and signs and listening to species calls.

Relevant field guides and texts consulted for identification purposes included the following:

- The Mammals of the Southern African Subregion (Skinner & Chimimba, 2005);
- Field Guide to Snakes and other Reptiles of Southern Africa (Branch, 1998);
- A Complete Guide to the Snakes of Southern Africa (Marais, 2004);
- Atlas and Red List of the Reptiles of South Africa, Lesotho and Swaziland (Bates et al, 2014);
- A Complete Guide to the Frogs of Southern Africa (du Preez and Carruthers, 2009);
- Stuarts' Field Guide to Mammals of Southern Africa including Angola, Zambia & Malawi (Stuart and Stuart, 2015); and
- A Field Guide to the Tracks and Signs of Southern and East African Wildlife (Stuart and Stuart, 2000).

7.1.2.2 Flora Survey

The fieldwork and sample sites were placed within targeted areas (i.e. target sites) perceived as ecologically sensitive based on the preliminary interpretation of satellite imagery (Google Corporation) and GIS analysis (which included the latest applicable biodiversity datasets) available prior to the fieldwork. The focus of the fieldwork was therefore to maximise coverage and navigate to each target site in the field, to perform a rapid vegetation and ecological assessment at each sample site. Emphasis was placed on sensitive habitats, especially those overlapping with the proposed Project Area.

Homogenous vegetation units were subjectively identified using satellite imagery and existing land cover maps. The floristic diversity and search for flora SCC were conducted through timed meanders within representative habitat units delineated during the scoping fieldwork. Emphasis was placed mostly on sensitive habitats overlapping with the proposed Project Area.

The timed random meander method is highly efficient for conducting floristic analysis, specifically in detecting flora SCC and maximising floristic coverage. In addition, the method is time and cost effective and highly suited for compiling flora species lists and therefore gives a rapid indication of flora diversity. The timed meander search was performed based on the original technique described by Goff *et al.* (1982). Suitable habitat for SCC was identified according to Raimondo *et al.* (2009) and targeted as part of the timed meanders.

At each sample site notes were made regarding current impacts (e.g. livestock grazing, erosion etc.), subjective recording of dominant vegetation species and any sensitive features (e.g. wetlands, outcrops etc.). In addition, opportunistic observations were made while navigating through the study area.

Relevant field guides and texts consulted for identification purposes in the field during the survey included the following:

- Identification Guide to Southern African Grasses: An Identification Manual with Keys, Descriptions, and Distributions (Fish *et al.*, 2015);
- iNaturalist (<https://www.inaturalist.org>);

- Flowering Plants of the Southern Kalahari (Van Rooyen and Van Rooyen, 2019);
- Problem Plants and Alien Weeds of South Africa (Bromilow, 2010);
- Field Guide to Succulents in Southern Africa (Smith *et al*, 2017);
- Guide to the Aloes of South Africa (Van Wyk & Smith, 2014);
- Medicinal Plants of South Africa (Van Wyk *et al.*, 2013).

7.2 Appendix B: Terrestrial Site Ecological Importance

The different habitat types within the Project Area were delineated and identified based on observations made during the field survey, and information from available satellite imagery. These habitat types were assigned Ecological Importance (EI) categories based on their ecological integrity, conservation value, the presence of SCC and their ecosystem processes.

Site Ecological Importance (SEI) is a function of the Biodiversity Importance (BI) of the receptor (e.g., SCC, the vegetation/fauna community or habitat type present in the Project Area) and Receptor Resilience (RR) (its resilience to impacts).

BI is a function of Conservation Importance (CI) and the Functional Integrity (FI) of the receptor. The criteria for the CI and FI ratings are provided in Table 7-1 and Table 7-2 respectively.

Table 7-1 Summary of Conservation Importance (CI) criteria.

Conservation Importance	Fulfilling Criteria
Very High	Confirmed or highly likely occurrence of Critically Endangered (CR), Endangered (EN), Vulnerable (VU) or Extremely Rare or CR species that have a global extent of occurrence (EOO) of < 10 km ² . Any area of natural habitat of a CR ecosystem type or large area (> 0.1% of the total ecosystem type extent) of natural habitat of an EN ecosystem type. Globally significant populations of congregatory species (> 10% of global population).
High	Confirmed or highly likely occurrence of CR, EN, VU species that have a global EOO of > 10 km ² . IUCN threatened species (CR, EN, VU) must be listed under any criterion other than A. If listed as threatened only under Criterion A, include if there are less than 10 locations or < 10 000 mature individuals remaining. Small area (> 0.01% but < 0.1% of the total ecosystem type extent) of natural habitat of EN ecosystem type or large area (> 0.1%) of natural habitat of VU ecosystem type. Presence of Rare species. Globally significant populations of congregatory species (> 1% but < 10% of global population).
Medium	Confirmed or highly likely occurrence of populations of Near Threatened (NT) species, threatened species (CR, EN, VU) listed under Criterion A only and which have more than 10 locations or more than 10 000 mature individuals. Any area of natural habitat of threatened ecosystem type with status of VU. Presence of range-restricted species. > 50% of receptor contains natural habitat with potential to support SCC.
Low	No confirmed or highly likely populations of SCC. No confirmed or highly likely populations of range-restricted species. < 50% of receptor contains natural habitat with limited potential to support SCC.
Very Low	No confirmed and highly unlikely populations of SCC. No confirmed and highly unlikely populations of range-restricted species. No natural habitat remaining.

Table 7-2 Summary of Functional Integrity (FI) criteria.

Functional Integrity	Fulfilling Criteria
Very High	Very large (> 100 ha) intact area for any conservation status of ecosystem type or > 5 ha for CR ecosystem types. High habitat connectivity serving as functional ecological corridors, limited road network between intact habitat patches. No or minimal current negative ecological impacts, with no signs of major past disturbance.
High	Large (> 20 ha but < 100 ha) intact area for any conservation status of ecosystem type or > 10 ha for EN ecosystem types. Good habitat connectivity, with potentially functional ecological corridors and a regularly used road network between intact habitat patches. Only minor current negative ecological impacts, with no signs of major past disturbance and good rehabilitation potential.
Medium	Medium (> 5 ha but < 20 ha) semi-intact area for any conservation status of ecosystem type or > 20 ha for VU ecosystem types. Only narrow corridors of good habitat connectivity or larger areas of poor habitat connectivity and a busy used road network between intact habitat patches. Mostly minor current negative ecological impacts, with some major impacts and a few signs of minor past disturbance. Moderate rehabilitation potential.
Low	Small (> 1 ha but < 5 ha) area. Almost no habitat connectivity but migrations still possible across some modified or degraded natural habitat and a very busy used road network surrounds the area. Low rehabilitation potential. Several minor and major current negative ecological impacts.
Very Low	Very small (< 1 ha) area. No habitat connectivity except for flying species or flora with wind-dispersed seeds. Several major current negative ecological impacts.

BI can be derived from a simple matrix of CI and FI as provided in Table 7-3.

Table 7-3 Matrix used to derive Biodiversity Importance (BI) from Functional Integrity (FI) and Conservation Importance (CI).

Biodiversity Importance		Conservation Importance				
		Very High	High	Medium	Low	Very Low
Functional Integrity	Very High	Very High	Very High	High	Medium	Low
	High	Very High	High	Medium	Medium	Low
	Medium	High	Medium	Medium	Low	Very Low
	Low	Medium	Medium	Low	Low	Very Low
	Very Low	Medium	Low	Very Low	Very Low	Very Low

The fulfilling criteria to evaluate RR are based on the estimated recovery time required to restore an appreciable portion of functionality to the receptor, as summarised in Table 7-4.

Table 7-4 Summary of Receptor Resilience (RR) criteria.

Resilience	Fulfilling Criteria
Very High	Habitat that can recover rapidly (~ less than 5 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a very high likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
High	Habitat that can recover relatively quickly (~ 5–10 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a high likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
Medium	Will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a moderate likelihood of: (i) remaining at a site

Aquaculture Facility Decommissioning

	even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
Low	Habitat that is unlikely to be able to recover fully after a relatively long period: > 15 years required to restore ~ less than 50% of the original species composition and functionality of the receptor functionality, or species that have a low likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
Very Low	Habitat that is unable to recover from major impacts, or species that are unlikely to: (i) remain at a site even when a disturbance or impact is occurring, or (ii) return to a site once the disturbance or impact has been removed.

After the determination of BI and RR, the SEI can be ascertained using the matrix as provided in Table 7-5.

Table 7-5 *Matrix used to derive Site Ecological Importance from Receptor Resilience (RR) and Biodiversity Importance (BI).*

Site Ecological Importance		Biodiversity Importance				
		Very High	High	Medium	Low	Very Low
Receptor Resilience	Very Low	Very High	Very High	High	Medium	Low
	Low	Very High	Very High	High	Medium	Very Low
	Medium	Very High	High	Medium	Low	Very Low
	High	High	Medium	Low	Very Low	Very Low
	Very High	Medium	Low	Very Low	Very Low	Very Low

Interpretation of the SEI in the context of the proposed project is provided in Table 7-6.

Table 7-6 *Guideline for interpreting Site Ecological Importance in the context of proposed activities.*

Site Ecological Importance	Interpretation in relation to proposed development activities
Very High	Avoidance mitigation – no destructive development activities should be considered. Offset mitigation not acceptable/not possible (i.e., last remaining populations of species, last remaining good condition patches of ecosystems/unique species assemblages). Destructive impacts for species/ecosystems where persistence target remains.
High	Avoidance mitigation wherever possible. Minimisation mitigation – changes to project infrastructure design to limit the amount of habitat impacted, limited development activities of low impact acceptable. Offset mitigation may be required for high impact activities.
Medium	Minimisation and restoration mitigation – development activities of medium impact acceptable followed by appropriate restoration activities.
Low	Minimisation and restoration mitigation – development activities of medium to high impact acceptable followed by appropriate restoration activities.
Very Low	Minimisation mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.

The SEI evaluated for each taxon can be combined into a single multi-taxon evaluation of SEI for the assessment area. Either a combination of the maximum SEI for each receptor should be applied, or the SEI may be evaluated only once per receptor but for all necessary taxa simultaneously. For the latter, justification of the SEI for each receptor is based on the criteria that conforms to the highest CI and FI, and the lowest RR across all taxa.

7.3 Appendix C: Specialist Declaration of Independence

I, Grietjie Stander, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



Grietjie Stander

Terrestrial Ecologist

The Biodiversity Company

June 2026

I, Brittney Jamieson, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



Brittney Jamieson

Terrestrial Ecologist

The Biodiversity Company

June 2026

I, Wesley Black, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



Wesley Black

Terrestrial Ecologist

The Biodiversity Company

June 2026

I, Dr Candyce Areington, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



Dr Candyce Areington

Terrestrial Ecologist

The Biodiversity Company

June 2026

7.4 Appendix D: Specialist CVs

Grietjie STANDER

Cert Sci Nat 162039

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grietjie@thebiodiversitycompany.com



PROFILE SUMMARY

Environmental and ecological specialist with more than three years of consulting experience within South Africa and internationally. Specialist expertise as a terrestrial ecologist and project manager in various sectors including mining, engineering, renewable energy, and private sector developments. Experienced in delivering field surveys, technical reports and specialist guidance for compliance with in-country legislative requirements and international lender standards. Registered Cert Sci Nat with the South African Council for Natural Scientific Professions.

PERSONAL INFO

Nationality: South African
Date of birth: 14 September 1993

EXPERIENCE

Environmental Impact Assessments (EIA)
Environmental Management Programmes (EMP)
Project Management
Terrestrial Biodiversity Assessments

SKILLS

- ✓ Terrestrial Biodiversity, Fauna and Flora (Ecology) Assessments
- ✓ GIS
- ✓ Wetland delineation
- ✓ Rehabilitation
- ✓ Monitoring & Management Plans

LANGUAGES

English – Proficient
Afrikaans – Proficient



Signed: Grietjie Stander

ACADEMIC QUALIFICATIONS

University of Limpopo (2023): MAGISTER SCIENTIAE (MSc) – Zoology:

Thesis title: *The effect of climate change on the breeding success of three African hornbill species*

Bhejane Nature Training (2017): FGASA (NQF2)
Terrestrial and Marine Guide Training

North West University (2015): BACCALAREUS SCIENTIAE (BSc Hons) – Environmental Sciences (Aquatic health):

Research project title: *Fish diversity and health assessment of Clarias gariepinus from the Makuleke Wetlands in the Kruger National Park*

North West University (2017): BACCALAREUS SCIENTIAE (BSc) – Environmental Sciences:

Majors: Zoology and Geography

PROFESSIONAL EXPERIENCE

Sep 2023 – Present	The Biodiversity Company Terrestrial Ecologist
Aug 2022 – Aug 2023	Milnex Environmental Consultants CC Ecologist and Consultant (Water Use Licensing)
Mar 2022 – Aug 2022	Mogalakwena Research Centre Assistant Research Manager
Jan 2019 – Aug 2022	Mogalakwena Research Centre Research Assistant

INTERNATIONAL EXPERIENCE

South Africa, Angola, Mali, Mauritius, Mozambique

Brittney-Aidan Jamieson



Cand Sci Nat 178794 ☎ +27 79 888 0800

✉ brittney@thebiodiversitycompany.com

PROFILE SUMMARY

Master's graduate in Microbiology with hands-on experience in environmental monitoring, field sampling, and pathogen detection across diverse ecosystems. Skilled in experimental design, data collection and analysis, with strong foundation in Microbiology, Genetics, and Plant Pathology. Experienced in combining laboratory and field-based research to address real-world environmental and agricultural challenges. Demonstrated leadership and mentoring abilities through roles as class representative and honors student mentor, reflecting strong teamwork, communication, and organizational skills. Passionate about contributing to sustainable land and resource management by applying scientific rigor and evidence based thinking within multidisciplinary teams.

PERSONAL INFO

Nationality: South African
Date of birth: 27 May 1999

EXPERIENCE

Field work
Sample processing
Report writing
Conference Presentations

SKILLS

- ✓ Research & Problem-Solving
- ✓ Data Analysis & Interpretation
- ✓ Scientific Writing & Communication
- ✓ Fieldwork & Practical Experience
- ✓ Collaboration & Leadership

LANGUAGES

English – Proficient
Afrikaans – Conversational
Spanish - Basic

Signed: Brittney-Aidan Jamieson

ACADEMIC QUALIFICATIONS

University of Pretoria (2024 - 2025): MAGISTER SCIENTIAE (MSc) - Microbiology:

Title: *Screening South African Commercial Eucalyptus Provenances for Resistance to Quambalaria eucalypti.*

University of Pretoria (2023): BACCALAUREUS SCIENTIAE HONORIBUS (Hons) – Microbiology

University of Pretoria (2019 - 2022): BACCALAUREUS SCIENTIAE IN NATURAL AND ENVIRONMENTAL SCIENCES. Majors: Genetics and Microbiology.

PROFESSIONAL EXPERIENCE

January 2026 **The Biodiversity Company**
Terrestrial Intern

December 2025 **Digby Wells Environmental**
Shadow Experience

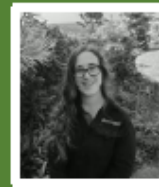
June 2023 – November 2025 **University of Pretoria**
Lab Demonstrator and Tutor

Dr Candyce Ann Areington

Pr Sci Nat 167868

+27 79 896 5889

candyce@thebiodiversitycompany.com



PROFILE SUMMARY

Environmental Terrestrial ecologist with over three years of botanical and consulting experience, with international working experience. Specialist expertise in habitat delineation, ecological assessments, biodiversity offsets, rehabilitation and monitoring plans, across renewable energy, mining, and private development sector. Skilled in providing specialist guidance, technical support, and facilitation to ensure compliance with in-country legislative requirements. Registered as a Professional Natural Scientist (Pr Sci Nat) with the South African Council for Natural Scientific Professions.

PERSONAL INFO

Nationality: South African
Date of birth: 09 December 1991

EXPERIENCE

Rehabilitation Plans Development and Implementation
Biodiversity Management Plans
Monitoring programmes
Terrestrial Biodiversity Assessments
Field work and research

SKILLS

- ✓ Ecology
- ✓ Environmental Control Officer (ECO)
- ✓ Environmental Rehabilitation
- ✓ Monitoring & Management Plans
- ✓ Plant evaluations from molecular to ecological

LANGUAGES

English – Proficient
Afrikaans – Conversational

Signed: Dr Candyce Areington

ACADEMIC QUALIFICATIONS

PhD Biological Sciences, University of KwaZulu-Natal, South Africa (SA).

MSc Biological Sciences (*Cum laude*), University of KwaZulu-Natal, SA.

BSc (Hons) Biological Sciences (*Cum laude*), University of KwaZulu-Natal, SA.

BSc Environmental Science, University of KwaZulu-Natal, SA.

PROFESSIONAL EXPERIENCE

October 2023 – Present	The Biodiversity Company Terrestrial Ecologist
July 2022 – December 2023	Green Scene-Environmental Environmental and Conservation Office
July 2016 – November 2020	University of KwaZulu-Natal AD-HOC Lecturer
June 2018 – March 2020	Plant Germplasm Conservation Research unit Senior Administrator
January 2013 – December 2013	University of KwaZulu-Natal Research Assistant

INTERNATIONAL EXPERIENCE

Angola, Botswana, South Africa



CURRICULUM VITAE: Dr Candyce Areington

PUBLICATIONS

Areington C.A., O'Kennedy M.M., Sershen. 2024. Establishing In Vitro Screening Protocols Based on Phenotypic Plasticity of *Amaranthus dubius* and *Galinsoga parviflora* Seeds for Drought, Salinity, and Heat Tolerance. *International Journal of Plant Biology* 15(3):878-894. <https://doi.org/10.3390/ijpb15030063>

Areington, C.A., Lima Neto, M.C., Watt, P.M. and Sershen. 2022. Assessing the utility of selected photosynthetic and related traits in screening *Amaranthus dubius* Mart. ex Thell. and *Galinsoga parviflora* Cav. 1796 seedlings for elevated temperature stress tolerance. *South African Journal of Botany* 145, pp. 444–458.

Areington, C.A., Varghese, B., Sershen. 2017. The utility of biochemical, physiological and morphological biomarkers of leaf sulfate levels in establishing *Brachylaena discolor* leaves as a bioindicator of SO₂ pollution. *Plant Physiology and Biochemistry* 118, pp. 295–305.

Areington, C.A., Varghese, B., Ramdhani, S., Sershen. 2015. An assessment of morphological, physiological, and biochemical biomarkers of industrial air pollution in the leaves of *Brachylaena discolor*. *Water, Air, and Soil Pollution* 226 (9), pp. 1–14.

Wesley BLACK

Pr Sci Nat 147190

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PROFILE SUMMARY

I have extensive professional experience throughout Africa, with a particular emphasis on West Africa, Central Africa, Southern Africa, as well as the Middle East. My specialist background includes work in the mining, agriculture, protected areas, conservation, private sector, and land use planning sectors. My core areas of expertise are botany, terrestrial ecology, wildlife management, and agroecology.

PERSONAL INFO

Nationality: South African

Date of birth: 21 February 1991

EXPERIENCE

- Broad African and Middle Eastern project exposure
- Work across mining, agriculture, and conservation sectors
- Leadership in ecological and rehabilitation projects
- Freelance consultancy for major organizations
- Academic and field research roles
- Published in scientific and industry journals

SKILLS

- ✓ Forest Classification
- ✓ Rehabilitation and environmental management
- ✓ Wildlife and livestock management
- ✓ Impact assessment (environmental, social, health)
- ✓ Remote sensing and GIS application
- ✓ Botany and veld management
- ✓ Critical Habitat Assessments
- ✓ Carbon Stock Estimations
- ✓ Grazing Plans

ACADEMIC QUALIFICATIONS

- Masters in Agriculture (Wildlife Management and Grassland Sciences), University of the Free State.
- B Agric (Hons) – Wildlife Management (Cum Laude): University of the Free State.
- B-Tech in Nature Conservation, Tshwane University of Technology, Pretoria, South Africa.
- National Diploma in Nature Conservation, Tshwane University of Technology, Pretoria, South Africa.
- GIS short course – University of the Free State
- Snake identification and Snake handling (2013) (2020)

PROFESSIONAL EXPERIENCE

2024 – Present	The Biodiversity Company Terrestrial Ecologist / Land use specialist
2017 – 2024	Ecological Consultant (Self Employed)
Feb 2017 – Dec 2018	Research Assistant – University of the Free State
2014	Ecological Intern - Khamab Kalahari Reserve
2011	Intern at Liuwa Plains National Park (African Parks)

CURRICULUM VITAE: Wesley Black

LANGUAGES

English – Proficient
Afrikaans – Proficient

INTERNATIONAL EXPERIENCE

South Africa, Lesotho, Mozambique, Zambia,
Namibia, United Arab Emirates, Angola, Sierra
Leone, and Botswana.

PUBLICATIONS

Deacon, F. and Black, W.J., Grazing Management: Good for the veld, your animals and your wallet, Stock Farm, 2021

Deacon, F. & Black, W.J., 2025. Importance of stocking rate, grazing, and browsing capacity in relation to rainfall on a wildlife estate in the Central Free State of South Africa. *Rangeland Ecology & Management*, 103, pp.388–394. (<https://doi.org/10.1016/j.rama.2025.09.011>).

Deacon, F. & Black, W.J., 2026. Novel insights into grazing and browsing capacity related to rangeland condition in an understudied area of central Mozambique, Inhambane Province. *Rangeland Ecology & Management*, 104, pp.67–71. (<https://doi.org/10.1016/j.rama.2025.11.006>).



Signed: Wesley Black



**MARINE COMPLIANCE STATEMENT FOR THE
PROPOSED DECOMMISSIONING OF AN
AQUACULTURE FACILITY AND SUBSEQUENT
MIXED-USE REDEVELOPMENT ON A PORTION OF
THE FARM NO. 1259**

**Saldanha Bay Local Municipality, West Coast
District Municipality, Western Cape Province,
South Africa**

2/7/2026

Prepared by:

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Report Name	MARINE COMPLIANCE STATEMENT FOR THE PROPOSED DECOMMISSIONING OF AN AQUACULTURE FACILITY AND SUBSEQUENT MIXED-USE REDEVELOPMENT ON A PORTION OF THE FARM NO. 1259	
Report Type	Marine Biodiversity Compliance	
Project Reference	Aquaculture Facility Decommissioning and Mixed-use Redevelopment	
Report Version	2/7/2026	
Environmental Assessment Practitioner		
Technical Support	Wesley Black (Pr. Sci. Nat. 147190)	
	Namitha Singh (Pr. Sci. Nat. 157927)	
Responsible Specialist	Andrew Husted (Pr. Sci. Nat. 400213/11)	
Declaration	The Biodiversity Company and its associates act as independent consultants in accordance with the requirements of the South African Council for Natural Scientific Professions. We confirm that we have no affiliation with, or vested financial interest in, the proponent, other than remuneration for professional services rendered in terms of the Environmental Impact Assessment Regulations. We have no conflicting interests in the proposed activity or any secondary developments arising from the authorisation of the project, and our work has been undertaken objectively and in accordance with accepted scientific principles.	

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1 Introduction

1.1 Background

The Biodiversity Company was commissioned by Viridus Works Environmental (Pty) Ltd to conduct a marine compliance statement in support of the Environmental Authorisation (EA) process for the proposed decommissioning of an existing aquaculture facility on a portion of Farm No. 1259, Malmesbury Road, Paternoster, Saldanha Bay Local Municipality, West Coast District Municipality, Western Cape Province (Figure 1-1). The area assessed (Project Area) is based on the layout provided by the client and is illustrated in Figure 1-2.

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment Regulations (2014) (GNR 326, 7 April 2017) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). The approach has taken cognisance of the recently published Government Notices (GN) 320 (20 March 2020) and GN 1150 (30 October 2020) in terms of NEMA, dated 20 March and 30 October 2020: "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, when applying for Environmental Authorisation" (Reporting Criteria).

This report, after taking into consideration the findings and recommendation provided by the specialist herein, should inform and guide the Environmental Assessment Practitioner (EAP) and regulatory authorities, enabling informed decision making with regards to the ecological viability of the proposed development and related activities.

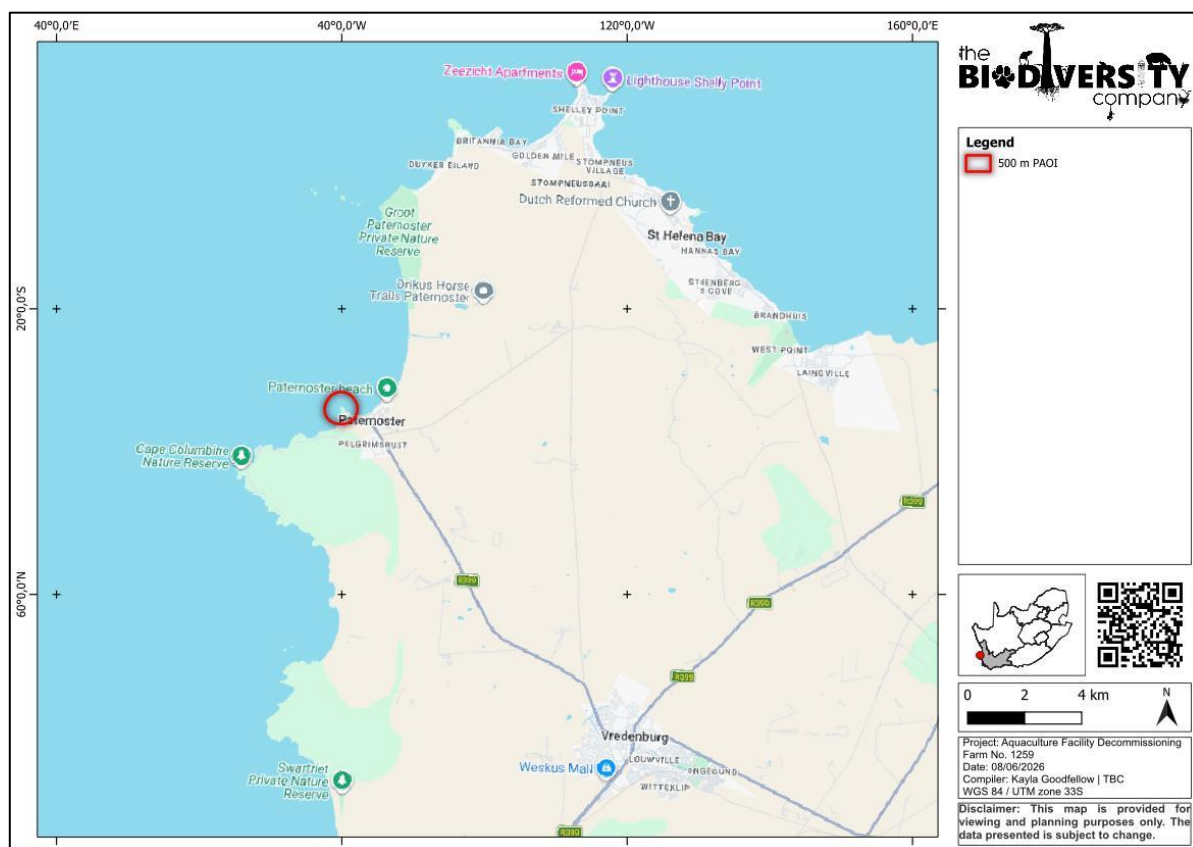


Figure 1-1 Location of the proposed project

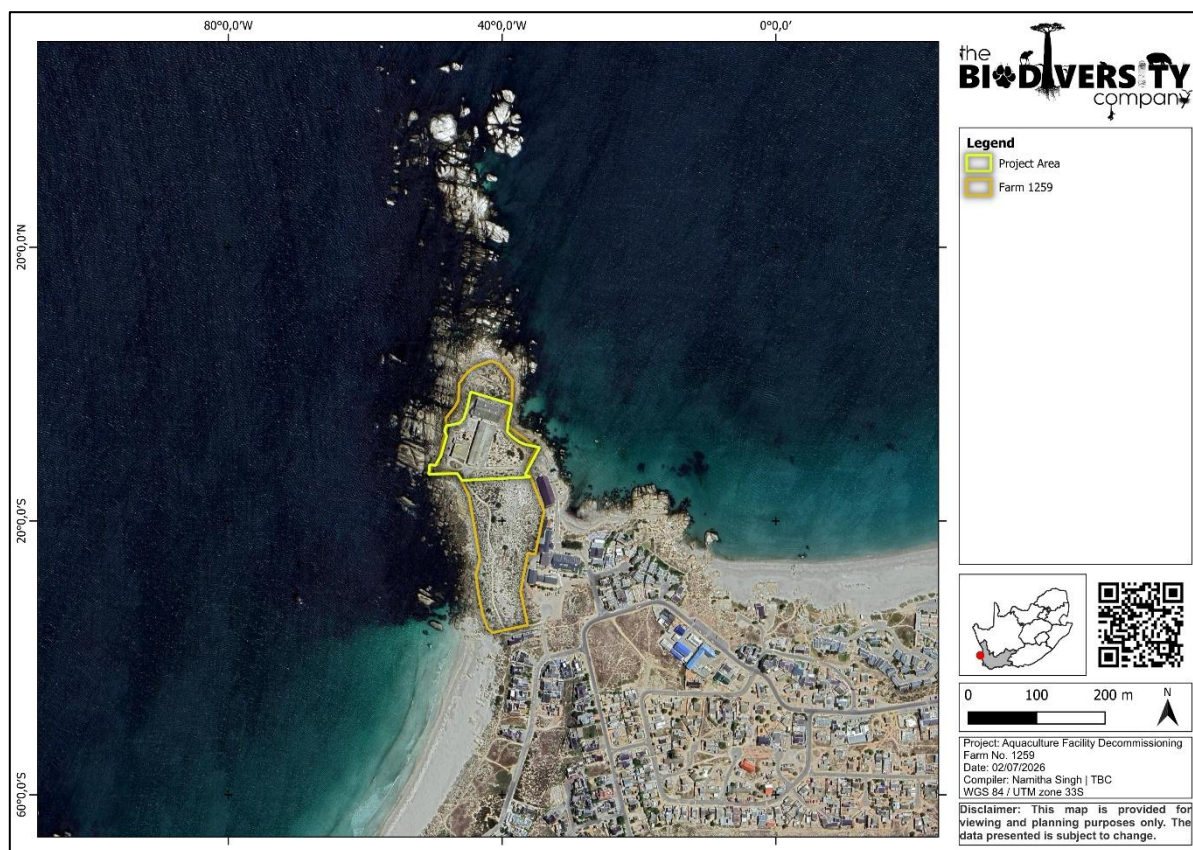


Figure 1-2 **Proposed project area**

1.2 Scope of Work

The following tasks were intended in fulfilment of the terms of reference for this assessment:

- Provide a baseline characterisation of the adjacent marine environment;
- Assess the potential for impacts on marine ecosystems for the project duration;
- The provision of recommendations relevant to associated impacts, where applicable; and
- Report compilation detailing the baseline findings.

1.3 Project Description and Technical Information

The following project details were provided by Viridus Works Environmental (Pty) Ltd (2026):

The proposed project entails the decommissioning of the existing aquaculture facility on Farm No. 1259, Malmesbury Road, to support the future rezoning of the property from Industrial Zone I to Business Zone I. The vacated buildings would then be repurposed for mixed-use business and residential accommodation, complementary to the adjacent waterfront development on Erf 2063. Figure 1-3 illustrates the Aquaculture Facilities site to be decommissioned as provided by Viridus Works Environmental (Pty) Ltd (2026).

The site is a portion of Farm No. 1259, Malmesbury Road in Paternoster. It forms a part of the larger waterfront area (Erf 2063) with access off Kreeftegang. Until recently, it was used for aquaculture purposes, including fish farming and crayfish holding; it is now used only for crayfish holding tanks. The

farm has an area of 3.12 ha. The existing buildings and aquaculture facilities on the site are in buildings with a combined floor area of approximately 4 200 m² and cover an area of roughly 1.2 ha.

The facility consists of large concrete buildings with asbestos-cement roofs. The crayfish factory was built in the early 1900s. When the Paternoster Visserie company was established in the early 1960's it took over the factory and in the mid 1980's the company established the aquaculture (fish farming) activities. The aquaculture activities remained in full operation until its closure in 2019.

To process the crayfish, they have to be kept alive in tanks filled with seawater from delivery to packing. Inside the building there are twenty concrete tanks (2 m² and 1 m deep) holding 40 m³ of fresh seawater. Water is extracted from the sea on the Bekbaai (western) side of the facility and pumped into the tanks and flows back into the sea under gravity. When crayfish is held in the tanks, fresh seawater is constantly pumped into the tanks. In this way several thousand crayfish can be kept alive for a week or more to be purged and exported live.

Some of the buildings are under-utilised and only partially used for aquaculture (crayfish holding) purposes. The fish farming aquaculture facility was not sustainable and led to the cessation of activities in 2019. This, combined with continual crayfish quota reductions has led to a more compact operation and building use, requiring less space and the need to reconfigure and better utilise the existing buildings and infrastructure. The vacated building space can be better utilised to complement the waterfront development. The buildings are all connected to the municipal services infrastructure and are accessed via a servitude road through the existing waterfront on Erf 2063.



Figure 1-3 Map illustrating the project area as provided by Viridus Works Environmental (Pty) Ltd (2026)

1.4 Assumptions and Limitations

The following aspects were considered as limitations:

- It has been assumed that the spatial files provided to the specialist is accurate;

- Only the proposed boundary of the project area and Farm No. 1259 was provided as a layout (Figure 1-3);
- The baseline characterisation is based on desktop data sources and site observations. Detailed marine biological surveys were not undertaken as these were not considered necessary given the expected low significance of marine impacts;
- The assessment assumes that seawater discharge during decommissioning will be uncontaminated (limited nutrient enriched) seawater circulated through crayfish holding tanks; and
- The assessment is based on current operational parameters (40 m³/hour seawater discharge) and assumes discharge volumes will decrease once some of the holding tanks are decommissioned.

1.5 Key Legislative Requirements

The legislation, policies and guidelines listed below in Table 1-1 are applicable to the current project. The list below, although extensive, may not be complete and other legislation, policies and guidelines may apply in addition to those listed below.

Table 1-1 A list of key legislative requirements

Region	Legislation / Guideline	Comment
National	National Environmental Management Act (Act No. 107 of 1998) (NEMA)	To provide for the effective protection and controlled utilisation of the environment and for matters incidental thereto.
	NEMA: Environmental Impact Assessment Regulations (2014) (GNR 326, 7 April 2017), Appendix 6 requirements	Minimum content for specialist reports.
	NEMA: Government Notices (GN) 320 (20 March 2020) and GN 1150 (30 October 2020)	The minimum criteria for reporting. Protocol for the specialist assessment and minimum report content requirements.
	The National Environmental Management: Integrated Coastal Management Act (Act No. 24 of 2008)	Establishes a framework for integrated coastal zone management and the protection of coastal public property and marine ecosystems. The Act defines the coastal zone and establishes principles for sustainable development in coastal areas.
	Marine Living Resources Act (Act No. 18 of 1998)	Regulates the use and conservation of marine living resources, including fish and other marine organisms.
	National Environmental Management: Waste Act (Act No. 59 of 2008)	The regulation of waste management to protect the environment.
	National Water Act (Act No. 36 of 1998) (NWA)	To provide for the regulation of water uses.
	NEMBA: Alien and Invasive Species Regulations (2014) (GNR R598, 1 August 2014)	The regulation and management of alien invasive species.
Provincial (Western Cape)	Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) (CARA)	To provide for control over the utilisation of the natural agricultural resources, including the vegetation and the combating of weeds and invader plants.
	Draft Western Cape Biodiversity Bill, 2019	To provide for the framework and institutions for nature conservation and the protection, management and sustainable use of biodiversity and ecosystems in the province; and for matters incidental thereto.
	Western Cape Biodiversity Sector Plan (WCBSP) (DEADP, 2017)	The spatial designation of conservation areas and targets within the province.

1.5.1 National Environmental Management Act (NEMA, 1998)

The National Environmental Management Act (NEMA) (Act 107 of 1998) and the associated Regulations as amended in April 2017, establishes the overarching framework for environmental

management in South Africa and requires that activities with potential environmental impacts, including those affecting marine ecosystems, be subject to environmental assessment and authorisation by the competent authority. This could follow either the Basic Assessment Report (BAR) process or the Environmental Impact Assessment (EIA) process depending on the scale of the impact.

1.5.2 Integrated Coastal Management Act (NEM:ICMA, 2008)

The National Environmental Management: Integrated Coastal Management Act (NEM:ICMA) (Act 24 of 2008) establishes a framework for integrated coastal management in South Africa and applies to all activities in the coastal zone, including coastal waters and, the seashore. The Act requires that activities in the coastal zone be subject to environmental assessment and authorisation under NEMA, with specific consideration of ICMA factors such as effects on coastal ecosystems, public access, and coastal protection. The ICMA regulates activities including effluent discharge into coastal waters, dumping at sea, and use of coastal public property, and may require coastal use permits and discharge permits.

1.5.3 Marine Living Resources Act (MLRA, 1998)

The Marine Living Resources Act (MLRA) (Act 18 of 1998) regulates the conservation and sustainable use of marine living resources in South African waters. The Act requires that mariculture operations (the culture of fish in seawater) be authorised by the Minister of Fisheries, Forestry and the Environment through the granting of a right and the issuance of a permit. The MLRA establishes environmental controls to minimise marine pollution and protect marine ecosystems, and provides enforcement mechanisms including inspection, seizure, and prosecution for non-compliance.

1.5.4 Legislative Framework

The Department of Forestry, Fisheries and the Environment (DFFE) Environmental Screening Tool does not provide a sensitivity screening for marine biodiversity. Notwithstanding this, the screening tool has identified a requirement for a Marine Impact Assessment based on the premise that the project activities relate to an aquaculture facility and the associated marine environment. Specifically, the facility involves the extraction and discharge of seawater from and to the adjacent marine environment, which constitutes a marine-related activity requiring assessment.

Where a specialist assessment is required and no specific environmental theme protocol has been prescribed, the required level of assessment must be based on the findings of the site sensitivity verification and must comply with Appendix 6 of the Environmental Impact Assessment Regulations, 2014 (as amended). Accordingly, this Marine and Coastal Compliance Statement has been prepared in accordance with the requirements of the National Environmental Management Act (NEMA), the National Environmental Management: Integrated Coastal Management Act (ICMA), and the Marine Living Resources Act (MLRA), which collectively establish the legislative framework for marine and coastal environmental management in South Africa.

It is the opinion of the specialist that a Marine Compliance Statement (rather than a full Marine Impact Assessment) is appropriate for this project for the following reasons:

- The project involves decommissioning of an aquaculture facility, which results in a net reduction in marine impacts through the decrease of decades-long seawater discharge. Temporary impacts from the decommissioning activities and the proposed construction are expected to be of low to negligible significance and can be effectively managed through standard environmental best-practice measures;
- The site is located in a coastal setting with rocky shoreline and shallow nearshore waters. No critical marine habitats or marine protected areas have been identified within the immediate area of influence according to the available datasets;

- The level of assessment is therefore proportionate to the significance of the potential environmental impacts. Given the expected low significance of marine impacts, a Compliance Statement is proportionate and appropriate; and
- This approach is consistent with the terrestrial and aquatic theme reports (TBC, 2026), which concluded that a Compliance Statement was sufficient given the verified very low to low sensitivity of the site.

A specialist Compliance Assessment Report must contain the information as presented in Table 1-2 below.

Table 1-2 *Specialist Compliance Assessment information requirements, including the location of the information within this report*

Information to be Included (as per GN 320, 20 March 2020)	Report Section
contact details of the specialist, their SACNASP registration number, their field of expertise and a curriculum vitae	7.3
a signed statement of independence by the specialist	7.2
a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment	3.2
a baseline profile description of biodiversity and ecosystems of the site	3.1.4
the methodology used to verify the sensitivities of the aquatic biodiversity features on the site including the equipment and modelling used where relevant;	7.1
in the case of a linear activity, confirmation from the aquatic biodiversity specialist that, in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase	Not Applicable
where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr	4
a description of the assumptions made as well as any uncertainties or gaps in knowledge or data	1.4
any conditions to which this statement is subjected	5

A signed copy of the assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

2 Fieldwork

A field survey for the area was undertaken on the 14th of May 2026. The timing of the assessment is not considered to be a limiting factor to the assessment in the opinion of the specialist. The survey included visual assessment of the coastal environment, observation of marine habitats and fauna and photographic documentation.

3 Results & Discussion

3.1 Desktop Dataset Assessment

3.1.1 Climate

The climate for the region is based on the dominant vegetation type which is the Langebaan Dune Strandveld. The climate is characterised mainly by cyclonic rainfall, with annual precipitation ranging from about 230 mm in the north to 355 mm in the south. Rainfall occurs almost entirely during winter and is often associated with frequent, strong north-westerly winds and cooler conditions. Average daily maximum and minimum temperatures are approximately 26.1°C in February and 7.8°C in July, respectively. For Cape Columbine, the mean monthly maximum and minimum temperatures are about 29.8°C in March and 6.1°C in July. Southeasterly winds are more common in summer, while fog and

dew contribute additional moisture during summer and autumn, particularly in the northern part of the unit. Frost is relatively uncommon (Mucina & Rutherford, 2006).

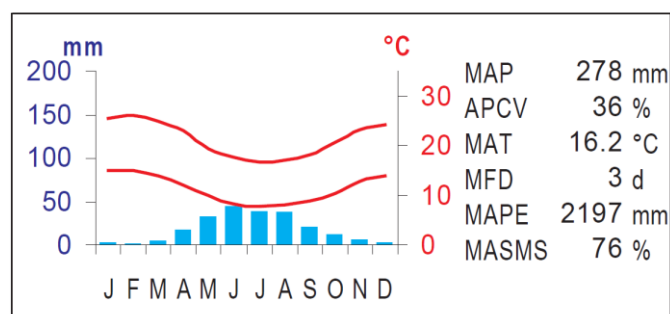


Figure 3-1 Climate for the project area of influence based on the Langebaan Dune Strandveld vegetation type (Mucina & Rutherford, 2006)

3.1.2 Oceanography

The Project Area is located on the West Coast of South Africa within the Benguela Current Large Marine Ecosystem, one of the world's most productive marine systems. The oceanographic conditions of the region are characterized by strong seasonal variability driven by wind-driven upwelling, tidal forcing, and coastal circulation patterns. The following section describes the key oceanographic characteristics relevant to the marine environment adjacent to the aquaculture facility.

The oceanographic conditions of the marine environment adjacent to the Project Area are characterised by strong seasonal variability driven by the Benguela Current upwelling system (Monteiro & Largier, 1999; Shannon & Stander, 1977). The area experiences cold, nutrient-rich upwelled water during much of the year (August-May), supporting high productivity and creating conditions conducive to harmful algal blooms and episodic low-oxygen events (Pitcher et al., 2010). Tidal flushing and density-driven exchange control the residence time of water and contaminants in Saldanha Bay, with typical residence times of approximately 6-25 days depending on oceanographic conditions (Monteiro & Largier, 1999).

Tides at Saldanha Bay are semi-diurnal, occurring twice per day with a period of approximately 12 hours and 25 minutes (Western Cape Government, 2013). The mean neap tidal range (smallest tidal range) is approximately 0.57 metres, while the mean spring tidal range (largest tidal range) is approximately 1.51 metres (Western Cape Government, 2013).

The area experiences strong seasonal wave patterns. During winter months (May-September), waves are larger and more frequent, with storms approaching mainly from the southwest to west. Waves up to approximately 8 metres in height can be expected at least once during winter (Rossouw, 2013). During summer months (September-April), wave conditions are generally calmer, with smaller waves and less frequent storms.

Within Saldanha Bay, wave conditions vary depending on location. The more exposed areas (such as Big Bay) experience larger waves, with typical wave heights of approximately 1 metre occurring 50% of the time, and larger waves of approximately 2.2 metres occurring only 1% of the time (Western Cape Government, 2013). Sheltered inner areas of the bay experience much smaller waves, with typical wave heights of approximately 0.4 metres occurring 50% of the time (Western Cape Government, 2013).

These seasonal variations in wave patterns and tidal cycles influence how water moves through Saldanha Bay and affect the dispersal of any materials that might be released into the marine environment. The combination of tidal flushing, density-driven exchange, and wave-driven mixing creates a dynamic marine environment with variable residence times for water and contaminants.

3.1.3 Coastal Management

The Project Area is located within the coastal zone as defined by the National Environmental Management: Integrated Coastal Management Act (ICMA), 2008 (Act 24 of 2008). The coastal zone comprises the Coastal Management Line (CML) and the Coastal Protection Zone (CPZ), which are illustrated in Figure 3-2.

The Coastal Management Line (CML), shown in pink on the map, represents the high-water mark of the sea at spring tide or other relevant coastal features. The Project Area is located landward from the CML but remains within proximity of the CML.

The Coastal Protection Zone (CPZ), shown in orange on the map, extends inland from the CML and is established to protect the coastal environment from inappropriate development. The Project Area is located within the CPZ, which indicates that the proposed activities must be assessed for their potential impacts on coastal or marine processes and ecosystems.



Figure 3-2 Coastal Management Line and Coastal Protection Zone for the project area

3.1.4 Ecologically Important Landscape Features

The GIS analysis pertaining to the relevance of the proposed project to ecologically important landscape features is summarised in Table 3-1. It presents a summative breakdown of the ecological boundaries considered and the associated relevance that each has to the region or Aquaculture Facility site.

Table 3-1 Summary of relevance of the proposed project to ecologically important landscape features

Desktop Information Considered	Relevance	Reasoning
Ecosystem Threat Status	Relevant	The Project Area overlaps with an Endangered (EN) (Langebaan Dune Strandveld) terrestrial ecosystem.

Ecosystem Protection Level	Relevant	The Project Area overlaps with a Well Protected (WP) terrestrial ecosystem.
Provincial Conservation Plan	Relevant	The Project Area marginally overlaps and borders with a terrestrial CBA 1 (Threatened Ecosystem).
South African Protected Areas Database (SAPAD) & South African Conservation Areas Database (SACAD)	Relevant	The Project Area overlaps with the Cape West Coast Biosphere Reserve. The Columbine Nature Reserve is located ~1.7 km southwest of the Project Area, while the Groot Paternoster Private Nature Reserve is located ~4.2 km northeast of the Project Area. The Project Area is located ~25 km east of the Cape Canyon Marine Protected Area.
National Protected Areas Expansion Strategy (NPAES)	Irrelevant	The Project Area does not overlap with any listed Priority Focus Areas.
Key Biodiversity Areas (KBA)	Relevant	The Project Area is located ~600 m north of the West Coast Biosphere Reserve KBA.

3.2 Field Survey

The marine environment adjacent to the facility is characterised by a coastal setting with rocky shoreline and shallow nearshore waters. The substrate comprises a rocky intertidal zone with sandy beach and associated coastal dune habitat in the surrounding areas. The site is exposed to Atlantic Ocean wave action and tidal influences, which drive the hydrodynamics of the nearshore environment. Water temperature in the area is influenced by the cold Benguela Current, with seasonal variation throughout the year. The waters are expected to be of full marine salinity, consistent with the open ocean environment.

Based on the coastal setting and habitat characteristics of the project area, the marine environment is expected to support diverse fauna typical of the West Coast rocky shore ecosystem. The rocky intertidal zone is expected to provide habitat for intertidal invertebrates including mussels, sea urchins, starfish, and crustaceans. The shallow nearshore waters are expected to support demersal and pelagic fish communities typical of the West Coast, which utilise the rocky substrate and kelp forests for feeding and shelter. Kelp forests, are expected to occur in shallow subtidal areas, providing important habitat and food sources for marine fauna. The coastal area is expected to be utilised by seabirds such as cormorants for feeding and roosting, taking advantage of the productive marine environment. The microscopic organisms of the phytoplankton and zooplankton communities form the base of the marine food web and are expected to be present in the nearshore waters, supporting the productivity of the broader marine ecosystem. Marine mammals are only expected to be present in the deeper waters offshore.

3.3 Site Sensitivity Verification

The National Web-based Environmental Screening Tool does not provide a sensitivity rating related to marine ecology. The verified aquatic and terrestrial sensitivities have been determined as Very Low to Low (TBC, 2026).

Based on the desktop analysis, field observations, the knowledge that the aquaculture facility has been in operation since the mid 1980s reflecting that the marine environment is not pristine, the expected reduction in impact from the downsizing of the facility and with reference to the verified aquatic and terrestrial sensitivities, the marine sensitivity of the site is determined to be Low. This rating reflects the absence of critical marine habitats, the typical nature of West Coast rocky shore ecosystems present, and the net reduction in marine impacts resulting from facility decommissioning.

4 Potential Impact & Management Measures

The existing aquaculture facility currently supports crayfish holding operations that rely on the continuous abstraction and circulation of seawater from Bekbaai, located to the west of the site. Seawater is presently abstracted at an approximate rate of 40 m³/hour (11 l/s) via 120 mm intake pipes, circulated through twenty on-site concrete holding tanks, and thereafter discharged back to the marine environment under gravity. Historically, during periods of peak fish farming activity and increased crayfish quotas, seawater abstraction occurred at substantially higher rates of up to 60 m³/hour over extended periods.

The proposed decommissioning of the aquaculture facility will result in a phased reduction in seawater demand as crayfish holding operations are progressively wound down and most tanks are taken out of service. Although limited seawater circulation may continue during the transition period for the management of remaining stock, the proposed activity will substantially reduce both seawater abstraction and return flows relative to current and historical operational conditions. In this respect, the decommissioning phase is expected to lessen the facility's interaction with the adjacent marine environment rather than intensify it.

The proposed redevelopment of the vacated facility into mixed-use business and residential accommodation will be confined to terrestrial areas within the existing transformed footprint of the site. As these areas have already been modified through decades of industrial use, and as the redevelopment will make use of existing municipal service connections for wastewater management, no significant long-term impacts on the marine environment are anticipated during the redevelopment or operational phases. Wastewater generated by the proposed offices and residential components will be managed through the municipal wastewater system, thereby avoiding direct discharge of untreated effluent to the marine environment. The redevelopment therefore represents a transition from a marine-dependent aquaculture use to land-based commercial and residential uses with appropriate environmental controls, contributing to an overall net positive outcome for the receiving marine environment.

During the decommissioning, construction, and operational phases, temporary localised impacts to the adjacent marine environment could arise if activities are not appropriately managed (Table 4-1). The impacts are expected to be localised, short term, and of negligible significance, provided that construction is restricted to the existing transformed footprint and that appropriate mitigation measures are implemented.

Table 4-1 *Potential impacts associated with the proposed activities*

Phase	Main Activity	Potential Impact	Mitigation
Decommissioning of aquaculture facility (removal of fish holding tanks)	Deconstruction activities.	Potential for accidental spills of fuels, oils, cement, paint, or other hazardous substances during demolition and deconstruction activities.	• Develop and implement a Spill Prevention and Control Plan (SPCP) prior to commencement. • Establish a designated hazardous materials storage area with secondary containment (bunds) situated on flat terrain. • Refrain from washing tools and equipment in the adjacent marine environment and ensure all water used for cleaning of equipment is not released into the environment. • Maintain spill response kits (absorbent materials, booms, skimmers) on-site at all times • Conduct mandatory hazmat training for all personnel involved in deconstruction. • Establish emergency response procedures with contact details for environmental authorities.
		Sediment-laden stormwater runoff and construction debris entering the marine environment.	• Ensure stormwater on the site is managed and incorporates sediment and erosion control measures, where applicable, such as temporary silt fences and flow baffles in preferential flow paths that lead to the marine environment. • Promptly revegetate all disturbed areas to reduced surface runoff velocities and the potential for erosion. • Minimise exposed soil areas through phased deconstruction. • Contain all debris in designated areas with secondary containment. • Implement a debris removal schedule with daily site cleanup to ensure waste is stored in designated areas and compulsory disposal at a registered or licensed facility at least once a week.
Construction of mixed-use development	Physical construction works.	Temporary disturbance associated with vehicle movement, construction activities, and material handling.	• Establish designated vehicle routes and parking areas. • Minimise the construction footprint through careful site planning and phased development.
	Equipment and machinery operation	Sediment-laden stormwater runoff and construction debris entering the marine environment.	• Ensure stormwater on the site is managed and incorporates sediment and erosion control measures, where applicable, such as temporary silt fences and flow baffles in preferential flow paths that lead to the marine environment. • Promptly revegetate all disturbed areas to reduced surface runoff velocities and the potential for erosion. • Minimise exposed soil areas through phased construction. • Contain all construction debris in designated areas with secondary containment. • Implement a debris removal schedule with daily site cleanup to ensure waste is stored in designated areas and compulsory disposal at a registered or licensed facility at least once a week.
	Waste and material management		
	Stormwater management.		
		Release of rubble, waste, or wind-blown litter into the marine environment.	• Develop and implement a comprehensive Waste Management Plan with segregation protocols. • Establish designated waste storage areas. • Secure all materials and waste during transport and storage using covered vehicles or containers and closable bins. • Implement a zero-tolerance policy for littering with staff training and enforcement.

		Potential for accidental spills of fuels, oils, cement, paint, or other hazardous substances during construction activities.	• Develop and implement a SPCP prior to commencement. • Establish a designated hazardous materials storage area with secondary containment (bunds) situated on flat terrain. • Refrain from washing tools and equipment in the adjacent marine environment and ensure all water used for cleaning of equipment is not released into the environment. • Maintain spill response kits (absorbent materials, booms, skimmers) on-site at all times • Conduct mandatory hazmat training for all personnel involved in construction. • Establish emergency response procedures with contact details for environmental authorities.
Operation of mixed-use development	Building operations including waste and stormwater management.	Sediment-laden stormwater runoff entering the marine environment.	• Install permanent stormwater management systems: bioretention gardens, sediment filtration systems, and detention ponds if necessary or ensure stormwater is adequately addressed through connection to municipal stormwater systems where available. • Implement green infrastructure: permeable pavements and vegetated swales to reduce runoff. • Conduct regular maintenance of stormwater infrastructure (monthly inspections, cleaning).
		Release of waste, or wind-blown litter into the marine environment.	• Assign responsibility for waste management to a designated responsible person on the site. • Implement a zero-tolerance policy for littering with staff training and enforcement. • Provide adequate bins, promote segregation of waste and ensure weekly disposal at a licensed facility.
	Wastewater infrastructure maintenance and management.	Potential for accidental spills during maintenance activities.	• Establish secondary containment measures for all maintenance work on wastewater systems. • Conduct quarterly inspections of wastewater infrastructure for potential leaks or failures.
Operation of retained crayfish tanks.	Seawater discharge.	Continued discharge of seawater from retained crayfish tanks during the decommissioning phase.	• Implement pre-treatment of discharge water if necessary (settling, filtration) to reduce suspended solids. • Maintain the integrity of the discharge infrastructure through scheduled maintenance to ensure good functioning. • Abide by the authorised limits for holding capacity and discharge provided in the relevant licenses and authorisations, where applicable.

5 Conclusion

Based on the desktop review and field verification undertaken on 14 May 2026, the receiving marine environment associated with the proposed decommissioning of the existing aquaculture facility is considered to be of Low sensitivity. The site is located within an already modified coastal setting.

The main marine-related risks associated with the proposed activity are expected to relate to decommissioning and construction-phase disturbance, including the potential for accidental spills, inappropriate waste handling, contaminated stormwater runoff, and short-term localised effects on marine water quality. These potential impacts are, however, considered to be negligible, limited in extent and duration, and can be effectively managed through the implementation of appropriate mitigation measures, including spill prevention and response procedures, stormwater management, proper waste control, and the stabilisation of disturbed areas.

Importantly, the proposed decommissioning will reduce the level of interaction between the site and the marine environment when compared to the current and historical aquaculture operations, particularly in relation to seawater abstraction and discharge.

It is the opinion of the specialist that the project can be favourably considered subject to the application and adherence to the prescribed mitigation measures.

6 References

Monteiro, P.M.S. & Largier, J.L. 1999. Dynamics of the Benguela upwelling system. In: Monteiro, P.M.S. & Largier, J.L. (Eds.), Benguela Upwelling System. Estuarine, Coastal and Shelf Science, 45(2), 141-167.

Mucina, L., and Rutherford, M.C., 2006. The vegetation of South Africa, Lesotho and Swaziland. Strelizia 19. South African National Biodiversity Institute, Pretoria South African.

Pitcher, G.C., Figueiras, F.G., Hickey, B.M. & Moita, M.T. (2010). The physical oceanography of upwelling systems and the development of harmful algal blooms. Progress in Oceanography, 85(1-2), 5-32.

Rossouw, J.N. 2013. Wave climate and long-term wave statistics for South African coastal waters. CSIR Report CSIR/NRE/ECOS/ER/2013/0001/A.

Shannon, L.V. & Stander, G.H. 1977. The Benguela Current. In: Gierloff-Emden, H.G. (Ed.), The Coastal Seas. Transactions of the Royal Society of South Africa, 42(3), 175-207.

The Biodiversity Company. 2026. Aquatic Biodiversity Compliance Statement for The Proposed Decommissioning of an Aquaculture Facility and Subsequent Mixed-Use Redevelopment on a Portion of The Farm No. 1259, Saldanha Bay Local Municipality, West Coast District Municipality, Western Cape Province, South Africa.

The Biodiversity Company. 2026. Terrestrial Biodiversity Compliance Statement for The Proposed Decommissioning of an Aquaculture Facility and Subsequent Mixed-Use Redevelopment on a Portion of The Farm No. 1259, Saldanha Bay Local Municipality, West Coast District Municipality, Western Cape Province, South Africa.

Western Cape Government. 2013. Port of Saldanha: Wave and Current Assessment. Department of Transport and Public Works, Western Cape Government.

7 Appendices

7.1 Appendix A – Methodology

7.1.1 Desktop Dataset Assessment

A desktop coastal management review was undertaken to identify the legislative, spatial and environmental considerations relevant to the proposed decommissioning of the existing aquaculture facility and the subsequent redevelopment of the site. The review included consideration of the site's position relative to the shoreline and nearshore marine environment, as well as the potential applicability of coastal management controls associated with coastal public property, the coastal protection zone, and broader coastal planning and land use management requirements. Available aerial imagery, site layout information, existing infrastructure context, and relevant marine and coastal spatial information were reviewed to understand the degree of existing transformation, the nature of the shoreline interface, and any evident constraints associated with stormwater runoff, erosion risk, seawater abstraction and discharge infrastructure, and potential impacts on adjacent coastal processes.

The desktop review was further informed by the applicable coastal management legislative framework, including the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008), together with any relevant provincial or municipal coastal planning instruments available for the area. The purpose of this review was to determine whether the proposed activity is likely to conflict with coastal management objectives, compromise the functioning of the receiving coastal environment, or introduce additional risk to the shoreline or marine environment. Findings from the desktop assessment were used to guide the field verification process, inform the identification of marine sensitivity, and support the development of appropriate mitigation and management measures for the project

7.1.1.1 Ecologically Important Landscape Features

Existing ecologically relevant data layers were incorporated into a GIS to establish how the proposed development might interact with any ecologically important entities. Emphasis was placed around the following spatial datasets:

- National Biodiversity Assessment 2018 (Skowno et al, 2019) - The purpose of the National Biodiversity Assessment (NBA) is to assess the state of South Africa's biodiversity based on best available science, with a view to understanding trends over time and informing policy and decision-making across a range of sectors. The NBA deals with all three components of biodiversity: genes, species and ecosystems; and assesses biodiversity and ecosystems across terrestrial, freshwater, estuarine and marine environments. The two headline indicators assessed in the NBA are:
 - Ecosystem Threat Status – indicator of an ecosystem's wellbeing, based on the level of change in structure, function or composition. Ecosystem types are categorised as Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT) or Least Concern (LC), based on the proportion of the original extent of each ecosystem type that remains in good ecological condition. Red List of Ecosystems (RLE) 2021 – The list was first published in 2011 and has since been substantially revised by authors Dr Andrew Skowno and Mrs Maphale Monyeki (SANBI, 2022). This list is based on assessments that followed the International Union for Conservation of Nature (IUCN) Red List of Ecosystems Framework (version 1.1) and covers all 456 terrestrial ecosystem types described in South Africa by Mucina and Rutherford (2006). A total of 120 of the 456 terrestrial ecosystem types assessed are categorised as threatened and together make up approximately 10% of the remaining natural habitat in the country. Of these 120 ecosystem types, 55 are Critically Endangered (CR), 51

Endangered (EN) and 14 are Vulnerable (VU). The remainder are categorised as Least Concern (LC) (SANBI, 2022; Skowno & Monyeki, 2021).

- Ecosystem Protection Level – indicator of the extent to which ecosystems are adequately protected or under-protected. Ecosystem types are categorised as Well Protected (WP), Moderately Protected (MP), Poorly Protected (PP), or Not Protected (NP), based on the proportion of the biodiversity target for each ecosystem type that is included within one or more protected areas. Not Protected, Poorly Protected or Moderately Protected ecosystem types are collectively referred to as under-protected ecosystems.
- Protected Areas:
 - South Africa Protected Areas Database (SAPAD) and South Africa Conservation Areas Database (SACAD) (DFFE, 2025a) – The South African Protected Areas Database (SAPAD) and South Africa Conservation Areas Database (SACAD) contains spatial data for the conservation of South Africa. It includes spatial and attribute information for both formally protected areas and areas that have less formal protection. The database is updated on a continuous basis and forms the basis for the Register of Protected Areas which is a legislative requirement under the National Environmental Management: Protected Areas Act, Act 57 of 2003.
 - National Protected Areas Expansion Strategy (NPAES) (DFFE, 2022b) – The National Protected Area Expansion Strategy (NPAES) provides spatial information on areas that are suitable for terrestrial ecosystem protection. These focus areas are large, intact and unfragmented and are therefore, of high importance for biodiversity, climate resilience and freshwater protection.
- Conservation/Biodiversity Sector Plans:
 - The purpose of the Western Cape Biodiversity Spatial Plan (BSP) (2023) is to inform land-use planning and development on a provincial scale and to aid in natural resource management. One of the outputs is a map of Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs). These are classified into different categories, namely CBA1 areas, CBA2 areas, ESA areas and Other Natural Areas (ONAs) based on biodiversity characteristics, spatial configuration, and requirements for meeting targets for both biodiversity patterns and ecological processes.
- A new set of Key Biodiversity Areas (KBA) specific to South Africa has been identified using the Global Standard for the Identification of Key Biodiversity Areas version 1.2 (IUCN 2016), applied to South African species and ecosystems. KBAs are critical sites that play a vital role in maintaining global biodiversity by serving as essential habitats for species. The identification of KBAs enables governments and civil society to pinpoint key locations crucial for species and their habitats worldwide. This understanding facilitates collaborative efforts to manage and conserve these areas, thereby safeguarding global biological diversity and supporting international biodiversity objectives.

7.1.2 Field Survey

A site inspection was undertaken on 14 May 2026 to verify the receiving marine environment adjacent to the existing aquaculture facility and to identify any obvious marine or coastal sensitivities that could influence the proposed decommissioning and redevelopment. The survey comprised a visual inspection of the shoreline and nearshore environment accessible from the site, photographic documentation, and a review of the relationship between the facility infrastructure and the marine environment. Observations

focused on shoreline type, evidence of marine habitat, signs of contamination or disturbance, stormwater pathways, and the presence of any obvious sensitive coastal receptors.

7.1.3 Site Sensitivity Verification

Site sensitivity verification was informed by a combination of desktop spatial datasets, review of available marine and coastal literature for the region, and observations made during the site inspection. In the absence of a dedicated marine biodiversity sensitivity layer in the national screening tool, sensitivity was assigned based on professional judgement considering:

- the nature and extent of the proposed activity;
- proximity to the shoreline and receiving marine environment;
- presence or absence of sensitive or protected marine features in the immediate area of influence;
- the transformed condition of the site due to long-term industrial and aquaculture use; and
- the anticipated reduction in marine interaction associated with decommissioning

7.2 Appendix B – Specialist Declaration of Independence

Declaration

I, Andrew Husted, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



Andrew Husted

Ecologist

The Biodiversity Company

June 2026

7.3 Appendix C – Specialist CVs

Andrew HUSTED

Pr Sci Nat 400213/11 +27 81 319 1225 andrew@thebiodiversitycompany.com

PROFILE SUMMARY

Environmental and ecological specialist with 19 years' consulting experience, with international working experience. Specialist experience in project exploration, mining, engineering, hydropower, renewable energy, and private sector developments. Project management of national and international multi-disciplinary projects. Provides specialist guidance, technical support, and facilitation for compliance with in-country legislative requirements and international lender standards. Registered Pr Sci Nat with the South African Council for Natural Scientific Professions.

PERSONAL INFO

Nationality: South African
Date of birth: 19 April 1979

EXPERIENCE

Lender reporting requirements
Environmental, Social and Health Impact Assessments (ESHIA)
Environmental Management Programmes (EMP)
Ecology

SKILLS

- ✓ Critical Habitat Assessments
- ✓ Ecology
- ✓ Rehabilitation
- ✓ Monitoring & Management Plans

LANGUAGES

English – Proficient
Afrikaans – Conversational
German - Basic

Signed: Andrew Husted

ACADEMIC QUALIFICATIONS

University of Johannesburg (2009): MAGISTER SCIENTIAE (MSc) - Aquatic Health:
Title: Aspects of the biology of the Bushveld Smallscale Yellowfish (Labeobarbus polylepis): Feeding biology and metal bioaccumulation in five populations.

Rand Afrikaans University (RAU) (2004): BACCALAUREUS SCIENTIAE CUM HONORIBUS (Hons) – Zoology

Rand Afrikaans University (RAU) (2001 - 2004): BACCALAUREUS SCIENTIAE IN NATURAL AND ENVIRONMENTAL SCIENCES. Majors: Zoology and Botany.

PROFESSIONAL EXPERIENCE

Jan 2015 – Present	The Biodiversity Company Director / Ecology
Aug 2008 – Dec 2014	Digby Wells Environmental Ecologist / Manager
Jan 2007 – Jul 2008	Econ@UJ Technician / Freshwater Ecology

INTERNATIONAL EXPERIENCE

Angola, Armenia, Botswana, Cameroon, Democratic Republic of Congo, Ghana, Guyana, Ivory Coast, Lesotho, Liberia, Mali, Mauritius, Mozambique, Nigeria, Senegal, Serbia, Sierra Leone, South Africa, Tanzania



**AQUATIC BIODIVERSITY COMPLIANCE
STATEMENT FOR THE PROPOSED
DECOMMISSIONING OF AN AQUACULTURE
FACILITY AND SUBSEQUENT MIXED-USE
REDEVELOPMENT ON A PORTION OF THE FARM
NO. 1259**

**Saldanha Bay Local Municipality, West Coast
District Municipality, Western Cape Province,
South Africa**

10/6/2026

Prepared by:

The Biodiversity Company

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Report Name	AQUATIC BIODIVERSITY COMPLIANCE STATEMENT FOR THE PROPOSED DECOMMISSIONING OF AN AQUACULTURE FACILITY AND SUBSEQUENT MIXED-USE REDEVELOPMENT ON A PORTION OF THE FARM NO. 1259	
Specialist Theme	Aquatic Biodiversity Theme	
Project Reference	Aquaculture Facility Decommissioning	
Report Version	10/6/2026	
Environmental Assessment Practitioner		
Technical Support	Wesley Black (Pr. Sci. Nat. 147190)	
	Kayla Goodfellow (SACNASP candidate 17778 (pending)) ¹	
Responsible Specialist	Namitha Singh (Pr. Sci. Nat. 157927)	
Declaration	The Biodiversity Company and its associates act as independent consultants in accordance with the requirements of the South African Council for Natural Scientific Professions. We confirm that we have no affiliation with, or vested financial interest in, the proponent, other than remuneration for professional services rendered in terms of the Environmental Impact Assessment Regulations. We have no conflicting interests in the proposed activity or any secondary developments arising from the authorisation of the project, and our work has been undertaken objectively and in accordance with accepted scientific principles.	

¹ All work undertaken was supervised by a registered professional (Namitha Singh – Pr. Sci. Nat. 157 927)

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1 Introduction

1.1 Background

The Biodiversity Company was commissioned by Viridus Works Environmental (Pty) Ltd to conduct an aquatic biodiversity theme assessment in support of the Environmental Authorisation (EA) and Water Use Authorisation (WUA) process for the proposed decommissioning of an existing aquaculture facility on a portion of Farm No. 1259, Malmesbury Road, Paternoster, Saldanha Bay Local Municipality, West Coast District Municipality, Western Cape Province (Figure 1-1). A 500 m area has been demarcated for the project to facilitate the identification of freshwater watercourses; this area is referred to as the Project Area of Influence (PAOI). The area assessed (Project Area) is based on the layout provided by the client and is illustrated in Figure 1-2.

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment Regulations (2014) (GNR 326, 7 April 2017) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). The approach has taken cognisance of the recently published Government Notices (GN) 320 (20 March 2020) and GN 1150 (30 October 2020) in terms of NEMA, dated 20 March and 30 October 2020: "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, when applying for Environmental Authorisation" (Reporting Criteria).

This report, after taking into consideration the findings and recommendation provided by the specialist herein, should inform and guide the Environmental Assessment Practitioner (EAP) and regulatory authorities, enabling informed decision making with regards to the ecological viability of the proposed development and related activities.

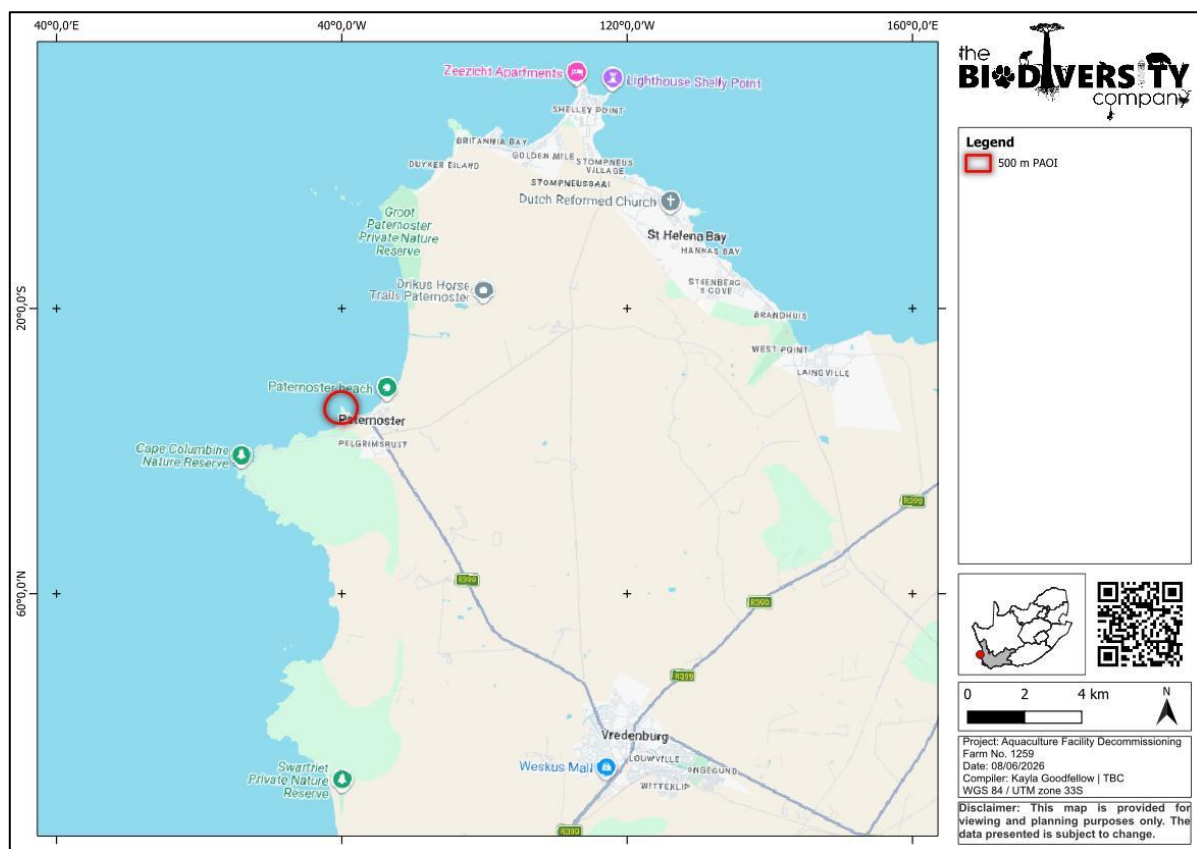


Figure 1-1 Location of the proposed project

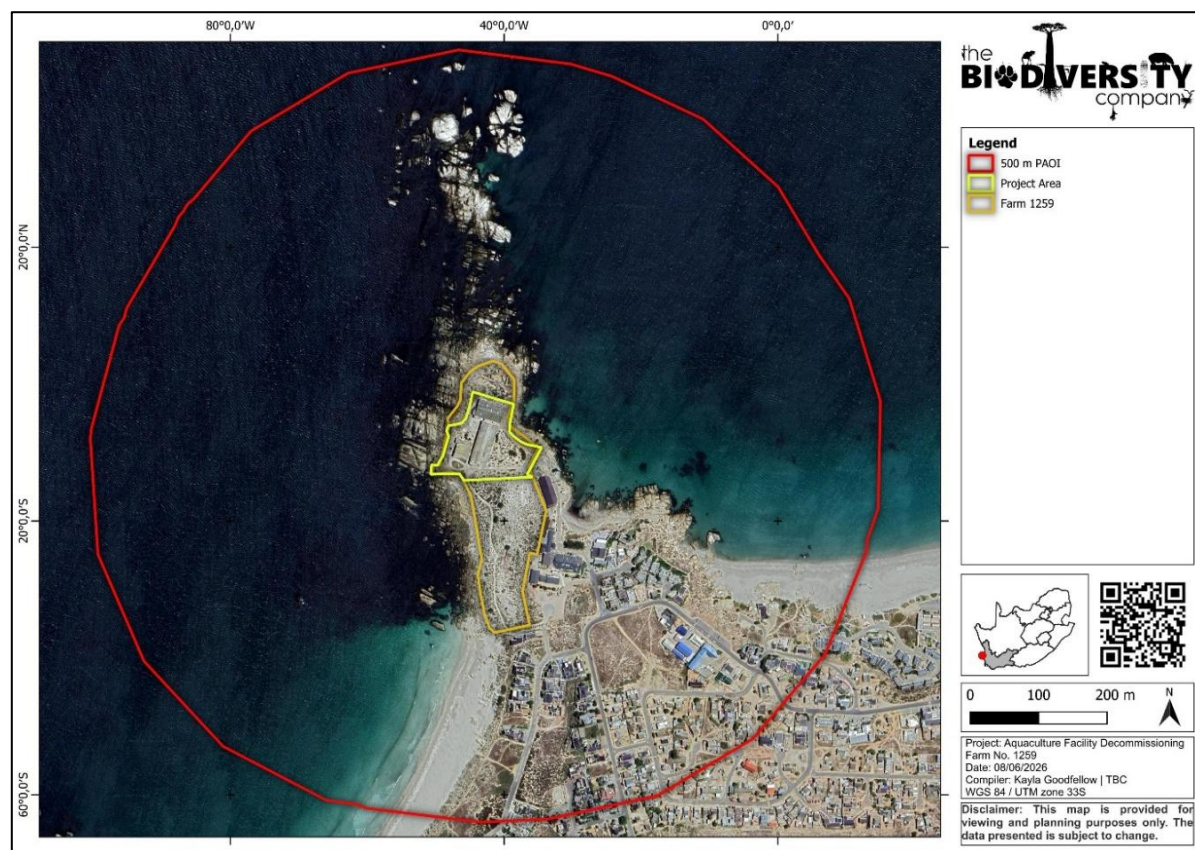


Figure 1-2 Proposed project area and project area of influence

1.2 Scope of Work

The following tasks were intended in fulfilment of the terms of reference for this assessment:

- A desktop assessment of available and related datasets to provide context of the freshwater biodiversity of the project area and to indicate potential wetland areas;
- The delineation, classification and assessment of freshwater systems within 500 m of the project area;
- The provision of recommendations relevant to associated impacts, where applicable; and
- Report compilation detailing the baseline findings.

1.3 Project Description and Technical Information

The following information pertains to the project details as provided by Viridus Works Environmental (Pty) Ltd (2026):

The proposed project entails the decommissioning of the existing aquaculture facility on Farm No. 1259, Malmesbury Road, to support the future rezoning of the property from Industrial Zone I to Business Zone I. The vacated buildings would then be repurposed for mixed-use business and residential accommodation, complementary to the adjacent waterfront development on Erf 2063. Figure 1-3 illustrates the Aquaculture Facilities site to be decommissioned as provided by Viridus Works Environmental (Pty) Ltd (2026).

The site is a portion of Farm No. 1259, Malmesbury Road in Paternoster. It forms a part of the larger waterfront area (Erf 2063) with access off Kreeftegang. Until recently, it was used for aquaculture purposes, including fish farming and crayfish holding; it is now used only for crayfish holding tanks. The farm has an area of 3.12 ha. The existing buildings and aquaculture facilities on the site are in buildings with a combined floor area of approximately 4 200 m² and cover an area of roughly 1.2 ha.

The facility consists of large concrete buildings with asbestos-cement roofs. The crayfish factory was built in the early 1900's. When the Paternoster Visserye company was established in the early 1960's it took over the factory and in the mid 1980's the company established the aquaculture (fish farming) activities. The aquaculture activities remained in full operation until its closure in 2019.

To process the crayfish, they have to be kept alive in tanks filled with sea water from delivery to packing. Inside the building there are twenty concrete tanks (2 m² and 1 m deep) holding 40 m³ of fresh sea water. Water is extracted from the sea on the Bekbaai (western) side of the facility and pumped into the tanks and flows back into the sea under gravity. When crayfish is held in the tanks, fresh sea water is constantly pumped into the tanks. In this way several thousand crayfish can be kept alive for a week or more to be purged and exported live.

Some of the buildings are under-utilised and only partially used for aquaculture (crayfish holding) purposes. The fish farming aquaculture facility was not sustainable and led to the cessation of activities in 2019. This, combined with continual crayfish quota reductions has led to a more compact operation and building use, requiring less space and the need to reconfigure and better utilise the existing buildings and infrastructure. The vacated building space can be better utilised to complement the waterfront development. The buildings are all connected to the municipal services infrastructure and are accessed via a servitude road through the existing waterfront on Erf 2063.



Figure 1-3 Map illustrating the project area as provided by Viridus Works Environmental (Pty) Ltd (2026)

1.4 Assumptions and Limitations

The following aspects were considered as limitations:

- It has been assumed that the spatial files provided to the specialist is accurate;
- Only the proposed boundary of the project area and Farm No. 1259 was provided as a layout (Figure 1-3);
- The seasonality of the surveys is not considered to be a limiting factor with regard to the identification and delineation of wetlands, the only limitation in this regard would be the identification of certain plant species. The results of the assessment are considered conclusive in the opinion of the specialist;
- No ecological functional or risk assessments were undertaken as there were no freshwater features identified within 500 m of the PAOI; and
- The GPS used for water resource delineations is accurate to within five metres. Therefore, the wetland delineation plotted digitally may be offset by a maximum of five metres to either side.

1.5 Key Legislative Requirements

The legislation, policies and guidelines listed below in Table 1-1 are applicable to the current project. The list below, although extensive, may not be complete and other legislation, policies and guidelines may apply in addition to those listed below.

Table 1-1 A list of key legislative requirements

Region	Legislation / Guideline	Comment
National	National Environmental Management Act (Act No. 107 of 1998) (NEMA)	To provide for the effective protection and controlled utilisation of the environment and for matters incidental thereto.
	NEMA: Environmental Impact Assessment Regulations (2014) (GNR 326, 7 April 2017), Appendix 6 requirements	Minimum content for specialist reports.
	NEMA: Government Notices (GN) 320 (20 March 2020) and GN 1150 (30 October 2020)	The minimum criteria for reporting. Protocol for the specialist assessment and minimum report content requirements.
	The National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEMBA), Threatened or Protected Species Regulations	The protection of species and ecosystems that warrant protection.
	National Environmental Management: Waste Act (Act No. 59 of 2008)	The regulation of waste management to protect the environment.
	National Water Act (Act No. 36 of 1998) (NWA)	To provide for the regulation of water uses.
	NEMBA: Alien and Invasive Species Regulations (2014) (GNR R598, 1 August 2014)	The regulation and management of alien invasive species.
	Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) (CARA)	To provide for control over the utilisation of the natural agricultural resources, including the vegetation and the combating of weeds and invader plants.
Provincial (Western Cape)	Draft Western Cape Biodiversity Bill, 2019	To provide for the framework and institutions for nature conservation and the protection, management and sustainable use of biodiversity and ecosystems in the province; and for matters incidental thereto.
	Western Cape Biodiversity Sector Plan (WCBSP) (DEADP, 2017)	The spatial designation of conservation areas and targets within the province.

1.6 National Water Act (NWA, 1998)

The DWS is the custodian of South Africa's water resources and therefore assumes public trusteeship of water resources, which includes watercourses, surface water, estuaries, or aquifers. The National Water Act (Act No. 36 of 1998) (NWA) allows for the protection of water resources, which includes:

- The maintenance of the quality of the water resource to the extent that the water resources may be used in an ecologically sustainable way;
- The prevention of the degradation of the water resource; and
- The rehabilitation of the water resource.

A watercourse means:

- A river or spring;
- A natural channel in which water flows regularly or intermittently;
- A wetland, lake or dam into which, or from which, water flows; and
- Any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse, and a reference to a watercourse includes, where relevant, its bed and banks.

The NWA recognises that the entire ecosystem and not just the water itself, and any given water resource constitutes the resource and as such needs to be conserved. No activity may therefore take place within a watercourse unless it is authorised by the DWS. Any area within a wetland or riparian zone is therefore excluded from development unless authorisation is obtained from the DWS in terms of Section 21 (c) and (i).

1.7 National Environmental Management Act (NEMA, 1998)

The National Environmental Management Act (NEMA) (Act 107 of 1998) and the associated Regulations as amended in April 2017, states that prior to any development taking place within a wetland or riparian area, an environmental authorisation process needs to be followed. This could follow either the Basic Assessment Report (BAR) process or the Environmental Impact Assessment (EIA) process depending on the scale of the impact.

1.8 Legislative Framework

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on freshwater biodiversity, as per Government Notice 320 published in terms of NEMA, dated 20 March 2020: "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, when applying for Environmental Authorisation" – the following has been assumed:

- An applicant intending to undertake an activity identified in the scope of this protocol on a site identified on the screening tool as being of:
 - "very high sensitivity" for aquatic biodiversity must submit an Aquatic Biodiversity Specialist Assessment;

- “low sensitivity” for aquatic biodiversity must submit an Aquatic Biodiversity Compliance Statement;
- Where the information gathered from the site sensitivity verification differs from the screening tool designation of “very high” aquatic biodiversity sensitivity, and it is found to be of a “low” sensitivity, an Aquatic Biodiversity Compliance Statement must be submitted;
- Similarly, where the information gathered from the site sensitivity verification differs from the screening tool designation of “low” aquatic biodiversity sensitivity, and it is found to be of a “very high” sensitivity, an Aquatic Biodiversity Specialist Assessment must be submitted.

Given that the proposed development is located in an area characterised by “Low” aquatic biodiversity sensitivity, the reporting requirements for a compliance statement has been followed.

An Aquatic / Freshwater Compliance Assessment Report must contain the information as presented in Table 1-2 below.

Table 1-2 ***Aquatic Biodiversity Specialist Compliance Assessment information requirements as per the relevant protocol, including the location of the information within this report***

Information to be Included (as per GN 320, 20 March 2020)	Report Section
contact details of the specialist, their SACNASP registration number, their field of expertise and a curriculum vitae	7.3
a signed statement of independence by the specialist	7.2
a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment	3.2
a baseline profile description of biodiversity and ecosystems of the site	3.1.4
the methodology used to verify the sensitivities of the aquatic biodiversity features on the site including the equipment and modelling used where relevant;	7.1
in the case of a linear activity, confirmation from the aquatic biodiversity specialist that, in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase	-
where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr	4
a description of the assumptions made as well as any uncertainties or gaps in knowledge or data	1.4
any conditions to which this statement is subjected	5

A signed copy of the assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

2 Fieldwork

2.1 Freshwater Biodiversity Field Assessment

A field survey for the area was undertaken on the 14th of May 2026, which is a wet-season survey, to identify the presence of freshwater features (wetlands and rivers) and to delineate their spatial extents. Furthermore, to determine vegetation composition of the identified features and the likelihood of features to be used as habitat for fauna. The seasonality of the surveys is not considered to be a limiting factor with regard to the identification and delineation of systems, the only limitation in this regard would be the identification of certain plant species. The results of the assessment are considered conclusive in the opinion of the specialist.

3 Results & Discussion

3.1 Desktop Dataset Assessment

3.1.1 Climate

The climate for the region is based on the dominant vegetation type which is the Langebaan Dune Strandveld. The climate is characterised mainly by cyclonic rainfall, with annual precipitation ranging from about 230 mm in the north to 355 mm in the south. Rainfall occurs almost entirely during winter and is often associated with frequent, strong north-westerly winds and cooler conditions. Average daily maximum and minimum temperatures are approximately 26.1°C in February and 7.8°C in July, respectively. For Cape Columbine, the mean monthly maximum and minimum temperatures are about 29.8°C in March and 6.1°C in July. Southeasterly winds are more common in summer, while fog and dew contribute additional moisture during summer and autumn, particularly in the northern part of the unit. Frost is relatively uncommon (Mucina & Rutherford, 2006).

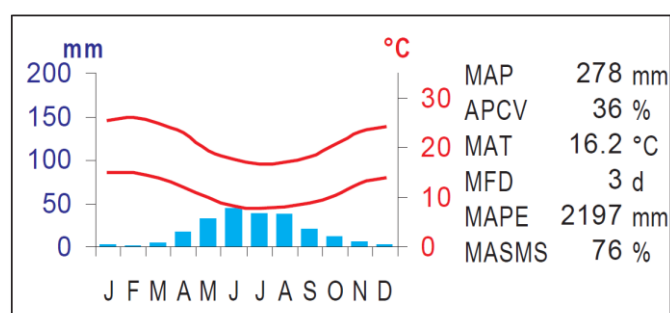


Figure 3-1 Climate for the project area of influence based on the Langebaan Dune Strandveld vegetation type (Mucina & Rutherford, 2006)

3.1.2 Soils and Geology

According to Mucina and Rutherford (2006), the area is underlain by deep tertiary to recent marine sands and calcrete. The dominant land types are Hb, which is slightly more prevalent, as well as Fc and Ha.

According to the Land Type Database (Land Type Survey Staff, 1972–2006), the project area is predominantly characterised by the Hb 124 land type. The Hb land type is characterised by grey regic sands and other grey soils.

3.1.3 Hydrological Characteristics

The PAOI falls within the South Western Coastal Belt Ecoregion, within the Breede-Olifants Water Management Area (WMA). At a finer scale, within the G10M quaternary catchment. No topographical river lines or inland water areas fall within the PAOI.

3.1.4 Ecologically Important Landscape Features

The GIS analysis pertaining to the relevance of the proposed project to ecologically important landscape features is summarised in Table 3-1. Only features that were identified to be relevant to the proposed project were further discussed.

Table 3-1 Summary of relevance of the proposed project to ecologically important landscape features

Desktop Information Considered	Relevant/Irrelevant	Section
Provincial Conservation Plan	Relevant – PAOI overlaps with terrestrial CBAs: Terrestrial and ESA 1: Aquatic	3.1.4.1

Strategic Water Source Areas (SWSAs)	Irrelevant – PAOI does not overlap with a SWSA.	-
South African Inventory of Inland Aquatic Ecosystems (SAIIAE)	Irrelevant – PAOI does not overlap with SAIIAE wetlands.	-
National Freshwater Ecosystem Priority Area (NFEPA)	Irrelevant – PAOI does not overlap with NFEPA wetlands.	-

3.1.4.1 Western Cape Biodiversity Spatial Plan

According to the Western Cape Biodiversity Spatial Plan, the PAOI overlaps with Critical Biodiversity Area 1: Terrestrial, Critical Biodiversity Area 2: Terrestrial, and Ecological Support Area 1: Aquatic (Figure 3-2). The mapped ESA 1: Aquatic area is located in the ocean adjacent to the site and does not extend into the project area.

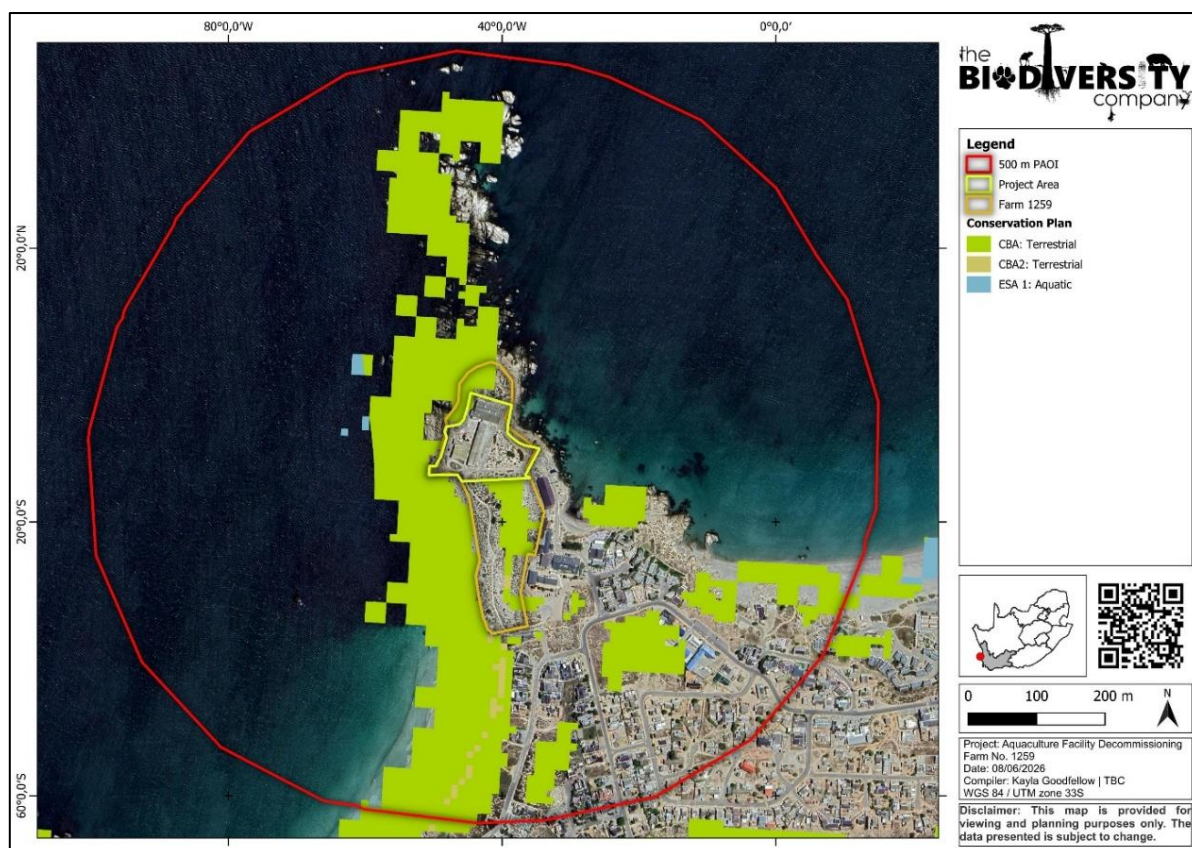


Figure 3-2 Western Cape Biodiversity Spatial Plan overlay for the project area of influence

3.2 Field Survey

3.2.1 Delineation

No natural wetlands or riverine systems were identified within the PAOI. The PAOI is situated within a coastal setting and is characterised by marine habitat comprising predominantly rocky shoreline and shallow nearshore waters, with sandy beach and associated coastal dune habitat occurring in the surrounding coastal area. The project area habitat is largely transformed by existing infrastructure associated with the aquaculture facility, including large concrete buildings, crayfish holding and processing infrastructure, concrete seawater tanks, seawater intake and return infrastructure, municipal service connections, and an existing servitude access road. As a result, limited unmodified habitat remains within the project area.

For the purposes of this freshwater delineation, the open ocean is not regarded as a watercourse. In terms of Section 1 of the National Water Act, 1998 (Act 36 of 1998), a watercourse includes a river, spring, natural channel, or a wetland, lake or dam into or from which water flows, while an estuary is defined separately; the open marine environment is therefore not considered a freshwater watercourse in this context.



Figure 3-3 *Representative photographs of the project area*

3.3 Site Sensitivity Verification

3.3.1 Desktop Ecological Sensitivity

The following is deduced from the National Web-based Environmental Screening Tool (Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended):

- Aquatic Biodiversity Theme sensitivity as “Low” for the Project Area (Figure 3-4).

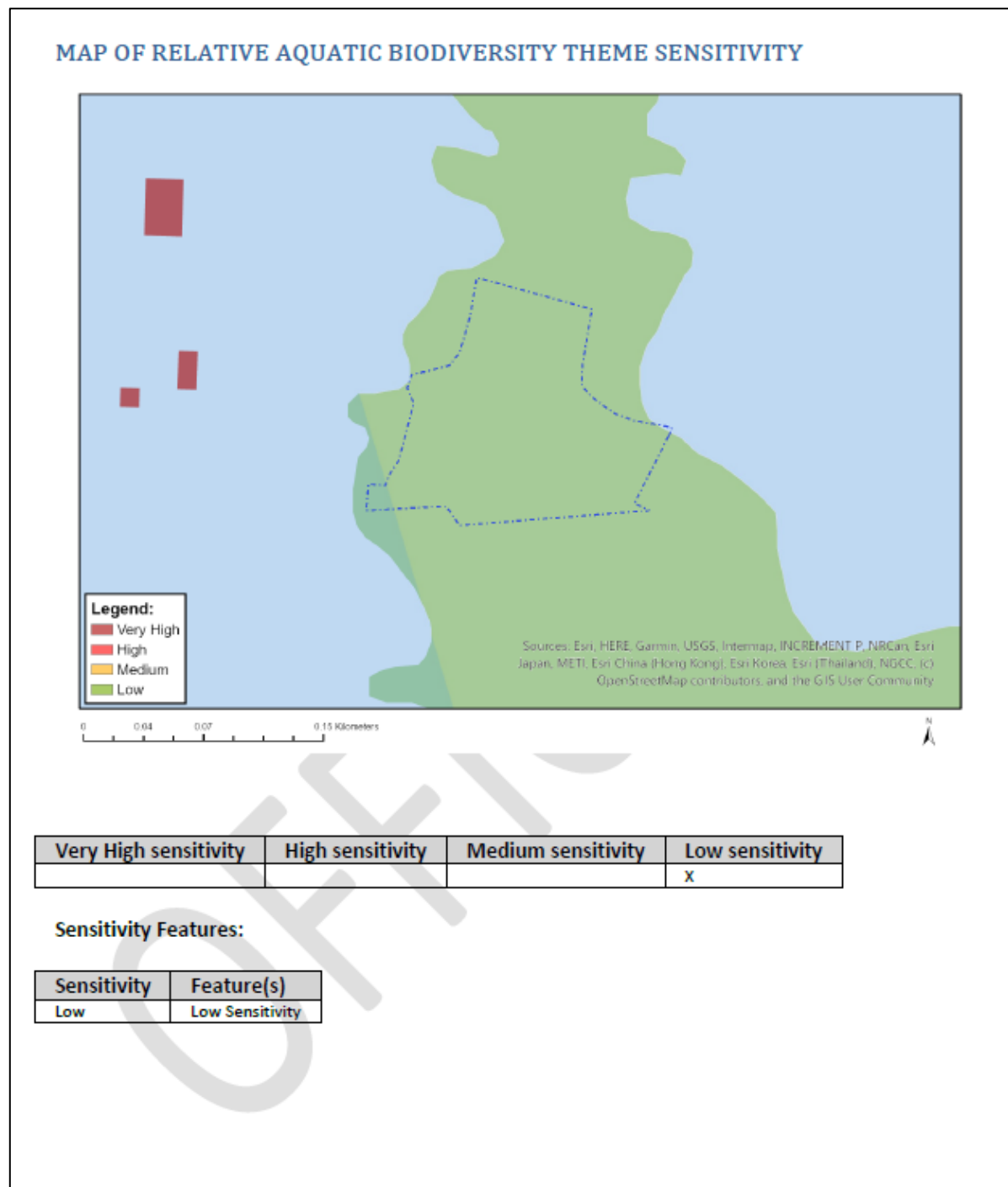


Figure 3-4 Aquatic Biodiversity Theme Sensitivity for the project area

3.3.2 Screening Tool Comparison

The allocated sensitivities for each of the relevant themes are either disputed or validated for the assessed areas in Table 3-2 below.

Table 3-2 Summary of the screening tool vs specialist assigned sensitivities

Features	Screening Tool Theme	Environmental Screening Tool Sensitivity	Specialist Sensitivity	Reasoning
Project Area	Aquatic Biodiversity Theme	Low	Low	Validated – No natural wetlands or rivers were identified within this area.

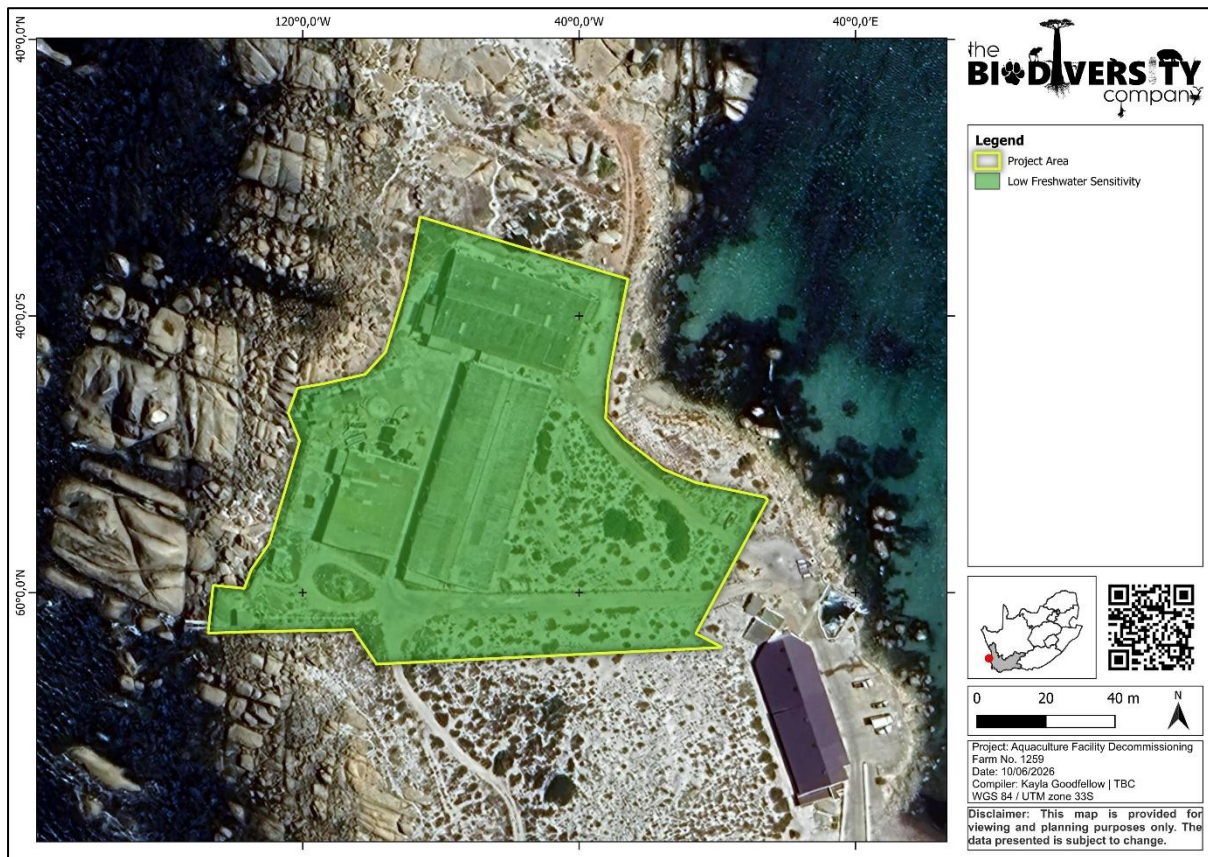


Figure 3-5 *Freshwater sensitivity for the project area*

4 Potential Impact & Management Measures

The site visit confirmed that no wetlands or rivers are present within the Project Area or within the 500 m PAOI.

Given the absence of any inland freshwater watercourses in close proximity to the proposed development site, and considering that the rezoning and associated development for accommodation and office uses will occur within an already transformed portion of the existing aquaculture facility footprint, no direct localised or cumulative impacts on inland freshwater watercourses are anticipated during either the decommissioning, construction, or operational phases. Consequently, no freshwater-specific mitigation measures are considered necessary.

However, the site is located within an immediate coastal/marine setting. While the proposed decommissioning and subsequent accommodation and office development is expected to have a substantially lower interaction with the marine environment than the historical aquaculture use, some tanks will be retained during the decommissioning phase. As a result, limited seawater discharge to the ocean will still occur during this period, although at volumes significantly lower than those associated with the fully operational aquaculture facility. During the decommissioning, construction, and operational phases, temporary localised impacts to the adjacent marine environment could arise if activities are not appropriately managed (Table 4-1). The impacts are expected to be localised, short term, and of negligible significance, provided that construction is restricted to the existing transformed footprint and that appropriate mitigation measures are implemented.

Table 4-1 **Potential impacts associated with the decommissioning, construction, and operation of the Paternoster development**

Phase	Potential Impacts
Decommissioning of current aquaculture facility & Construction of admin and office buildings	• Accidental spills of fuels, oils, cement, paint, or other hazardous substances; • Sediment-laden stormwater runoff reaching the shoreline or nearshore environment; • Release of rubble, waste, or wind-blown litter into the marine environment; • Inappropriate handling or disposal of wastewater and construction materials, • Temporary disturbance associated with vehicle movement demolition, construction activities, and material handling; and • Temporary, localised and negligible adverse changes to nearshore marine water quality associated with the continued discharge of seawater from retained tanks during the decommissioning phase.
Operation of admin and office buildings	• Stormwater runoff entering the surrounding environment; • Inadequate sewage and wastewater management • Improper solid waste storage or disposal; and • Accidental spills associated with routine maintenance activities.

Therefore, while no freshwater-specific mitigation measures are required, general environmental best-practice measures should be implemented during both the construction and operational phases to avoid indirect impacts on the adjacent marine environment.

- Implementing a stormwater management plan to ensure:
 - effective control of stormwater runoff, including erosion and sediment control measures; and
 - that only clean water is discharged into the receiving environment.
- Rehabilitating and stabilising exposed soils as soon as reasonably possible using mulch, vegetation, erosion control blankets, or other suitable measures;
- Undertaking phased site clearance, dismantling, and rehabilitation, where feasible, to minimise the extent and duration of disturbed areas;
- Storing and handling hazardous materials, such as fuels, oils, and chemicals, in an appropriate manner to prevent leaks and spills;
- Wastewater generated during decommissioning must be disposed of via the municipal sewage system or other approved disposal system, and not discharged onto land or into the environment;
- Dispose of waste materials properly and prevent littering on site; and
- Maintain stormwater, sewage, and waste management infrastructure in good working order.

5 Conclusion

During the field assessment that was conducted on the 14th of May 2026, no natural freshwater watercourses were identified within the proposed project area.

The aquatic biodiversity theme sensitivity for the Project Area and PAOI is characterised by:

- Areas of “Low” sensitivity attributed to the absence of natural freshwater watercourses.

Given that no natural freshwater watercourses were identified, the development will occur within areas of “Low” aquatic biodiversity sensitivity. No impact is expected on freshwater aquatic biodiversity based on current information and field verification results.

It is the opinion of the specialist that the project can be favourably considered and is not subject to any conditions given the absence of natural freshwater watercourse within 500 m of the PAOI, and the development within an already developed and disturbed footprint.

6 References

Department of Water Affairs and Forestry (DWAF). 2005a. A Practical Field Procedure for Identification and Delineation of Wetlands and Riparian Areas.

Land Type Survey Staff. 1972 - 2006. Land Types of South Africa: Digital Map (1:250 000 Scale) and Soil Inventory Databases. Pretoria: ARC-Institute for Soil, Climate, and Water.

Lotter, M.C., Le Maitre, D. 2021. Fine-scale delineation of Strategic Water Source Areas for surface water in South Africa using Empirical Bayesian Kriging Regression Prediction: Technical report. Prepared for the South African National Biodiversity Institute (SANBI), Pretoria. 33p.

Macfarlane, D.M., Kotze, D.C., Ellery, W.N., Walters, D., Koopman, V., Goodman, P. and Goge, C. 2009. A technique for rapidly assessing wetland health: WET-Health. WRC Report TT 340/08.

Mucina, L., and Rutherford, M.C., 2006. The vegetation of South Africa, Lesotho and Swaziland. Strelizia 19. South African National Biodiversity Institute, Pretoria South African.

Nel, J. L., Driver, A., Strydom, W. F., Maherry, A. M., Petersen, C. P., Hill, L., Roux, D. J., Nienaber, S., van Deventer, H., Swartz, E. R. & Smith-Adao, L. B. (2011). Atlas of Freshwater Ecosystem Priority Areas in South Africa: Maps to support sustainable development of water resources, WRC Report No. TT 500/11. Water Research Commission, Pretoria.

Nel JL, Murray KM, Maherry AM, Petersen CP, Roux DJ, Driver A, Hill L, Van Deventer H, Funke N, Swartz ER, Smith-Adao LB, Mbona N, Downsborough L and Nienaber S. 2011. Technical Report for the National Freshwater Ecosystem Priority Areas project. WRC Report No. K5/1801.

Ollis DJ, Snaddon CD, Job NM, and Mbona N. 2013. Classification System for Wetlands and other Aquatic Ecosystems in South Africa. User Manual: Inland Systems. SANBI Biodiversity Series 22. South African Biodiversity Institute, Pretoria.

Soil Classification Working Group. 2018. Soil Classification A Taxonomic system for South Africa. Pretoria: The Department of Agricultural Development.

Van Deventer, H.; Smith-Adao, L.; Mbona, N.; Petersen, C.; Skowno, A.; Collins, N.B.; Grenfell, M.; Job, N.; Lötter, M.; Ollis, D.; Scherman, P.; Sieben, E.; Snaddon, K. 2018. South African Inventory of Inland Aquatic Ecosystems. South African National Biodiversity Institute, Pretoria. Report Number: CSIR report number CSIR/NRE/ECOS/IR/2018/0001/A; SANBI report number <http://hdl.handle.net/20.500.12143/5847>.

7 Appendix Items

7.1 Appendix A – Methodology

7.1.1 Desktop Dataset Assessment

The desktop assessment was undertaken using Geographic Information System (GIS) to access, view and overlay the latest available related datasets with the project area. The information represented within the datasets was used to develop the relevant digital maps used to identify potentially environmentally sensitive areas. These datasets and their respective dates of publishing are provided below:

- Vegetation Types - Vegetation Map of South Africa, Lesotho and Swaziland (SANBI, 2018 & Mucina and Rutherford 2006);
- Soils and Geology - Land Types Database (Land Type Survey Staff, 1972 - 2006); and
- Topographical Inland Water Areas and River Lines (based on the 1994 1:500 000 topographic maps as per the Chief Directorate of the National Geo-spatial Information).

7.1.1.1 Vegetation Types - Vegetation Map of South Africa, Lesotho and Swaziland

The Vegetation Map of South Africa, Lesotho and Swaziland (SANBI, 2018) is the latest and updated version of the maps published in earlier time such as those presented by Mucina and Rutherford (2006) and those presented in the National Biodiversity Assessment (2011). The map provides spatial details on the representative vegetation of South Africa and is complemented in this report using information from Strelitzia (Mucina & Rutherford, 2006) to provide insight on the landscape features, biogeography, climate, geology, and soils of the project area.

7.1.1.2 Soils and Geology - Land Type Database

The Land Type Survey provides information on the soils, terrain, climate, and geology of areas within South Africa. The data includes the pedological classification of soils and is used in this report to provide insight on the common soil forms associated with aquatic or freshwater systems of a particular area.

7.1.1.3 Topographical River Lines and Inland Water Areas

Topographical Inland Water Areas and River Lines for South Africa are based on the topographic maps dated 1994 as per the National Geo-spatial Information. These datasets are used in this report to provide insight on potential wetland areas and serves to highlight the location and extent of drainage features, dams, wetlands, reservoirs and other relevant inland waterbodies.

7.1.1.4 Ecologically Important Landscape Features

The datasets listed below were incorporated to establish the relation between the project and ecologically important or sensitive freshwater entities. Emphasis was placed around the following spatial datasets:

- South African Inventory of Inland Aquatic Ecosystems (SAIIAE), NBA 2018 Rivers and Wetlands (Van Deventer *et al.*, 2019);
- National Freshwater Priority Areas, Rivers and Wetlands, 2011 (Nel *et al.*, 2011);
- Strategic Water Source Areas, 2021 (Lötter & Le Maitre, 2021); and
- Western Cape Biodiversity Spatial Plan.

7.1.1.4.1 The South African Inventory of Inland Aquatic Ecosystems

The South African Inventory of Inland Aquatic Ecosystems (SAIIAE) was established during the 2018 NBA, the SAIIAE is a collection of spatial data layers that represent the extent of river and inland wetland ecosystem types as well as the pressures on these systems. The same two headline indicators, and their associated categorisations, are applied as with the terrestrial ecosystem NBA, namely Ecosystem Threat Status and Ecosystem Protection Level. The Ecosystem Threat Status of river and wetland ecosystem types are based on the extent to which each ecosystem type had been altered from its natural condition.

7.1.1.4.2 National Freshwater Ecosystem Priority Areas, Rivers and Wetlands

In an attempt to better conserve aquatic ecosystems, South Africa has categorised its inland aquatic systems according to set ecological criteria (i.e., ecosystem representation, water yield, connectivity, unique features, and threatened taxa) to identify Freshwater Ecosystem Priority Areas (FEPAs). The FEPAs are intended to be conservation support tools and it is envisioned that they will guide the effective implementation of measures to achieve the National Environment Management: Biodiversity Act's biodiversity conservation goals (Nel *et al.*, 2011).

7.1.1.4.3 Strategic Water Source Areas

SWSAs are defined as areas of land that supply a disproportionate quantity of mean annual surface water runoff in relation to their size, and therefore contribute considerably to the overall water supply of the country, as well as national aquatic and terrestrial biodiversity resources. These are considered key ecological infrastructure assets and the effective protection of SWSAs is vital for national security because a lack of water security will compromise national security and human wellbeing on all levels.

7.1.2 Wetland Field Survey

7.1.2.1 Identification and Mapping

The wetland areas were delineated in accordance with the DWAF (2005) guidelines, a cross section is presented in Figure 7-1. The outer edges of the wetland areas were identified by considering the following four specific indicators:

- The Terrain Unit Indicator helps to identify those parts of the landscape where wetlands are more likely to occur;
- The Soil Form Indicator identifies the soil forms, as defined by the Soil Classification Working Group (1991), which are associated with prolonged and frequent saturation.
- The soil forms (types of soil) found in the landscape were identified using the South African soil classification system namely; Soil Classification: A Taxonomic System for South Africa (Soil Classification Working Group, 1991);
- The Soil Wetness Indicator identifies the morphological "signatures" developed in the soil profile as a result of prolonged and frequent saturation; and
- The Vegetation Indicator identifies hydrophilic vegetation associated with frequently saturated soils.

Vegetation is used as the primary wetland indicator. However, in practise the soil wetness indicator tends to be the most important, and the other three indicators are used in a confirmatory role.

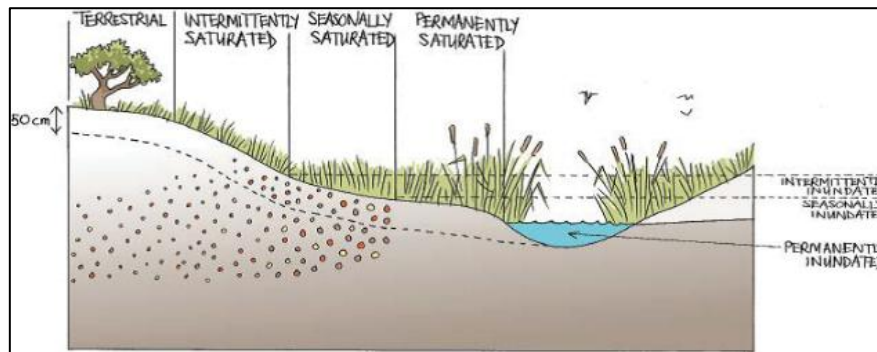


Figure 7-1 Cross section of a wetland, indicating how the soil wetness and vegetation indicators respond to changes in topography (Ollis et al. 2013)

7.1.3 Site Sensitivity Verification

The baseline aquatic / freshwater sensitivity of the project area was obtained using the National Web-based Environmental Screening Tool (Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended). The allocated sensitivities for each of the relevant themes are either disputed or validated for the assessed areas based on the specialist assigned Ecological Importance and Sensitivity of the different systems (where applicable), with consideration been given to the presence of observed or likely sensitive fauna and flora.

7.2 Appendix B – Specialist Declaration of Independence

Declaration

I, Namitha Singh, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



Namitha Singh

Ecologist

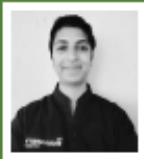
The Biodiversity Company

June 2026

7.3 Appendix C – Specialist CVs

Namitha Singh

Pr Sci Nat 157927



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PROFILE SUMMARY

Environmental scientist and Pri Sci Nat (SACNASP 157927) with ~5+ years' specialist consulting experience across South Africa. Specialist expertise include wetland resource delineation, management and rehabilitation, estuary and coastal management, and hydropedology. Experience spans the mining, construction, infrastructure development (industrial/residential/commercial/service) and agriculture sectors. Responsible for current oversight of the Wetland Unit at TBC. Competence in delivering field surveys and technical reporting aligned with in-country legislative requirements and international lender standards.

PERSONAL INFO

Nationality: South African
Date of birth: 26 September 1995

EXPERIENCE

Wetland and related Specialist Assessments
for Environmental Impact Assessments
(EIA) and Water Use Authorisations

Environmental Management Programmes
(EMPr)

Project Management

SKILLS

- ✓ Wetland delineation and functional assessments
- ✓ Ecology
- ✓ Rehabilitation

LANGUAGES

English – Proficient
Afrikaans – Basic



Signed: Namitha Singh

ACADEMIC QUALIFICATIONS

University of KwaZulu-Natal (2019): BACHELOR OF
SCIENCE HONOURS – ENVIRONMENTAL SCIENCE
(Cum Laude)
Coastal Geomorphology

University of KwaZulu-Natal (2018): BACHELOR OF
SCIENCE IN ENVIRONMENTAL SCIENCE
Majors: Environmental Science and Life Science

PROFESSIONAL EXPERIENCE

Oct 2022 – Present	The Biodiversity Company Wetland Ecologist
Jan 2020 – Sep 2022	Parisara Consulting Wetland Specialist and Consultant
June 2019 – Nov 2019	Parisara Consulting Intern

INTERNATIONAL EXPERIENCE

South Africa

