PROPOSED VREDENBURG REVITILISATION PROJECT PHASES 3 AND 4 ON ERVEN 1943, 1082, 1083, 1944, 3476, 16604, 16606, 16605 AND 1003 VREDENBURG - WESTERN CAPE

REVISED

BIODIVERSITY OFFSET REPORT

Prepared by: Nicolaas Hanekom
Pri.Sci.Nat (Ecology) 004415
Contact details: Telephone: 0769636450
or email: nicolaas@enviro-eap.co.za

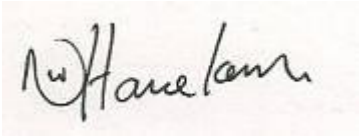
SEPTEMBER 2025

DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I **Nicolaas Willem Hanekom**, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.



Nicolaas Hanekom

Pri.Sci.Nat (Ecology) 004415	**15 September 2025**
Signature of the ~~EAP~~/ Specialist:	Date:

Enviro-EAP (Pty) Ltd

Name of company (if applicable):

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Key Definitions

As indicated, biodiversity offsets are a relatively new concept in South Africa, and the definitions for various terms are also in flux. Key definitions relative to this report are outlined below regarding the National Biodiversity Offset Guidelines (DFFE, 2023).

"Biodiversity Offset" means the measurable outcome of compliance with a formal requirement contained in an environmental authorisation to implement an intervention that has the purpose of counterbalancing the residual negative impacts of an activity, or activities, on biodiversity, through increased protection and appropriate

management, after every effort has been made to avoid and minimise impacts, and rehabilitate affected areas;
"***Biodiversity Offset Implementation Agreement***" means a legally binding agreement that is entered into between the holder of an environmental authorisation and a third party, or third parties, for the implementation of a biodiversity offset;
*"**Biodiversity Offset Management Plan**"* means a plan setting out the management actions to be taken at a biodiversity offset site to achieve and maintain specific conservation outcomes in the long term.
"***Biodiversity Offset Report***" means a report prepared by a relevant specialist, or specialists, and submitted to a competent authority together with a basic assessment report, or environmental impact assessment report, setting out the findings of a biodiversity offset study;
*"**Biodiversity Offset Site**"* means a suitable area in the landscape which meets the offset requirements in an environmental authorisation and is secured for biodiversity conservation in the long term.
*"**Mitigation**"* means to avoid negative impacts, and where they cannot altogether be avoided, to minimise and remedy them, including through rehabilitation, restoration, and/or offsetting.
*"**Residual negative impacts**"* means negative impacts that remain after the proponent has made all reasonable and practicable changes to the location, siting, scale, layout, technology and design of the proposed development in consultation with the environmental assessment practitioner and specialists (including a biodiversity specialist), to avoid and minimise negative impacts, and/or rehabilitate and/or restore impacted areas within the prescribed timeframes specified for the completion of the rehabilitation in the EA;
"***Other Natural Area***" means an area in good or fair ecological condition (natural, near-natural or seminatural) that is not required to meet biodiversity targets for ecosystem types, species or ecological processes;
"***Rehabilitation***" means returning a disturbed, degraded or destroyed ecosystem to sustainable, productive use, with the emphasis on repairing ecological processes and ecosystem services;
"***Restoration***" means returning a disturbed, degraded or destroyed ecosystem to its natural condition, with the species present being representative of the ecosystem that occurred on the site prior to disturbance, and ecological processes supporting the long- term persistence of the ecosystem and species, and the associated ecosystem services, through active (with interventions) or passive (without interventions) means;

EXECUTIVE SUMMARY

In June 2023, the National Biodiversity Offset Guidelines (NBOG) were promulgated. Biodiversity Offsets is a measurable outcome of compliance with a formal requirement contained in an environmental authorisation to implement an intervention that has the purpose of counterbalancing the residual negative impacts of an activity, or activities, on biodiversity, through increased protection and appropriate management, after every effort has been made to avoid and minimise impacts and rehabilitate affected areas. The Applicant acknowledges that, as with any development project, the proposed development will result in the residual impacts to biodiversity. The site assessment considered offset implications. Consideration also needs to be given to how ratios are determined for development in the urban setting. Consideration should be given to approaches for determining biodiversity offset ratios for development in

the urban environment. The Western Cape Guideline on Biodiversity Offsets (2015) must be used to determine the offset ratios. The terms of the WC Guideline on Biodiversity Offsets (2015), offset ratios for EN and CR ecosystems inside urban areas can potentially be reduced to a minimum of 1:1 and 2:1, respectively. Saldanha Granite Strandveld (CR) was the only vegetation type identified and mapped that will be impacted by the proposed development which require offsetting. According to the Western Cape Biodiversity Offset Guideline (DEADP, 2015), where a proposed development would transform or result in loss of CBAs, then the applicant must demonstrate that it is feasible to meet all the biodiversity targets for which the affected CBA has been selected, elsewhere in the landscape. This is to ensure that residual impacts on biodiversity and ecosystem services are compensated by applicants so that biodiversity targets are not undermined, ecological integrity is maintained, and development is sustainable.

The Saldanha Bay Municipality proposes to develop an area of 21.25ha within the Louwville area of Vredenburg – Proposed consolidation, rezoning and subdivision of erven 1943, 1082, 1083, 1944, 3476, 16604, 16606, 16605 and 1003 in Vredenburg, to allow an integrated Human Settlement project with mixed uses.

The proposed development area of 21.25ha will consist of the following:

- 208 Residential Zone 2 erven
- ±120m² erven for IRDP housing – Semi detached houses
- 118 Residential Zone 1 erven
- ±180m² erven for FLISP housing
- 3 General Residential Zone erven
- 254 GAP/FLISP housing opportunities (80 units/ha)
- 5 General Residential Zone erven
- 407 Social Housing opportunities (100 units/ha)
- 1 institutional zone erf – School
- 6 Open Space erven
- 1 Place of Public worship Zone erf
- 1 Institutional Zone erf – creche
- 2 Business Zone erf
- Transport Zone erf – internal roads between 10-20m wide
- Associated services infrastructure such as stormwater, sewer, water and electricity.

Parking will be provided on-site. Each individual design on all erven will include a parking area/driveways in accordance with the parameters set out in the Saldanha Bay Integrated Zoning Scheme By-law.

Other on-site mitigation proposed and included in the assessment and EMP are:

- Search and rescue of plants must be done, alien invasive trees must be removed and non-developed and landscape areas must consists of indigenous vegetation.

The Saldanha Granite Strandveld vegetation on site is degraded with a few representative species present and a confirmed presence of species of conservation concern. The botanical assessment lists *Helichrysum cochleariforme*, a near threatened species, occurring on site, which was confirmed by Ismat Adams site visit

on 10 June 2024. Considering the extent of *Helichrysum* on site, the proposed development may remove significant sub-populations of *H. cochleariforme. Ruschia* was observed in patch 2 and in the area just north of the boundary of patch 2 by Ismat Adams on 10 June 2024. It was confirmed during a site visit in August that it is *Ruschia langebaanensis* which is on site. This could be determined from the time of flowering. *Ruschia langebaanensis* flowers from May to July and *Ruschia macowanii* from September to November. At the time of the site visit on 16 August 2024, the plants were still not in flower and no flower pods or seed capsules were observed on the plants, meaning that they must still flower. However, in the pictures included in Ismat Adams letter and taken 10 June 2024, the plants are in flower and therefore it is *Ruschia langebaanensis*.

The leaves observed by Ismat Adams on 10 June 2024 was not *Empodium veratifolium* (endangered), but *Wachendorrfia paniculata* (least concern).

The site and remnant degraded patches are likely to further degrade in future. There is limited habitat connectivity within the landscape due to the small size of the remnant patches and taking in consideration that it will be developed (if authorized), the patches will further degrade. Considering the isolation of the patches, the degraded status, the ongoing disturbance at the site, as well as their critically endangered status and presence of two species of conservation concern, *Helichrysum cochleariforme*, a near threatened species, and *Ruschia langebaanensis* vulnerable which will lead to the loss of significant sub-populations of *H. cochleariforme*, and *Ruschia langebaanensis* it is recommended that offset be applied to this case. The area of patch 2 is about 5ha and the area of patch 1 is about 0.8ha. The overall impact is therefore loss of at most 6ha of degraded Saldanha Granite Strandveld that requires offsetting.

The offset ratio requirements were calculated as follows. Saldanha Granite Strandveld (CR) was the only vegetation type identified and mapped that will be impacted by the proposed development with a ratio of 2:1 using the Western Cape Biodiversity Offset Guideline (DEADP, 2015). The next step was to assess the extent of CBA loss and if it is feasible to meet all the biodiversity targets for which the affected CBA has been selected, elsewhere in the landscape. At the time of the assessment, the impact 6ha areas was mapped as a terrestrial ESA which will be lost, but the receiving area is mapped as a terrestrial CBA.

1. INTRODUCTION

This Biodiversity Offset Report is prepared in accordance with the National Biodiversity Offset Guidelines published in terms of section 24J of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). The Western Cape Guideline on Biodiversity Offsets (2015) must be used to determine the offset ratios. The terms of the WC Guideline on Biodiversity Offsets (2015), offset ratios for EN and CR ecosystems inside urban areas can potentially be reduced to a minimum of 1:1 and 2:1, respectively. However, according to the Western Cape Biodiversity Offset Guideline (DEADP, 2015), where a proposed development would transform or result in loss of CBAs, then the applicant must demonstrate that it is feasible to meet all the biodiversity targets for which the affected CBA has been selected, elsewhere in the landscape. This is to ensure that residual impacts on biodiversity and

ecosystem services are compensated by applicants so that biodiversity targets are not undermined, ecological integrity is maintained, and development is sustainable.

The report is based on information and development, specifically focusing on its potential impact on terrestrial biodiversity. The outcome of this report aims to investigate the impact significance proposed by the appointed terrestrial biodiversity specialist and determine whether the residual impact after the proposed mitigation has been implemented warrants a biodiversity offset.

1.1. Background & Competency

Nicolaas Hanekom is a suitably qualified biodiversity specialist who holds a Masters Technologiae, Nature Conservation ("Vegetation Ecology and Biodiversity Assessment") degree from the Cape Peninsula University of Technology. Nicolaas is certified in terms of section 20(3)(a) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003), as a Professional Natural Scientist Ecological Science (Pri.Sci.Nat); Aquatic Science & Conservation Science (Cand.Sci.Nat), Registration Number: 004415. He further attended and obtained a certificate on Integrated Protected Area Planning at the Centre for Environmental Development, University of Kwa Zulu Natal. Nicolaas has lectured in two subjects at the Cape Peninsula University of Technology. He has 32 years of environmental planning experience, working for Free State and Western Cape departments of environmental affairs, where he reviewed and commented on development (EIA) applications and where part of the CapeNature Stewardship Program for the West Coast Region which developed the Western Cape Biodiversity Offset Guideline in 2005. He specialises in conservation strategy, tactics and insight, primarily in the areas of water policy for catchment restoration, biodiversity offsets, land protection and stewardship.

1.2. Conditions Relating to this Report

The findings, results, observations, conclusions and recommendations given in this report are based on the author's best scientific and professional knowledge as well as available information and knowledge of the area. Nicolaas Hanekom reserves the right to modify aspects of the report including the recommendations if and when new information may become available from on-going research or further work in this field, pertaining to this assessment.

This report may not be altered or added to without the prior written consent of the author. This restraint also refers to electronic copies of this report which are supplied as sub portion of other reports, including main reports. Similarly, any recommendations, statements, or conclusions drawn from or based on this report must specifically refer to this report. If such comments form part of a main report for this investigation, the report must be included in its entirety as an appendix or separate section to the main report.

1.3. The Significance of the Project

The specialist during the assessment confirmed that the vegetation on site that will be impacted are Saldanha Granite Strandveld (CR) and the proposed offset receiving area is Saldanha Limestone Strandveld (CR).

Residual impacts were therefore calculated on the extent of vegetation that would be impacted by the development.

1.4. Site specific land use

The site and remnant degraded patches are likely to further degrade in future. There is limited habitat connectivity within the landscape due to the small size of the remnant patches and taking in consideration that it will be developed (if authorized), the patches will further degrade. Considering the isolation of the patches, the degraded status, the ongoing disturbance at the site, as well as their critically endangered status and presence of two species of conservation concern, *Helichrysum cochleariforme*, a near threatened species, and *Ruschia langebaanensis* vulnerable which will lead to the loss of significant sub-populations of *H. cochleariforme*, and *Ruschia langebaanensis* it is recommended that offset be applied to this case. The area of patch 2 is about 5ha and the area of patch 1 is about 0.8ha. The overall impact is therefore loss of at most 6ha of degraded Saldanha Granite Strandveld that requires offsetting.

1.5. Regional Biodiversity Context

The following section contains data accessed as part of the desktop assessment and is presented as a “dashboard” style report below (Table 1). The dashboard reports aim to present concise summaries of the data on as few pages as possible to allow for integration of results by the reader to take place. Where required, further discussion and interpretation is provided, and information that was considered to be of particular importance was emboldened.

Table 1: Summary of the terrestrial conservation characteristics for the Study Area.

DETAILS OF THE STUDY AREA OF INTEREST IN TERMS OF THE 2018 FINAL VEGMAP OF SOUTH AFRICA, LESOTHO, AND SWAZILAND (SANBI, 2006-2018) ORIGINAL EXTENT OF VEGETATION TYPES	
Biome	The study area is situated within the Fynbos Biome.
Bioregion	The study area is located within the West Strandveld bioregion.
Vegetation Type	The study area is located in Critically Endangered (CR) Saldanha Granite Strandveld (two patches of approximately 6ha).
DESCRIPTION OF THE VEGETATION TYPE ASSOCIATED WITH THE STUDY AREA IN TERMS OF THE 2018 FINAL VEGMAP OF SOUTH AFRICA, LESOTHO, AND SWAZILAND (SANBI, 2018)	
Vegetation Type	Saldanha Granite Strandveld (Fs 2)
Climate	Mainly cyclonic annual rainfall, almost exclusively in winter.
Altitude (m)	0 - 180
MAP* (mm)	283
MAT* (°C)	16
MFD* (Days)	3
MAPE* (mm)	2166
MASMS* (%)	76
Distribution	Western Cape Province: On the West Coast, granite domes from Vredenburg to St Helena Bay and many points along the coast including Paternoster and Saldanha's North Head; also, around Langebaan town and at Postberg on the Langebaan Peninsula.
Conservation	**CR**. Target 24%. Almost 10% statutorily conserved in the West Coast National Park, SAS Saldanha and Columbine Nature Reserves, and a small portion in private reserves such as West Point, Groot Paternoster and Swartriet. About 70% transformed for cultivation or by urban development. This vegetation type is regularly utilised for grazing. Australian *Acacia saligna, A. cyclops* and *A. baileyana* are causing serious infestations in many places. Coastal development is a further threat to this vegetation type. Erosion low and very low.
Geology and Soils	Deep, coarse sandy to loamy soils derived from the Vredenburg Batholith in the north and the Saldanha Batholith in the south (both of the Cape Granite Suite). Dominant land type Ab, followed by Fc.
Vegetation & landscape features	Rounded forms of granite sheets and smooth forms at their feet dominate the landscapes of this vegetation unit. Low to medium shrubland, containing some succulent elements, alternates with grassy and herb-rich spots supporting a rich geophyte flora.
Red List of	The 2022 Red List of Ecosystems identified one threatened ecosystems present within the study area, namely,

Ecosystems (2022)	the CR Saldanha Granite Strandveld. The Saldanha Granite Strandveld is mapped for the whole development area, but only two patches of approximately 6ha was identified to represent Saldanha Granite Strandveld. The rest of the site is degraded and does not represent Saldanha Granite Strandveld.
NBA (2018)	The 2018 Red List of Ecosystems identified one threatened ecosystems present within the study area, namely, the CR Saldanha Granite Strandveld. The Saldanha Granite Strandveld is mapped for the whole development area, but only two patches of approximately 6ha was identified to represent Saldanha Granite Strandveld. The rest of the site is degraded and does not represent Saldanha Granite Strandveld. Ecosystem types are categorised[1] as "not protected", "poorly protected", "moderately protected" and "well protected" based on the proportion of each ecosystem type that occurs within a protected area recognised in the NEMPAA and compared with the biodiversity target for that ecosystem.
SAPAD (2022)[2]; SACAD (2022)[3]; NPAES (2018)	According to the SAPAD (2022_Q2), three (3) protected areas, namely the Swartriet Private Nature Reserve (located between 8 – 10 km west of the study area), SAS Saldanha Provincial Nature Reserve (located between 10 – 12 km southwest of the study area) and Marcus Island Marine Protected Area (located approximately 10 km southwest of the study area). The SACAD (2022-Q2) indicates the presence of a conservation area, namely the Cape West Coast Biosphere Reserve, which completely traverses the study area. However, the study area is not in the core area of the Biosphere Reserve, but within the Urban area. The following details for the Biosphere reserve is provided online:

[1] The ecosystem protection level status is assigned using the following criteria:
i. If an ecosystem type has more than 100% of its biodiversity target protected in a formal protected area either A or B, it is classified as Well Protected;
ii. When less than 100% of the biodiversity target is met in formal A or B protected areas it is classified it as Moderately Protected;
iii. If less than 50% of the biodiversity target is met, it is classified it as Poorly Protected; and
iv. If less than 5% it is Hardly Protected

[2] SACAD (2022): The types of conservation areas that are currently included in the database are the following: 1. Biosphere reserves, 2. Ramsar sites, 3. Stewardship agreements (other than nature reserves and protected environments), 4. Botanical gardens, 5. Transfrontier conservation areas, 6. Transfrontier parks, 7. Military conservation areas and 8. Conservancies.

[3] SAPAD (2022): The definition of protected areas follows the definition of a protected area as defined in the National Environmental Management: Protected Areas Act, (Act 57 of 2003). Chapter 2 of the National Environmental Management: Protected Areas Act, 2003 sets out the "System of Protected Areas", which consists of the following kinds of protected areas - 1. Special nature reserves; 2. National parks; 3. Nature reserves; 4. Protected environments (1-4 declared in terms of the National Environmental Management: Protected Areas Act, 2003); 5. World heritage sites declared in terms of the World Heritage Convention Act; 6. Marine protected areas declared in terms of the Marine Living Resources Act; 7. Specially protected forest areas, forest nature reserves, and forest wilderness areas declared in terms of the National Forests Act, 1998 (Act No. 84 of 1998); and 8. Mountain catchment areas declared in terms of the Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970).

	• UNESCO Designation: 2000. • Management Entity: Cape West Coast Biosphere Reserve Non-Profit Company. • Total Area: 387 000 ha, including a marine portion of 20 000 ha. • Core Zone: 59 000 ha (terrestrial); 20 000 ha (marine). • Buffer Zone: 58 000 ha. • Transition Zone: 150 000 ha. One additional conservation area namely Langebaan is located within 15 km of the study area (approximately 10 km south of the study area). NPAES (2018) did not indicate any Focus and or Priority areas within the study area.
IBA (2015)	The study area is located within 15 km of an IBA (2015), namely the West Coast National Park and Saldanha Bay Islands IBA (located between 11 km south of the study area).
Definitions: • CBAs are areas in a natural condition that are required to meet biodiversity targets for species, ecosystems or ecological processes and infrastructure. CBA 1 are areas likely to be in a natural condition and CBA 2 are those areas that are potentially degraded or represent secondary vegetation and therefore require restoration where feasible. • ESAs are important in supporting the functioning of CBAs and are often vital for delivering ecosystem services. ESA 1 are areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. ESA 2 are areas that are not essential for meeting biodiversity targets but are targeted for restoration and play an important role in supporting the functioning of protected areas (PAs) or CBAs and are often vital for delivering ecosystem services.	
CBA1	According to the WCBSP (2017), approximately 0.2ha of the study area is considered CBA 1, but this CBA is located outside the mapped Saldanha Granite Strandveld patches.
CBA2	According to the WCBSP (2017), none were mapped.
ESA1	According to the WCBSP (2017), the whole development area was mapped as ESA1, but only approximately 6ha was mapped as Saldanha Granite Strandveld in two patches.
ESA2	According to the WCBSP (2017), none were mapped.
The screening tool is intended to allow for pre-screening of sensitivities in the landscape to be assessed within the EA process. this assists with implementing the mitigation hierarchy by allowing developers to adjust their proposed development footprint to avoid sensitive areas. The different sensitivity ratings pertaining to the Plant [and Animal] Protocols are described below:	

Very High: Habitat for species that are endemic to South Africa, where all the known occurrences of that species are within an area of 10 square kilometres (km2) are considered Critical Habitat, as all remaining habitat is irreplaceable. Typically, these include species that qualify under CR, EN, or vulnerable (VU) criteria of the IUCN or species listed as Critically/ Extremely Rare under South Africa's National Red List Criteria. For each species reliant on a Critical Habitat, all remaining suitable habitat has been manually mapped at a fine scale. **High:** Recent occurrence records for all threatened (CR, EN, VU) and/or rare endemic species are included in the high sensitivity level. **Medium:** Model-derived suitable habitat areas for threatened and/or rare species are included in the medium sensitivity level. **Low:** Areas where no species of conservation concern (SCC) are known or expected to occur.	
Animal Species	The following sensitive species were list in the DEA screen report and special focus was placed on these species, their habitat, presence and signs of their existence on the site during the site survey: • *Sagittarius serpentarius* • *Circus maures* None were recorded or observed at the time of the survey or likely to occur on site due to habitat loss and the current ecological status of the properties and surrounding area. The proposed development of the areas, although it can possibly impact on animal species, will not result in the loss or significant impacts on the population size of any species and change the conservation status of these species nor lead to its extension. This is because the impacted area and habitat loss is very small in terms of the total available habitat for this species.
Plant Species	The site and remnant degraded patches are likely to further degrade in future. There is limited habitat connectivity within the landscape due to the small size of the remnant patches and taking in consideration that it will be developed (if not excluded from the development and conserved), the patches will further degrade. Considering the isolation of the patches, the degraded status, the ongoing disturbance at the site, as well as their critically endangered status and presence of two species of conservation concern, *Helichrysum cochleariforme*, a near threatened species, and *Ruschia langebaanensis* vulnerable which will lead to the loss of significant sub-populations of *H. cochleariforme*, and *Ruschia langebaanensis* it is recommended that ecological compensation and offset be applied to this case. Species and site sensitivity assessed was medium which concur with the screen tool report.
Terrestrial Biodiversity	According to the WCBSP (2017), the whole development area was mapped as ESA1, but only approximately 6ha was mapped as Saldanha Granite Strandveld in two patches.
Surface water SWSAs are defined as areas of land that supply a disproportionate (i.e., relatively large) quantity of mean annual surface water runoff in relation to their size. They include transboundary areas that extend into Lesotho and Swaziland. The sub-	

national Water Source Areas (WSAs) are not nationally strategic as defined in the report but were included to provide a complete coverage.	
SWSAs	No natural aquatic features were observed on the site during the time of the survey. The reasoning for the Very High Aquatic Biodiversity Sensitivity status given to the site by the DEA Screening Tool appears to be because the site falls within an "Strategic water source area" known as the West Coast Aquifer however the strategic water source area known as the West Coast Aquifer cover an area of 458 631.92ha and the site of 21.25ha falls within this very large general area and there a no natural groundwater or surface water resources present on the site nor within close proximity to the site. Man-made partly concrete and partly rock based stormwater channels crosses the western and eastern sections of the proposed development site and another man-made stormwater channel runs along the western border of the site all which are proposed to be upgraded to more formal and stable concrete channels. All the artificial stormwater channels will therefore maintain their current hydrological functioning in directing stormwater collected from higher lying urban areas in a south-easterly direction towards the lower lying areas of Louwville. None of these artificial stormwater channels connects to nor feeds directly into a natural water resource. No artificial or natural NFEPA wetlands or water resources is mapped for the proposed development site nor its immediate surrounds and no groundwater will be extracted on site for the proposed development. Therefore no "strategic water sources" in the area will be negatively impacted upon by the proposed development.

1.6. Biodiversity Conservation Status

According to the WCBSP (2017), approximately 0.2ha of the study area is considered CBA 1, but this CBA is located outside the mapped Saldanha Granite Strandveld patches. The whole development area was mapped as ESA1, but only approximately 6ha was mapped as Saldanha Granite Strandveld in two patches. The WCBSP (2023) map the 2 patches of 6ha as terrestrial CBA.

The 2022 Red List of Ecosystems identified one threatened ecosystems present within the study area, namely, the CR Saldanha Granite Strandveld. Approximately 6ha (28%) of the study area is composed of the CN Saldanha Granite Strandveld.

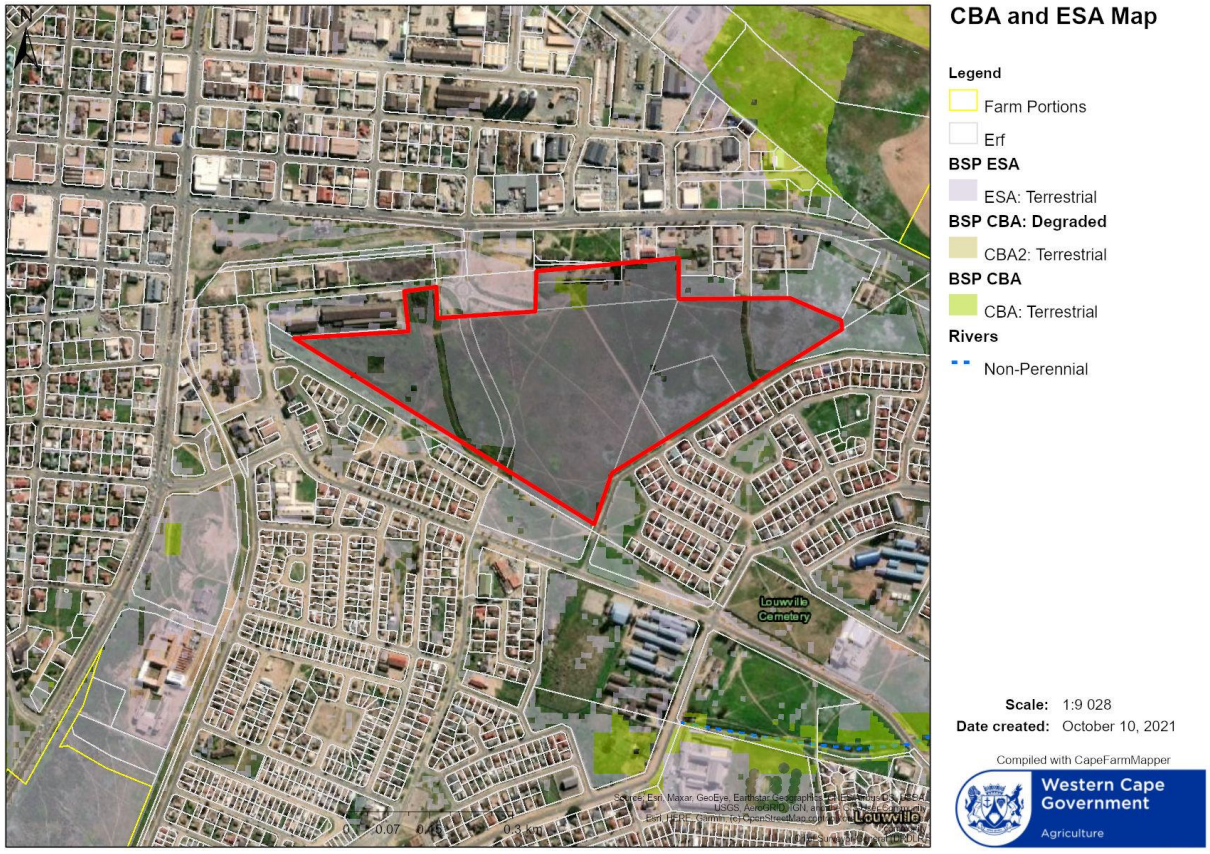

Figure 1: CBA Map

2. SCOPE OF WORK

This report serves as a biodiversity offset study conducted with reference to the National Biodiversity Offset Guideline contemplated in section 24J of the National Environmental Management Act, 1998 (NEMA). Generally, it is recommended that the Biodiversity Offset Report be submitted together with the EIA Report to the Competent Authority (CA) before the legislated timeframes for the EIA phase lapse. This is crucial when the CA has decided to grant Environmental Authorisation (EA) for an activity or activities, subject to the condition that a biodiversity offset is implemented.

This report acts as a draft Biodiversity Offset Report, where residual impacts and associated offset targets are calculated with reference to available biodiversity offset guidelines). The report will then be included as an Addendum in the Draft Environmental Impact Assessment report for comment. The comment received through this interaction will then be used as a basis for refining and finalising the Biodiversity Offset Report.

The primary purpose of this Biodiversity Offset Report is to provide specific and actionable recommendations to compensate for the negative residual impacts of the proposed developments on biodiversity. Key aspects addressed explicitly in this plan include:

- A review of the ecological context and the biodiversity significance of the sites.
- An overview of offset policies and guidelines relevant to this application.
- An examination of measures taken to enhance the application of the mitigation hierarchy.
- The quantification of residual impacts and the establishment of offset targets using best-practice guidelines.
- The selection of an offset site and quantification of potential offset contributions.
- A concise outline of recommended offset actions.

The Scope of Work as part of offset initiative comprised the following key components:

- Assess historical information, desk-based sources and the updated biodiversity studies undertaken on the site;
- Attend a meeting with relevant stakeholders to identify potential offset alternatives;
- Define the residual negative impacts on biodiversity and species of conservation concern within the proposed project footprint as well as immediate surroundings, and define biodiversity offset requirements;
- Define the offset requirements based on the National Biodiversity Offset Guideline published in the Government Gazette No. 46088 on 25 March 2023 (NBOG) (2023) and the WCBOG (2015). Consideration was given to both the extent of CBA and ESA areas to be offset as well as the requirements of the ratio offset for CBA's to be generated in the proposed offset areas;
- The basic offset ratios and the specific offset requirements set out within the NBOG (2023), and WCBOG (2015) were also considered as the target and starting point;
- Based on the findings, both on-site and off-site options for biodiversity offsets were assessed;
- Biodiversity aspects highlighted that will affect the proposed offset areas included the confirmation of the loss of biodiversity (including CBA areas, ESA areas, habitat for species highlighted as SCC by the Department of Forestry, Fisheries, and the Environment (DFFE) screening tool;
- Engage with owners of the recipient areas of the offset to test willingness to enter into agreement on the offset;
- Present the final biodiversity offset quantum definition and alternative identification study for inclusion in the application for environmental authorization (EA); and

- Prepare a budget for the implementation of the proposed offset and compensation initiative.

3. TERM AND DURATION OF THE OFFSET

Due to the nature of the proposed development, and the related biodiversity offsets, it is important to ensure the long-term sustainability and viability of the offsets / compensation areas. In this regard, the proponent is obliged to ensure that the proposed offset areas are sustainably managed for the life of the project (defined as a 30-year period) and that these efforts are viable and sustainable "in perpetuity" (defined as 99 years) and that funding is provided for a lifetime (legally defined as 30 years).

4. INTRODUCTION TO BIODIVERSITY OFFSETS

4.1. Overview of Western Cape Offset Guidelines

The WCBOG was developed in 2005, revised in 2007 and updated in 2015. Land-intensive development poses a significant threat to the province's remaining biodiversity, and biodiversity conservation and essential ecosystem services must be prioritised. Biodiversity offset is vital for the Western Cape since the province contains exceptional biodiversity that is unique globally, and its ecosystems support socio- economic development and delivery of essential services such as the reliable supply of clean water, eco-tourism, and coastal protection (DEADP 2015). The objective of biodiversity offsets, through the development authorisation and associated EIA process, is to ensure that residual impacts on biodiversity and ecosystem services are compensated by applicants so that biodiversity targets are not undermined, ecological integrity is maintained, and development is sustainable (DEADP 2015). Spatial planning at all levels is essential for highlighting land conservation priorities and providing guidance on the spatial framework where economic development should occur. Such policies or plans inform the use of biodiversity offsets as an instrument for environmental management and provide a helpful tool to help meet provincial and national biodiversity targets (DEADP 2015).

Biodiversity offsets are considered the last resort option in a hierarchy of possible mitigation measures after taking steps to avoid and minimise significant negative impacts. Offsets may be considered to compensate for residual biodiversity impacts by securing priority habitat for biodiversity conservation in perpetuity and ensuring its effective management for a defined timeframe.

According to DEADP (2015), the trigger for biodiversity offsets is the significance of residual negative impacts of development, usually assessed during the EIA phase. When residual impacts on biodiversity are of moderate to high significance, offsets for biodiversity loss would be needed, while at low significance, there would be no need for biodiversity offsets. When residual impacts on biodiversity are highly significant, offsets cannot fully compensate for biodiversity loss. The proposed activities would likely lead to losing irreplaceable biodiversity or priority ecosystem services. In this case, the no-go alternative should be selected unless the need and desirability of the project are deemed

to be overriding public interest, and there are no reasonable and feasible alternatives that could avoid or minimise impacts. Compensation for these impacts would be required in priority areas secured and managed for conservation.

According to DEADP (2015), the biodiversity offset system in the Western Cape is based on compensation in the form of a 'like or better' habitat, and in some instances, monetary compensation may be appropriate. Monetary compensation may comprise contributions to an accredited biodiversity conservation trust to acquire and manage priority habitats for biodiversity and/or provide funds to expand or manage publicly protected areas. In the Western Cape, offset requirements are linked to biodiversity targets to meet provincial and national biodiversity conservation obligations. Offsets are calculated by multiplying the measure of residual biodiversity loss by a basic offset ratio linked principally to the conservation status of the affected ecosystem:

- A 30:1 ratio for areas considered to be irreplaceable in terms of achieving biodiversity targets (e.g., Critical Biodiversity Areas) and for Critically Endangered ecosystems;
- From10:1 to 30:1 ratio for Endangered ecosystems;
- From 1:1 to 4:1 ratio for Vulnerable ecosystems; and
- No offset for 'least threatened' ecosystems.
- The WC Guideline on Biodiversity Offsets (2015) offset ratios for EN (1:1) and CR (2:1) ecosystems inside urban areas can potentially be reduced.

The area determined by the basic offset ratio is then adjusted by a range of context-specific considerations, including:

- The condition of the impacted habitat;
- The significance of residual impacts on threatened species;
- The significance of the residual impact on unique habitats;
- The significance of the residual impact on critical ecological corridors or process areas; and
- The significance of the residual impact on biodiversity underpinning ecosystem services with socio-economic or heritage value.

The long-term security of an offset is critical to achieving the intended benefits to biodiversity and supporting the sustainability of the development project. According to DEADP (2015), a careful offset design process must therefore be followed and should include the following:

- Measuring the residual negative impacts on biodiversity to determine an appropriate offset;
- Determining the most appropriate type of offset: 'like for like habitat', 'trading up' (where the habitat of a higher priority for biodiversity conservation than that affected by development is targeted as an offset) or monetary compensation;
- Determining the size and optimum location of the offset required to compensate for residual negative impacts on biodiversity;
- Checking the feasibility of securing offset site(s) and deciding on the best way to secure the offset: e.g., through the Stewardship Programme, conservation servitude, or as a donation to a statutory conservation authority (i.e., CapeNature or SANParks)

or an accredited Public Benefit Organization; and
- Reaching in principle Agreement with landowners on the offset.

As the provincial biodiversity agency, the Competent Environmental Authority or CapeNature, can call for biodiversity offsets during public participation in a Basic Assessment, Scoping or EIA process. In addition, they could comment on the proposed scope of specialist studies and the Terms of Reference for these studies (including offsets) and/ or on the adequacy of considering alternatives and proposed mitigation (including offsets) during the public participation stages (DEADP 2015).

Should the application for environmental authorisation be accepted conditional on an offset, then a detailed Offset Report and Offset Agreement would need to be prepared, together with an Offset Management Plan, providing details of how the offset site would be secured, financial requirements and provision, and implementation arrangements. CapeNature and the Competent Environmental Authority would need to review and accept these documents before the proposed activities could commence (DEADP 2015).

4.2. National Biodiversity Offset Guidelines

The NBOG (DFFE, 2023) is designed to give practical guidance on biodiversity offsetting in the environmental authorisation application process contemplated in NEMA.

The desired outcomes of biodiversity offsets as articulated in the NBOG are particularly relevant and aim to ensure the following:
- That biodiversity is secured long-term through protecting and appropriately managing ecosystems and species.
- Efforts to secure biodiversity in the long term contribute to the expansion of South Africa's protected area network and are focusing on areas identified as biodiversity priorities, with particular emphasis on the consolidation of priority areas and securing effective ecological links between priority areas.
- That ecological infrastructure and its services and benefits are maintained and, where necessary, restored.
- That the cumulative impact of the authorised activity, or activities, and land and resource use change does not –
    - result in the loss of irreplaceable biodiversity or jeopardise the ability to meet biodiversity targets;
    - lead to any ecosystem with a threat status of Vulnerable or Least Concern becoming Endangered, or any Endangered ecosystem becoming Critically Endangered;
    - Cause irreversible decline in the conservation status of species and the presence of special habitats; and
    - Cause significant loss in ecosystem services.

The NBOG recommend offset ratios for the preferred ecologically equivalent ('like-for-like') offsets.

The starting point for determining the size of a biodiversity offset is calculating an applicable ecosystem-based biodiversity offset ratio. A biodiversity offset ratio provides the area-based size of a biodiversity offset relative to the area of the residual negative biodiversity impact. Given that the focus is on ecosystems, the standard approach for determining ratios is based on Ecosystem Extent, Ecosystem Protection Level (EPL) and Ecosystem Threat Status. It is also recommended that it is taken into consideration which type of biodiversity priority area the relevant area is classified as. This is to ensure that biodiversity priorities can still be met in areas that are CBA2s but were not selected because of ecosystem threat level.

Determining the basic offset ratio
The standard approach to determining a basic biodiversity offset ratio is based on biodiversity targets. Those targets are, in turn, based on Ecosystem Extent, Ecosystem Protection Level and Ecosystem Threat Status of the various ecosystem types identified in the ecosystem assessment conducted as part of the determination of ecosystems that are threatened and in need of protection in terms of the National Environmental Management: Biodiversity Act, 2004[4]. The proposed applicable ratios are listed in the look-up table, which is attached, marked **Annexure A** (NBOG 2023). The look-up table also sets out the rationale for the standard approach in greater detail and will be reviewed periodically and updated, if and when necessary.

The standard approach is shortly as follows:
1. If the Ecosystem Extent is less than or equal to 30%, the precautionary principle demands that a 30:1 ratio must be applied.
2. If the Ecosystem Extent is between 30 and 70%, the ratios provided for in the look-up table, which takes into consideration Ecosystem Extent and EPL, should be applied. The ratios in that range of Ecosystem Extent vary between 1:22 to 1:1 depending on the extent of the ecosystem remaining and how much of the relevant ecosystem type is protected.

Take into consideration the ecosystem threat status: it is recommended that the following ratios are applied for the different ecosystem threat statuses:
- Critically Endangered: 30:1.
- Endangered: 10:1.
- Vulnerable: 5:1.

'Like-for-better' biodiversity offsetting/ 'trading-up' Wherever possible, a 'like-for-like' biodiversity offset should be required and provided to ensure that residual negative impacts on the affected biodiversity features are appropriately compensated. In exceptional cases, targeting biodiversity of greater conservation concern (for example, ecosystems that have higher threat status than the impacted ecosystem, or areas of higher biodiversity priority as indicated in applicable systematic biodiversity plans), may be justifiable. Where such an approach of 'trading up' is being considered, a strong motivation should be provided for this choice (for example, when it can be shown that

[4] At the date of publication of this guideline, the latest such list was the one published under Government Notice No. 2747 in Government Gazette No. 47526 of 18 November 2022.

there are no suitable areas of the same or proxy habitat available). Such motivation should also show the relationship between the biodiversity offset site's biodiversity and impacted biodiversity.

5. MITIGATION HIERARCHY ASSESSMENT

5.1. Introduction to the Mitigation Hierarchy

Best-practice dictates that offset investigations include a 'Mitigation Hierarchy Assessment' to determine what additional steps can be put in place before resorting to biodiversity offsets. An overview of the mitigation hierarchy is outlined here, followed by recommendations to strengthen existing mitigation measures to reduce negative impacts on biodiversity.

The protection of ecosystems and biodiversity generally begins with avoiding adverse impacts and, where such avoidance is not feasible, applying appropriate mitigation in the form of reactive practical actions that minimises or reduces impacts. Mitigation requires proactive planning that follows the mitigation hierarchy. The mitigation hierarchy's application is intended to avoid disturbance and/or loss of ecosystems, and where this cannot be avoided, to minimise, rehabilitate, and then finally offset any remaining significant residual impacts (Figure 2). The mitigation hierarchy is inherently proactive, requiring the ongoing and iterative consideration of alternatives in terms of project location, siting, scale, layout, technology, and phasing until the proposed development can best be accommodated without significant negative impacts on the receiving environment. In the case of sensitive ecosystems, where ecological impacts can be severe, the guiding principle should generally be "anticipate and prevent" rather than "assess and repair".

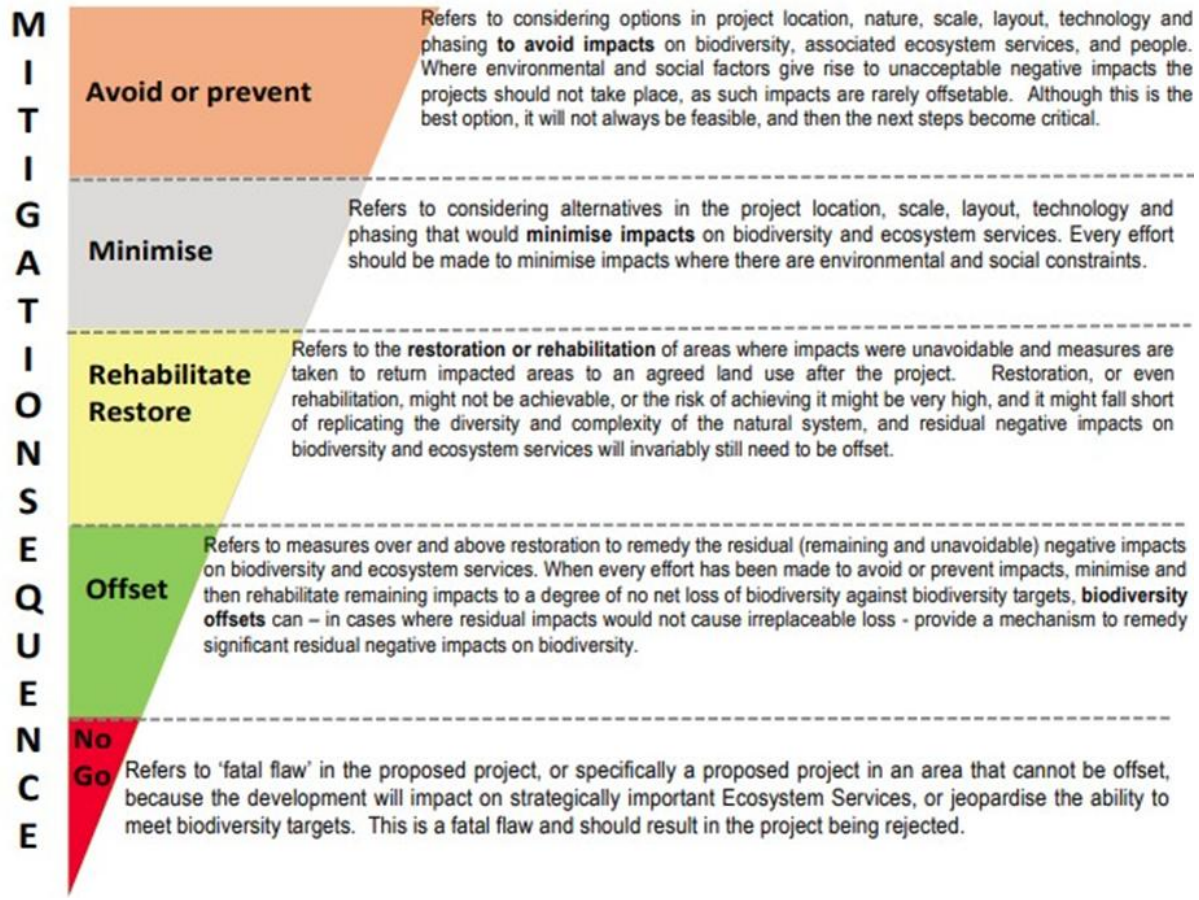

Figure 2: Mitigation hierarchy's application

6. TRADE OFFS AND BIODIVERSITY COMPENSATION

The NBOG (2023) defines 'ecological compensation' can as the outcome of measurable actions to protect, rehabilitate and manage priority biodiversity, aimed at compensating for residual negative impacts on biodiversity and ecological infrastructure but is not designed to counterbalance those impacts. Trade-offs should be approached with extreme caution in the context of environmental authorisation applications given that South African law demands a rational link between impacts on the environment and conditions of environmental authorisations directed at addressing those impacts.

The loss of irreplaceable biodiversity cannot be replaced by socio-economic benefits. The circumstances under which an activity, or activities, could be authorised when it is likely to have a negative impact on irreplaceable biodiversity – in other words, when it is fatally flawed from a biodiversity perspective-must be truly exceptional.

7. CONSIDERATION OF THE MITIGATION HIERARCHY

Taking the above findings into consideration, the proposed development was deemed necessary to explore the mitigation hierarchy to reduce impacts from the proposed

development. The way in which the mitigation hierarchy was approached for the project is summarised in the numbered list below:

- When residual negative biodiversity impacts are determined to be of medium or high significance, the implementation of a biodiversity offset becomes necessary.

8. BIODIVERSITY OFFSET REQUIREMENTS

Taking the above findings into consideration, the proposed housing development offset requirements were defined. Biodiversity offsets should be considered to compensate for residual negative impacts on biodiversity of 'medium' to 'high' significance (DFFE 2022). If the residual biodiversity impacts are considered of low significance no biodiversity offset is required[5]. Only two patches of approximately 6ha were mapped having a medium sensitivity and significance for which the need for an offset and compensation was identified. The rest of the development area mapped as ESA1 has a low sensitivity rating.

8.1. Ecosystem Conservation

Ecosystem conservation ratios are calculated based on a suite of characteristics that are regarded as important in determining conservation value. These include (i) ecosystem status, (ii) regional and national conservation context, and (iii) local site attributes including the presence of specific species.

As discussed in Sections above in this report, the proposed development is located within areas designated as CBAs, ESAs, and red listed ecosystems. Thus, these areas are considered by both provincial (in terms of CBAs and ESAs) and national (in terms of threatened ecosystems) regulating authorities to be key conservation areas.

8.2. Species of Conservation Concern (SCC)

The site and remnant degraded patches are likely to further degrade in future. There is limited habitat connectivity within the landscape due to the small size of the remnant patches and taking in consideration that it will be developed (if not excluded from the development and conserved), the patches will further degrade. Considering the isolation of the patches, the degraded status, the ongoing disturbance at the site, as well as their critically endangered status and presence of two species of conservation concern, *Helichrysum cochleariforme*, a near threatened species, and *Ruschia langebaanensis* vulnerable which will lead to the loss of significant sub-populations of *H. cochleariforme*, and *Ruschia langebaanensis* it is recommended that ecological compensation and offset be applied to this case.

9. PRELIMINARY OFFSET ALTERNATIVES

With the identification of offset initiatives, it is important to identify alternatives that are the most similar to habitats that will be lost, to ensure that the alternatives would eventually

[5] Provincial Guideline on Biodiversity Offsets, Western Cape, 2007.

compensate for the ecoservices and ecosystem conservation value as determined above. One offsite alternatives and no on-site offsets (which is not possible and applicable to this development), were considered.

Monetary compensation can include contributions to an accredited biodiversity conservation fund, revolving land trust or dedicated offsets fund, for the purpose of acquiring and managing additional priority habitat, or provision of finance for the expansion or management of public protected areas. This type of offset is attractive and relatively simple for the developer, and effectively removes any responsibility for identifying and securing appropriate offsets in the landscape. However, it does place an additional burden on those institutions and organisations responsible for biodiversity conservation in the province to undertake these tasks; a burden that – depending on the capacity of these bodies – may be inappropriate and thus undesirable and unsustainable. Additionally, challenges pertaining to the agreement on the quantum of financial contribution to compensate for loss on both an initial capital level as well as for ongoing management and maintenance may be experienced, as well as potential mismanagement of funds and wasteful expenditure by the target offset site management leading to no net gain or improvement in target habitats or CBAs. Thus, whilst funding alone may be an 'attractive' option to the party requiring the offset, and may have its advantages, it is largely not considered to be an appropriate offset mechanism in isolation, although the competent authority may require that such compensation takes place in addition to the biodiversity offset, given the significance of anticipated impacts associated with this project. This alternative is not feasible for the Municipality.

The area to be developed is Saldanha Granite Strandveld, with a critically endangered status and mapped as an ESA1, but the proposed offset areas contain Saldanha Limestone Strandveld (CR), mapped CBA. The track record of off-site offset projects in South Africa has indicated a high level of risk in terms of success of these types of projects. Major stumbling blocks are usually associated with the issues of landownership and the restriction of future land use for the affected area. Given the quantum of the offset required, there is however no alternative to an offsite offset and thus the options investigated will be expanded upon in the sections below.

10. BIODIVERSITY OFFSET DETERMINATION

The National Biodiversity Offset Guideline 2023 (NBOG) were published in terms of section 24J of the National Environmental Management Act 108 of 1998 ("NEMA"). This guideline is an implementation guideline contemplated in section 24J of NEMA. It must, in accordance with section 24O of NEMA and regulation 18 of the EIA Regulations, be taken into account by a CA when considering an application for an EA. It is therefore not absolutely binding and can be deviated from when justifiable under the circumstances[6]. It is emphasised here that the standard approach is not binding, but a guide based on relevant scientific information on ecosystems. Competent authorities must apply their minds to each case, which would involve considering additional factors, such as the size

[6] Page 15 of the National Biodiversity Offset Guideline, 2023

of the historical extent of the ecosystem measured against the extent of the residual negative impact (if a large percentage of the extent of the ecosystem would be impacted on, a higher ratio would be justified) and the cumulative residual negative impact of the activity, or activities, on biodiversity.[7]

Summary of NBOG ratios. Saldanha Granite Strandveld Critically Endangered ETS, Remaining Ecosystem Extent (REE) – 28%, Transformation Band 1, A. TPC Ratio of 30, B C. ETS Ratios, PP Ratio of 30, and Starting Ratios of Poorly Protected (PP) 30.

The Western Cape Guideline on Biodiversity Offsets (2015) should be used to determine the offset ratios because the area is located in urban area. The terms of the WC Guideline on Biodiversity Offsets (2015), offset ratios for EN and CR ecosystems inside urban areas can potentially be reduced to a minimum of 1:1 and 2:1, respectively (see section 7.4.1.1, pg. 85).

Saldanha Granite Strandveld (CR) was the only vegetation type identified and mapped that will be impacted by the proposed development with a ratio of 2:1 using the Western Cape Biodiversity Offset Guideline (DEADP, 2015). The next step was to assess the extent of CBA loss and if it is feasible to meet all the biodiversity targets for which the affected CBA has been selected, elsewhere in the landscape.

Therefore, if an area of 6ha which require offset as mitigation is developed and an offset ratio of 2:1 is applied, an offset area of 12ha is required.

The cumulative impact of the authorized activity, including authorization to develop with a condition of the recommended offset will not:

- result in the loss of irreplaceable biodiversity or jeopardise the ability to meet biodiversity targets;
- lead to any ecosystem with a threat status of Endangered ecosystem becoming Critically Endangered;
- Cause irreversible decline in the conservation status of species and the presence of special habitats; and
- Cause significant loss in ecosystem services, and
- the CBA objectives will still be met and the residual impacts on biodiversity and ecosystem services are not undermined, ecological integrity is maintained, and development is sustainable.

10.1. Offset options for further investigation

No further offset options and investigations are required.

[7] Page 37 of the National Biodiversity Offset Guideline, 2023

10.2. Offset target host sites

An offset area of 12ha (Saldanha Limestone strandveld) mapped as CBA and located on the edge of the WWF property on Farm 282, portion 3 south of Jacobsbaai was identified. Saldanha Bay Municipality is the offset receiving area property owner.

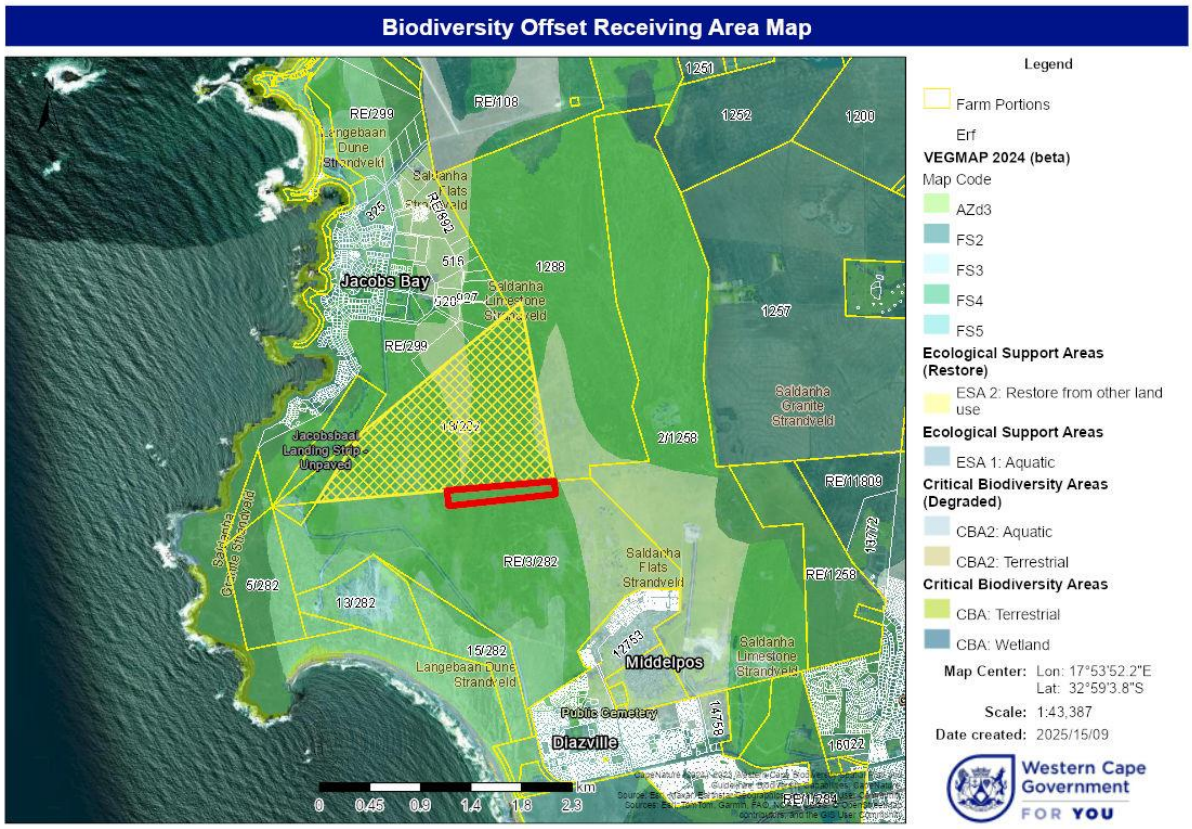

Figure 3: Visual representation of the proposed site to be offset indicated in red polygon. WWF property indicated in yellow grid polygon.

11. BIODIVERSITY OFFSET ASSESSMENT OF AVAILABILITY AND ADEQUACY OF ACHIEVED TARGETS

Approximately 6 ha of Saldanha Granite Strandveld (CR) will require a 12 ha offset based on a 2:1 ratio as recommended above. The offset receiving area of 12ha represents Saldanha Limestone Strandveld (CR). Although it is not like for like (i.e. same vegetation types), both the offset area and offset receiving areas have CR status.

Table 2: Summary of critically endangered vegetation type, endangered vegetation type and vulnerable vegetation type, Critical Habitat losses, requirements, and achievements from the offset program.

	Vegetation Type	CBA	ESA	Total Extent	Offset ratio
Areas within development footprint	Saldanha Granite Strandveld (CR)	0ha	6ha	6ha	
Identified offset receiving area	Saldanha Limestone Strandveld	12ha	0ha	12ha	2:1

Photograph 1: Site visit and photograph dated 10 September 2025. Ecological condition of offset receiving area.

Photograph 2: Site visit and photograph dated 10 September 2025. Ecological condition of offset receiving area. Property boundary in middle of photograph with the existing WWF conservation area on the left and proposed offset receiving area on right of the bush cleared road.

Photograph 3: Site visit and photograph dated 10 September 2025. Ecological condition of offset receiving area.

12. ADDITIONAL CONSERVATION ACTIONS

None additional conservation actions.

13. BIODIVERSITY OFFSET IMPLEMENTATION PLAN

The section below outlines the activities required for implementation of the biodiversity offset implementation plan.

13.1. General Management and guiding principles

Following on from the evaluation of the proposed recipient areas in terms of the ecological condition of the biodiversity areas therein, as well as determining the extent and suitability of these natural resources, an Implementation Plan must developed to guide the practical application of the Biodiversity Offset. This Implementation Plan is applicable to general area and veld management and includes alien and invasive plant (AIP) control measures, and control of small farmers and other agricultural livestock from entering the area. Budgets to implement the monitoring procedures, and auditing requirements have also

been defined. This section thus aims to guide the practical roll out and implementation of the proposed Biodiversity Offset.

The Implementation Plan provides a technical framework to all parties involved in the roll-out, practical implementation and authorisation process of the proposed Biodiversity Offset.

13.2. Institutional Arrangements

Implementation of the offsets needs to take place within a well-structured governance framework that clearly defines roles, responsibilities, targets and outcomes, as well as the source and use of finances and processes for decision making and reporting. This section aims to define the most appropriate processes and mechanisms to facilitate and support the various role-players in undertaking their responsibilities in a transparent and efficient manner. The options discussed in this section therefore aim to utilize the most appropriate organizations in terms of their mandate, skills and capacity for undertaking specific aspects of offset implementation, building on existing initiatives and relationships.

CapeNature does not have the capacity to be the implementing agent. It is proposed that the conservation area be link to the WWF conservation area as well as the bigger AfriSam offset receiving protected areas to the north of the area and management by the same implementing agent with funding contribution from Saldanha Bay Municipality.

13.3. Funding Model and Sources of Funding

The following framework for costing of offset liabilities, in line with the National Guideline were used. The cost of an offset in this instance will have the following components:

- Declaration fees - to cover the costs of declaration. These costs are typically around R120 000.
- Upfront establishment costs, to get the site ready for incorporation into the stewardship agreement. This will be determined once the offset receiving area(s) has been finalised, and a property operational plan is drawn up (which serves the purpose of the biodiversity offset management plan, as per the National Guideline).
- Management costs. The 2025 management rate/fee of **R1258/ha multiply by 12 ha** (**R 15 096/annual budget**) per year was used. It is proposed that the existing Environmental Management plan or one that are busy to be drafted be used. It will need to be adjusted annually, for inflation, for the duration of the agreement (being 30 years).

13.4. Roles and Responsibilities on the Ground

The following roles and responsibilities are considered applicable to this Implementation Plan and associated management actions, and are provided for guidance:

13.4.1. Proponent

The proponent must ensure sufficient funding for the implementation and long-term management requirements as stipulated in this offset plan. These management fees were calculated using the management rate/fee for West Coast National Park as guidance, which is R1258/ha per year for 2025, plus yearly inflation escalation. The proponent will pay the management fees yearly into a dedicated fund specifically set up for this conservation area.

13.4.2. Implementing Agent

It is proposed that the conservation area be link to the WWF conservation area as well as the bigger AfriSam offset receiving protected areas to the north of the area and managed by the same implementing agent with funding contribution from Saldanha Bay Municipality. Saldanha Bay Municipality will be represented on the management committee.

13.4.3. Audit

Will be externally audited in terms of the conservation area management plan.

14. CONCLUSION

In June 2023, the NBOG were promulgated. The Applicant acknowledges that with the development there will be environmental losses and impacts on the environment. The basic offset ratios and the specific offset requirements set out within the NBOG (2023), and WCBOG (2015) were also considered as the target and starting point of 1:1 for endangered vegetation and 2:1 for critically endangered vegetation. Approximately 6ha of Saldanha Granite Strandveld offset would be required using the basic rate of 2:1 ratio.

A similar ecosystem conservation status (not like for like offset), being Saldanha Granite Strandveld of 6ha will be offset by 12 ha Saldanha Limestone Strandveld, both critically endangered status mapped as CBA and located on the southern edge and boundary of the WWF conservation area on Farm 282, portion 3 south of Jacobsbaai using a 2:1 offset ratio for critically endangered vegetation.

Furthermore, the CBA objectives will still be met and the residual impacts on biodiversity and ecosystem services are not undermined, ecological integrity is maintained, and development is sustainable.