LORNAY
ENVIRONMENTAL CONSULTING

IN PROCESS
BASIC ASSESSMENT REPORT

Proposed Residential development on Erf 438, Stanford
Caledon RD
Rev 2

11 November 2025

STANFORD
ECO ESTATE

Consultant
Michelle Naylor | Env. Consultant **|** M.Sc., Pr. Sci. Nat., EAPASA
cell: 083 245 6556**|** fax: 086 585 2461 **|** michelle@lornay.co.za **|** www.lornay.co.za
Unit 5/1F, Hemel & Aarde Wine Village, Hermanus

Western Cape Government
Environmental Affairs and Development Planning

FORM NO. BAR10/2019

BASIC ASSESSMENT REPORT

THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.

NOVEMBER 2019

(For official use only)	
Pre-application Reference Number (if applicable):	
EIA Application Reference Number:	
NEAS Reference Number:	
Exemption Reference Number (if applicable):	
Date BAR received by Department:	
Date BAR received by Directorate:	
Date BAR received by Case Officer:	

GENERAL PROJECT DESCRIPTION

(This must Include an overview of the project including the Farm name/Portion/Erf number)

PROPOSED RESIDENTIAL DEVELOPMENT OF ERF 438, STANFORD, CALEDON RD

IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.

2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 19998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".

3. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.

4. All applicable sections of this BAR must be completed.

5. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.

6. This BAR is current as of **November 2019**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at http://www.westerncape.gov.za/eadp to check for the latest version of this BAR.

7. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.

8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.

9. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.

10. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.

11. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.

12. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.

13. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link https://screening.environment.gov.za/screeningtool to generate the Screening Tool Report. The screening tool report must be attached to this BAR.

14. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('NEM:AQA"), the submission of the Report must also be made as follows, for-
Waste Management Licence Applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (Tel: 021-483-2728/2705 and Fax: 021-483-4425) at the same postal address as the Cape Town Office.

Atmospheric Emissions Licence Applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (Tel: 021 483 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE: REGION 1 and REGION 2 **(Region 1: City of Cape Town, West Coast District)** **(Region 2: Cape Winelands District & Overberg District)**	**GEORGE OFFICE: REGION 3** **(Central Karoo District & Garden Route District)**
BAR must be sent to the following details: Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1 or 2) Private Bag X 9086 Cape Town, 8000 Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Development Management (Region 1 and 2) at: Tel: (021) 483-5829 Fax (021) 483-4372	BAR must be sent to the following details: Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530 Registry Office 4th Floor, York Park Building 93 York Street George Queries should be directed to the Directorate: Development Management (Region 3) at: Tel: (044) 805-8600 Fax (044) 805 8650

MAPS

Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.	
Locality Map:	The scale of the locality map must be at least 1:50 000. For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; and • a linear scale.

	For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken. Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.
Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.	
Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following: • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. • The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development **must** be clearly indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): o Watercourses / Rivers / Wetlands o Flood lines (*i.e.,* 1:100 year, 1:50 year and 1:10 year where applicable); o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): o Ridges; o Cultural and historical features/landscapes; o Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.
Site photographs	Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as **Appendix C**. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.
Biodiversity Overlay Map:	A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as **Appendix D**.
Linear activities or development and multiple properties	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as **Appendix A3**.

ACRONYMS

DAFF:	Department of Forestry and Fisheries
DEA:	Department of Environmental Affairs

DEA& DP:	Department of Environmental Affairs and Development Planning
DHS:	Department of Human Settlement
DoA:	Department of Agriculture
DoH:	Department of Health
DWS:	Department of Water and Sanitation
EMPr:	Environmental Management Programme
HWC:	Heritage Western Cape
NFEPA:	National Freshwater Ecosystem Protection Assessment
NSBA:	National Spatial Biodiversity Assessment
TOR:	Terms of Reference
WCBSP:	Western Cape Biodiversity Spatial Plan
WCG:	Western Cape Government

ATTACHMENTS

Note: The Appendices must be attached to the BAR as per the list below. Please use a ✓ **(**tick) or a **x** (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

Appendix List	
Appendix A Locality	
Appendix A1	Locality Map
Appendix B Alternatives	
Appendix B	Alternative 1
Appendix B	Alternative 2a – Preferred Eco Estate Site Plan
Appendix B	Alternative 2b – SDP
Appendix B	Alternative 2c – Street Naming Plan
Appendix B	Alternative 2d – Plan 6.1
Appendix B	Alternative 2e – Preferred Bubble Plan
Appendix B	Alternative 2f – Subdivisional Plan
Appendix C Photo Report	
Appendix C	Photo Report
Appendix D BGIS	
Appendix D	BGIS
Appendix E Proof of Public Participation Process	
Appendix E	Proof of PPP
Appendix F Specialists	
Appendix F1	Agricultural Compliance Statement
Appendix F2a	Millstream fence
Appendix F2b	Aquatic Biodiversity Impact Assessment
Appendix F2c	Wetland Offset Rehabilitation and Management Plan
Appendix F3	Guide for Homeowners Association
Appendix F4a	Heritage Impact Assessment
Appendix F4b	Heritage Western Cape
Appendix F4c	Heritage Endorsement Letter
Appendix F5	Landscape Plan
Appendix F6a	Proposed services layout
Appendix F6b	GLS Report
Appendix F6c	Engineering Services Report
Appendix F6d	Overstrand Confirmation 1
Appendix F6e	Overstrand Confirmation 2
Appendix F7a	Flood line Report

Appendix F7b	Milkwood Survey
Appendix F8a	Faunal Amphibian Assessment
Appendix F8b	Terrestrial Animal Species Assessment
Appendix F9	Traffic Impact Assessment
Appendix F10	Town Planning Report
Appendix F11	Socio Economic Impact Assessment
Appendix F12	Mill Stream Master Plan
Appendix F13	Terrestrial Biodiversity Impact Assessment
Appendix F14	Landscape Plan
Appendix G EMP	
Appendix G1	EMPr
Appendix G2	Regulated Areas No Go MP
Appendix H Screening	
Appendix H1	Screening Tool Report
Appendix H2	SSVR
Appendix I WULA	
Appendix I1	Proof of Submission of WULA
Appendix J MMP	
Appendix J1	Application for Adoption of a Maintenance Management Plan

Executive Summary

This Basic Assessment Report (BAR) has been prepared in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 (as amended), to assess the potential environmental impacts associated with the proposed Stanford Eco Estate Development on Erf 438, Stanford, within the Overstrand Local Municipality, Western Cape.

Project Description

The proposal entails the establishment of Stanford Eco Estate on Erf 438, measuring approximately 5.2342 hectares in extent. The development will comprise a mix of single residential erven, eco-tourism units, open space areas, and associated infrastructure such as internal roads, stormwater management systems, and service connections. The development seeks to promote sustainable land use within the Stanford urban edge, while protecting the ecological and heritage resources identified on-site.

Site Context and Existing Conditions

The property is located along the R43, between the existing Stanford industrial area and the established residential fabric to the north. It is largely undeveloped, with the exception of a single old dwelling, and was historically used for the cultivation of roll-on lawn. The Mill Stream wetland system traverses the eastern and southern portions of the property, forming a key ecological feature of the site.

The site falls within an Ecological Support Area (ESA 1 and ESA 2) as mapped by the Western Cape Biodiversity Spatial Plan (WCBSP) and supports remnant patches of Agulhas Limestone Fynbos and a Milkwood forest, both of which are locally significant ecological and heritage features.

Environmental Process and Specialist Inputs

In accordance with the requirements of the EIA Regulations, specialist impact assessment were undertaken to inform the design of the development and provide mitigation measures or avoidance strategies to avoid impacts. The specialist team included:

- → Agricultural Compliance Statement
- → Wetland Delineation, Aquatic Biodiversity Assessment and Wetland Rehabilitation and Offset Report
- → Terrestrial Impact and Plant Species Impact Assessment: Confirmed that the majority of the site is transformed, with remnant indigenous vegetation along the Mill Stream corridor and Milkwood grove to be retained and restored.

- → Faunal Impact Assessment

- → Amphibian Impact Report
- → Heritage Impact Assessment
- → Cultural Landscape
- → Archaeological Impact Assessment
- → Palaeontological Impact Assessment
- → Landscape Report and Design
- → Traffic Impact Assessment
- → Socio Economic Impact Summary
- → Town Planning Report
- → Civil and Services Report

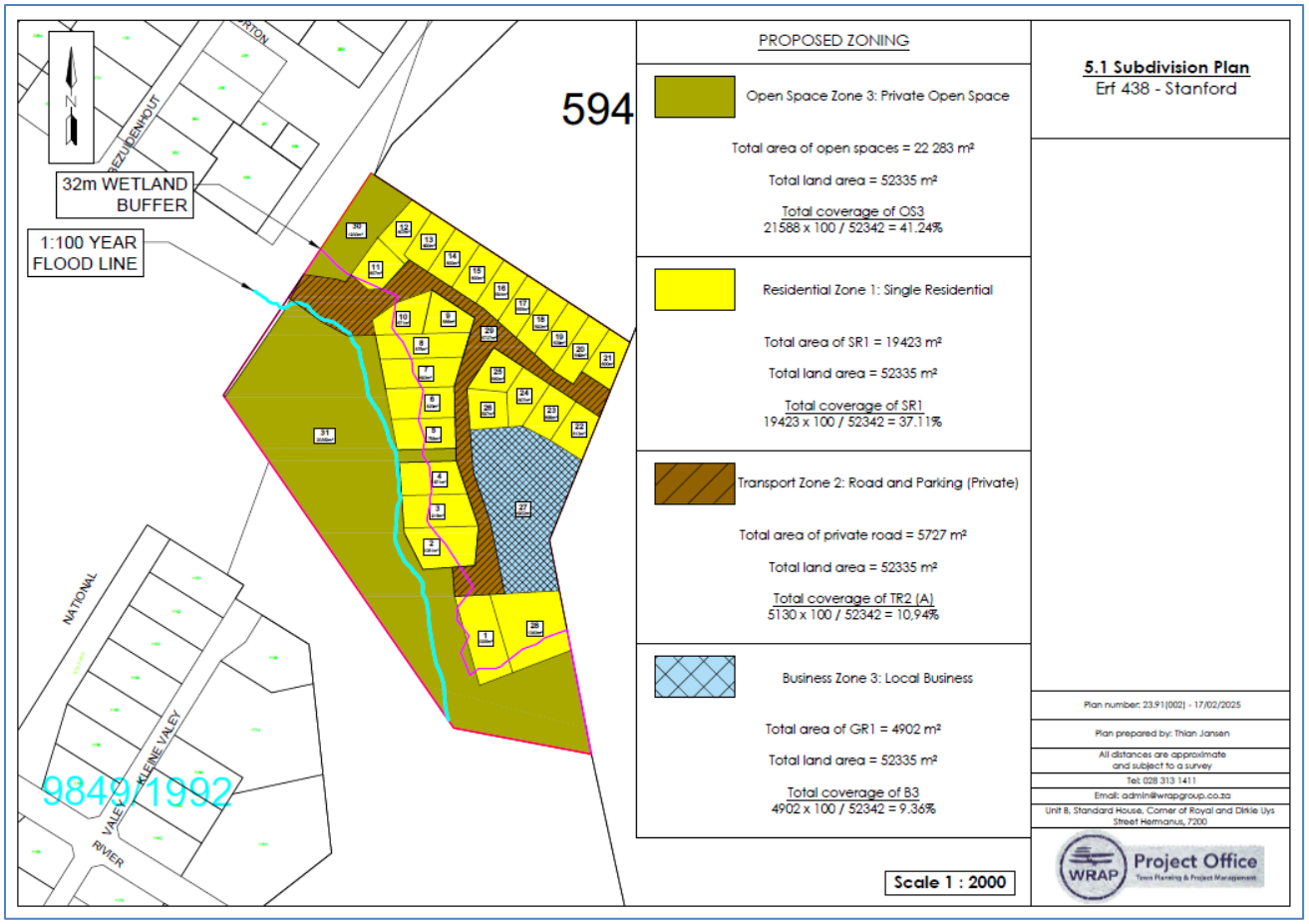
Environmental Process and Specialist Inputs

Two layout alternatives have been assessed in the NEMA Application process. The final Preferred Layout is Alternative 2. This layout allows for a 32m on the Millstream and Upper Tributary Wetlands and protection of the Milkwood Forest through site specific design of the Lodge units.

Specific No Development zones have been allocated to erven which fall within the 32m buffer zone.
A Wetland Offset and Rehabilitation Plan has been drafted for the site.

The Heritage Impact Assessment and identified heritage impacts have been resolved to the satisfaction of the Heritage Specialist, and the proposal has been recommended for endorsement to Heritage Western Cape.

The final preferred layout is as follows:



Process to date

The document is Revision 2 of the Basic Assessment and distributed to I&AP's for a second and final round of public participation. The project is 'in-Process" in terms of the National Environmental Management Act (NEMA), EIA Regulations (2014 as amended) and its legislated timeframe.

SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	CAPE TOWN OFFICE:		GEORGE OFFICE:
	REGION 1 (City of Cape Town, West Coast District	REGION 2 (Cape Winelands District & Overberg District)	REGION 3 (Central Karoo District & Garden Route District)

Duplicate this section where there is more than one Proponent Name of Applicant/Proponent:	OMNI KING INVESTMENTS (PTY) LTD	
Name of contact person for Applicant/Proponent (if other):	Kevin King	
Company/ Trading name/State Department/Organ of State:	OMNI KING INVESTMENTS (PTY) LTD	
Company Registration Number:	1990/004421/07	
Postal address:	24 Sillery Street, Stanford	
	-	Postal code: 7210
Telephone:	-	Cell: 083 656 0606
E-mail:	Kevin@rex.co.za	Fax: ( )
Company of EAP:	Lornay Environmental Consulting	
EAP name:	Michelle Naylor	
Postal address:	Unit 5/1F, Hemel & Aarde Wine Village	
	Hermanus	Postal code: 7200
Telephone:	083 245 6556	Cell:
E-mail:	Michelle@lornay.co.za	Fax: ( )
Qualifications:	Master of Science (Rhodes University)	
EAPASA registration no:	EAPASA. 2019/698. SACNASP. IAIASA	
Duplicate this section where there is more than one landowner Name of landowner:	SERISO 324 CC	
Name of contact person for landowner (if other):	Chris Carstens	
Postal address:	PO BOX 112, Stanford	
		Postal code: 7210
Telephone:	( )	Cell:
E-mail:	Altpools@mweb.ca.za	Fax: ( )
Name of Person in control of the land:	As above	
Name of contact person for person in control of the land:		
Postal address:		
		Postal code:
Telephone:	( )	Cell:
E-mail:		Fax: ( )

Duplicate this section where there is more than one Municipal Jurisdiction	OVERSTRAND MUNICIPALITY

Municipality in whose area of jurisdiction the proposed activity will fall:		
Contact person:	Chester Arendse	
Postal address:	Overstrand Municipality Gansbaai Administration	
		Postal code:
Telephone	(028) 384 8320	Cell: 078 044 5020
E-mail:	gbenvironmental@overstrand.gov.za	Fax: ( )

SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INCLUDED IN THE APPLICATION FORM

1.	Is the proposed development (please tick):	New	✓	Expansion	
2.	Is the proposed site(s) a brownfield of greenfield site? Please explain: **Brownfield**				

The subject property is located **within** the municipal Urban Edge of Stanford but outside the built-up urban area as per the NEMA definition and flagged for future residential development. Although it is currently used for agricultural purposes, it is zoned as Single Residential 1 (SR1). The site is impacted by its current land use including large scale cultivation of roll-on lawn, internal roads, a residential dwelling and associated outbuildings. The site is currently poorly managed and current practice presents threats the Milkwood forest and Mill Stream wetland, which falls on the property. It is also subjected to impacts associated with peripheral land uses, including agriculture, industrial and urban. The recent upgrade of the R43 directly alongside the property has also had a significant impact on the erf.

The R43 road between Hermanus and Gansbaai flanks the site directly west; agricultural activities and the highly impacted Mill Stream system flank the site towards the north, east and south. Stanford industrial area is located further south westwards of the property, adjacent to the Mill stream.

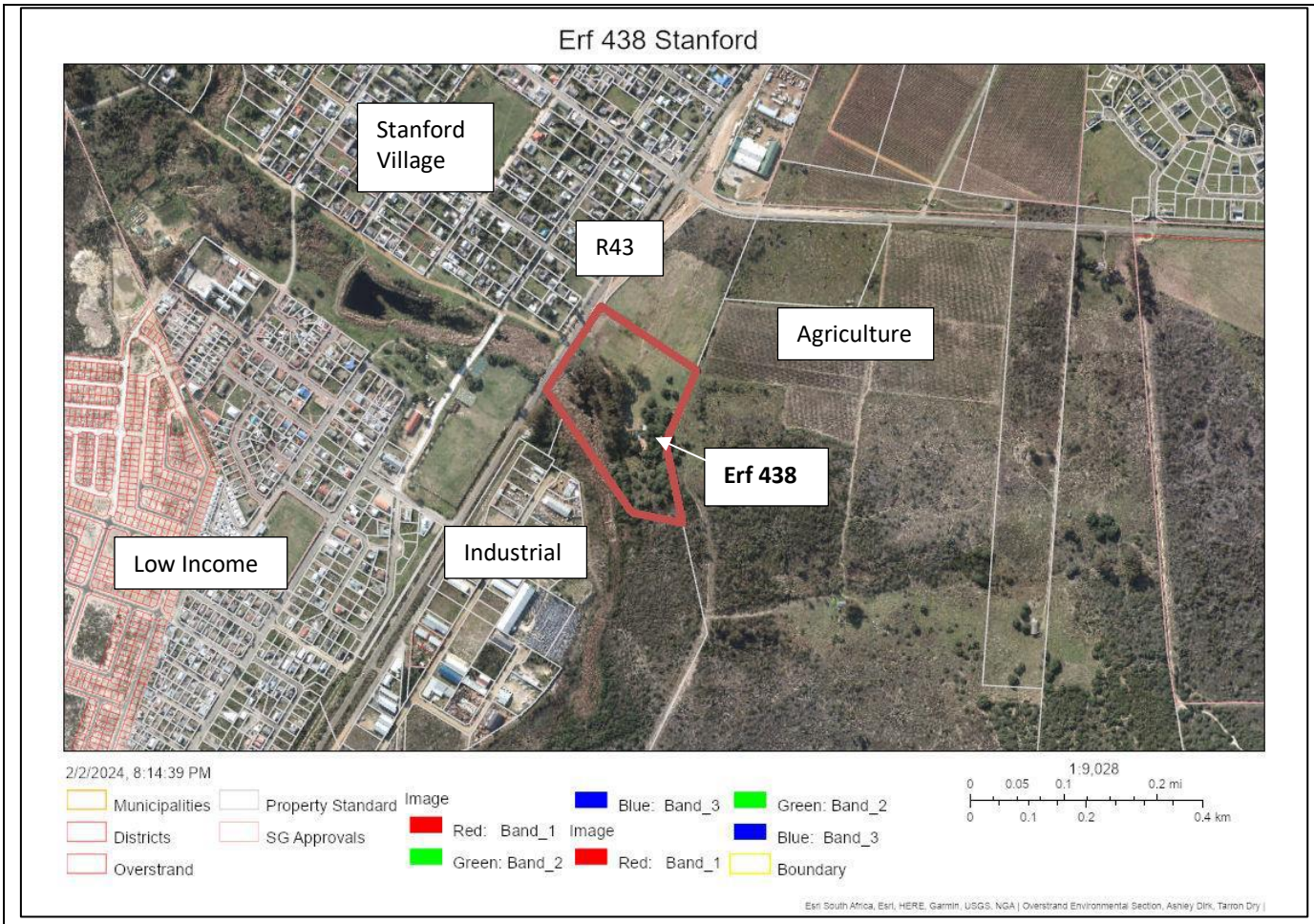


Figure 1. Erf 438 and surrounding Landuse.

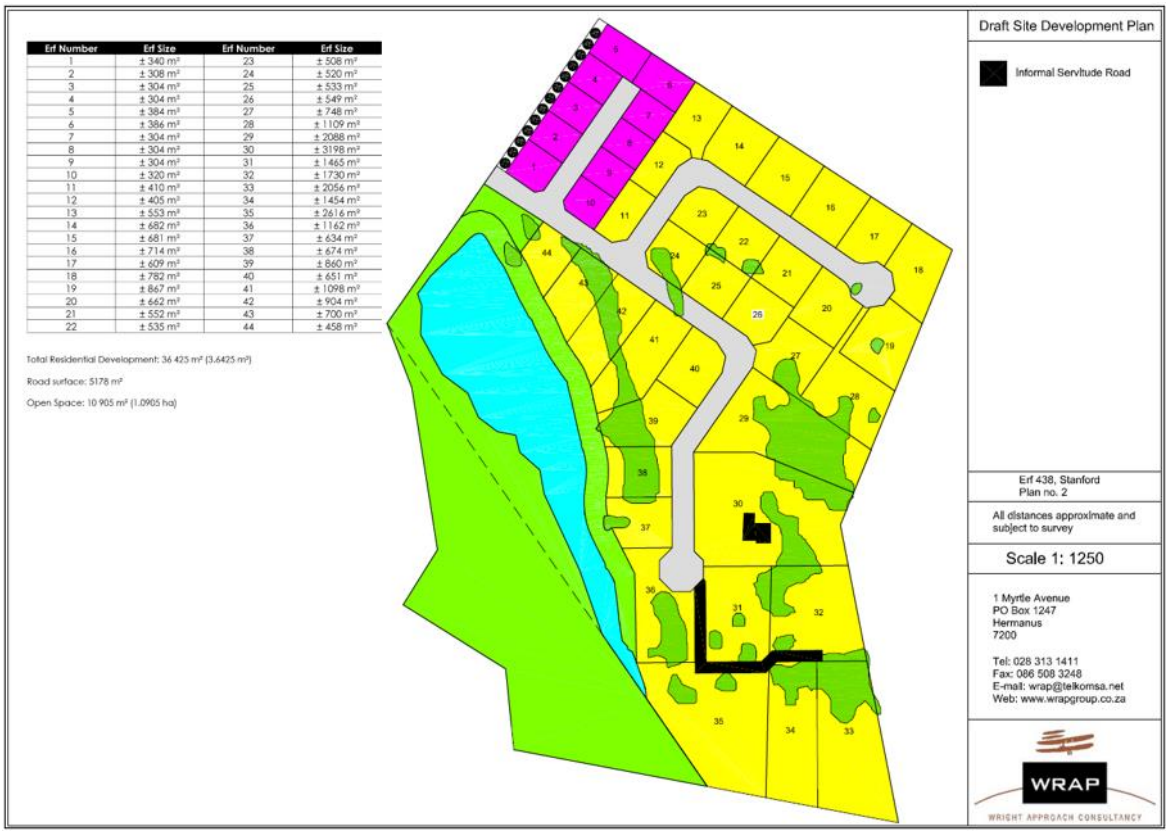
3.	**For Linear activities or developments N/A**			
3.1.	~~Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:~~			
3.2.	~~Development footprint of the proposed development for all alternatives.~~	m²		
3.3.	~~Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.~~			
3.4.	~~Indicate how access to the proposed routes will be obtained for all alternatives.~~			
3.6.	~~**Starting point co-ordinates for all alternatives**~~			
	Latitude (S)	°	‘	“
	Longitude (E)	°	‘	“
	Middle point co-ordinates for all alternatives			
	Latitude (S)	°	‘	“
	Longitude (E)	°	‘	“
	End point co-ordinates for all alternatives			
	Latitude (S)	°	‘	“
	Longitude (E)	°	‘	“
Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.				
4.	**Other developments**			
4.1.	Property size(s) of all proposed site(s):			5.23 Ha

		52 342 m^2
4.2.	Developed footprint of the **existing** facility and associated infrastructure (if applicable):	More than ½ of the property is transformed by cultivation of roll-on lawn. Single residential dwelling and associated infrastructure. ±2300 m^2 Both the roll-on lawn business and the existing single residential dwelling will be demolished and discontinued once construction of proposed development commences
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives: **Preferred Alternative**	Private Open Space (Wetland) = 22887 m^2 Transport Zone (Private)= 5130 m^2 Business Zone: Local Business (Lodge) = 4 902m^2 Residential Zone 1: Single Res = 19 423m^2 **Total Property size = 52 342m^2**
	Alternative 1	Private Open Space = 10 905m^2 Transport Zone = 5178m^2 Residential =36 425m^2

The following land use applications are proposed:

- → **Rezoning** of Erf 438 Stanford from Residential Zone 1: Single Residential to Subdivisional Area Zone (SA) in terms of Section 16(2)(a) of the Overstrand Municipality Amendment By-Law on Municipal Land Use Planning, 2020.
- → **Subdivision** of Erf 438 Stanford into twenty-seven (27) Residential Zone 1: Single Residential (SR1) erven, one (1) Business Zone 3: Local Business (B3) erf, two (2) Open Space Zone 2: Private Open Space (OS3) erven, one (1) Transport Zone 2: Road and Parking (TR2-A) erf in terms of Section 16(2)(d) of the Overstrand Municipality Amendment By-Law on Municipal Land Use Planning, 2020.

ALTERNATIVE 1



Erf Number	Erf Size	Erf Number	Erf Size
1	± 340 m²	23	± 508 m²
2	± 308 m²	24	± 520 m²
3	± 304 m²	25	± 533 m²
4	± 304 m²	26	± 549 m²
5	± 384 m²	27	± 748 m²
6	± 386 m²	28	± 1109 m²
7	± 304 m²	29	± 2088 m²
8	± 304 m²	30	± 3198 m²
9	± 304 m²	31	± 1465 m²
10	± 320 m²	32	± 1730 m²
11	± 410 m²	33	± 2056 m²
12	± 405 m²	34	± 1454 m²
13	± 553 m²	35	± 2616 m²
14	± 682 m²	36	± 1162 m²
15	± 681 m²	37	± 634 m²
16	± 714 m²	38	± 674 m²
17	± 609 m²	39	± 860 m²
18	± 782 m²	40	± 651 m²
19	± 867 m²	41	± 1098 m²
20	± 662 m²	42	± 904 m²
21	± 552 m²	43	± 700 m²
22	± 535 m²	44	± 458 m²

Figure 2. Original site development proposal. Alternative 1.

Note: A portion of this property was expropriated for the upgrade of the R43. As a result, the property size for the original and preferred alternative is slightly different.

The original property development plan attempted to maximize the number of residential units on this property, without professional guidance from environmental and ecological specialists. It was proposed that this property would be subdivided and that 34 Single Residential (SR1) homes and 10 homes with a higher density, would be constructed. A total of 44 homes.

The wetland was not formally delineated or buffered and the darker green forested area included indigenous trees and exotic trees without determining their significance. The Mill Stream flood line has not been determined. The biodiversity and significance of indigenous fauna and flora was not assessed.

The significance of the impact on Stanford as having important heritage significance had also not been assessed in the layout.

A higher density residential area was proposed adjacent to the R43, in close proximity to Stanford village. The visual impact of the development on the town and the scenic route was not addressed in this alternative.

A specialist team was approached to assess the above layout alternative and provide recommendations for evolution of the alternative and creation of the current preferred alternative.

ALTERNATIVE 2 – PREFERRED ALTERNATIVE

This alternative evolved in response to specialist input. The following specialists form part of the application team:

- → Landscape Architect – Bernard Oberholzer
- → Town Planning – WRAP Consulting
- → Architect – CSA Architects
- → Civil Engineer – AVDM Consulting Engineers

- → Aquatic Biodiversity – Delta Ecology
- → Land Surveyor – Geomatics
- → Traffic Engineers – UDS Africa
- → Heritage, Visual, Archaeological – CTS Heritage
- → Faunal Assessment – Whale Coast Conservation
- → Terrestrial Animal Site Sensitivity Verification and Species Specialist Assessment – Jan Venter
- → Terrestrial Biodiversity Impact Assessment – Nick Helme
- → Flood Line Determination – Fourth Element Consulting

After the first round of public participation further input was added:

- → Botanical Assessment – Nick Helme
- → Faunal Impact Assessment – Jan Venter
- → Wetland Offset Rehabilitation and Management Plan – Delta Ecology

The proposed development comprises the following:

28 Residential Properties:

- → 27 x Residential Zone 1: Single Residential (Erf 1 to 26, 28).
- → 1 x Business Zone 3: Local Business (B3) – Erf 27 consent use for tourist accommodation (The lodge).

Open Space Zone 3: Private Open Spaces; and

- → 22887 m^2

Transport Zone 2: Road and Parking

- → Private road: 5130 m^2

Table 1. Percentage of each component of the Preferred Alternative Plan 2.

Table 1: Percentage of each component (Refer Plan 5)			
Legend Colour	Zoning	Size (m²)	Percentage
	Open Space Zone 3: Private Open Space	22887	44,2%
	Business Zone 3: Local Business	4902	9,36%
	Residential Zone 1: Single Residential	19423	37,11%
	Transport Zone 2: Road and Parking (A) (Private)	5130	9,80%
	Total	52342	100,00%

Table 2. Property sizes for the Preferred Alternative 2.

Erf no.	Erf Size (m²)	Developable area (m²)	Undevelopable Area (m²) (No development zone)	Zoning
1	1005	792	213	Residential Zone 1: Single Residential
2	1051	482	569	Residential Zone 1: Single Residential
3	916	573	343	Residential Zone 1: Single Residential
4	817	420	397	Residential Zone 1: Single Residential
5	758	411	347	Residential Zone 1: Single Residential
6	820	413	407	Residential Zone 1: Single Residential
7	893	515	378	Residential Zone 1: Single Residential
8	875	610	265	Residential Zone 1: Single Residential

9	565	-	-	Residential Zone 1: Single Residential
10	671	485	186	Residential Zone 1: Single Residential
11	607	-	-	Residential Zone 1: Single Residential
12	607	-	-	Residential Zone 1: Single Residential
13	600	-	-	Residential Zone 1: Single Residential
14	600	-	-	Residential Zone 1: Single Residential
15	600	-	-	Residential Zone 1: Single Residential
16	594	-	-	Residential Zone 1: Single Residential
17	555	-	-	Residential Zone 1: Single Residential
18	592	-	-	Residential Zone 1: Single Residential
19	629	-	-	Residential Zone 1: Single Residential
20	649	-	-	Residential Zone 1: Single Residential
21	600	-	-	Residential Zone 1: Single Residential
22	613	-	-	Residential Zone 1: Single Residential
23	605	-	-	Residential Zone 1: Single Residential
24	607	-	-	Residential Zone 1: Single Residential
25	560	-	-	Residential Zone 1: Single Residential
26	597	-	-	Residential Zone 1: Single Residential
27	4902	-	-	Business Zone 3: Local Business (B3)
28	1383	792	474	Residential Zone 1: Single Residential
29	5727	-	-	Transport Zone 2: Road and Parking (A) (Private)
30 & 31	22883	-	-	Open Space Zone 3: Private Open Space
TOTAL	**52 342**	**5493**	**3579**	

Note:

- → Pink line indicates the 32m buffer and includes the No Development area adjacent to Private Open space/ Wetland on 10 erven.
- → The access position is existing from R43. It cannot be relocated due to the proximity to the traffic circle and the bridge over Mill stream.

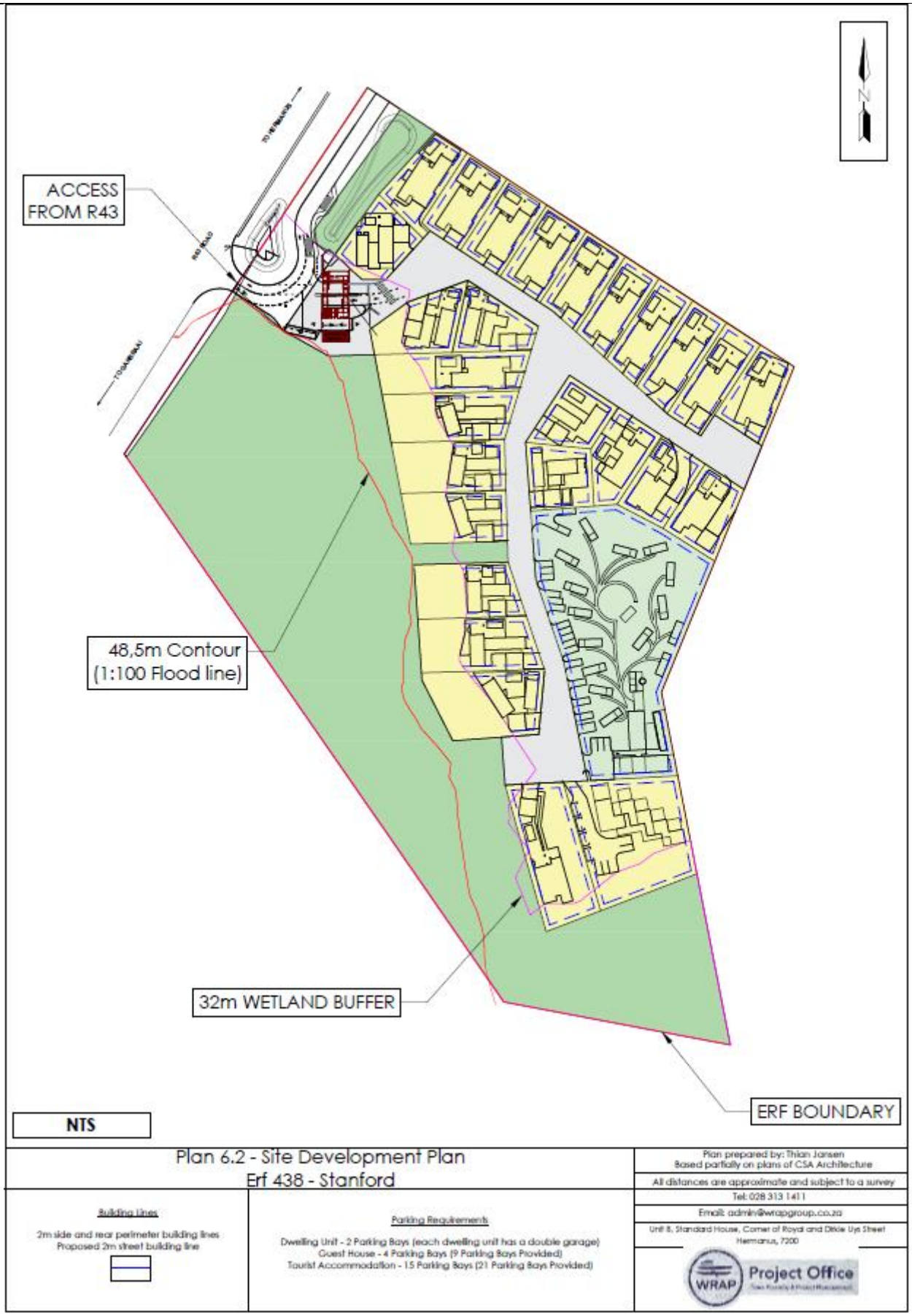


Figure 3. Proposed layout for Preferred Alternative 2.

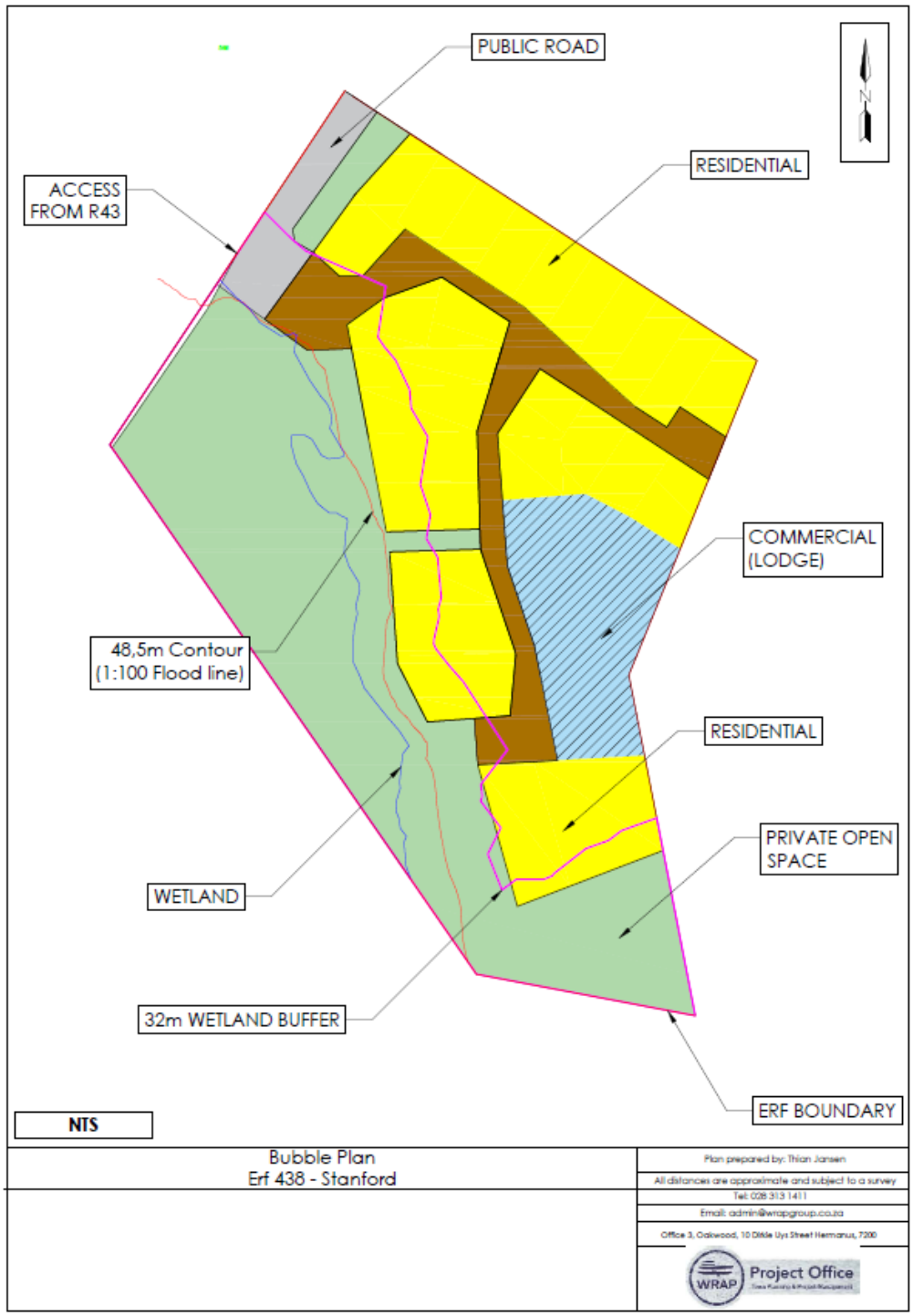
4.4.	Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).

Erf 438, Stanford (hereafter referred to as the subject property) is 52 342m² (5,2342 ha) in extent. The erf is currently zoned as Residential Zone 1: Single Residential and is located within the Urban Edge.

The rezoning and subdivision of the subject property will introduce new residential opportunities into the housing market in Stanford. The proposed zoning and morphology are aligned with development trends in the area. Tourism overnight and guesthouse accommodation is also proposed for the site.

Preferred Alternative 2 will consist of the following:

Erf No.	Landuse	Use	Size (m^2)
1 to 26	Residential Zone 1: Single Residential	Dwelling / Residential	18 040
27	Business Zone 3: Local Business	Milkwood accommodation, tourism overnight	4902
28	Residential Zone 1: Single Residential	Guesthouse	1383
29	Transport Zone 2: Roads & Parking Private	Internal roads and parking	5257
30	Open Space Zone 3: Private Open Space	Open space	1930
31	Open Space Zone 3: Private Open Space	Mill Stream watercourse	20 353


PUBLIC ROAD
N
RESIDENTIAL
ACCESS FROM R43
COMMERCIAL (LODGE)
48,5m Contour (1:100 Flood line)
RESIDENTIAL
PRIVATE OPEN SPACE
WETLAND
32m WETLAND BUFFER
ERF BOUNDARY
NTS
Bubble Plan
Erf 438 - Stanford
Plan prepared by: Thian Jansen
All distances are approximate and subject to a survey
Tel: 028 313 1411
Email: admin@wrapgroup.co.za
Office 3, Oakwood, 10 Dikkie Uys Street Hermanus, 7200
WRAP
Project Office

Erf 27 Landuse - Business Zone 3: Local Business (B3) (The Lodge)

Planned around the surveyed Milkwood Tree Forest floor and canopy to avoid the need to remove Milkwood trees during construction.

- → Property Size: 4902 m²
- → Service Building Total Size: **400m²**
  - Front of house total floor area/footprint: **250 m²**
    - Reception
    - Bar
    - Dining room
    - Lounge
    - Gym
    - Spa
    - Library
    - Swimming pool
  - Back of House (BOH) total floor area/footprint: **150m²**
    - Kitchen,
    - Storage
    - Laundry
    - Offices
    - Vegetable / herb garden
    -
- → Accommodation pods (16 pods) **650 m²**
    - 2 x Single Room – 25m² (5mx5m)
    - 12 x Double Suites – 50m² (5mx10m)
    - 2 x Family – 60m² (5mx12m)
- → Total footprint size **1050 m²**

Erf 28 Landuse – Residential Zone 1: Single Residential

- → Property Size: 1383 m²
- → Building size: To be determined, used for Guest house purposes, ten overnight beds.
- → 474 m² Undevelopable area falls within the wetland buffer.

Description of the development

The preferred layout of the development endeavours to ensure that there is as little disturbance as possible on the wetland and the indigenous flora. The layout proposes to optimise access to the stream and associated Private Open Space while also optimising the northern aspect, providing erven with views of the Klein River mountains. The layout was designed to ensure that the Mill Stream is incorporated into the development as a rehabilitated and functional green open space, and that each property can house a free-standing dwelling unit, with a front and back garden. No development will occur within portions of erven falling inside the regulated 32 m area of the delineated Mill Stream wetland, which will be retained as a no-go zone dedicated to conservation and ecological rehabilitation.

The layout has been evaluated by the landscape architect to ensure that the development harmonises with the environmental aspects of the site. The various ecological features are therefore incorporated into the design, ensuring minimal disruption to the natural landscape and sensitive use of the ecological offerings the site gives. The inclusion of green spaces, water

management systems, and conservation areas underscores the development's commitment to environmental rehabilitation, preservation and aesthetic enhancement.

The proposed residential development embodies the principles of sustainability, environmental stewardship, and community well-being. The project was designed to enhance the quality of life for its residents while preserving and enhancing the natural environment. The current status quo of the site was found to have a negative impact on the ecological environment and negative impacts on both Aquatic and Faunal features, whilst risking further degradation of the Mill Stream and the Milkwood Forest on site.

Environmental Harmony and Conservation

The proposed tourism offering will be located on Portion 27, as shown on the SDP. The site designated for the hotel is proposed to be zoned as Business Zone 3: Local Business (B3) with a consent use for a hotel and conference facility. The property that will accommodate the hotel within the Stanford Eco-Estate Residential Development is a prime example of eco-tourism that harmonises with the natural environment.

The accommodation is designed to be nestled within an ancient Milkwood Forest, a protected and ecologically significant area. By building the tourist units in and around the Milkwood's and their canopies, the development will preserve these trees, ensuring their protection and showcasing their natural beauty to visitors. This innovative approach allows for minimal disruption and disturbance to the environment while creating an immersive experience for guests, highlighting the importance of conservation and sustainable tourism.

Economic Benefits and Job Creation

The lodge will be a significant economic driver for the Stanford area. It will create numerous job opportunities, both during the construction phase and once operational. Positions will range from construction workers, architects, and engineers during the building phase, to hospitality staff, maintenance personnel, tour guides, and administrative staff during operation. This additional employment opportunities will have a positive ripple effect on the local economy, supporting local businesses and encouraging further investment in the area.

Promotion of Eco-Tourism

The lodge will attract eco-tourists, honeymooners, and nature seekers from both domestic and international markets. This influx of tourists will not only boost the local economy but also position Stanford as a premier eco-tourism destination. The accommodation will offer unique experiences that emphasise the natural beauty and biodiversity of the area, such as guided nature walks, bird watching, and educational tours focused on local flora and fauna. By promoting eco-tourism, the hotel will foster greater appreciation and respect for the natural environment among visitors.

Educational and Community Engagement

The lodge will serve as an educational hub, providing information about the local ecosystem, conservation efforts, and the importance of sustainable living. It will feature an information centre and facilities for outdoor learning, which can be utilised by community groups and tourists. This focus on education will enhance community engagement and foster a sense of stewardship among residents and visitors alike.

The property will be open to the public, allowing for greater access to learning opportunities and encouraging broader participation in conservation initiatives. By welcoming the public, the development aims to create a space where locals and visitors can connect with nature, deepen their understanding of environmental issues, and be inspired to adopt more

sustainable practices. This inclusivity strengthens ties between the community and the natural environment, making the site a valuable resource for both education and recreation. Additionally, opening the property to the public will generate economic benefits, as increased visitor traffic will support local businesses and promote eco-tourism, further enhancing the region's reputation as a destination committed to sustainability.

It should be noted that access will be controlled by reception, ensuring that safety and security remain top priorities for the development.

Sustainable Design and Operations

The lodge will adhere to stringent sustainable design guidelines, ensuring that it operates with minimal environmental impact. These guidelines include optimising building orientation for natural light and ventilation, using locally sourced and sustainable materials, incorporating renewable energy sources like solar power, and implementing water conservation measures such as rainwater harvesting and greywater reuse. Waste management practices will emphasise recycling at source and minimising waste generation, and landscaping will exclusively use local indigenous plants to preserve natural habitats.

Preservation of Cultural and Natural Heritage

The Milkwood trees, a central feature of the lodge, hold substantial ecological and heritage value. By integrating the units within this forest, the development will highlight the importance of these trees and ensure their preservation for future generations. The tourist accommodation will also respect and incorporate the cultural heritage of the area, blending traditional architectural elements with modern design to create a unique and meaningful experience for guests.

Allowing both the hotel as well as the guest house within the Stanford Eco-Estate is a strategic step that balances economic growth with environmental preservation. It will create jobs, boost the local economy, and will contribute to position Stanford as a leading eco-tourism destination, while preserving and highlighting the natural and cultural heritage of the area. This project exemplifies sustainable development and responsible tourism, creating a legacy that will benefit the community and the environment for years to come.

As a result, the parking has been designed and allocated to minimise the impact on the natural environment, with the Milkwood's being the top priority. The layout seeks to avoid large, centralised parking areas due to their visual impact, instead positioning parked cars unobtrusively in the shade of existing and newly planted Milkwood's, thereby avoiding large-scale vegetation clearing.

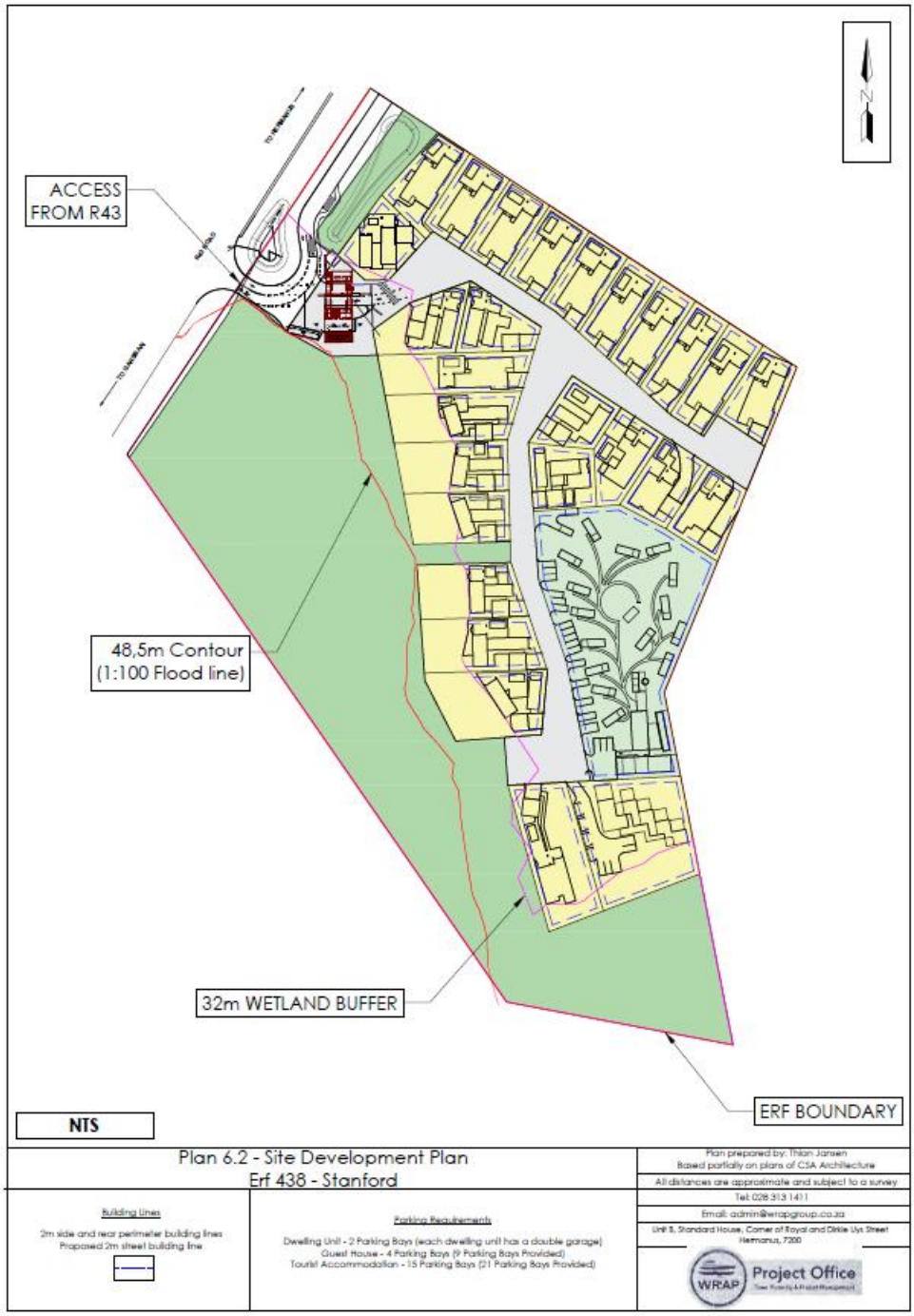


Figure 4. Preferred Alternative 2 Site Development plan with 1:100 flood line and 32m stream and wetland buffer.

Figure 5. Entrance Plans showing Refuse Room, Refuse Truck Parking and Electricity Substation.

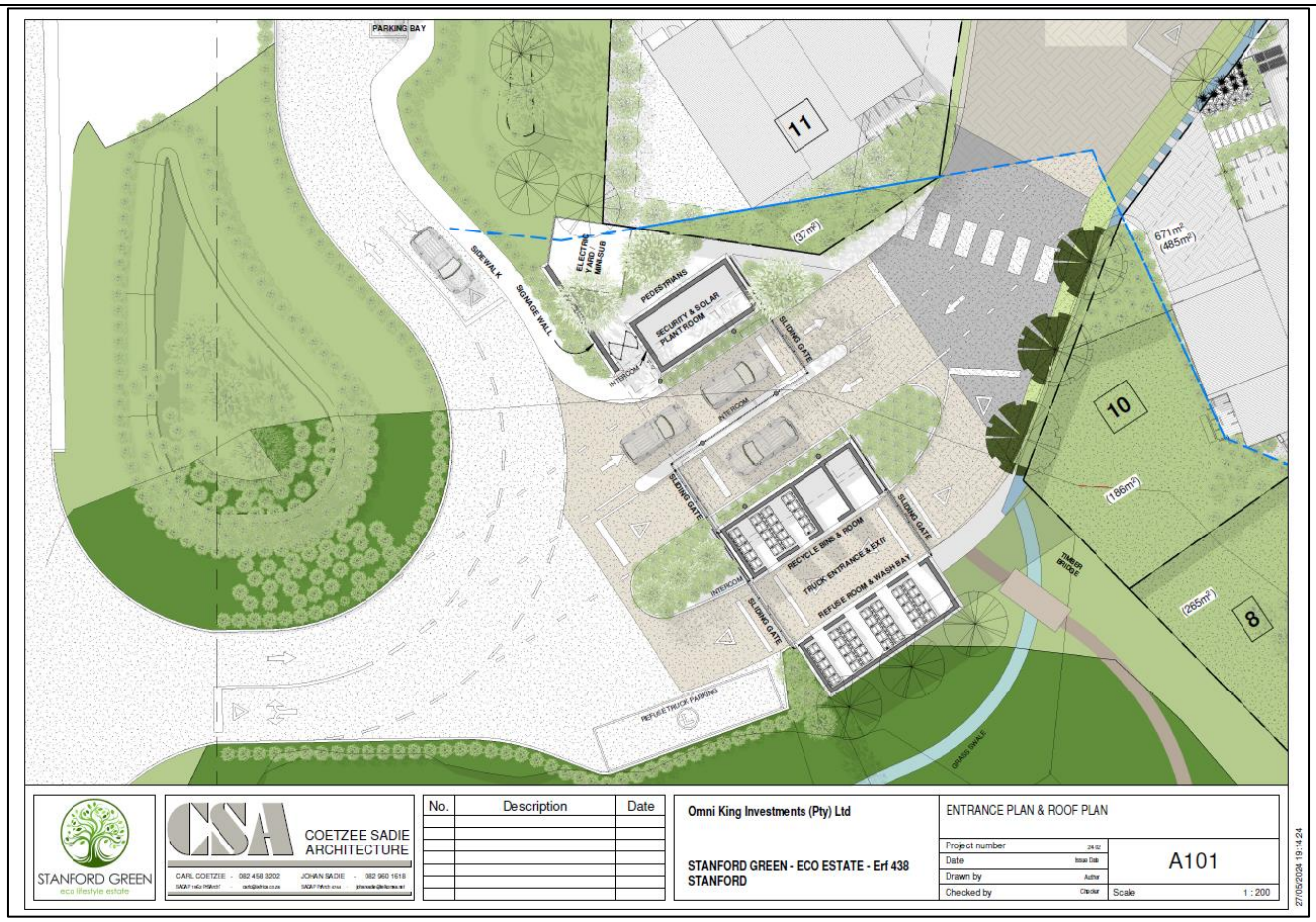


Figure 6. Plan of entrance gate and access road to neighbouring property.

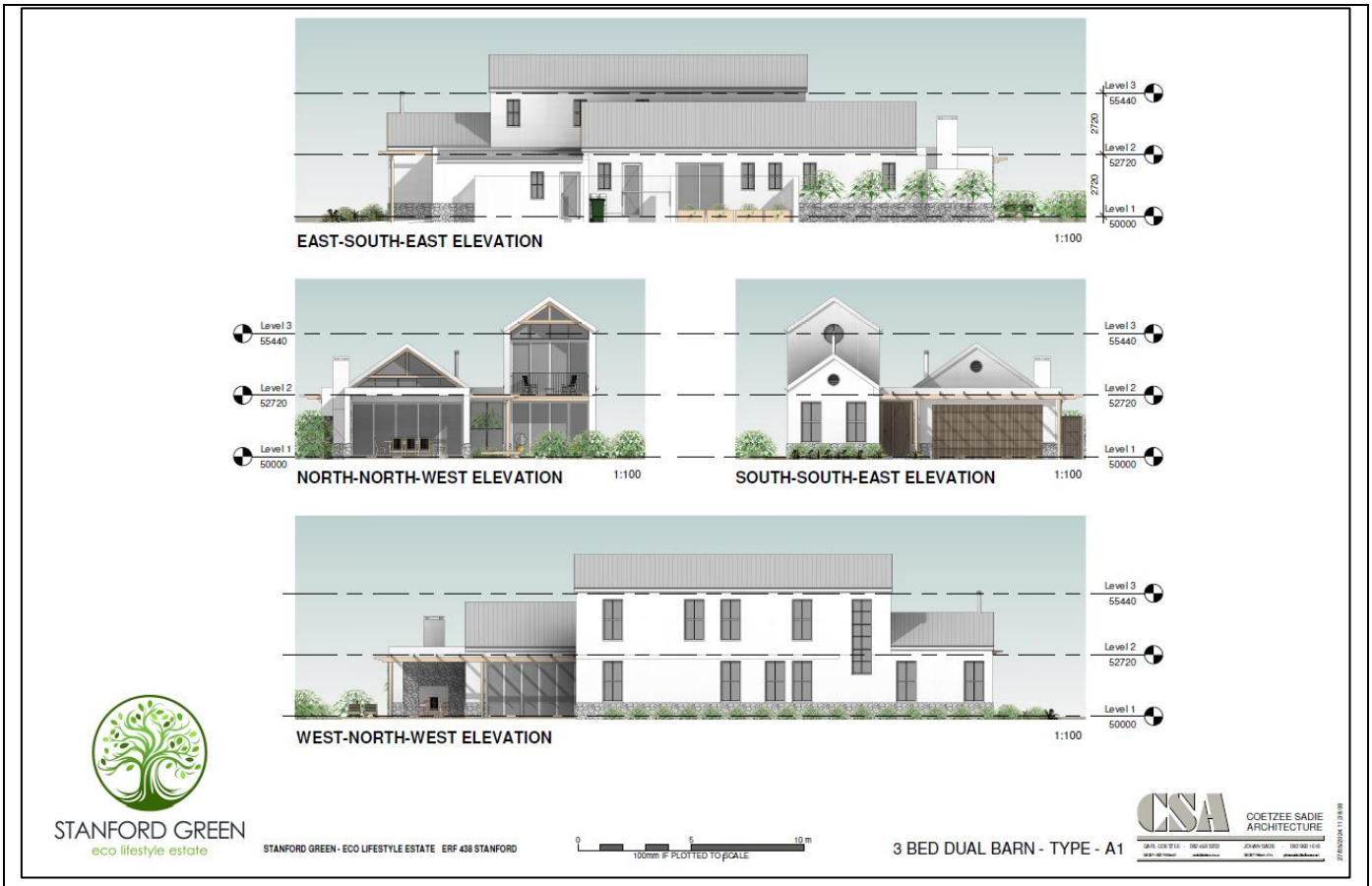


Figure 7. Typical elevation of proposed homes.

Planning and Design

The individual erven within the development are of similar size to those in the village of Stanford. The buildings are designed in line with the Cape Farmhouse ethos, which has simple lines, to complement but not compete with the Victorian Historical buildings found in Stanford Village on the northwestern side of the R43. The example above is for a 3 Bed Dual Barn offering.

Figure 8 below shows the portion of the buffer that is an undevelopable area, that can be used exclusively by the property owner, and that extends into the 32m buffer. Height restrictions are in line with the recommendations of the Heritage specialist and as such the development is endorsement by the specialist.

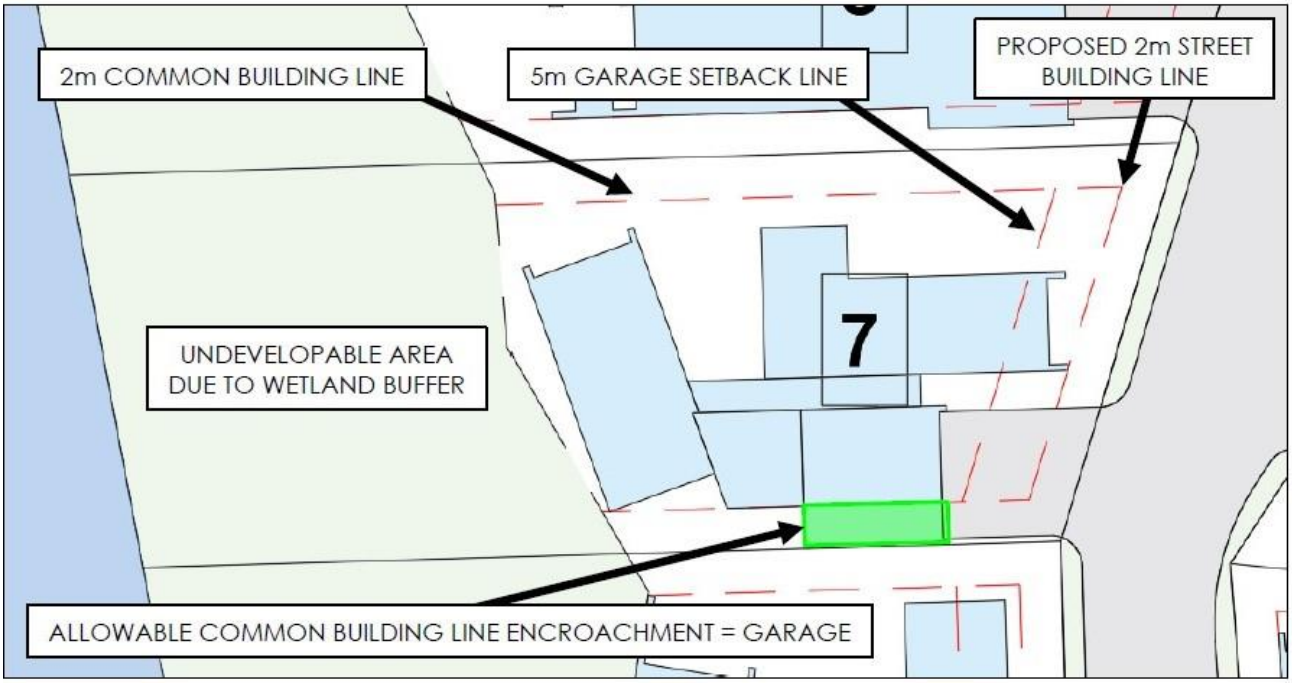


Figure 8. Typical example of Undevelopable area for the exclusive use of the property owner of Portions 1 -8, 10 and 28.

The Lodge (Erf 27)

This is the largest erf on the property and will be 4902m² in extent. This is where the majority of the White Milkwood trees form a canopy. This property will be zoned as Business Zone 3: Local Business. This property has been identified as the appropriate location for a Lodge because of the unique Milkwood forest offering and potential to use the forest as a feature in the design. 16 "tiny house" pods / rooms for tourist accommodation as shown in **Figure 9** will be located where they will have the least impact on the White Milkwood trees, including both the roots and the branches. They are also referred to as "tree houses" although they will not be in the trees but under them.

These small pods will be elevated off the ground on piling or post and beams, instead of concrete foundations, with decking instead of a concrete slab, to avoid damage to tree roots.

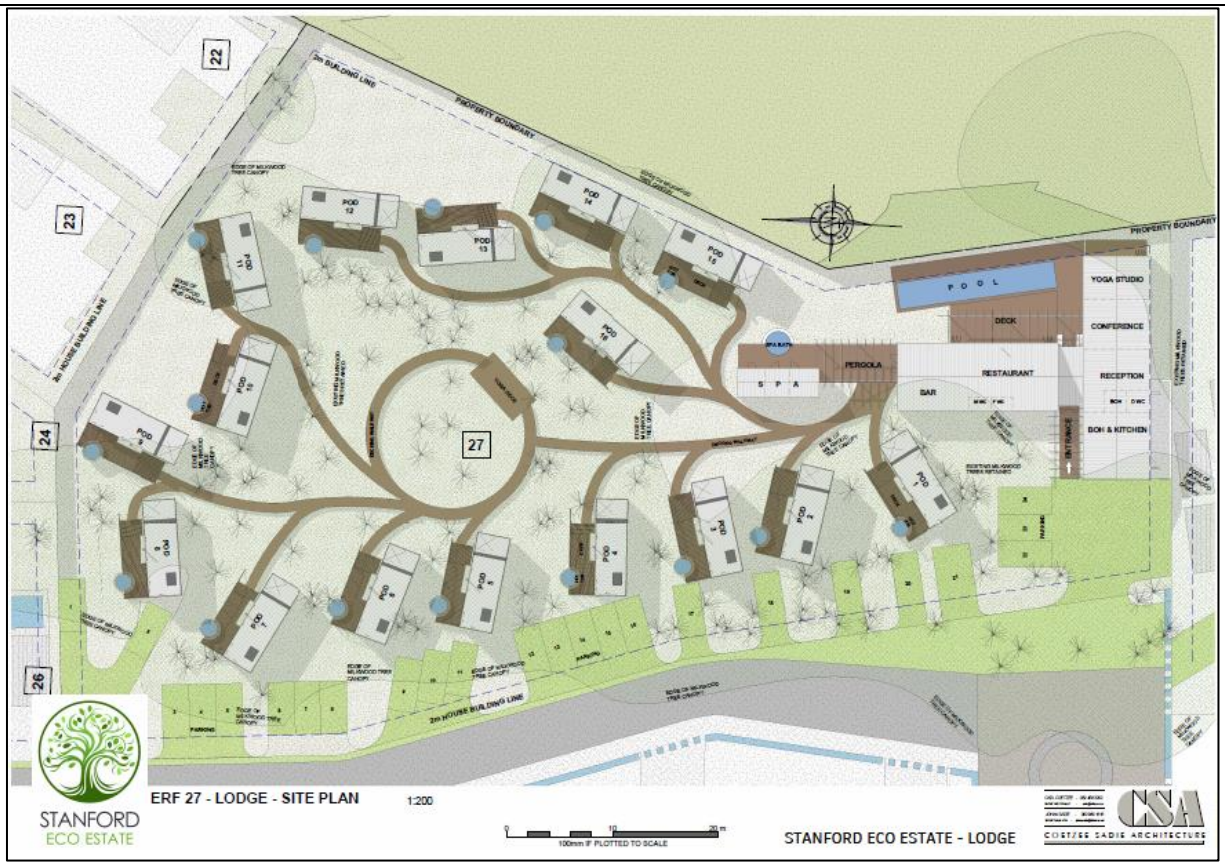


Figure 9. An Example of the type of guest accommodation Eco Pod envisaged for the Lodge.

The lodge will have a main area consisting of the back and front of house buildings which will be servicing the accommodation pods. The service building of the lodge will be split into back of house and front of house as follows:

The **Back of House (BOH)** lodge building which will be located outside the White Milkwood tree canopy area, as far as possible.

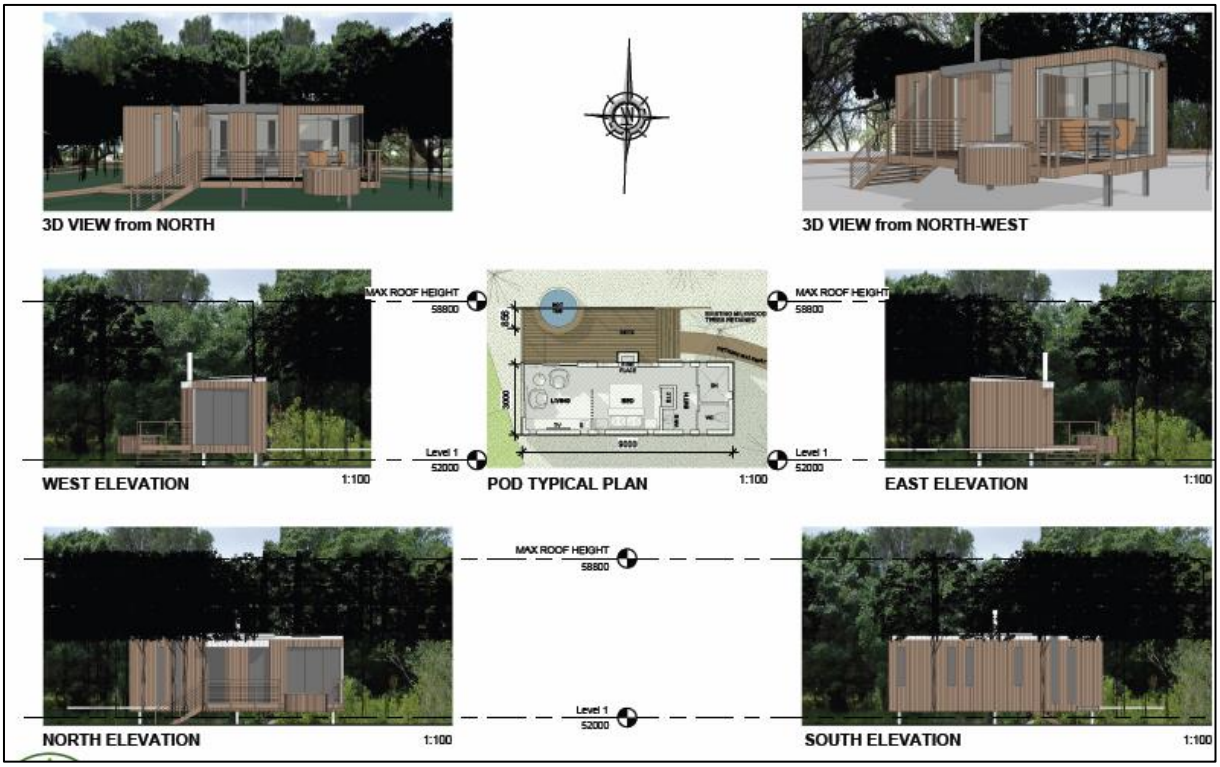
The buildings will house the following

- Kitchen,
- Storage
- Laundry
- Offices
- Vegetable / herb garden

The **Front of House (FOH)** will similarly be located where it has minimal impact on the Milkwood trees.
These buildings will include the following:

- Reception
- Bar
- Dining room
- Lounge
- Gym
- Spa
- Library

- Swimming pool



Roads

Space is provided for an access road for future linkage to neighbouring properties at the entrance gate.

The setback from the R43 of 30 m, as the R43 is a Scenic Route, will also accommodate U turn movements and be suitable for refuse removal vehicles. The internal road reserve is ±8 m wide at its narrowest. The Overstrand Municipality requires 2 parking bays per property. Internal road network are also provided.

Services

The property falls within the Urban Edge and will be serviced by Municipal water, sewage and electricity. The attached Engineers report specifies required upgrades. (See Appendix F).

Water

There is no direct extraction of water from Die Oog or the Millstream as part of this development. The development will not use groundwater or surface water from these sources. The applicant is not applying for, nor would be eligible for, a Water Use Licence under the National Water Act for this purpose. Water will be supplied by the Overstrand Municipality's bulk water supply network, and the developer has engaged with municipal engineers and GLS consulting engineers to confirm that the current system can meet the projected demand without compromising supply to existing areas. A comprehensive civil engineering services report and capacity availability report was submitted as part of the land use application, confirming capacity and indicating where minor upgrades may be required. As per municipal practice, any necessary upgrades to infrastructure that arise from the development will be entirely at the developer's cost.

Sewage

Enough capacity is available at the existing Stanford Wastewater Treatment Works (WWTW) to accommodate the development. Municipal infrastructure is available in the vicinity of the erf. AS van der Merwe of AVDM Engineers recommends, in the attached Engineering Services Report, that the existing Stanford sewage pumping station has insufficient capacity to accommodate the proposed development. Network upgrading of 260 m of an existing 250 mm diameter to be replaced with a 400 mm diameter pipe, will be required. In addition, the internal sewer pipelines need to be located below the buildings. The sewage pumpstation needs to be located on the stream side of the entrance gate, to achieve the required fall and to connect to existing infrastructure.

Solid waste removal

The municipal solid waste disposal site at Gansbaai has enough capacity to receive the waste from the erf. A Municipal waste removal / collection service is available. Refuse will be collected, by the Municipality, from a suitable building located near the entrance gate.

Electricity

An electrical services report was compiled by Driger Consulting and this report addresses the electricity requirements of the proposed development.

The OM will provide access to their grid to ensure the proposed development has adequate electricity capacity should it be required in instances where the solar system may be unable to supply maximum demand.

4.5.	Indicate how access to the proposed site(s) will be obtained for all alternatives.

Access to the development will be from the R43 using the existing access position. This has been realigned and enlarged from the original gravel driveway, during upgrade of the R43, and cannot be moved from this location, due to the proximity to the Stanford traffic circle and bridge over Mill Stream. A portion of the property was expropriated for this road upgrade.

Allowance has been made for any possible future access to adjacent properties north of Erf 438.

A Traffic Impact Statement (Appendix F) was undertaken, and it was concluded that the proposed residential development should be considered for approval from a traffic flow point of view and that no further studies ae anticipated.

4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	C	0	1	3	0	0	2	1	0	0	0	0	0	4	3	8	0	0	0	0	0

4.7.	Coordinates of the proposed site(s) for all alternatives:			
	Latitude (S)	34°	26‘	41.75”
	Longitude (E)	19°	27’	28.55”

SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

1. Exemption applied for in terms of the NEMA and the NEMA EIA Regulations

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18.	~~YES~~	NO x

2. Is the following legislation applicable to the proposed activity or development.

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19.	~~YES~~	NO x
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1. Notice of Intent to Develop (NID) was submitted to Heritage Western Cape (HWC) in terms of the National Heritage Resources Act (NHRA). The Heritage Impact Assessment was conducted in accordance with the NHRA. Heritage Western Cape committee has resolved to endorse in terms of S38(8) the Heritage Impact Assessment (HIA) dated May 2025, and prepared by CTS Heritage, as having met the provision of Section 38(3) of the National Heritage Resources Act (NHRA), with specific reference to the following recommendations to be attended to: 1. Detailed designs of the Treehouse Lodge being submitted to HWC for further comment and endorsement – available 2. Amendment to the double storey height of the proposed residential buildings by allowing for a roof attic/loft expression of upper storey elements and/or the Stanford Heritage Guidelines – adapted to the satisfaction of the heritage specialist 3. Detailed design development proceeding largely in accordance with the Site Plan and Landscape Plan as dated 27 May 2024, prepared by Coetzee Sadie Architectures completed 4. Detailed design development proceeding largely in accordance with the Landscape Development Plan and Stanford Green Architectural Guidelines respectively - completed 5. The proposed demolition of the existing residential structure located on the site is approved as this structure has been determined to be Not Conservation-Worthy. 6. The HWC Chance Finds Protocol must be implemented for the duration of excavation activities 7. Should any archaeological resources, palaeontological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds, Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward. 8. The amended designs as required, must be submitted to HWC in order for HWC to provide a final comment to DEADP prior to approval being granted. . See Appendix F4 for Heritage documents	YES X	~~NO~~

The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3. **The applicability of the National Water Act (NWA) was assessed by the Freshwater Specialist. The proposed layout results in the loss of the highly degraded Hillslope Seep with a Moderate Ecological Importance and Sensitivity (EIS). An application for a Water Use Licence (WUL) is required and is in process and currently at Phase 3 on the EWULAA system.**	YES X	~~NO~~
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13.	~~YES~~	NO X
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	~~YES~~	NO X
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	~~YES~~	NO x
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	~~YES~~	NO X
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.	~~YES~~	NO X

Results of the wetland status quo assessment.	PES	EIS	WES (highest)	REC
Mill Stream UVB Wetland	C	High	High	B
Tributary UVB Wetland	C	High	Moderate	B
Hillslope Seep Wetland	E	Moderate	Moderately low	D

3. Other legislation

List any other legislation that is applicable to the proposed activity or development.
N/A

4. Policies

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.

Overstrand Municipality Environmental Protection Overlay Zone (EMOZ)

The property is located in the following Overlay Zone that will be addressed below:

URBAN CONSERVATION ENVIRONMENTAL MANAGEMENT OVERLAY ZONE (Urban Conservation Category D: Private Property)

- *Private property within priority conservation-worthy ecological corridors from mountain to coast and/or across priority conservation-worthy areas identified in accordance with the Overstrand Environmental Management Framework.*
- *In the face of development pressure, the Municipality may, if it deems it necessary, upon receipt of a development proposal or application that does not involve any activities identified under the NEMA listing notices, require that specialist biodiversity and/or other relevant studies be undertaken by the developer/owner in order to inform development planning and retain priority ecological corridors and habitats.*

The developer appointed and embarked on an environmental process to ensure that the unique area and environment is managed and maintained correctly, the EMOZ has several points that are supposed to be addressed:

Regulations	Alignment
Vegetation Management	
→ Private Property in Conservation Areas: Private properties located within priority ecological corridors, identified by the Overstrand Environmental Management Framework, may require biodiversity or relevant studies when development proposals are submitted, even if not listed under NEMA activities. This aims to preserve critical ecological corridors.	→ **Conservation of Ecological Corridors:** The development will respect the priority ecological corridors identified within the Overstrand Environmental Management Framework. Specialist biodiversity assessments are being undertaken to guide the planning process and ensure the retention of these corridors and priority habitats.
→ Management of Conservation Land and Buffers: The municipality emphasises the need to manage undeveloped conservation-worthy land, particularly through vegetation management, to control the spread of invasive alien species, which pose significant environmental risks.	→ **Vegetation Management:** The development will actively participate in the municipality's initiatives to manage undeveloped conservation-worthy land, particularly by adhering to best practices for controlling invasive alien species. A proactive approach will be taken to ensure that no part of the development contributes to the spread of these species.
→ Invasive Alien Species Control: The municipality plans to introduce regulations across Overstrand to manage invasive alien species. It may also prioritise Urban Conservation EMOZ areas for invasive vegetation control and take action, at the property owner's expense if needed, to prevent the spread of invasive species from neighbouring lands.	→ **Invasive Alien Species Control:** As the property falls within an Urban Conservation EMOZ, priority will be given to invasive species management in line with municipal regulations.
Fire Management within urban edge:	
→ Proactive Fire Control Management: The municipality may collaborate with landowners to prioritise and implement urgent fire control measures in high-risk areas to protect the environment, life, and property. → Ecological Fire Management Plan: An Ecological Fire Management Plan may be developed for undeveloped conservation-worthy land within the urban edge, exempting these properties from the general fire management policy and using appropriate fire management cycles. → Fire and Fuel Breaks: The municipality may create fire and fuel breaks along residential property boundaries to enable fire-fighting access and minimise the spread of fires. → Fire Risk Structures: High fire risk structures may be restricted within building lines in Urban Conservation EMOZ areas, with the	→ **Fire Control Collaboration:** The development will work closely with the municipality and surrounding landowners to facilitate proactive fire control measures. → **Ecological Fire Management:** If required, the development will adhere to any Ecological Fire Management Plan created for the site. → **Fire and Fuel Breaks:** The layout and design of the development will incorporate fire and fuel breaks along property boundaries to ensure access for fire-fighting teams and to minimise the risk of fires spreading across properties. → **High Fire Risk Structures:** No high fire risk structures or buildings will be placed within building lines adjacent to the Urban Conservation EMOZ. → **Fire Protection for Thatched Roofs**: No thatched roofs are proposed in the development.

municipality having the authority to order their removal if they pose a fire hazard. → **Fire Protection for Thatched Roofs:** Buildings with thatched roofs near UC EMOZ properties may be required to install sprinkler or fire protection systems to reduce fire risks.	
Access: → **Right of access:** Undeveloped conservation worthy land shall be regarded as a Public Place whereby the right of access for the general public is guaranteed, unless such access will result in pollution or environmental degradation or where such access will constitute a public nuisance. → **No access:** (entrances, pathways, structures) will be allowed from private properties to open spaces without the necessary written consent of the municipality.	→ **Right of Access to Conservation Areas:** The undeveloped conservation-worthy land within the development will be treated as a private open place, however allowing controlled access for the general public. Measures will be in place to ensure access is controlled to a manner that will not increase pollution, environmental degradation, or any form of public nuisance, ensuring that access does not negatively impact the environment.
Activities/Uses: → The following primary uses will be permitted within the Urban Conservation EMOZ: – Recreation; – Ecosystem Management; and – Heritage Conservation. → The following uses will be permitted within the Urban Conservation EMOZ with the municipality's consent: – Environmental Facilities; – Catering Enterprises	The proposal aligns refer to the motivation report above.
Infrastructure: → The design and development of new buildings, infrastructure and utility services within the Urban Conservation EMOZ must complement the natural character and sense of place of the ecological corridor and existing development in such areas. → The erection of religious symbols, memorabilia and the defacement of municipal infrastructure or natural features will be prohibited and managed by means of removal / repair / rehabilitation measures.	→ This will be adhered to. → No symbols or memorabilia will be erected.
Management Agreements: → The Municipality may enter into Co-Management Agreements with third parties for the funding / operational management of the Urban Conservation EMOZ.	The developers already engaged with the municipality in this regard.

Overstrand Municipality Heritage Protection Overlay Zone (HPOZ)

Scenic Route

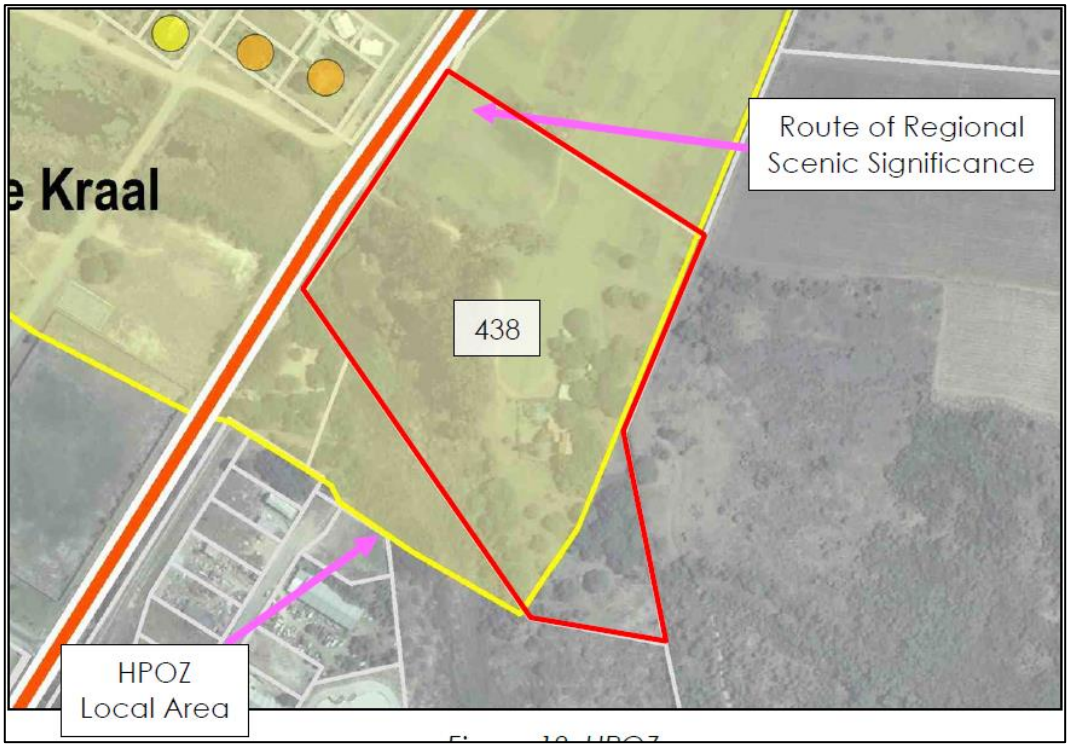
The subject property is located adjacent the R43, identified as a 'Route of Regional Scenic Significance'. The developer acknowledges the significance of the route and would not want to impact on the scenic nature thereof.

Protection of scenic corridors	Compliance
New buildings must not block views from scenic routes, particularly views towards the mountains and the coastline and towards places/sites identified as having visual or heritage significance, where possible.	The subject property is located on the eastern side of the R43, and the mountains are located to the north of Stanford and the subject property. The proposed development will therefore not block the view of the mountains from the scenic route. To ensure compliance with the HPOZ, it was ensured in the planning phase, that the proposed development is aligned with the provisions of the HPOZ.
Comment must be obtained from the Overstrand Heritage and Aesthetics Committee, Stanford Heritage Committee and/or a registered conservation body on potential visual impacts before the Municipality approves any applications within this HPOZ.	This application will be circulated to the relevant departments and committees for comment. The Overstrand and Stanford Heritage Committees will be afforded the opportunity to comment on the application during the public- and authority commenting period.
Development on ridge lines and on steep slopes greater than 1:4 must be avoided in this zone.	This is noted and is not applicable to this application as the development area has a very gradual gradient.
New interventions must be modest and restrained in scale, limited in height, recessive in character and appropriate to the natural and cultural landscape.	As previously mentioned, the development was designed is such a way that it complies with the Overstrand Municipality's By-Laws, zoning scheme, etc in order to ensure that the application is appropriate in scale and height.
New developments must be associated and linked with existing settlements, rather than being built on isolated sites on undeveloped land	The proposed development is approximately 500m from the centre of Stanford. The proposal is to link the development with other environmental and ecological areas in the surrounding area. In addition, the development has incorporated designated links to future development of the vacant municipal property adjacent to the development linking these two properties.
Buildings must be aligned parallel to the contours. Hard and soft landscaping must be used to tie the buildings into the landscape.	With the typography of the subject property, this is not applicable as the subject property is almost flat.
Building platforms on sloping sites must be kept to a minimum. Buildings on high stilts in excess of 2,4 m, as measured from the base level and as defined in the land use scheme, must be avoided. New levels must be designed to fit into the surrounding landform. Mitigation measures must be identified to limit visual impacts.	With the typography of the subject property, this is not applicable as the subject property is reasonably flat with sufficient slope to allow drainage.
Outdoor spaces must be designed so that the landscape appears to flow throughout the site. Extensions on coverage will be discouraged.	The proposed development is within the coverage limit of the development parameters. Open spaces were designed to be functional and integrated.
The layout and design of new buildings must respect local traditions and settlement patterns in terms of the placement and alignment of buildings on sites.	Refer to Section 5.2.3 of the Town Planning report that focused on the layout and the reasoning for the specific layout.

Access roads and pathways must be designed to avoid excessive cutting and filling and to ensure harmonious adaptation to the existing topography.	This is noted and all access roads will be constructed engineering standards and will meet the requirements of the OM.

Stanford Heritage Protection Overlay Zone ("STANFORD HPOZ")

A portion of the subject property is located in the Heritage Protection Overlay Zone and is contained in the local area HPOZ as illustrated below



Protection of scenic corridors	
New buildings must not block views from scenic routes, particularly views towards the mountains and the coastline and towards places/sites identified as having visual or heritage significance, where possible.	The subject property is located east of the scenic route with mountains to the north.
Comment must be obtained from the Overstrand Heritage and Aesthetics Committee, Stanford Heritage Committee and/or a registered conservation body on potential visual impacts before the Municipality approves any applications within this HPOZ.	The application will be circulated to the required committees during the public participation process.
Development on ridge lines and on steep slopes greater than 1:4 must be avoided in this zone.	Not applicable.
New interventions must be modest and restrained in scale, limited in height, recessive in character and appropriate to the natural and cultural landscape.	The developer has appointed a skilled team to ensure the proposed development is considered appropriate.
New developments must be associated and linked with existing settlements, rather than being built on isolated sites on undeveloped land.	The subject property is located adjacent the R43 and provides access to the neighbouring property.
Buildings must be aligned parallel to the contours. Hard and soft landscaping must be used to tie the buildings into the landscape	This is noted and is proposed to be incorporated into the development using berms and landscaping to assist in merging the development into the landscape.
Building platforms on sloping sites must be kept to a minimum. Buildings on high stilts in excess of 2,4 m, as	This is noted and is not expected within the development.

measured from the base level and as defined in the land use scheme, must be avoided. New levels must be designed to fit into the surrounding landform. Mitigation measures must be identified to limit visual impacts.	
Outdoor spaces must be designed so that the landscape appears to flow throughout the site. Extensions on coverage will be discouraged.	This condition will be complied with.
The layout and design of new buildings must respect local traditions and settlement patterns in terms of the placement and alignment of buildings on sites.	This condition will be complied with.
Access roads and pathways must be designed to avoid excessive cutting and filling and to ensure harmonious adaptation to the existing topography.	This condition will be complied with.

Purpose of the Stanford HPOZ	
To protect and enhance the wide range of heritage sites and streetscapes of considerable heritage significance which contribute to the unique townscape character.	The subject property is not located near any heritage sites and streetscapes as it is located on the edge of Stanford.
To protect and enhance the role of Market Square and Queen Victoria Street as major structuring elements within the historic core of Stanford which reflect a number of architectural and historical features and establish the character and sense of place in Stanford.	The subject property is not located near the Market Square and Queen Victoria Street.
To enable adjustments in the standard provisions of the land use scheme, especially related to the provision of parking and the implementation of setback lines, to ensure the enhancement of identified streetscapes of heritage and architectural value.	The proposed development will be a security estate and is not expected to have a negative impact on the 'identified streetscapes of heritage' and architectural value.
To protect and enhance the relationship of the village to the Klein River and the natural spring, "Die Oog", to the south-east, which underpins the role of water in the origins and evolution of the place.	Recognising the significance of these water features in the origins and evolution of Stanford, the development incorporates measures to safeguard their ecological integrity and historical importance. By implementing sustainable water management practices and preserving natural buffers, the project ensures that the Klein River and "Die Oog" remain central to the village's identity. This approach not only respects the area's heritage but also promotes the continued appreciation and conservation of these vital natural resources.
To protect and enhance the character of the historical built environment (established by street, subdivision and building patterns, including building setbacks, orientation, scale, massing and form, street interface and access) and avoid negative impacts on townscape and streetscape character in general and on architecturally and historically significant buildings in particular. This applies to new development, alterations to existing structures, road engineering interventions and boundary treatments and include security fencing, signage and landscaping.	The subject property is not located near any historical built environment.
To protect and enhance historical building typologies. Inappropriate typologies must be avoided in the	Refer to the motivations above. Appropriate building typologies are being proposed.

historical core of Stanford with its significant spatial character. The historical present, streetscape and street block character and the role of buildings as landmarks, street liners or corner buildings in contributing to this character must be respected. Appropriate modern interpretations will be considered by the Municipality with comment from Stanford Heritage Committee.	
To protect and enhance the leiwater system which contributes substantially to the area's character.	The proposed development will not have an effect on the existing leiwater system and will not abstract water from it.
Land use and building plan applications, if applicable, within the defined Stanford HPOZ area must be submitted to the Stanford Heritage Committee for comment.	This condition will be complied with

Western Cape Provincial Spatial Development Framework (2014)

The PSDF is a product of a provincial inter-departmental and inter-governmental collaboration under the guidance of the inter-departmental steering committee in collaboration with the private sector, academia, and non-governmental organisations. This broad participatory process has created a shared spatial vision that is intended to inform spatial development patterns in urban and rural areas in the province.

Throughout the PSDF the importance of developing integrated and sustainable settlements as an objective of the framework in highlighted. The PSDF also provides a settlement agenda which addresses the full spectrum of Western Cape settlements irrespective of their size from metropolitan Cape Town to the smallest hamlets**.**

To ensure the proposed residential development is in line with the PSDF, the Provincial settlement policy objectives, the proposed development was evaluated in terms of the policy objectives.

Provincial settlement policy objective;

→ *Protect and enhance sense of place and settlement patterns.*
→ *Improve accessibility at all scales*
→ *Promote an appropriate land use mix and density in settlements*
→ *Ensure effective and equitable social services and facilities*

Alignment of the proposal with objective 1:

The proposed development is situated on the eastern side of the R43, positioned as the second residential development proposal submitted, south of the R326 and to the east of the R43.

It is crucial to seamlessly integrate the proposed development into the Stanford urban landscape, preserving its heritage and historical significance.

This objective is achieved by conscientiously placing the development within its surroundings and facilitating resident access to the area's amenities. Moreover, the development aims to establish itself as a new focal point, emphasising well-being and creating a space of attraction for the community to visit the rehabilitated Millstream.

Alignment of the proposal with objective 2

The subject property has adequate accessibility to the centre of Stanford and also access to Hermanus via the R43. The proposed development was designed to form part of the extended town, while ensuring access is granted to larger towns and cities such as Hermanus and Cape Town.

Alignment of the proposal with objective 3

The predominant land use is residential, with additional land uses such as the Milkwood tourist accommodation, which will offer several facilities for guests and residents. For residents, these facilities include outdoor gym equipment as well as a day care centre, while ensuring the development has access to nature through specifically placed open spaces.

The density of the proposed development is approximately 5 dwelling units per hectare, as regulated by the OMLUS.

Ensure effective and equitable social services and facilities

With Hermanus being a regional service centre as indicated by the PSDF, the importance is to ensure access to the area is important.

There are adequate road networks between the proposed development and Hermanus which have been upgraded recently to ensure access to these already existing facilities.

Overstrand Municipality Spatial Development Framework (2020)

The OMSDF is directed by National Provincial and Municipal Planning legislation, policies and plans. These include SPLUMA, LUPA, By-Law, PSDF and the IDP. The OMSDF aims to provide sufficient guidance regarding what constitutes appropriate spatial development land uses and direction within the urban edge. The SDF was drafted after considering input from other state departments and the public and provides a shared spatial vision which the development proposal should ideally attempt to synchronise with.

To ensure compliance with the principles and objectives set out by the PSDF and the National Development Plan the OMSDF was synthesised through the influence of these policies and frameworks.

The proposed residential development was aligned with the OMSDF to ensure that policy requirements are met. The OMSDF focussed on the increasing pressure to provide adequate housing options to the increasing population. This includes the Stanford area.

The following was identified within the OMSDF, p90:

"A survey in terms of the availability of vacant land was undertaken in 2019. A total of 225 vacant residential erven were identified. A total amount of 2 828 additional people will need to be accommodated from 2019 to 2031, based on the aforementioned population total. Based on an average household size of 2.6 persons per household, this amounts to a total requirement of 1 088 additional dwelling units by 2031."

The increase in population is based on the growth indicated by Table 2.7 p25 of the OMSDF. The proposed development will add 27 additional dwelling units to the Stanford area, addressing 2,48% of the estimated demand identified by the OMSDF within the Stanford Area. It may only be a small percentage of the required dwellings, but with the existing constraints on the property the area available for development was optimised, without having a negative impact on the surrounding environment. These dwelling units are located adjacent the area recently

incorporated within the urban edge, ensuring that there is adequate alignment with the future expansion of Stanford.

The proposal includes provisions to ensure sufficient future linkage with the surrounding area. The property features a section of public road that will be developed and subsequently transferred to the municipality. This road section will facilitate a robust connection between the adjacent vacant municipal property, which may be developed in the future.

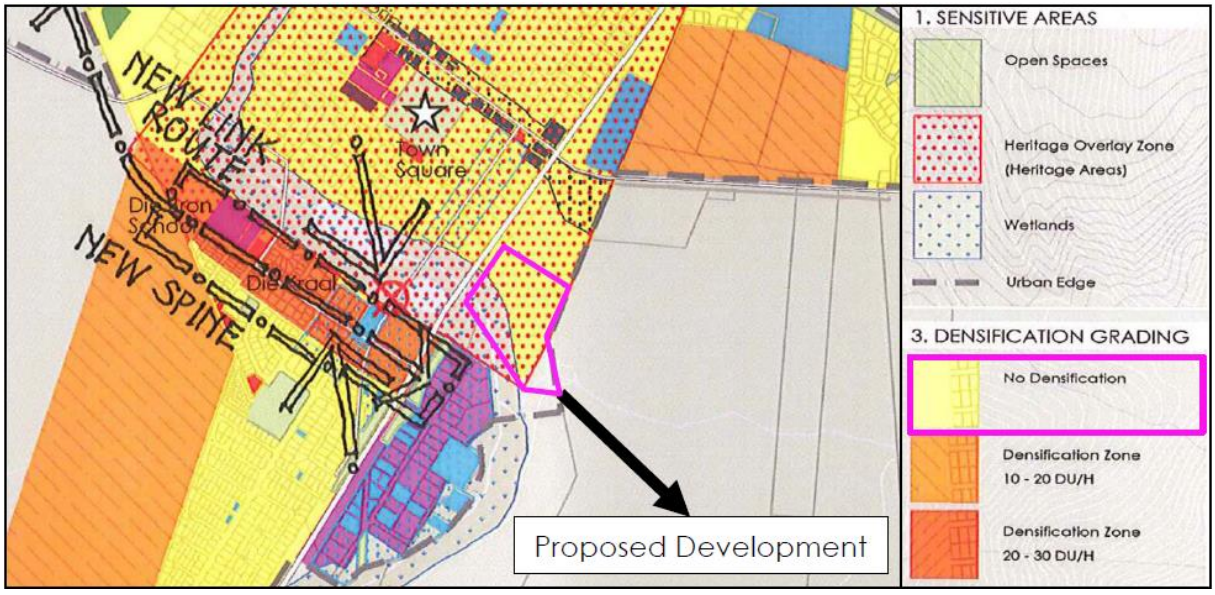
Furthermore, this link could potentially be used to provide access to the area recently incorporated within the urban edge. Should it become necessary, this connection would integrate these two areas into the public road network, enhancing accessibility and connectivity. However, it remains crucial to maintain the development as a private security development to ensure the safety and exclusivity of its residents. Balancing the need for connectivity with the imperative for security, the proposal aims to achieve a harmonious integration with the broader urban framework while preserving the integrity and safety of the development.

The application is aligned with the OMSDF as the proposal would assist the OM to be able respond to the future housing demand and ensure adequate residential options are available within the Stanford area.

Commercial Enterprise: The proposal is to include commercial property within the development. Although not earmarked for commercial activity in terms of the OMSDF, the proposal is not considered out of the ordinary. The activities proposed are considered to align with the development, as the hotel, restaurant, and conference facilities will be open to the public, placing a strong emphasis on the environment, which plays a major role in the development.

Overstrand Municipal Growth Management Strategy, 2010

Although repealed, the Overstrand Municipal Growth Management Strategy is used as a guideline document to the municipality. Erf 438 however falls within a zone that is not identified for densification, as illustrated below.



The subject property is proposed to be developed with a density in alignment with the rest of Stanford. Referring to Section 5.2.2 of the motivation, the proposed development is intended to have a density of only 5.16 du/ha.

The property is located in Planning Unit 1 of the OMGMS. While this planning unit is not earmarked for densification, it is important to consider that the OMGMS was compiled during a period of slower growth, unlike the current situation. A review of the OMGMS and other spatial policies of the OM indicates that this shift in growth should be taken into account.

The subject property is 5.2342 ha, and utilising the entire area for a single residence is irrational, especially in a region where new vacant properties can only be achieved through infill densification via subdivision of larger properties. This approach would however detract from the historic core of the Stanford area.

Planning Unit 1 has an approximate gross density of 3.3 du/ha. With the proposed development incorporated, the gross density of the planning unit is expected to increase only slightly, by 0.2 du/ha, to 3.5 du/ha. This increase is negligible and is not expected to have a negative impact on the surrounding area.

This proposed density aligns with the guidelines and density set forth in the OMGMS and is consistent with the surrounding area's planning unit 1, ensuring that the development integrates seamlessly with the existing community. This careful planning ensures that the development does not deviate from the established norms and maintains the character and cohesiveness of the Stanford area.

Commercial Enterprise: The proposal is to include a commercial property within the development. Although not earmarked for commercial activity in terms of the OMGMS, the proposal is not considered out of the ordinary. The activities proposed are considered to align with the development, as the hotel, restaurant, and conference facilities will be open to the public, placing a strong emphasis on the environment, which plays a major role in the development.

The following policies have been considered in this Basic Assessment process

- → Western Cape Provincial Spatial Development Framework (WCSDF)
- → Overstrand Municipal Spatial Development Framework 2020
- → Overstrand Integrated Development Plan (2023/2024)

The Overstrand Council may apply the general provisions stipulated in this section in respect of all Heritage Protection Overlay Zones and the specific provisions to the HPOZ's (Heritage Protection Overlay Zone)

5. Guidelines

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.

The following guidelines were considered during this Environmental Impact Assessment process:

- → Department of Environmental Affairs Public Participation Guideline in terms of the NEMA EIA Regulations (2017)
- → Circular EADP 0028/2014: One Environment Management System
- → Environmental Impact Assessment (EIA) Guideline and Information Document Series, 2013
- → Guideline for Environmental Management Plans (June 2005)
- → Guideline for the Review of Specialist Input in the EIA process (June 2005)
- → Guideline on Alternatives (March 2013)
- → Guideline on Need and Desirability (Oct 2014)
- → Western Cape Biodiversity Spatial Plan guidelines

→ Wetland Offset Guidelines

6. Protocols

Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form

The Protocols for the Assessment and Minimum Report Content Requirements for Environmental Themes (GN 320 of 2020) came into effect on 9 May 2020. These protocols mandate site sensitivity verifications for identified Themes of a proposed development site, based on the National Environmental Screening Tool Report.

The Site Sensitivity Verification Report (SSVR) has been compiled for the proposed development and outlines the proposed specialist studies to be conducted as part of the impact assessment process and included in the Basic Assessment Report.

Table 3. Table from SSVR for Erf 438 Stanford.

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

Agriculture – very high

→ Agricultural Compliance Statement for a proposed residential development In Stanford, Western Cape – See Appendix F1 – confirmed the proposal will not have a significant effect on this theme.

→ Report by Johann Lanz, 29 April 2024

→ This assessment disputes the high sensitivity classification of the property by the screening tool and rates the entire property as being of medium agricultural sensitivity with a maximum land capability of 8 because of its assessed agricultural production potential and current agricultural land use. The dryland cropping potential of the site is limited by the combination of climate (aridity) and soil constraints (depth, drainage, water holding capacity). Because of these constraints, the site is very marginal for viable rainfed crop production. The site could be used for crop production of specific crops under irrigation, as is practised on surrounding land. The fact that the property is included within the urban edge is a significant constraint on the potential of the site to practically deliver future agricultural produce.

→ An agricultural impact is a change to the future agricultural production potential of land. In this case, the cropping potential of the site is limited by the combination of climate and soil, but it could nevertheless still be used for crop production with irrigation. However, the main factor that limits the significance of the loss of this land to agriculture, is that the property is within the urban edge and intended for development. This is a significant constraint on the potential of the site to practically deliver future agricultural produce and its loss as future agricultural production potential is therefore inevitable, of low significance and acceptable.

→ From an agricultural impact point of view, it is recommended that the proposed development be approved. The conclusion of this assessment on the acceptability of the proposed development and the recommendation for its approval is not subject to any conditions.

Animal species – high

→ Faunal Impact Assessment attached under Appendix F8b.
→ Comments to this theme are also included in the Aquatic Impact Assessment (Appendix F2).
→ An site specific Amphibian Report was also prepared by Whale Coast Conservation (WCC), July 2024 (Appendix F8a).
→ The following amphibian species could be expected to be present on the property
  - Raucous Toads
  - Leopard Toads
  - Sand Toads
  - Arum Lily Toads
  - Cape River Frog
  - Common Caco (confirmed on site)
  - Clicking Stream Frog (confirmed on site)
  - Cape Sand Frog (confirmed on site)

→ Not all these species were present or found during the site evaluation.
→ Due to the high levels of ecological disturbance as a result of current operations on site, no frogs were found in the cultivated land due to the application of pesticides and fertilizer. The soil has also been introduced into the area and compacted. The amount of algae growth in water puddles indicates that the water is probably enriched by fertilizer.
→ The site investigation included the area outside the property to the R326
→ No chameleons were found on the site
→ Spotted Eagle Owls, which may be nesting in the Milkwoods, where seen on the site and Sparrow Hawks have been seen flying in this area.
→ WCC confirm that the Hillslope seep has been completely compromised by the cultivation of roll on lawn and a channel draining water to Mill stream through the seep which is discharging enriched (higher than normal nutrients) water into Mill stream. Invasive grass (species not mentioned) is out-competing the natural vegetation in the Milkwood forest area, which can lead to a dieback of these trees. This indicates that the biodiversity on site is compromised.
→ WCC is supportive of the change in land use from the existing agriculture activities, with associated fertilization, irrigation and pesticide use, to the proposed development. A number of recommendations are made, supportive of those made by other specialists, for the on-going management of the property post development. These include:
  - Western Cape soils are naturally slightly acid and infertile. When the natural chemical composition is changed by fertilizers then Raucous Toads and Painted Reed frogs can flourish and out compete other species.
  - Remove as much lawn grass as possible and use groundcovers to provide cover and foraging areas for frog
  - Road verges must be U shaped without a vertical edge
  - No pesticides on site
  - Garden ponds should be discouraged
  - Ponds and pools must be designed so that frogs can escape from the water.
  - Avoid chlorinated pools
  - Reeds must be regularly cut and cut reed removed to increase biodiversity and remove nutrients from the stream.

- Small corridors between houses will allow frogs to move and permit water to drain on the northeastern side of the property.
- Water may not be abstracted from the stream without authorisations in terms of the National Water Act.
- Connectivity with Stanford Village, as proposed in the Mill Stream Concept Master Plan, management of the stream is encouraged.
- The use of vegetated berms, the 32 m buffer and swales recommended by other specialist studies will encourage frogs. Arum lilies should be planted in the swales as filter plants.
- There is potential for environmental tours show casing the frogs and toads and harmonised development examples.
- The Stanford Bird Club recommend that the Spotted Eagle Owl breeding site be cordoned off during construction and protected post commencement.

Aquatic Biodiversity Impact Assessment – Very high (See attached Appendix F2)

→ Aquatic Screening and Biodiversity Impact Assessment was undertaken by Delta Ecology.

→ This report sets out the results from a desktop analysis, as well as two field assessments conducted on the 25th of July 2023 and the 1st of March 2024, to assess the potential aquatic impacts associated with the proposed development of a residential eco-estate on Erf 438, Standford, Western Cape. Three wetlands were identified within the proposed site, including the Mill Stream wetland (classified as a Unchanneled Valley Bottom Wetland (UVBW), a small tributary thereof (also a UVBW) and a hillslope seep wetland within the onsite farmed area. In this impact assessment, the delineated onsite wetlands were assessed using current best practice assessment methodologies to determine the Present Ecological State (PES), Ecological Importance and Sensitivity (EIS), Wetland Ecosystem Services (WES), and Recommended Ecological Category (REC) metrics. Results of these assessments are as follows:

Table 4. Wetland Status Quo assessment from Aquatic specialist study

	PES	EIS	WES (Highest)	REC
Mill Stream UVB Wetland	C	High	High	B
Tributary UVB Wetland	C	High	Moderate	B
Hillslope Seep Wetland	E	Moderate	Moderately Low	D

→ Although the condition of the onsite UVB wetlands was moderately disturbed, the high to moderately high EIS and WES scores indicate that these wetlands are sensitive and important in terms of conservation planning or provision of ecosystem services. The hillslope seep wetland is seriously disturbed, and of moderate to low importance in terms of conservation planning or provision of ecosystem services.

→ Aquatic biodiversity impacts associated with the development were identified and assessed using both an impact assessment methodology compliant with NEMA requirements and the Risk Assessment Matrix prescribed by GN509 of 2016. The results of the assessment of wetland loss along with four additional impacts during the construction and operational phases, given implementation of the listed mitigation measures, are summarised in the specialist report and extracted Table below:

Table 5. Summary of Impact Assessment table extracted from Aquatic specialist report (Appendix F2).

	Rating	Risk Class	Applicable to	Mitigation Measures
Construction Phase				
Impact 1: Wetland Loss	Medium	Moderate	Hillslope Seep	Refer to **Table 8-1**.
Impact 2: Altered flow	Low	Low	UVBWs	Refer to **Table 8-2**.
Impact 3: Water Quality Impairment	Very Low	Low	UVBWs	Refer to **Table 8-3**.
Operational Phase				
Impact 4: Altered flow	Low	Low	UVBWs	Refer to **Table 8-4**.
Impact 5: Water quality impairment	Very Low	Low	UVBWs	Refer to **Table 8-5**.
"No Go" Scenario	Low	Not Assessed	Hillslope seep & UVBWs	Refer to **Table 8-6**.

→ Four out of five of the post-mitigation scores fell within the within the "Low" to "Very Low" impact categories. Wetland loss received the highest impact significance score, which fell within the 'Medium' category. Ordinarily, wetland loss would fall within the 'high' category, but the limited area of wetland loss (0,87 Ha) and the degraded nature of the wetland has reduced the impact significance. The No-Go option would result in the continuation of impact to the wetlands due to onsite and adjacent land uses – and would therefore still result in negative impacts to the delineated wetlands.

→ The Moderate risk rating confirms that a Water Use Licence will be required for this project due to the encroachment into the onsite seep wetland.

The key recommendations therefore are:

→ Avoid encroachment into the delineated UVBWs during construction and operational phases.

→ Avoid encroachment into the 32 m buffer area around each wetland, apart from limited activities – specifically indigenous gardens and pools (recommended to be non-chlorinated eco pools, please refer to Section 8.4.2 of the Aquatic Impact Assessment).

→ Tie into mainline sewage – this is included in site design.

→ Allowance must be made for stormwater to be treated in a vegetated detention (polishing) pond and/or a substantial vegetated swale before release into the UVBWs. – already included in site design

→ Municipal water supply should be used - already confirmed and in place.

The following mitigation measures have been adopted from the *Rebelo et al.* 2004 Biodiversity Management Plan for the Western Leopard Toad *Sclerophrys pantherinus*. It is essential that these proposed mitigation measures are implemented with the aim to minimize the impact of urban development (specifically habitat fragmentation, obstacles to toads' movements, and road mortalities) on the species:

→ It is recommended that a suitably qualified Environmental Control Officer (ECO) is appointed during the construction phase to ensure that recommendations as per this report, and other specialist reports, are implemented.

→ Toad-friendly curbs stones should be installed i.e. small curbs stones that are less than 50 mm tall, or half road gutters which provide passageways for toads. These can be implemented throughout the estate or at intervals of 50 m.

→ An appropriate road reserve should be implemented for internal access roads within the estate to facilitate the movement of toads.

- → Boundary walls and fences should be permeable to toads. Integrate toad holes of at least 100 mm diameter, spaced every 20 meters, and not exceeding 300 mm in length at ground level. Alternatively open gutters can be a suitable option.
- → Stormwater systems should be designed with suitably spaced escape areas, allowing toads to escape. These escape areas should be positioned at intervals of at least 50 m.
- → The estate should install non-chlorinated eco pools, ideally with a "beach pool" design with gently sloping sides emulating the natural bank of a wetland allowing toads to enter and exit the pool freely. Alternatively, if a pool design with high sides is installed, incorporate escape pathways such as toad ladders, toad friendly steps, or floating vegetated platforms anchored to the side of the pool.
- → To prevent road mortalities, Western Leopard Toad signage should be erected and a speed limit within the eco estate should be implemented and strictly adhered to.
- → Toad friendly gardens should be created, when it is not the toads breeding season (late July to September with the main breeding month being August), they inhabit suburban gardens. Natural vegetation should be planted to create ideal toad habitat.

It is therefore the opinion of the specialist that the proposed development should be approved subject to application of the mitigation measures listed in this report, as well as the implementation of a suitable Wetland Offset, Rehabilitation and Management Plan.

Archaeological and Cultural Heritage and Palaeontology – very high

- → A Notice of Intent to Develop was submitted to Heritage Western Cape. In response, HWC requested that a full Heritage Impact Assessment with Paleontological Impact Assessment, Archaeological Impact and Visual Impact Assessment on cultural landscape (Appendix F4).
- → Archaeological Specialist Study the Proposed Stanford Eco-Estate near Stanford, in the Western Cape Province. Report by Jenna Lavin for CTS Heritage. April 2024
- → Palaeontological Specialist Study the Proposed Stanford Eco-Estate near Stanford, in the Western Cape Province. Report by Ryan Nel for CTS Heritage. April 2024
- → Heritage Impact Assessment for the Proposed Stanford Eco-Estate near Stanford, in the Western Cape Province. Report by Jenna Lavin for CTS Heritage. July 2024

Archaeological Impact Assessment

It is likely that a low density MSA scatter extends across the development area in the soil layer beneath the grass. This is not unexpected due to the proximity of a reliable water-source, "Die Oog" and the milkwood forest. As noted above by Webley (2013), "Very little archaeological work has been carried out in this particular area. Most of the archaeological research which has been conducted in this section of the southern Cape has been concentrated along the coast (see Hart 2010). A number of sites have been recorded along the rocky shoreline near Hermanus by Kaplan (2007). These are primarily Later Stone Age shell middens. Early and Middle Stone Age artefacts scatters have been recorded on the Hermanus Golf Club and at the Fernkloof Nature Reserve."
Although there are very few recorded examples of similar resources in this area, and as such, these artefacts have value in terms of rarity in the immediate context, the artefacts themselves have limited scientific value due to the extensive previous disturbance of the property through ongoing and historic agricultural activities on site. None of the observations made have sufficient scientific cultural value to warrant conservation and as such, no impact to significant archaeological heritage is anticipated from the proposed development.

Recommendations

There is no objection to the proposed development from an archaeological perspective on condition that:

- Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward.

Paleontological Impact Assessment

The site, which covers approximately 5.1 hectares, is located along the R43 and is within the urban edge of Stanford, with zoning for single residential use. The site is situated on a transition zone between the Bokkeveld Group shales to the north and the Waenhuiskrans Formation of the Bredasdorp Group to the south. The Strandveld Formation, a semi-consolidated dune sand and calcrete, comprises the site's primary geological layer, classified as having a low palaeontological sensitivity due to sparse fossil records. However, the underlying Ceres Subgroup of the Bokkeveld Group holds high palaeontological sensitivity, known for its diverse marine invertebrate, trace and fish fossils from the Early to Mid-Devonian period. Despite the underlying high palaeontological sensitivity, the proposed housing development is expected to have a minimal impact on palaeontological resources. The project involves only minor excavation, limited to superficial sediment layers, reducing the risk of disturbing significant palaeontological heritage. As a result, the report concludes that the impact on palaeontological resources from this project is low. Nevertheless, the report recommends that mitigation measures be in place to address any unforeseen discoveries of palaeontological significance during the construction phase. Therefore a Chance Fossil Find Protocol should be added to the EMP in the unexpected event that palaeontological finds are made.

Integrated Heritage Impact Assessment with Visual Impact Assessment

→ The historic core of Stanford was declared a Conservation Area under the National Monuments Act (28 of 1969). This property falls OUTSIDE this area.
→ Erf 438 falls within a Heritage Overlay Zone (HPOZ) managed through the implementation of Overstrand Municipal By-Law on Municipal Land Use Planning 2020 and development will be constrained by these regulations.
→ HWC will still be required to assess all applications under NHRA. Specifically, those having a Grade 3A, 3B or 3C heritage status.
→ Land use and building plan applications pertaining to the property must be referred to the Overstrand Heritage and Aesthetics Committee as it falls within the HPOZ.
→ The route between Stanford and Hermanus is considered a scenic route of high significance.
→ The following heritage resources are likely to be impacted by the proposed development:
  - Die Oog: Graded IIIA, which is upstream from the property.
  - The Milkwood grove Graded IIIA, on the property.
  - The core of Stanford: Graded IIIA, on the northwestern side of the R43, over the road from the property.

The Assessment Tables below have been extracted from the Heritage Impact and Visual Impact Assessment:

Table 6. Summary of impacts from Heritage Impact Assessment

Broader Landscape		
Indicator	**Response**	**Comment**
Consolidation of existing urban footprint	Positive	The site is zoned residential forming part of an existing urban edge condition east of R43.
Role of the Klein river system in terms of ecological and amenity value, place-making	Positive	The development responds positively to the Mill stream and wetland as a place making element with opportunities to improve ecological conditions.

Setback from water courses	Positive	The development is setback by 32m from the stream and wetland.
Response to historic scenic route in terms of setback, boundary treatment, entrance and signage.	Positive	Careful consideration has been given to the R43 scenic route condition in terms of setback, landscape and entrance treatment.
Settlement qualities of the village of Stanford	Positive	Street and subdivision pattern responds to the varying site conditions including riverine edge and its role as a green framing element to the village
Townscape		
Indicator	**Response**	**Comment**
Prevent a pattern of urban sprawl on the periphery of the town	Positive	The development consolidates an existing urban footprint as opposed to contributing to urban sprawl.
Consider development as an integral part of Stanford	Positive	The development is regarded as an integral part of the town in terms of its positive response to the stream and structuring elements and green frame.
Respect special features in the place making qualities of the town (Mill stream and Milkwood Forest)	Positive	The development responds positively to the stream and the milkwood forest as special features contributing the place making qualities of the town
Positive visual special relationship between settlement and rehabilitation of riverine conditions.	Positive	The development responds positively to the stream as a structuring element an in ensuring a positive interface with the water course. Stanford Eco-Estate seeks to play a pivotal role in ensuring the protection and restoration of the stream ecosystem
Avoid a pattern of gated development to the north of the R326 and adjacent to the R43	Negative	This has been mitigated to some extent by the setback of security structures from the edge of the R43 and landscaped green edge. The proposal is for a gated development on the R43.
Enhance the role of "Die Oog" and the river as a green frame to the village.	Positive	The development responds positively to the role of "Die Oog" in providing a green frame for the village.
Respect the scenic routes' qualities of the R43 and R326, especially views from the R43	Positive	Consideration has been given to the impact of the development on views from the R43 in terms of setback, landscaping and entrance treatment. The development will be partially visible from the R43and the extent to which the built form represents a sense of fit in terms of townscape and roofscape qualities is discussed. Long views towards the development from the R326 will be obscured by future development to the north and north-east of the site.
Principles of settlement making	Positive	The development places emphasis on linked open space corridors, riverine edge conditions, positive street edge conditions, 'leiwater', planting patterns and pedestrian movement.
Ensure compliance with the Stanford Guidelines providing a sense of fit with the heritage context	Positive	The development largely complies with the Stanford Guideline in fragmentation of the built form, roof form, proportion of apertures, materiality, boundary edge treatments and parking.
Building height		Reducing the overall height of double storey elements through the use of the upper level as a 'loft / attic' expression is recommended to comply with the 4.5m wall plate height and 6.8m total height. Note the proposed height is 7.15 which is only 35cm higher than that proposed by the architects.

Site Scale		
Indicator	Response	Comment
Setback of development from the R43 by at least 25m	Positive	The development has been setback from the R43 by 25m in accordance with the Overstrand Heritage Survey Guidelines for Scenic Routes.
Ensure a soft green, visually permeable interface in terms of boundary edge treatments and landscaping	Positive	The Landscape development plan makes provision for a planted berm and visually permeable perimeter fence along the R43.
Entrance arrangements to be setback from the scenic envelope and recessive in character	Positive	The security gatehouse entrance is setback from the R43 scenic envelope and is recessive in scale, form and architectural character.
Build onto the historical street pattern of village as an extension of the historical urban footprint	Positive	The development responds positively to the concept of building onto the street pattern of the historical core via the creation of a village street to the east of the R43. It recognises the role of the R43 as a regional mobility route with traffic engineering requirements which limit further cross route opportunities. Siting a design of the individual houses contribute to a 'street architecture' in which the houses relate positively to the internal streets by, for example, avoiding high walls and setting back garage doors. Front porches and recessed garages form part of the architectural guidelines to create a friendly pedestrian environment.
Recognise the role of De Bruyn St to the east of the R43 as a potential desire line in extending historical street pattern to the west of the R43	Positive	The development responds positively to this concept while recognising that this is a notional linkage only.
Ensure visually permeable boundary treatments as well as local indigenous planting types.	Positive	These issues are adequately addressed in the Landscape Development Plan
Recognise that the Milkwood forest as a major site feature which has high botanical and aesthetic value	Positive	The proposed development retains the milkwood forest, a major feature recognising the need for the "tread lightly" approach to development of the Lodge in this area.
Emphasis must be on a tread lightly approach to development within the Milkwood forest avoiding disturbance to the canopy and root zone	Potentially Positive	The design concept for the Lodge is sympathetic in principle to a "tread lightly" approach. Further details are required. Given the Grade IIIA heritage value of the Milkwood Forest, detailed designs of this component for the development need to be submitted to HWC for further comment and endorsement.

According to the DFFE Screening Tool analysis, the development area has very high level of sensitivity for impacts to palaeontological heritage and very high levels of sensitivity for impacts to archaeological and cultural heritage resources. The results of this assessment in terms of site sensitivity are summarised below:

- → The cultural value of the broader area has very high significance in terms of its agricultural and settlement history
- → Archaeological resources were identified within the proposed alignment area, however these resources have limited scientific significance
- → No highly significant palaeontological resources were identified within the development area, and the geology underlying the development area is not sensitive for impacts to significant fossils
- → Based on the information available, the area proposed for development DOES NOT fall within the area identified in the gazette notice (1995) and as such, falls outside of the Heritage Area currently managed in

terms of Section 31 of the NHRA. However, the development area DOES appear to fall within the Stanford Heritage Protection Overlay Zone which is managed through the relevant by-laws of the Overstrand Municipality. The Overstrand Municipality determined the boundaries of the HPOZ based on the information and recommendations included in the Overstrand Heritage Survey.

Civil Aviation Theme

The proposed residential development will have no identified impacts beyond those of the existing residential and industrial area. No further assessment required.

Defence Theme - low

No further assessment required

Plant species theme – Medium

- → Botanical Impact Assessment undertaken by Nick Helme – See Appendix F13.
- → See Landscape Development Plan

Vegetation on the property is divided into four zones:

1. Cultivated buffalo grass sold commercially as roll on lawn on northern portion
2. White Milkwood grove together with wild olive and large exotic species in the centre near the homestead
3. A patch of low indigenous shrubs and small trees typical of moist sandy soils in the southern portions
4. Wooded portion of Blue Gums (*Eucalyptus sps*) between the access road and the stream.

None of the plant species are considered endangered. Some of the exotic species are potentially invasive.

Terrestrial Biodiversity Theme – Very high

- → See Botanical Impact Assessment attached under Appendix F13.
- → At least 65% of the study area has negligible remaining natural vegetation and is of Low botanical sensitivity. The remaining vegetation on the site is a mix of Elim Ferricrete Fynbos (Endangered), Southern Coastal Forest (Least Concern) and Agulhas Limestone Fynbos (Critically Endangered; very little of this).
- → Two plant SoCC (Species of Conservation Concern) were recorded in the small patch of Very High sensitivity vegetation on site, all of which lies well outside the proposed development footprint.
- → The overall botanical impact of the proposed development is likely to be an acceptable Low negative, before and after mitigation.
- → An attempt should be made to secure and improve the conservation management of the adjacent areas of remaining natural vegetation to the east and southeast of the site, notably by reducing the alien invasive vegetation in these areas, which currently constitutes a fire risk as well as being a source of ongoing re-invasion of the project area, and in particular the Very High sensitivity area on the southeastern edge of this property.

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 1**	Describe the portion of the proposed development to which the applicable listed activity relates.
12	The development of – (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100m²; or (ii) infrastructure or structures with a physical footprint of 100m² or more; where such development occurs – (a) within a watercourse; (b) in front of a development setback; or (c) if no developments setback exists, within 32m of a watercourse, measured from the edge of a watercourse -	Some infrastructure may occur within 32m of the watercourse (wetland). The 32m setback has been determined. See attached
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse; but excluding where such infilling, depositing, dredging, excavation, removal or moving (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.	Some works may be undertaken within the watercourse as part of the rehabilitation of the site and installation of infrastructure, including swales or attenuation structures. On going maintenance will be required in accordance with a Maintenance Management Plan.
27	Removal of 1Ha or more, but less than 20Ha of indigenous vegetation, except where such clearance of indigenous vegetation is required for- i) undertaking a linear activity; ii) maintenance purposes undertaken in accordance with a maintenance management plan.	More than 1Ha of indigenous vegetation will be removed See Listing Notice 3 below.
28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	The proposal is for approx. 5Ha which was historically part of the agricultural landscape but is now zoned as residential and falls within the urban edge.

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 3**	Describe the portion of the proposed development to which the applicable listed activity relates.
4	The development of a road wider than 4 metres with a reserve less than 13,5 metres. i. Western Cape i. Areas zoned for use as public open space or equivalent zoning; ii. Areas outside urban areas; (aa) Areas containing indigenous vegetation; (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii. Inside urban areas: (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	Access to the site is existing, internal access roads of no more than 8 m wide will be created.
6	The development of resorts, lodges, hotels, and tourism or hospitality facilities that sleeps 15 people or more. i. Western Cape i. Inside a protected area identified in terms of NEMPAA; ii. Outside urban areas; (aa) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; or (bb) Within 5km from national parks, world heritage sites, areas identified in terms of NEMPAA or from the core area of a biosphere reserve; - excluding the conversion of existing buildings where the development footprint will not be increased.	Although this property falls within the proposed urban edge in the OMSDF it is currently adjacent to, but not within the built-up urban area. It has a Residential zoning. The property is within 5 km from a Private Nature Reserve.
12	The clearance of an area of 300m² or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. i) Within any critically endangered or endangered ecosystem listed in terms of Section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004. ii) Within critical biodiversity area in terms of a bioregional plan. iii) Within the littoral active zone or 100m inland from the highwater mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas. iv) On land, where at the time of coming into effect of this Notice or thereafter such land was zoned Open Space,	An area of more than 300m² will need to be cleared. A number of Protected White Milkwood trees (*Sideroxulon inerme sbsp inerme*) are growing on the property which may be impacted by the proposed development.

	conservation or ha an equivalent zoning; v) On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.	
14	The development of infrastructure and water surface area exceeds 10 square metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse. i. Western Cape i. Outside urban areas: Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent	The proposal incorporates the construction of a boardwalk and a deck and other associated infrastructure within the regulated area.

Note:

- The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted.
- Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority.

List the applicable waste management listed activities in terms of the NEM:WA

Activity No(s):	~~Provide the relevant **Basic Assessment Activity(ies)** as set out in **Category A**~~	~~Describe the portion of the proposed development to which the applicable listed activity relates.~~
Not Applicable		

List the applicable listed activities in terms of the NEM:AQA

Activity No(s):	~~Provide the relevant **Listed Activity(ies)**~~	~~Describe the portion of the proposed development to which the applicable listed activity relates.~~
Not Applicable		

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.

The preferred property is Erf 438 Stanford, which is 52 342m² (5.23) in extent, will be rezoned from the existing Residential Zone 1: Single Residential (SR1) to Subdivisional Area Zone (SA) in terms of the Overstrand Municipality Amendment By-Law on Municipal Land Use Planning, 2020.

It is proposed that this property be subdivided into 28 Residential Zone 1: Single Residential (SR1) erven and 1 Business Zone 3; Local Business property to be used as a lodge.

The proposal includes the construction of Single residential zone (SR1) erven, Business Zone 3; Local Business, roads and parking which requires a total footprint size of 29 455 m^2 (2.95 ha). An area of 22 283 m² (41,24%) will be permanently excluded from all development into two Open Space Zone 2: Private Open Space (OS3) erven. This will include Mill stream and UVB wetland and Undevelopable portion of erven 1 – 8, 10 and 28.

A 32m buffer has been demarcated along the eastern side of this wetland and stream. An undevelopable portion of 10 Single Residential zone erven will extend into the wetland buffer. This area increases the extent of the Private Open Space. The No development area on individual erven is secured through site specific plot and plan" designs designed for each erf on the property. A No Go Development plan is also in place and will be enforced by the Homeowners Associated.

An area of 5727 m² is allocated to road reserve.

The largest Erf, Erf 27, is proposed to be zoned Business Zone 3: Local Business. It is 4902m² in extent. The proposed Lodge on this site allows for buildings designed to minimise impact on the White Milkwoods trees. The Lodge accommodation will be freestanding pods nestled between the Milkwood trunks, roots and canopies. Each tree and canopy has been surveyed and enabled high level design around these.

Lodge Building Sizes

- → Service area (House): 400m^2
  - Front of House (Reception, Lounge, Bar) = 250m².
  - Back of House (Kitchen, Laundry, Storage) = 150m²
- → Total of 16 accommodation pods- Total beds 34 = 650m²
  - 2 x Single Room – 25m² (m x m)
  - 12 x Double Suites – 50m² (5m x 10m)
  - 2 x Family – 60m² (5m x 12m)
- → The total development footprint for the service area (house) and 16 accommodation pods is approximately 1050m^2.

Figure 10: Site Plan. Erf 438 Stanford. Stanford Eco Estate.

2.	Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.

The existing zoning of this property is Residential Zone 1: Single Residential (SR1). There is an existing residence and various outbuildings currently on the property as well as an operational roll-on lawn growing business which covers the majority of the subject property.

Rezoning and subdivision will be required as follows:

- → **Rezoning** of Erf 438 Stanford from Residential Zone 1: Single Residential to Subdivisional Area Zone (SA) in terms of Section 16(2)(a) of the Overstrand Municipality Amendment By-Law on Municipal Land Use Planning, 2020.
- → **Subdivision** of Erf 438 Stanford into multiple Residential Zone 1: Single Residential (SR1) erven, one (1) Business Zone; Local Business (B3) erf, two (2) Open Space Zone 2: Private Open Space (OS3) erven, one (1) Transport Zone 2: Road and Parking (TR2-A) erf in terms of Section 16(2)(d) of the Overstrand Municipality Amendment By-Lawon Municipal Land Use Planning, 2020.

3.	Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.

N/A

4.	Explain how the proposed development will be in line with the following?
4.1	The Provincial Spatial Development Framework.

Western Cape Provincial Spatial Development Framework (2014)

The PSDF is a product of a provincial inter-departmental and inter-governmental collaboration under the guidance of the inter-departmental steering committee in collaboration with the private sector, academia, and non-governmental organisations. This broad participatory process has created a shared spatial vision that is intended to inform spatial development patterns in urban and rural areas in the province.

Throughout the PSDF the importance of developing integrated and sustainable settlements as an objective of the framework in highlighted. The PSDF also provides a settlement agenda which addresses the full spectrum of Western Cape settlements irrespective of their size from metropolitan Cape Town to the smallest hamlets**.**

To ensure the proposed residential development is in line with the PSDF, the Provincial settlement policy objectives, the proposed development was evaluated in terms of the policy objectives.

Provincial settlement policy objective;

- → *Protect and enhance sense of place and settlement patterns.*
- → *Improve accessibility at all scales*
- → *Promote an appropriate land use mix and density in settlements*
- → *Ensure effective and equitable social services and facilities*

Alignment of the proposal with objective 1:

The proposed development is situated on the eastern side of the R43, positioned as the second residential development proposal submitted, south of the R326 and to the east of the R43.

It is crucial to seamlessly integrate the proposed development into the Stanford urban landscape, preserving its heritage and historical significance.

This objective is achieved by conscientiously placing the development within its surroundings and facilitating resident access to the area's amenities. Moreover, the development aims to establish itself as a new focal point, emphasising well-being and creating a space of attraction for the community to visit the rehabilitated Millstream.

Alignment of the proposal with objective 2

The subject property has adequate accessibility to the centre of Stanford and also access to Hermanus via the R43. The proposed development was designed to form part of the extended town, while ensuring access is granted to larger towns and cities such as Hermanus and Cape Town.

Alignment of the proposal with objective 3

The predominant land use is residential, with additional land uses such as the Milkwood tourist accommodation, which will offer several facilities for guests and residents. For residents, these facilities include outdoor gym equipment as well as a day care centre, while ensuring the development has access to nature through specifically placed open spaces.

The density of the proposed development is approximately 5 dwelling units per hectare, as regulated by the OMLUS.

Ensure effective and equitable social services and facilities

With Hermanus being a regional service centre as indicated by the PSDF, the importance is to ensure access to the area is important.

There are adequate road networks between the proposed development and Hermanus which have been upgraded recently to ensure access to these already existing facilities.

4.2	The Integrated Development Plan of the local municipality.

The SDF is a key component of the IDP, therefore this proposed development is consistent with the SDF and it will be in line with the IDP.

4.3.	The Spatial Development Framework of the local municipality.

The proposed plan is in line with the Overstrand Municipal Spatial Development Framework
The property is located within Ward 1, which includes Stanford / Thembihle.

It is recognised that there is a growing population in this ward and provision has been made for, among other projects, upgrading to the sewer system, new schools, recycling refuse, firefighting equipment and firebreaks. The proposed development is adjacent to the existing residential and industrial area and can be relatively easily integrated into existing infrastructure. This has been confirmed by the Overstrand Municipality and the Engineer.

Overstrand Municipality objectives include promoting tourism and social development.

The proposed mixed residential and tourism development aligns with the OMSDF:

- → It is more spatially efficient to provide housing in space with a residential zone within the Urban Edge.
- → Identifies and excludes sensitive areas to maintain biodiversity.
- → Recognises the importance of functioning ecosystem services in the stream and UVB wetland
- → It includes an appropriate tourism business based on the attractiveness of both landscape and heritage local attributes.
- → There is easy connectivity to services with limited upgrades required.
- → Accommodates and addresses future growth in a sustainable and responsible manner.

4.4.	The Environmental Management Framework applicable to the area.

The proposed development is considered to be broadly in line with the Environmental Management Framework (EMF) applicable to the area, specifically the Overstrand Municipality Draft Environmental Management Overlay Zone (EMOZ) Regulations of 2016, which form part of the broader EMF framework guiding land use and environmental management within the municipal area. The EMOZ provides an important planning tool that enables the municipality to give effect to strategic environmental guidelines, specialist development frameworks, and policy objectives aimed at protecting environmental assets while promoting sustainable land use practices.

According to the Overstrand Public Viewer, the subject property is located within the Urban Conservation Area Environmental Management Overlay Zone (EMOZ). This designation signifies that the property lies within an area of heightened environmental sensitivity, where development must be carefully planned to ensure that ecological integrity and conservation priorities are not compromised. Furthermore, the western portion of the property falls within an identified Ecological Corridor, which forms part of the broader ecological network that supports species movement and biodiversity connectivity across the landscape. These designations highlight the need for a precautionary and environmentally responsive development approach.

To ensure compliance with the Overstrand Municipal EMF and EMOZ objectives, specialist studies were undertaken, including terrestrial botanical, faunal, and aquatic biodiversity assessments. These studies were designed to inform the environmental suitability of the site and to guide the development layout in a manner that avoids, mitigates, and manages ecological impacts.

The Terrestrial Biodiversity Assessment confirmed, through both desktop and field verification, that the property's original vegetation would have been transitional in nature, comprising elements of Agulhas Limestone Fynbos, Elim Ferricrete Fynbos, and Southern Coastal Forest. However, due to historic transformation and disturbance, there is now limited ecological integrity remaining. The specialist noted that approximately 65% of the site currently comprises grassland (largely cultivated indigenous buffalo grass and alien kikuyu), with the northern bank of the Mill Stream dominated by dense Eucalyptus trees. Indigenous species are sparse and persist mainly as scattered individuals under these alien stands. Although two plant Species of Conservation Concern (SoCC) were recorded within the high-sensitivity southern area, the specialist concluded that the potential for additional SoCC is limited due to the heavily disturbed nature of the site and the absence of intact habitat typical of the surrounding ecosystem types.

From a faunal perspective, the site supports five main habitat types: wetland, Eucalyptus forest, lawn, milkwood forest, and tributary wetland habitat. The faunal assessment identified a number of species using these habitats, with higher diversity associated with the milkwood forest areas and the tributary wetlands. The assessment noted that the proposed development footprint partially overlaps with areas designated as Ecological Support Areas (ESA1 and ESA2), which play an important role in facilitating species movement—particularly for amphibians such as the Western Leopard Toad. Although this overlap increases ecological risk, the faunal specialist concluded that the overall impact

level is of medium significance, provided that ecological corridors and wetland buffers are maintained and effectively managed.

The Aquatic Biodiversity Impact Assessment further evaluated the condition and sensitivity of three wetland systems associated with the property: the Mill Stream unchanneled valley-bottom (UVB) wetland, the small tributary UVB wetland, and the hillslope seep wetland. The findings indicate that all three wetland systems have experienced varying degrees of anthropogenic modification due to agricultural practices, soil compaction, alien vegetation, and nearby industrial activity.

The Mill Stream UVB wetland was classified as moderately modified (Present Ecological State Category C), with hydrological impacts arising from historical excavation, road infrastructure (R43 bridge), and upstream land uses. Despite these disturbances, the system still provides valuable ecosystem functions, including local flood attenuation, groundwater recharge, and habitat for wetland-dependent species. The wetland's vegetation is dominated by reedbeds (Phragmites australis and Typha capensis) and protected Milkwood trees (*Sideroxylon inerme subsp. inerme*). The tributary wetland was in relatively good condition and recovering following alien clearing activities, while the hillslope seep wetland was found to be severely degraded (Category E), primarily due to intensive soil compaction, cultivation of roll-on grass, and altered hydrology.

From a compliance perspective, the EMOZ framework requires that development proposals within Urban Conservation Zones demonstrate how they maintain ecological connectivity, protect sensitive habitats, and align with the EMF's spatial and environmental objectives. The proposed development responds to these requirements by:

- → Locating the main development footprint outside of the most sensitive wetland and high-biodiversity zones.
- → Maintaining ecological corridors and incorporating a buffer zone along the Mill Stream and tributary wetlands.
- → Implementing alien vegetation management and restoration plans for disturbed areas.
- → Committing to the protection of Milkwood trees and other remaining indigenous vegetation.
- → Undertaking appropriate stormwater management interventions to prevent further hydrological alteration of wetlands.

In conclusion, although the property falls within the Urban Conservation EMOZ and portions of the site intersect with ecologically sensitive features, the proposed development has been planned and assessed in accordance with the EMF principles and the EMOZ regulatory framework. The comprehensive specialist assessments have informed a layout that seeks to balance development needs with environmental sustainability. With the implementation of recommended mitigation measures, rehabilitation actions, and environmental management controls, the development can be regarded as consistent with the intent and objectives of the Environmental Management Framework applicable to the area.

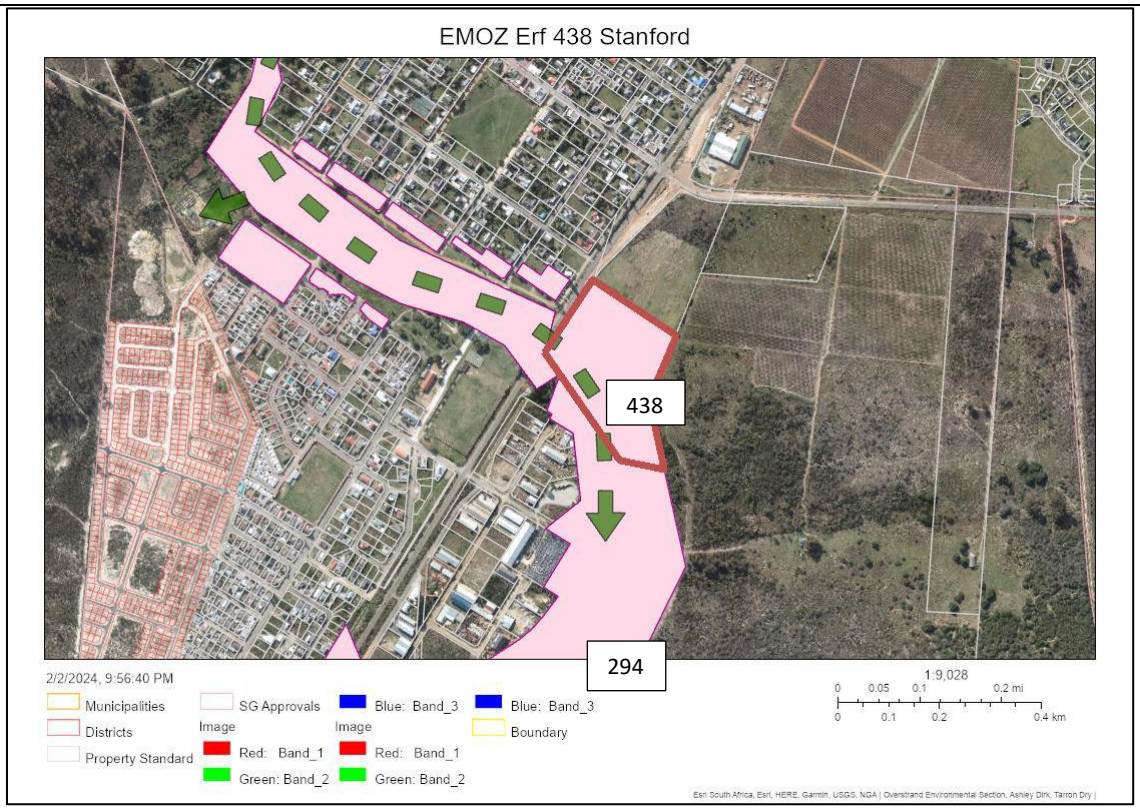


Figure 11. EMOZ with Stanford Erf 438 highlighted

5.	Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.

Cape Nature

CapeNature raised several key biodiversity concerns, noting that portions of Erf 438 fall within Ecological Support Areas 1 and 2 (ESA1 and ESA2) as mapped in the Western Cape Biodiversity Spatial Plan (WCBSP). The site also supports vegetation units classified as Agulhas Limestone Fynbos (Critically Endangered) and Elim Ferricrete Fynbos (Endangered). CapeNature indicated that the initial specialist suite did not adequately address terrestrial biodiversity and plant species themes, as required under the NEMA specialist protocols, and requested that either an updated site sensitivity verification report (SSVR) or a dedicated botanical and faunal assessment be undertaken. Furthermore, CapeNature highlighted that the mitigation hierarchy must be applied to the loss of the highly degraded hillslope seep wetland before a wetland offset could be considered. The authority also recommended that both the freshwater and faunal studies evaluate the potential presence of the Western Leopard Toad and assess the comparative impacts of the alternative layouts before finalisation.

In response, the SSVR was updated, and the specialist team expanded to include botanical, faunal, and aquatic specialists to ensure all biodiversity themes were comprehensively addressed. The Botanical Impact Assessment confirmed that the Agulhas Limestone Fynbos present on the site is largely transformed due to historical cultivation for roll-on lawn, while the remaining vegetation within the Mill Stream corridor retains limited but restorable ecological value. The Faunal Impact Assessment specifically assessed the presence and habitat potential for the Western Leopard Toad (*Sclerophrys pantherinus*) and recommended low-impact design measures such as amphibian-friendly stormwater infrastructure, speed calming within the estate, and maintaining indigenous vegetation along corridors to facilitate species movement. The Aquatic Impact Assessment informed the application of a 32 m no-go buffer around the Mill Stream and tributary wetlands and confirmed that the degraded hillslope seep could not be feasibly avoided without rendering the development unviable. In line with the mitigation hierarchy, the specialist

recommended a Wetland Offset, Rehabilitation, and Management Plan, which has been developed to restore 1.2 ha of on-site wetlands and a further 1.7 ha of off-site Mill Stream habitat. The preferred layout (Alternative 1) was adjusted to fully exclude the high ecological importance areas along the Mill Stream, integrate the buffers into the open space network, and implement a long-term wetland rehabilitation and management programme in consultation with CapeNature and BOCMA.

Breede-Olifants Catchment Management Agency

The Breede-Olifants Catchment Management Agency (BOCMA) confirmed that parts of the property fall within a regulated area of a watercourse in terms of Section 21(c) and (i) of the National Water Act, 1998 (Act 36 of 1998). BOCMA required that a Water Use Licence Application (WULA) be submitted before development can commence and that a risk matrix assessment be provided to determine the level of risk associated with the proposed activities. The Agency further emphasised that stormwater management, sewage disposal, and pollution control must be addressed to prevent degradation of surface and groundwater resources.

In response to these requirements, a pre-application WULA has been lodged via the e-WULAA system, and a joint site meeting was held with the Department of Water and Sanitation (DWS) and BOCMA on 14 May 2024. A risk Matrix was prepared, which confirmed that the proposed development will result to Medium risk. Mitigation measures have been incorporated, including the Wetland Offset Rehabilitation Management Plan and the Maintenance Management Plan in mitigating the loss of the degraded seep wetland onsite. This, however, resulted to an establishment of the 32 m wetland buffer, as delineated by the specialist, that will be strictly maintained as a no-go area during both the construction and operational phases in order as a way to promote long term protection and functional enhancement of the Mill Stream wetland system.

DEA&DP (Directorate: Development Management)

DEA&DP (Directorate: Development Management) acknowledged the inclusion of three delineated wetland systems—two unchannelled valley bottom wetlands associated with the Mill Stream and one hillslope seep wetland—and requested clarity on the implementation of the wetland offset and confirmation from BOCMA and CapeNature that the proposed measures constitute a suitable offset. DEA&DP also required that the updated MMP and EMPr contain method statements that detail how these maintenance and rehabilitation activities will be implemented and monitored.

These requirements have been addressed through the preparation of a Wetland Offset and Rehabilitation Plan, which forms part of the final BAR, and confirmation has been sought from both CapeNature and BOCMA as commenting authorities. The MMP was updated to include step-by-step implementation methods for wetland restoration, alien vegetation clearing, and erosion control within the open space network. The preferred layout ensures that the wetlands and their buffers are formally designated as Private Open Space zonings, with long-term ecological management secured through the estate's Environmental Management Plan and servitude conditions.

The design of each residential dwelling on erven 1-8, 10 and 28 have been planned specifically allocating the building area outside of the wetland buffer and thereby securing the no development zones. The purchaser therefore buys a specific plot and plan, with detailed site and house plan that clearly indicates the extent and characteristics of their property, including any environmental constraints. Particular attention has been given to erven located in proximity to the Mill Stream wetland (Erven 1 to 8, Erf 10, and Erf 28). The detailed survey and layout plan accurately depict erven that fall within or adjacent to this sensitive ecological zone. This approach promotes transparency for future owners, ensures environmental compliance, and supports responsible land use planning consistent with the conservation objectives of the Mill Stream wetland system.

Whale Coast Conservation (WCC)

Whale Coast Conservation (WCC) expressed concern regarding the ecological degradation of the hillslope seep wetland and the potential for development within the Milkwood forest to impact its functioning and associated biodiversity. WCC emphasised the need for full rehabilitation of the Milkwood forest and recommended that eco-tourism accommodation within the forest be reconsidered. They also supported the use of fauna passages along the R43 culverts and requested indigenous vegetation restoration around these crossings to facilitate Western Leopard Toad movement.

In response, the proposed layout retains the Milkwood forest as a protected heritage and ecological feature, incorporated into the eco-tourism component of the development under strict controls. The pods proposed within this area are designed as lightweight, low-impact structures situated outside the primary root zones of the Milkwood trees. The Forest Management Plan, forming part of the EMPr, includes alien clearing, indigenous understorey rehabilitation, and long-term monitoring of forest health. Additionally, to address amphibian connectivity, the area around the R43 culverts will be restored with indigenous wetland vegetation as requested by WCC, and collaboration with Whale Coast Conservation for Western Leopard Toad monitoring during the breeding season has been proposed as part of the biodiversity monitoring programme.

Overberg District Municipality (ODM)

The Overberg District Municipality (ODM) confirmed that the site is located within the Stanford urban edge and supported the preferred layout, which incorporates a wetland buffer and retains the indigenous Milkwood grove. ODM noted that the area is not mapped as a Critical Biodiversity Area in the WCBSP, and therefore, no objection was raised. This confirmation validated that the development aligns with municipal biodiversity planning and land use frameworks.

Together, the input from authorities and specialists has substantially influenced the final development proposal. The preferred layout now ensures that the Mill Stream and tributary wetlands are fully conserved, the hillslope seep is offset and rehabilitated, and the Milkwood forest is integrated as a core ecological and heritage element of the estate. The comprehensive set of mitigation, offset, and management measures collectively ensure that the proposal aligns with the principles of biodiversity conservation and sustainable development in accordance with NEMA, the WCBSP, and municipal EMOZ regulations.

6.	Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.

The Western Cape Biodiversity Spatial Plan Handbook has mapped the region to show priority areas for regional biodiversity, with the intention of informing and guiding development. The intention is to guide development planning by providing up to date data to all stakeholders.

Areas that are considered Critical for Biodiversity (CBA) are divided into two;

- → Natural
- → Degraded

Ecological Support Areas, which are not critical to biodiversity but are important for the functionality of the ecosystem services provided to the (CBA) are further divided into Ecological Support Area 1 & 2.
Wetlands, Rivers and Watercourse Protection is included in in the ESA 1.

Ecological Support Area 2 (ESA2) and Natural and Near Natural require that habitat and species loss is minimised and landscape planning promotes functionality. This requirement has guided and informed the development proposals on the property.

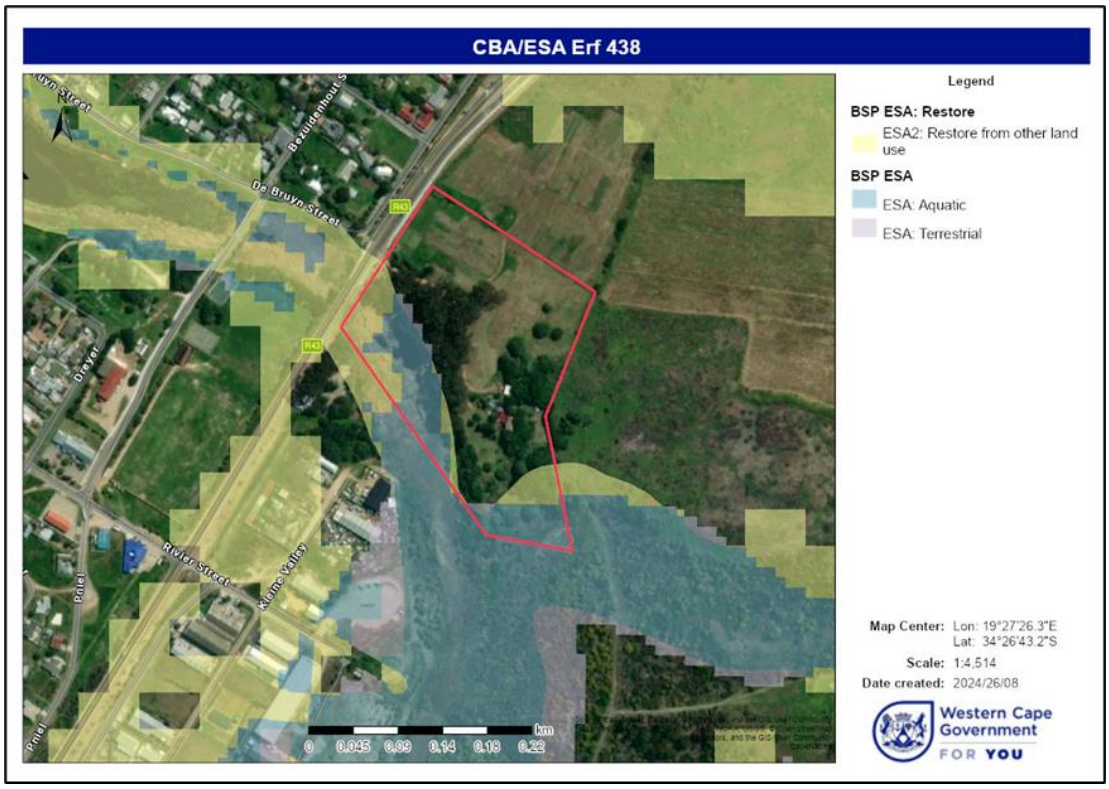


Figure 12: Southern and western portions of the site, have been designated as Ecological Support Areas (ESAs), mainly of the ESA1 (Aquatic) and ESA2 (Degraded) designation (van Zyl& Morton, 2024).

In terms of the Western Cape Biodiversity Spatial Plan (WCBSP 2017), the Mill Stream corridor is designated partly as ESA1 (Aquatic) and partly as ESA2 (Degraded) which could be aquatic or terrestrial. The catchment has not been designated as significant in terms of the National Freshwater Ecosystem Priority Areas (NFEPA 2011) designations.

At present the proposed development area (as a whole) coincides with approximately 0.87 Ha of the seriously degraded hillslope seep wetland (Figure 7-1). The two delineated UVBWs are set aside, along with a 32 m buffer, as private open space. The potential impacts to the seep and UVBWs as a result of the proposed development are listed below:

Construction Phase

1. Areas of the onsite seep (approximately 0.87 Ha) will be lost as a result of the private road construction, and residential housing.
2. Alteration of the flow regime of the UVBWs during construction of the Eco-Lifestyle estate.
3. Water quality impairment due to increased sediment input, potential spillage, or release of potentially contaminated runoff into the UVBWs during construction of the Eco-Lifestyle estate.

Operational Phase

4. Alteration of the flow regime of the UVBWs once the Eco-Lifestyle estate is complete, due to potential flow diversion /increase in storm flows.

5. Water quality impairment due to the release of potentially contaminated stormwater (hydrocarbons) into the UVBWs.

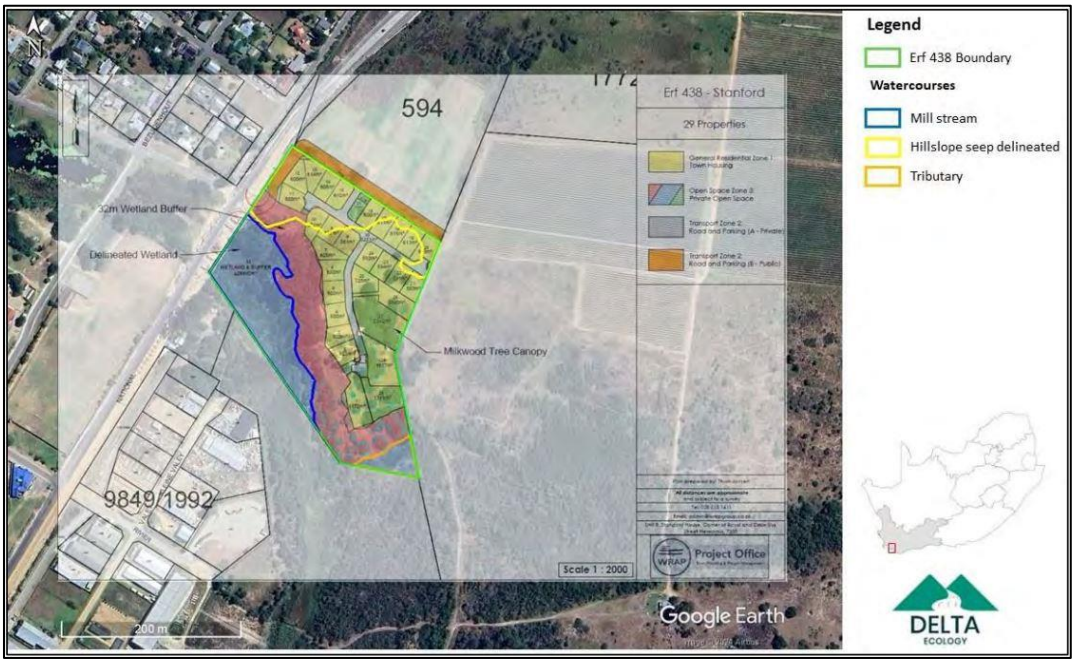


Figure 13: Preferred development plan for the site overlain with the delineated onsite watercourses.

7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.

N/A

8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.

Screening report included in NOI is still applicable

9.	Explain how the proposed development will optimise vacant land available within an urban area.

The layout was designed to ensure that the Millstream is accentuated and incorporated into the development as a functional green open space, and that each property can house a free-standing dwelling unit, with a front and back garden.

The layout has been evaluated by a landscape architect to ensure that the development harmonises with the environmental aspects of the site. This evaluation assisted to incorporate various ecological features into the design, ensuring minimal disruption to the natural landscape. The inclusion of green spaces, water management systems, and conservation areas underscores the development's commitment to environmental preservation and aesthetic enhancement.

Green, well-being focussed development

The proposed residential development embodies the principles of sustainability, environmental stewardship, and community well-being. The project was meticulously designed to enhance the quality of life for its residents while preserving and enhancing the natural environment. The key reasons why this development is a green and well-being-focused initiative are:

Environmental Preservation and Enhancement: The project includes a fully mapped and integrated wetland, preserving this vital ecological feature. The wetland will not only enhance the natural beauty of the area but also support biodiversity by providing a habitat for various species such as the endangered leopard toad.

Furthermore, the development prioritises the preservation of Milkwood trees, a protected species with significant ecological and heritage value. By incorporating these trees into the design, the project ensures their protection and celebrates their natural beauty. Sustainable landscaping using only indigenous vegetation helps preserve the local flora and reduces water consumption. The development will incorporate existing indigenous plants on-site, minimizing environmental disruption.

Sustainable Energy and Resource Use: The development aims to minimise dependence on Eskom for power provision by introducing solar power and supplementing it with gas, reducing carbon emissions and promoting the use of renewable energy sources. Water conservation measures such as rainwater harvesting, greywater reuse, and water-efficient fixtures ensure sustainable water use, which is particularly important in a region where water is a precious resource. Additionally, the use of locally sourced, sustainable, and recycled materials in construction reduces the environmental footprint and supports the local economy.

Community and Well-Being Focus: Functional open spaces and recreational areas will be incorporated into the Millstream area, providing residents with access to nature and promoting outdoor activities. These spaces will serve dual purposes, enhancing both ecological function and community well-being. The development will feature high-quality security, access control, and modern amenities, ensuring a safe and comfortable living environment. The design encourages indoor-outdoor living, fostering a connection with nature and promoting a healthy lifestyle.

10.	Explain how the proposed development will optimise the use of existing resources and infrastructure.

The proposed development on Erf 438, Stanford, will optimise the use of existing resources and infrastructure through strategic integration with the established municipal and regional service networks, as well as by complementing the socio-economic infrastructure already in place within the area.

Firstly, transport infrastructure in the vicinity of the site is well developed. The property is located directly along the R43 provincial road, a Class 2 regional route connecting Hermanus, Stanford, and Gansbaai. This road is designed to accommodate high traffic volumes and heavy vehicles, and is currently undergoing upgrades to improve capacity, safety, and traffic flow. The site's direct access to this road network eliminates the need for major new road construction, thereby reducing the environmental footprint and capital costs typically associated with new transport infrastructure. Additionally, the development's location along this established corridor ensures efficient connectivity to nearby towns, services, and tourism attractions.

Secondly, the development will make use of existing bulk municipal services for both water supply and wastewater management. The Overstrand Municipality has confirmed that the erf can be adequately serviced from current municipal sources, with sufficient capacity available at the Stanford Wastewater Treatment Works (WWTW) to accommodate the proposed development's additional load. This demonstrates a clear alignment with sustainable resource use principles, as it avoids the need for constructing new bulk infrastructure and instead capitalises on existing capacity within the system.

In terms of solid waste management, the property will be serviced through the municipal waste collection system, with waste being disposed of at the Gansbaai waste disposal site, which has adequate capacity to receive additional waste volumes from the development. This integration with the municipal waste system supports efficient service delivery, reduces duplication of infrastructure, and ensures compliance with municipal waste management planning.

Stormwater management will also be designed to make optimal use of existing infrastructure and regulatory frameworks. All stormwater runoff will be managed in accordance with the National Building Regulations, the Overstrand Municipal Stormwater Bylaw, and common law principles, ensuring that runoff is controlled, infiltration is promoted, and downstream impacts are mitigated. This approach aligns with the municipality's sustainable urban drainage principles, thereby reducing erosion, flooding, and water quality impacts.

The Overstrand Municipality confirmed that there is capacity for the supply of electricity to the project.

From an economic and tourism perspective, the development will enhance the use of existing social and economic infrastructure within Stanford. The project will provide tourism accommodation, which directly supports and strengthens the town's tourism sector, which is a key component of the local economy. Increased visitor numbers will benefit nearby restaurants, retail establishments, and recreational activity providers (such as whale watching, hiking, and cycling operators), contributing to their long-term economic sustainability and reinforcing Stanford's role as a regional tourism hub.

The site itself presents opportunity to use an area which has been heavily impacted by the existing roll on lawn business operating on the property. Through the input of the specialist team, there is a very good understanding of the ecological status of the site and the development has been planned around these to make them a focus of the development rather than a nuisance. The development of the site will ensure long term protection of the Milkwood forest as well as the rehabilitation of the Millstream banks both on and off the property, which will ensure long terms protection of these features in perpetuity. Features which may be lost if continued unauthorised urban sprawl takes place.

11.	Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16).

The Overstrand Directorate of Infrastructure and Planning; Mr Ricardo Andrew, confirmed the following in correspondence dated 16/5/2024 and in Service confirmation letter dated 30/04/2024 (ref 16/1/R) (Appendix F6):

Water

Water for the erf will be supplied from the existing municipal sources. Municipal infrastructure is available in the vicinity of the erf. Note that water will not be abstracted privately from the Mill Stream or "Die Oog" to be used on the property.

Sanitation

Enough capacity is available at the existing Stanford Wastewater Treatment Works (WWTW) to serve the erf. Municipal infrastructure is available in the vicinity of the erf. AS van der Merwe of AVDM Engineers recommends, in the attached Engineering Services Report, that the existing Stanford sewage pumping station has insufficient capacity to accommodate the proposed development. Network upgrading of 260 m of an existing 250 mm diameter to be replaced with a 400 mm diameter pipe, will be required. In addition, the internal sewer pipelines need to be located below the buildings. They will therefore be installed within the buffer. Similarly, the sewage pumpstation needs to be located on the stream side of the entrance gate, to achieve the required fall and to connect to existing infrastructure.

Solid waste removal

The municipal solid waste disposal site at Gansbaai has enough capacity to receive the waste from the erf. A Municipal waste removal / collection service is available. Refuse will be collected, by the Municipality, from a suitable building located near the entrance gate.

Stormwater

Stormwater run-off for the development must be accommodated in line with the National Building Regulations, the Overstrand Municipal Stormwater Bylaw and common law principles. Acceptable recommendations regarding stormwater management have been included in the Aquatic Impact Assessment.

Roads

Provincial and municipal road infrastructure is available in the vicinity of Erf 438 Stanford. The TIS confirmed that no further assessment of the current access is required.

Electricity

The Overstrand Directorate of Infrastructure and Planning; Mr S U Muller: confirmed that there is capacity for the supply of electricity to the project. A mini substation is required and is proposed to be located near the entrance gate.

(See attached App F6 Services Report for proposed service infrastructure and layout).

12.	In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.

NEED AND DESIRABILITY

NEED

The need for the residential development arose from the developer's vision to address the future housing demands outlined in the Overstrand Municipality Spatial Development Framework (OMSDF). Although housing demand is not currently perceived as an issue, the OMSDF projects a different reality for the future.

Addressing housing demand only once it becomes a critical problem is not feasible and requires a proactive approach. The municipality took the first step by including additional land within the Urban Edge. The development of the subject property serves as the second step, ensuring the land acquires the appropriate land use rights to be developed into a residential area.

DESIRABILITY

The need for the land use application arose from the necessity to address all land use requirements and to ensure that the property can meet the development objectives proposed by the developer. To achieve this, the developers need to obtain approval apply for the rezoning, subdivision, and other related applications on the property.

Socio-economic impact

The proposed development offers several positive socio-economic impacts for the Stanford area and the broader Overstrand region:

Construction phase

The development will create numerous job opportunities during the construction phase. This includes employment for architects, engineers, construction workers, landscapers, and various subcontractors. These jobs will provide a significant boost to the local economy through the wages earned and spent within the community

Post-construction Phase

Once completed, the residential properties and the Milkwood tourist accommodation will generate permanent jobs. These will range from property management and maintenance staff to hospitality roles within the tourist accommodation, such as receptionists, housekeepers, chefs, and tour guides.

Improved Living Standards

By creating a well-planned, eco-friendly residential area, the development aims to enhance the quality of life for its residents. The incorporation of green spaces, recreational areas, and sustainable energy solutions will contribute to a healthier and more enjoyable living environment.

Ecotourism Promotion

The Milkwood tourist accommodation will attract eco-tourists, fostering sustainable tourism that appreciates and conserves natural resources. This will not only create additional revenue streams for the local economy but also raise awareness about the importance of environmental conservation.

Conservation Efforts

The development includes measures to protect and integrate the existing milkwood trees and wetland areas. This focus on conservation will help preserve local biodiversity and ensure that natural habitats are maintained.

Supporting Local Businesses

The sourcing of materials and services from local businesses for both the construction and operational phases will stimulate local commerce. This support can lead to business growth, new ventures, and a more robust local economy.

Boosting the Hospitality Sector

The new tourist accommodation will likely increase the number of visitors to the area, benefiting local restaurants, shops, and other hospitality-related businesses. This can lead to expanded services and facilities to cater to the growing tourist population.

Education and Awareness

Through features like the flora and fauna information library and guided tours, the development will provide educational opportunities about local ecology and conservation efforts. This can enhance community knowledge and encourage environmental stewardship.

The proposed development promises to deliver significant socio-economic benefits, including job creation, economic stimulation, housing provision, environmental conservation, and community development. These positive impacts will contribute to the overall growth and sustainability of the Stanford area and the Overstrand region.

Compatibility with surrounding uses

The proposed development is well aligned with the surrounding area. This alignment is facilitated by the recent extension of the urban edge, ensuring that the development integrates seamlessly with the existing urban fabric.

The careful planning and design of the development take into account the existing land uses and environmental considerations, promoting harmony and sustainability. By incorporating features such as preserved Milkwood trees, wetland conservation, and eco-friendly infrastructure, the development not only respects, but enhances the ecological and cultural heritage of the area. This thoughtful approach ensures that the new development will be a positive addition to the community, fostering a sense of continuity and coherence within the evolving landscape of Stanford.

Impact on safety, health and wellbeing of the surrounding community

It is not predicted that the proposal will have an impact on safety, health and wellbeing of the surrounding community. In fact, the proposed project has the potential to provide several benefits to the community, such as increasing the number of residents that may in the future draw in new development potential as an increase in the population may create new opportunities.

Impact on heritage

The Heritage Impact Assessment, including Archaeological, Palaeontological and Cultural Landscape Impact Assessments were conducted.

Cultural Landscape

Cultural landscape resources have been assessed at the broader landscape, townscapes and site scales recognising the location of Stanford within Klein Rivier Valley as a distinctive cultural landscape and the location of Erf 438 within the Stanford HPOZ which is of Grade IIIA heritage value.

The R43 and the R326 have been designated as HPOZ: Scenic Drives being routes of regional scenic significance. While the site is located adjacent to the R43, the site is located some distance from the R326 and will be obscured from view by future development to the north and northeast of the site.

The development of Erf 483 has the potential to consolidate an existing pattern of urban development. This contrasts with the recent pattern of suburban sprawl to the north-east of Stanford which contributes to the erosion of the agricultural setting of the town and productive rural landscape qualities of the Klein Rivier Valley.

Archaeological Impact Assessment

The field assessment identified artefacts located within the area proposed for development. The artefacts identified are all located on the ground surface and without associated archaeological contexts. None of the observations made have sufficient scientific cultural value to warrant conservation and as such, no impact to significant archaeological heritage is anticipated from the proposed development.

Palaeontological Impact Assessment

The assessment shows that the impact on palaeontological resources is low, as the development will only require minor excavation, reducing the risk of disturbing significant palaeontological heritage. Despite this low risk, the report recommends implementing mitigation measures, such as a Chance Fossil Find Protocol, to address any unexpected palaeontological discoveries during construction.

Impact on the biophysical environment

Terrestrial Biodiversity Impact Assessment

The Terrestrial Biodiversity Assessment confirmed that the site's original vegetation was transitional between Agulhas Limestone Fynbos, Elim Ferricrete Fynbos, and Southern Coastal Forest. Due to extensive historical disturbance and transformation, the majority of the site is now dominated by lawn grass (buffalo and kikuyu) and alien vegetation, especially Eucalyptus along the Mill Stream. Only limited areas, particularly in the southern section, still contain remnants of indigenous vegetation, including protected Milkwood trees (*Sideroxylon inerme*) and two Species of Conservation Concern (SoCC).

The clearing of vegetation for construction will therefore result in some localised loss of remaining indigenous flora, particularly within areas of high sensitivity.

Animal Species Assessment

The faunal assessment identified five primary habitat types on the site: wetland, Eucalyptus forest, lawn, milkwood forest, and tributary wetland. The diversity of faunal species is moderate, with higher richness in the milkwood and wetland areas. The site provides some ecological support function for amphibians, especially the Western Leopard Toad, which may use the tributary wetlands and surrounding grassed areas for foraging and dispersal.

Potential impacts include habitat loss, displacement, and disruption of faunal movement during construction. The most significant concern relates to ecological connectivity, as portions of the site overlap with Ecological Support Areas (ESA1 and ESA2).

Aquatic Biodiversity Impact Assessment

The Aquatic Biodiversity Assessment identified three distinct wetland systems associated with the site:

- The Mill Stream unchanneled valley-bottom (UVB) wetland (moderately modified, PES Category C).
- The tributary UVB wetland (good condition, moderately sensitive).
- The hillslope seep wetland (seriously modified, PES Category E).

These wetlands perform important ecosystem functions such as flood attenuation, groundwater recharge, and habitat provision. Potential impacts include:

- Alteration of hydrology due to soil compaction, hard surfaces, and stormwater discharge.
- Disturbance of riparian vegetation and sediment transport processes.
- Degradation of water quality through potential runoff contamination during construction.

Overall, the mitigation measures from the above specialists' assessments have been incorporated to mitigate the impact of development on the onsite.

Traffic impacts, parking, access and other transport related considerations

It can thus be concluded that no external road upgrades are considered necessary as result of the proposed development.

Based on the proposed development layout, it is expected that access control will be provided at the access to the proposed development. At least 30 metres are available from the external road reserve boundary to accommodate stacking. It is thus not expected that stacking at the access will be an issue for the proposed residential erven.

Impact on views, sunlight and character of the area

Most of the surrounding properties are not yet fully developed and there will be little to no impact on the surrounding properties. To ensure the proposed development does not impede on the above mentioned these will be addressed individually:

Views

The proposed residential development on Erf 438, Stanford, has been meticulously planned to minimise its visual impact while enhancing the aesthetic appeal of the area. Several key considerations and strategies have been employed to ensure that the development integrates harmoniously with the surrounding landscape and urban environment.

Integration with the Existing Landscape

The design of the development prioritises the preservation of natural features, particularly the ancient Milkwood forest and the wetland area. By incorporating these elements into the layout, the development maintains a strong connection to the natural environment. The retention and protection of these ecological assets not only preserve the visual character of the site but also enhance its appeal, creating a unique and attractive living environment**.**

Architectural Design and Materials

The architectural design of the residential units and other structures within the development will feature materials and styles that complement the existing landscape and built environment of Stanford. The use of locally sourced, sustainable materials will ensure that the buildings blend in seamlessly with their surroundings. The aesthetic choices in building design, including colour palettes and textures, will be carefully selected to reflect the natural beauty of the area, reducing visual intrusion and promoting a cohesive look.

Visual Screening and Buffers

Strategic planting of indigenous trees and shrubs will be implemented to create visual buffers around the development. These green buffers will soften the edges of the built environment, providing a natural screen that mitigates the visual impact from surrounding areas. The 25m setback from the R43, supported by a planted berm, will further reduce the visual and noise impact from the main road, enhancing the privacy and tranquillity of the residential areas.

Building Heights and Density

The development plan incorporates a balanced approach to building heights and density, ensuring that structures do not dominate the skyline or overshadow the natural features. By maintaining a low to medium building profile, the development respects the scale of the surrounding landscape and existing urban fabric. This thoughtful approach to height and density helps to preserve the visual integrity of the area.

View Corridors and Open Spaces

The layout includes designated open spaces and view corridors that provide residents and visitors with unobstructed views of the natural landscape, including the Milkwood forest and wetland. These open spaces are designed not only for aesthetic value but also for recreational use, promoting a connection to nature and enhancing the overall visual experience of the development.

Nighttime Lighting

Careful consideration will be given to nighttime lighting to minimise light pollution and its visual impact on the surrounding area. The use of downward-facing, shielded lighting fixtures will ensure that light is contained within the development, preserving the natural darkness of the night sky. This approach not only benefits the visual environment but also supports local wildlife and contributes to a more sustainable living space.

Overall, the visual impact of the proposed development on Erf 438, Stanford, has been carefully evaluated and addressed through a combination of thoughtful design, strategic planning, and environmental sensitivity. By integrating natural features, utilising complementary architectural styles and materials, and implementing effective visual buffers, the development aims to enhance the aesthetic appeal of the area while preserving its unique character and beauty. This approach ensures that the development will be a visually harmonious addition to the Stanford community.

Sunlight

With the proposed development being aligned with the development parameters of the Overstrand Municipality, it is not predicted to negatively affect any other property owner's sunlight. The maximum height of the structures will be below the maximum height of 8m allowed, with a maximum of 2 storeys.

The development plan incorporates a balanced approach to building heights aligned with the OMLUS, ensuring that structures do not dominate the skyline or cast extensive shadows over adjacent properties (note: no other developed residential properties are located close by). By designing buildings with varying heights that are sympathetic to the surrounding environment, the development prevents the creation of large, shadowed areas and ensures that sunlight can reach all parts of the development and its surroundings.

The layout of the development carefully considers the orientation of buildings and their placement relative to each other and to existing structures outside the development. This strategic orientation maximises natural light penetration throughout the development. Additionally, adequate spacing between buildings is maintained to allow for ample sunlight to filter through, enhancing the living conditions within the development.

Furthermore, the landscape design incorporates open spaces and green areas that are free from tall structures, ensuring these areas receive plenty of sunlight throughout the day. These spaces not only provide recreational areas for residents but also contribute to the overall aesthetic appeal of the development, creating a harmonious blend of built and natural environments.

Character

The proposed development is meticulously aligned with the character of the surrounding area, a point that has been consistently emphasised throughout the application. This alignment is achieved through several carefully considered factors, ensuring that the new development complements and enhances the existing community rather than disrupting it.

The development respects the established architectural styles and building scales prevalent in Stanford. The design incorporates traditional elements that are characteristic of the area, blending seamlessly with the historical and aesthetic context of the town. By maintaining this architectural continuity, the development not only respects the visual heritage of Stanford but also reinforces its unique identity.

The development plan prioritises environmental harmony, which is a defining aspect of Stanford's character. The layout has been evaluated by a landscape architect to ensure it integrates seamlessly with the natural surroundings. Key environmental features, such as the Milkwood grove and the wetland, are preserved and incorporated into the design. This commitment to environmental stewardship mirrors the community's values and enhances the area's natural beauty.

Additionally, the development promotes a sense of community through its design of open spaces and pedestrian-friendly pathways. These elements encourage social interaction and active lifestyles, reflecting the communal ethos of Stanford. The inclusion of pedestrian and cycling routes, safe crossings, and shared spaces within the development mirrors the village's commitment to creating a connected, inclusive community.

Lastly, the development adheres to sustainable practices in both construction and operation. This focus on sustainability is in line with Stanford's reputation as a forward-thinking community that values environmental responsibility and quality of life. By incorporating sustainable building materials, energy-efficient designs, and environmentally friendly infrastructure, the development sets a benchmark for future projects in the area.

Economic impact

The proposed development will have both a short- and long-term economic impact on the surrounding area and the Overstrand Municipality.

Economic Growth

Job Creation: The development of Stanford Eco-Estate will generate numerous employment opportunities during both the construction and operational phases. This includes jobs for construction workers, project managers, architects, engineers, and various tradespeople during the construction phase. Once operational, the estate will create jobs in property management, maintenance, security, landscaping, hospitality, and tourism.

Impact during construction

The construction of the Stanford Eco-Estate development will create numerous job opportunities across various sectors, providing a significant boost to the local economy. These jobs can be categorised into several main groups:

Skilled Trades and Labor

- ***Construction Workers:***
    - General Laborers: Executing various construction tasks.

- Carpenters: Building construction frameworks, structures, and installing carpentry work.
- Masons: Brick-, stones- and concrete work.
- Electricians: Installing electrical systems and ensuring compliance with safety standards.
- Plumbers: Plumbing systems and fixtures.
- Roofers: Installation of roofs.
- Painters: Final finish to buildings

- ***Heavy Equipment Operators during civil- and electrical infrastructure installation and construction of top structures.***

Engineering and Technical Roles

- Civil- and electrical engineers: Overseeing the design and construction of internal services.
- Architects: Preparation of detailed building and construction plans and overseeing building work.
- Land Surveyors: Preparing all cadastral work for the development.

Project Management and Administrative Roles

- Project Managers: Coordinating the overall construction process, managing budgets, and timelines.
- Health and Safety Officers: Ensuring all safety regulations and protocols are followed.

Specialty Contractors

- Landscapers and Horticulturists: Preparing the land and planting vegetation according to the development plan.
- Solar System Installers: Implementing renewable energy systems to minimise dependence on Eskom.
- Security Personnel: Protecting the construction site from theft and vandalism.

Environmental and Ecological Roles

- Environmental Consultants: Ensuring the construction process adheres to environmental regulations and standards.

Local Business Opportunities

- Local Suppliers: Providing materials such as concrete, timber, and other building supplies.
- Transport Services: Offering logistics support for the transportation of materials and equipment.

Impact during operation

The Stanford Eco-Estate development is expected to create a variety of jobs across multiple sectors once it is completed and operational. These jobs will contribute significantly to the local economy and provide diverse employment opportunities for residents.

Hospitality and Tourism

Hotel Staff

- Managers: Overseeing operations of the Hotel.
- Receptionists: Handling guest check-ins, check-outs, and customer service.
- Housekeeping Staff: Maintaining cleanliness and order in guest accommodations.
- Kitchen Staff: Including chefs, cooks, and kitchen assistants to manage the hotel's dining services.
- Waitstaff and Bartenders: Serving guests in the restaurant and bar areas.

Property and Estate Management

Estate Management Team

- Estate Managers: Overseeing the maintenance and operations of the estate.
- Security Personnel: Ensuring the safety and security of the residents and the property.
- Maintenance Staff: Performing repairs and upkeep of buildings and infrastructure.

Environmental and Sustainability Roles

Environmental Management

- Conservation Specialists: Managing the ecological aspects of the development.

Administrative and Support Roles

Marketing Staff

- Marketing and Sales Staff: Promoting the development and managing sales of properties and hotel bookings.

Boost to Local Economy

Increased employment and business activities related to the development will result in higher local spending, boosting the Stanford and Overstrand regional economy. Local businesses, such as suppliers of building materials, landscaping companies, and service providers, will benefit from the increased demand for their products and services.

Tourism Enhancement

The establishment of the hotel will attract eco-tourists, honeymooners, and nature seekers, bringing additional revenue to the local tourism sector. This will have a multiplier effect, benefiting nearby restaurants, shops, and tour operator

Increased Property Values

The introduction of a high-quality, eco-friendly residential estate is likely to increase the value of surrounding properties. This uplift in property values can result in higher tax revenues for the local municipality, which can be reinvested into community infrastructure and services.

Long-term economic impact

Long term economic impact will be in terms of the additional rates and taxes that will be payable to the Overstrand Municipality.

Calculated at a ratio of only 3 people per dwelling unit the residential additionality was calculated at 78 which means that the development will bring at least 78 new permanent people to Stanford. These people will spend money in Stanford on various items such as food, petrol, restaurant, repairs etc, contributing to the local economy, excluding transient guest who will be visiting the hotel. With an occupancy rate of only 50% for the 15 rooms of the proposed tourist accommodation and 4 lettable rooms of the proposed guest house, an additional 6935 people will visit Stanford annually.

The initial direct investment into the development was calculated to be approximately ±R 250 000 000. Based on this investment the additional basic charges payable to the Municipality will be approximately ±R 388 400 per annum.

The annual rates payable to the Overstrand from the development, calculated at the average value of dwellings in the development, will be approximately ±R 850 000 per annum.

The bulk services levy that the development will need to pay to the Overstrand Municipality is approximately R 3 000 000.

In terms of the GLS report approximately R 2 740 000 will be required to upgrade bulk water and sewer networks to accommodate the proposed and other developments which will also improve the networks for existing residents in Stanford.

SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that If the NEM: WA and/or the NEM: AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

1. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

N/A

2. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix E.

Public participation has been conducted in line with the NEMA requirements.

3. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

DEA&DP – Landuse

Overstrand Municipality

Overberg District Municipality

Western Cape Government Department of Roads & Planning

Cape Nature

Department of Agriculture

Heritage Western Cape

BOCMA

4. If any of the State Departments and Organs of State were not consulted, indicate which and why.

N/A

5. if any of the State Departments and Organs of State did not respond, indicate which.

N/A

6. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated into the development proposal.

PUBLIC PARTICIPATION PROCESS 1 (04 September 2024 - 07 OCTOBER 2024)		
NAME/ DEPARTMENT	**COMMENTS**	**RESPONSE**
Stanford Heritage Committee	Requested to be registered as I&AP	Registered as I&AP No further action required
Overberg District Municipality	Request to be registered as I&AP	Registered as I&AP No further action required

BOCMA	The proposed development will trigger section 21 (c) & (I) water uses in terms of the National water act and thus a water use authorisation application must be lodged with the Department of Water and Sanitation (www.dws.gov.za/ewulaasprod) before the development commences	The pre-application WULA has been submitted on the EWULAA system. A pre-application site meeting was held on 14 May.
	The "Aquatic Biodiversity Screening, ERF 438 Stanford, Western Cape" report, a risk assessment matrix must be provided in terms of how high, medium or low the risk outcome is, to apply for the applicable authorization for the property.	Included in the Freshwater Impact Assessment – a WULA is applicable as above.
	Proof from the municipality confirming the capacity to provide water and manage wastewater from the development must be forwarded to BOCMA.	Service confirmations are attached under **Appendix F6d** and **Appendix F6e** of the BAR. All services are confirmed and available.
Cape Nature	The screening tool results indicate a very high sensitivity for terrestrial biodiversity and aquatic biodiversity, high sensitivity for animal species and medium sensitivity for plant species. A site sensitivity verification report has been compiled which indicates that an aquatic/freshwater impact assessment will address the aquatic biodiversity theme and a botanical/ecological specialist will be appointed to address the terrestrial biodiversity and plant species themes. For the animal species theme, it indicates that a stand-alone animal species assessment will not be undertaken, however the theme will be attended to by the ecological/botanical specialist and the freshwater specialist. The conclusion states that a botanical/ecological/plant species/terrestrial/animal specialist and a freshwater impact assessment will be appointed.	SSVR updated and the following specialists were and / or have been appointed on the project: - Agricultural Compliance Statement - Faunal Impact Assessment - Botanical Impact Assessment - Aquatic Impact Assessment - Heritage Impact Assessment - Paleontological Impact Assessment - Archaeological Impact Assessment Visual Impact Assessment
	The specialist studies which have been undertaken however do not match with the recommendations of the site sensitivity verification report. The specialist studies undertaken are an aquatic biodiversity assessment and an amphibian report. The terrestrial biodiversity and plant species themes have not been addressed. Therefore, either the site sensitivity verification report should be	As above and updated accordingly

	amended to indicate why specialist studies have not been undertaken or specialist studies must be undertaken to address these themes (or can be combined)	
	The residual impact (after mitigation) for the loss of wetlands of medium significance is within the threshold requiring an offset. A wetland offset is therefore recommended to remedy the loss of the wetland. However, the mitigation hierarchy must be applied before an offset can be considered. Avoidance should be the first option and therefore development layouts which avoid the hillslope wetland must be investigated before this option can be considered further. Should this not be feasible it will need to be well motivated. Cape Nature further notes that two alternative development layouts have been presented however a comparison of the impacts has not been undertaken.	Avoidance of the highly degraded hill slope seep is not possible since it occupies a large portion of the property and with the avoidance of the other 2 systems, would result in the proposal becoming unfeasible. In addition, the specialist has found that this hillslope seep is highly degraded, and completely transformed with roll on lawn, with no natural habitat remaining. At present the proposed development area (as a whole) coincides with approximately 0.87 Ha of the seep. The seep has a PES score in the E category (Seriously Modified) and exhibits Moderate EIS. The wetland vegetation type is CR, although the fynbos onsite is considered highly degraded. There is also limited hydrological connection to the downstream Mill stream UVBW due to the seriously impacted hydrological, and geomorphology.
	Cape Nature notes that the Stanford Eye is the source of the Mill Stream a short distance upstream of the site. The Stanford Eye along with two boreholes supply water to the town of Stanford and therefore is an important water source apart from the ecological importance. As the eye is upstream of the site it will not be directly affected by the proposed development. However, the water abstraction from the eye reduces the volume of water within the Mill Stream and therefore it must be ensured that measures are in place to prevent further reduction of flow in the system. It is therefore recommended that the studies related to the water use of the Stanford Eye is taken into consideration in the assessment and the proposed offset, such as the hydrological assessment for the Mill Stream (Umvoto Africa 2016).	An onsite offset is recommended by the Freshwater Specialist and will be completed as part of the WULA process. The remaining to wetlands and a 32 m buffer has been applied along with their proposed rehabilitation. The rehabilitation of these areas' forms part of the greater Mill Stream rehabilitation from the Eye to Stanford.
	An amphibian report was compiled to identify the amphibian species present on site. Amphibian species which could potentially occur on site are listed based on existing records within the quarter degree square. Three amphibian species were confirmed present based on calls recorded over two evenings, all	The Faunal Impact Assessment was undertaken and made comment to this. See Appendix F8b.

	of which are listed as least concern. We wish to query if the record of the Common Caco (*Cacosternum boettgeri*) is in fact the *Cacosternum australis*. The only Species of Conservation Concern (SCC) in the list of species which could potentially occur is Western Leopard Toad, listed as endangered. The location of where the three species were recorded is included in Figure 3 and includes the erf to the north (Erf 594). Records of bird species are also included. A number of mitigation measures are recommended to both encourage amphibians to occupy the site and proposed development and to minimize the potential impact.	
	It is noted that the report does not indicate whether it aims to address the animal species theme in accordance with the protocols. In this regard, Cape Nature further notes that the focus should be on SCCs for the animal species theme and should include an evaluation of the species identified in the screening tool, while also providing information on the other species present which has been undertaken. Further confirmation should be provided regarding the potential presence of the Western Leopard Toad on site and the records from the surrounding area.	See Appendix F8b for the full Faunal Impact Assessment report.
	Cape Nature notes that the amphibian report can be considered equivalent to the aquatic biodiversity screening report by providing baseline information, however an impact assessment should be undertaken assessing and rating the impact of the two proposed development layouts. The impact assessment should address the other requirements of the protocols.	See Appendix F for the full Faunal / Animal Species Impact Assessment.
	Cape Nature recommends that the site sensitivity verification report must be amended to accurately reflect the outcomes of the site sensitivity verification in relation to the specialist assessments undertaken. The terrestrial biodiversity and plant species themes must be addressed in accordance with the protocols.	The SSVR has been updated.

	It is highlighted that the mitigation hierarchy must be followed whereby avoidance of the loss of wetland must first be investigated in the proposed layout before a wetland offset can be considered. Should avoidance and the other steps of the mitigation hierarchy be adequately motivated to not be feasible, then a wetland offset must be investigated in terms of the relevant guidelines. It is also recommended that both the Overstrand Municipality and CapeNature are consulted prior to finalization of the wetland offset.	Wetland offset will be pursued onsite as recommended by the Freshwater specialist since no practical or feasible options to avoid the degraded hill seep are possible.
	The amphibian report must be updated to an animal species impact assessment in accordance with the protocols. The potential presence of the SCCs in the screening tool must be assessed, with a particular focus on the Western Leopard Toad.	Animal Species / Faunal Impact Assessment has been completed and attached under Appendix F.
	The two proposed development layouts (as well as layouts which avoid the wetlands) must be assessed and compared in the specialist assessments	As per specialist reports.
WCG TRANSPORT INFRASTRUCTURE BRANCH	There is no objection to the issuing of Environmental Authorisation in terms of the National Environmental Management Act 107 of 1998	No further action required.
DEADP LAND USE	The recommended freshwater specialist mitigation includes "the implementation of a suitable a Wetland Offset, Rehabilitation and Management Plan". Clarity is required with respect to what the wetland offset aspect entails. The Breede Olifants Catchment Management Agency ("BOCMA") and CapeNature must confirm that the proposed maintenance and management of the onsite wetlands and buffer in perpetuity qualifies as a suitable offset for the loss of the hillslope seep wetland. This must be addressed and finalised as part of the basic assessment process and before submission of the final report for decision-making	The wetland offset specialist has calculated that a onsite offset is appropriate, and the Wetland Offset Report is underway.

	Given the location of the development, its designation as an Urban Conservation area in the Overstrand Municipality, Environmental Management Overlay Zone ("EMOZ") Regulations 2020, and considering that a portion of the site currently being used for agriculture, comments on the suitability of the proposed development must be obtained from the Overstrand Municipality, this Department's Directorate: Development Management (Region 2), and the Department of Agriculture.	Comment has been Received from DOA and Overstrand Municipality with no objection to the proposal.
	A final comment must be obtained from Heritage Western Cape to confirm that the identified heritage impacts have been adequately addressed.	The Heritage process is currently underway with the Heritage Team.
	The Maintenance Management Plan ("MMP") that was included and submitted to this Department, does not meet the requirements of a MMP for adoption to enable future implementation of such maintenance related activities. The MMP is a legislative tool enabling the applicant to undertake certain permissible activities pertaining to maintenance related work only. It is imperative that the MMP is sufficiently detailed and, as a minimum, outlines the individually proposed future maintenance related activities, how, where and when these will be implemented, how the potential impacts associated with these actions will be prevented or minimised and the party responsible for such implementation. However, the method statements that have been included is limited and vague and lacks the necessary detail with respect to a step-by-step plan in a sequential and logical manner to inform the responsible person(s) on the process and actions to undertake when performing each identified maintenance activity, which aims to reduce the impact of undertaking the maintenance related work. The method statements in the MMP must therefore be updated and amended accordingly.	MMP has been updated and attached in the BAR
	Proof of submission of the application to the BOCMA and a copy of the WULA Information must be included in the BAR.	The water use licence is currently underway and proof is attached under the BAR.

	Comment from, but not limited to the following Organs of State must be obtained • CapeNature • Heritage Western Cape • BOCMA • Department of Agriculture • Overstrand Municipality • DEA&DP Directorate: Development Management (Region 2) • The relevant road authority/ies	Comment has been received from: • Cape Nature • HWC – Application pending • BOCMA – Received, WULA and Wetland Offset pending • DOA – Comment received, no objection • Overstrand Municipality – comment received, no objection • DEADP Land Use • WC Roads – Comment received, no objection
Whale Coast Conservation	Whale Coast Conservation expressed support for maintaining ecological connectivity between the eastern and western arms of the Mill Stream, which was restored through the installation of new fauna-friendly culverts during the R43 bridge upgrade. The organisation requested that a 5–10 m wide area surrounding the culverts be rehabilitated with indigenous, low-stature wetland vegetation to keep the culverts visible to fauna, particularly the endangered Western Leopard Toad. They further recommended that reed growth in this area be suppressed and that ongoing maintenance by the landowner uphold this objective. Whale Coast Conservation also requested permission to monitor Western Leopard Toad movement during the breeding season (July–September) and noted potential for future "frog tourism" initiatives on the property, offering their assistance in this regard.	Conditions have been listed in the BAR under **Section J** of the BAR.
Department of Agriculture	From an Agricultural perspective the Western Cape Department of Agriculture has no objection to the proposed development	Noted – no further action required

Note:

A register of all the I&AP's notified, including the Organs of State, and all the registered I&APs must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that "*Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but **must** be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority.*"

All the comments received from I&APs on the pre -application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

- a site map showing where the site notice was displayed, dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
  - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  - if a facsimile was sent, a copy of the facsimile Report;
  - if an electronic mail was sent, a copy of the electronic mail sent; and
  - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

1. Groundwater

1.1.	Was a specialist study conducted?	~~YES~~	NO X
1.2.	Provide the name and or company who conducted the specialist study.		
N/A			
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
N/A			
1.4.	Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development.		
N/A			

2. Surface water

2.1.	Was a specialist study conducted?	YES X	~~NO~~
2.2.	Provide the name and/or company who conducted the specialist study.		
Kimberley van Zyl and Robyn Morton – Delta Ecology			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		

Aquatic Biodiversity Impact Assessment

The National Web-based Screening Tool Report generated for the site, classified the Aquatic Biodiversity Theme for the site as Very High sensitivity. This is mainly due to the hillslope seep wetland and two natural Unchanneled Valley-Bottom (UVB) wetlands coinciding with the non-perennial drainage were confirmed and delineated onsite. All three aquatic systems extend across the 500 m regulated proximity of Erf 438, but no other watercourses were noted in this area.

The Aquatic Biodiversity Assessment indicated that the proposed site is situated above the Overberg Regional Aquifer. According to the Department of Rural Development and Land Reform's (DRDLR) National Geo-spatial Information (NGI) river line vector data, two non-perennial drainage lines intersect the site at the southern and western corners and merge just south of the site (**Figure 14**). The National Wetlands Map Version 5 (NWM5) (SANBI, 2018) identifies a floodplain wetland that aligns with these drainage lines. The National Freshwater Ecological Priority Areas (NFEPA) (CSIR, 2011) classifies this wetland as a Channelled Valley-Bottom Wetland (CVBW). Both aquatic systems extend into the 500-meter regulated area of the Erf, but no other watercourses were observed in the vicinity (**Figure 15**).

Figure 14: Regional Drainage Map (NGI Rivers, NWM5 Wetlands and NFEPA Wetlands).

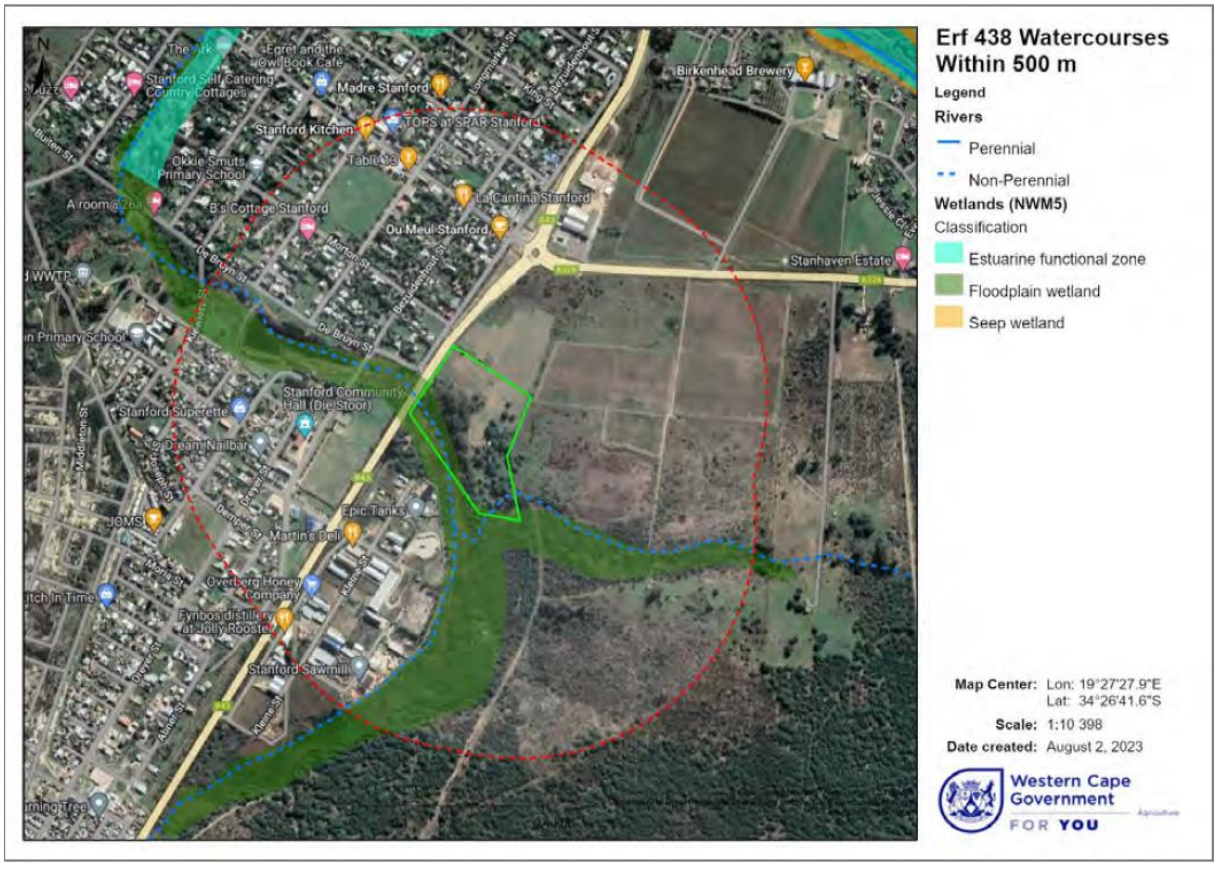


Figure 15: NGI Rivers, NWM5 Wetlands and NFEPA wetlands.

According to the Aquatic Biodiversity Impact Assessment, site investigations were conducted on 25 July 2023 and again on 1 March 2024 to confirm the presence and extent of freshwater bodies within the property. During these assessments, the freshwater specialist observed that the northern portion of the site, which is currently utilised for the cultivation of roll-on lawn, has been extensively modified. Much of this area is compacted to enhance surface water retention, and non-native soil material has been introduced in certain locations, either intentionally to promote compaction or as a by-product of historical road construction activities.

The specialist further noted that the lawn areas are heavily irrigated during the dry months, and the combination of intensive irrigation and soil compaction has resulted in the development of artificial wetland soil indicators and wetland-like vegetation communities. The presence of surface water during fieldwork created additional challenges for accurately delineating wetlands in this area, as the hydrological and vegetative indicators did not fully reflect natural wetland conditions. Moreover, agricultural activities—including lawn production and vineyards—on adjacent properties to the north and northeast contribute to artificially elevated runoff levels, derived from both irrigation and rainfall. As a result, wetland delineation in this portion of the site required the application of a combined methodological approach, utilising detailed field-based assessments (focused on less compacted margins and isolated wetland pockets) and the analysis of historical satellite imagery to verify the natural extent and boundaries of the wetlands.

The southeastern portion of the site was found to be dominated by a mature thicket of *Sideroxylon inerme subsp. inerme* (Milkwood), with *Olea europaea subsp. africana* also occurring in significant numbers. Along the western edge of the site, the Mill Stream wetland was characterised by dense stands of Phragmites australis and Typha capensis reedbeds. In contrast, the small tributary wetland located at the southern corner of the property supported a moderately diverse wetland community, dominated by *Carex clavata, Ficinia elatior, Orphium frutescens,* and *Stenotaphrum secundatum*.

The specialist reported that this tributary wetland had recently undergone alien invasive species clearing, particularly the removal of *Acacia saligna*, and is currently in a state of ecological recovery. However, the adjacent property remains densely invaded by alien species, which poses an ongoing threat to the long-term recovery and ecological stability of the wetland, as alien seedbanks are likely to persist in the surrounding soils for many years.

According to the findings of the Aquatic Biodiversity Impact Assessment, the Mill Stream wetland is classified by desktop resources as a floodplain wetland (NWM5) and a Critical Biodiversity and Watercourse (CVBW) as identified in the National Freshwater Ecosystem Priority Areas (NFEPA) database. However, during the field assessment, the specialist observed that no defined stream channel was present within the wetland system, indicating that overtopping from a main channel is unlikely to serve as a significant source of hydrological input. Instead, it was determined that lateral flow from the surrounding shallow slopes, particularly subsurface flow, contributes substantially to the hydrological regime of the system. This flow pattern is more consistent with the characteristics of an Unchannelled Valley Bottom (UVB) wetland type rather than a floodplain wetland, which typically relies on overbank flooding.

The assessment also noted that the area immediately upstream of the R43 road bridge has been historically excavated, likely as part of agricultural modification or water abstraction activities. The farm currently draws non-potable water from this excavated feature, which serves as an artificial water resource. Regular clearing of reed growth—particularly Phragmites australis—was observed in this section, indicating ongoing management interventions to maintain access or flow capacity. The Mill Stream wetland itself exhibited hydrological zonation typical of permanent and temporary wetland areas, suggesting a system that retains moisture year-round but also supports fluctuating water levels depending on rainfall and subsurface inputs.

Between the Mill Stream wetland and the adjacent access road, the area is dominated by mature Eucalyptus trees, an alien species known to have a high-water uptake rate and potentially adverse effects on local hydrology through the reduction of soil moisture and groundwater availability. The presence of these trees represents a potential ecological stressor that may influence the long-term sustainability of wetland hydrological functions in this area.

Similarly, the small tributary wetland located in the southern corner of the site lacked a defined channel and was also classified as an Unchannelled Valley Bottom (UVB) wetland. This system displayed seasonal and temporary hydrological zonation, with water saturation primarily limited to wetter months and subsurface retention influencing vegetation distribution.

In terms of soil characteristics, terrestrial soils were found to be damp, uniform brown sandy loam, while wetland soils were waterlogged and exhibited gleying, a key indicator of prolonged saturation. The limited presence of mottling was attributed to two main factors: the high concentration of quartzitic sand within the soil matrix, which naturally contains low iron content (limiting the development of redoximorphic features), and the extent of waterlogging in the seasonal zone, which was so pronounced that soil samples could not be retained in the auger for photographic documentation.

The specialist further investigated the presence of peat within the wetland soils but found no evidence of peat formation. Typical peat indicators—such as high organic matter content, spongy texture, and distinct organic odour—were absent in all sampled locations. This finding suggests that although the site exhibits prolonged saturation and wetland hydromorphology, the organic accumulation rates and anaerobic decomposition processes necessary for peat development are not currently active within these wetland systems.

Within the lawn area of the site, the aquatic biodiversity specialist observed that the artificially compacted soils frequently exhibited surface water accumulation following rainfall events. However, deeper augering revealed that these soils were dry beneath the surface layer and lacked any redoximorphic or other hydromorphic soil features typically associated with sustained wetland conditions. This finding indicates that the apparent surface saturation is largely artificial and temporary, resulting from the compacted soil layer that restricts infiltration rather than from a naturally high water table or consistent hydrological input.

Nevertheless, several localized areas within the agricultural zone were identified where soils were waterlogged throughout the profile and exhibited clear hydromorphic characteristics, including gleying and mottling. These areas supported disturbance-tolerant wetland vegetation species, indicating a more persistent hydrological regime. Importantly, within this section, a substantial hillslope seep system of natural origin was identified.

The three watercourses associated with the study area have all been subjected to varying degrees of anthropogenic impact resulting from land use changes within their catchments. These impacts include the expansion of an industrial area, the establishment of agricultural fields, and notably, the conversion of the natural hillslope seep wetland into a roll-on grass cultivation area. Such alterations have disrupted natural flow regimes, altered sediment dynamics, and influenced the extent and functionality of wetland habitats.

When assessed comparatively, the small tributary wetland was determined to be in the best ecological condition and exhibited the highest sensitivity among the three systems. It supports a relatively intact wetland vegetation community and retains functional hydrological processes. The Mill Stream wetland, while still ecologically significant—particularly given its importance to the local community—showed greater levels of disturbance and reduced sensitivity due to historical modifications and ongoing pressures such as invasive vegetation and hydrological alteration.

In contrast, the hillslope seep wetland located within the agricultural area was identified as the most degraded and least ecologically valuable of the three systems. This wetland exhibited minimal remaining natural habitat, with severely impacted hydrology and geomorphology, primarily as a result of soil compaction, intensive irrigation, and land transformation associated with lawn production. **Photo 1 to Photo 8** below illustrate the site conditions, including soil profiles, vegetation types, and the extent of hydromorphic indicators observed during fieldwork, while **Figure 16** presents the final wetland delineation based on the integration of field data and satellite imagery analysis

Photo 1. Compacted areas used for growing roll-on lawn.

Photo 2. A portion of the hillslope seep where it flows onto the compacted lawn area.

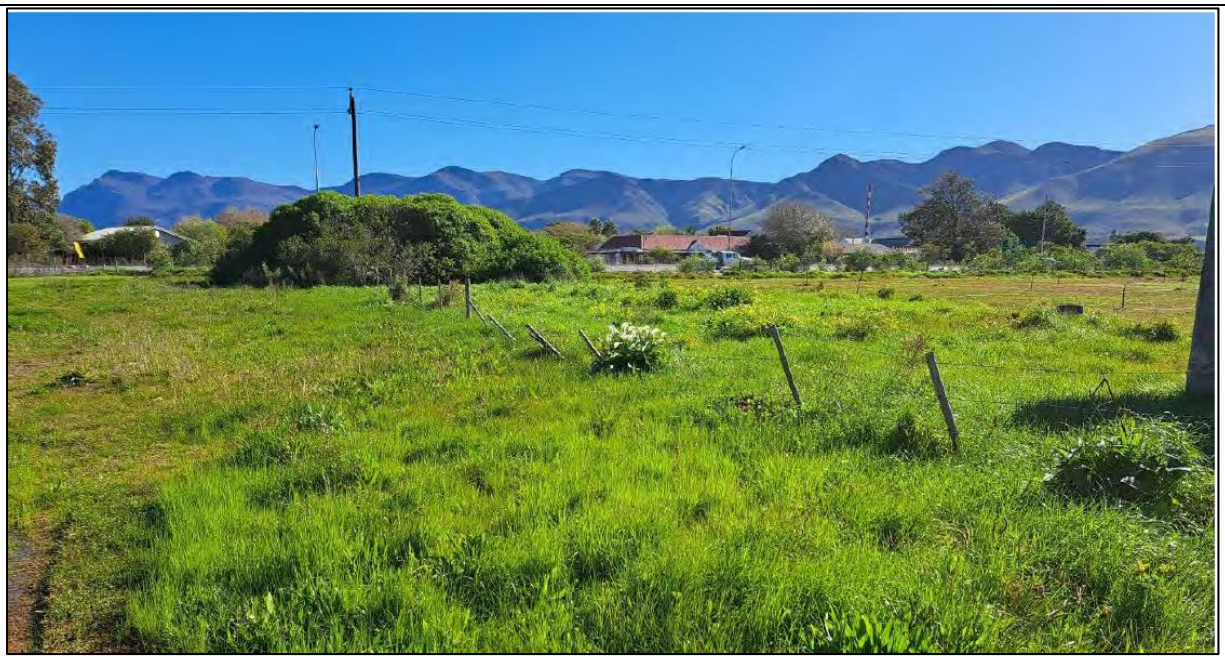


Photo 3. A portion of the hillslope seep near the R43.

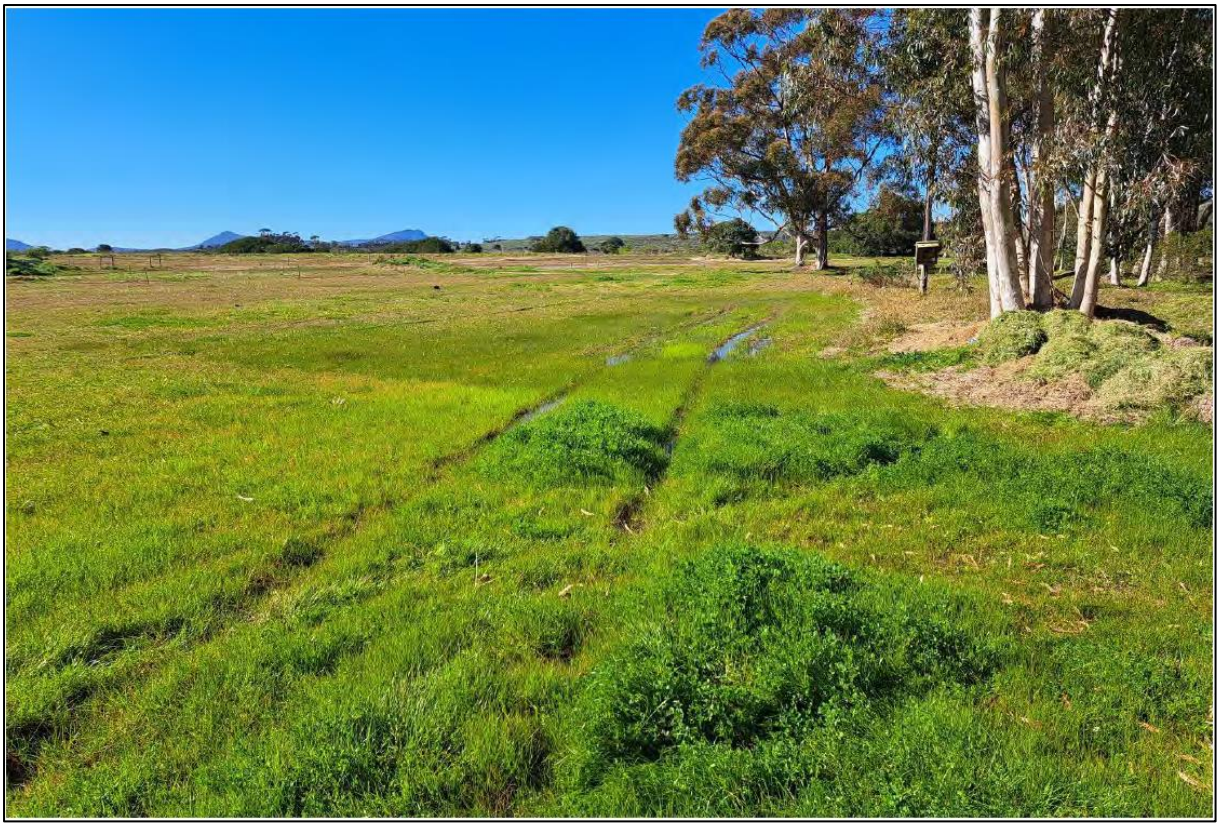


Photo 4. A portion of the hillslope seep near the access road and Mill Stream wetland.

Photo 5. Tributary wetland flowing left to right across the track. Note the brush pile to the right from recent invasive species clearing.

Photo 6. Vegetation typical of the tributary wetland.

Photo 7. Brown, uniform soils typical of the terrestrial parts of the site.

Photo 8. Saturated wetland soils exhibiting gleying.

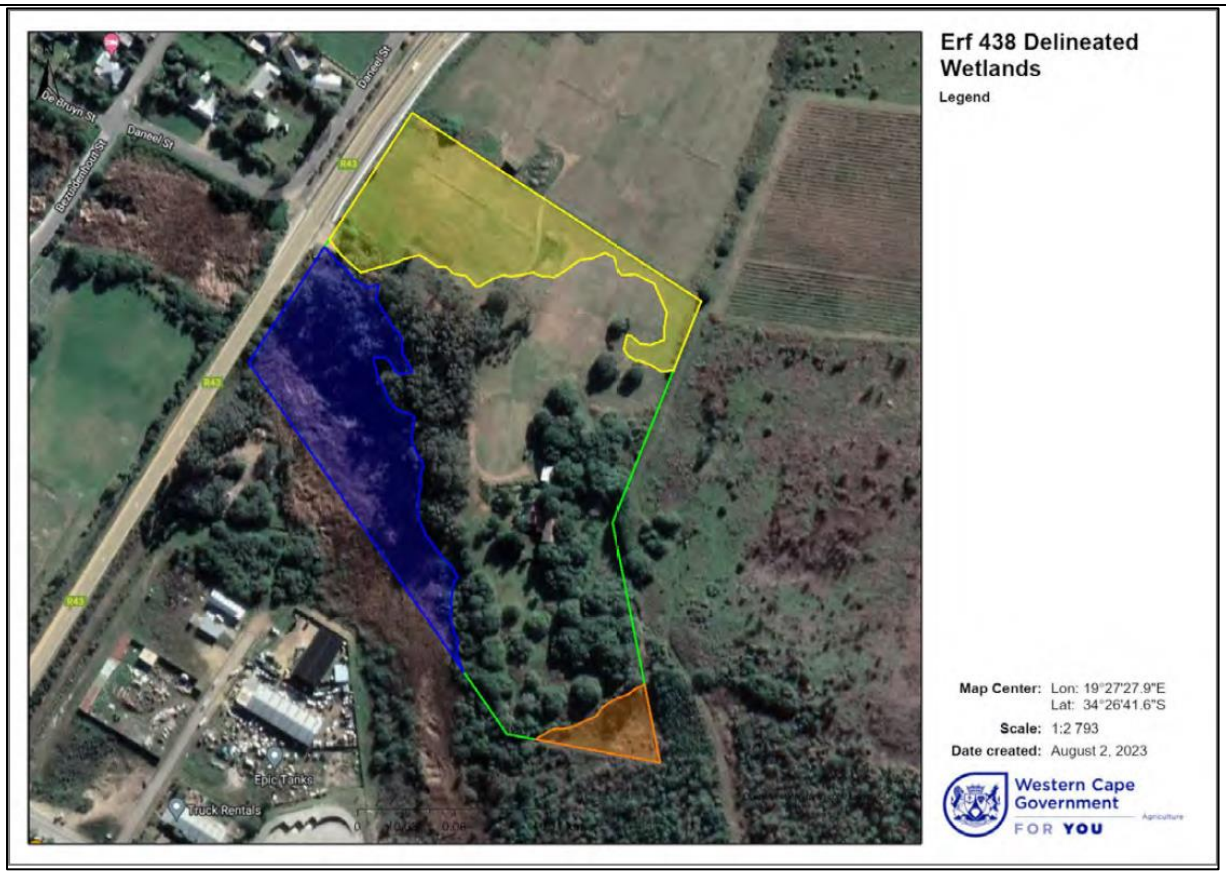


Figure 16: Wetlands delineated within Erf 438. The Mill Stream is in blue, the tributary in orange and the hillslope seep is in yellow.

Present Ecological State

The Aquatic Impact Assessment also assessed the Present Ecological State (PES), the Ecological Importance and Sensitivity (EIS) and Wetland Ecosystem Services (WES) of all the delineated wetlands onsite. These metrics were used to determine the management objective expressed in terms of the Recommended Ecological Category (REC).

The assessment established that the Hillslope Seep wetland had been compromised by years of cultivation for the production of roll-on lawn, irrigation (both on site and from upslope properties), compaction and introduction of material. Therefore, its Present Ecological State falls within **Category E (Seriously Modified)** on the time of assessment. The assessment for both the UVB wetlands produced an overall Present Ecological Sate which falls under **Category C**. The specialist highlights that the wetlands were in a moderately modified condition at the time of the assessment, and that the scoring are influenced by the factors described below:

The hillslope seep wetland

Hydrology

- The natural flow regime of the hillslope seep wetland has been altered as a result of onsite disturbances such as the compaction of soil, historical vegetation clearing and infilling, and catchment hardening associated with the dirt track onsite.
- Intensive irrigation of the grass lawns during dry months increases surface water flow during these months within the wetland. Compaction of the soil within the wetland reduces infiltration rates, and promotes runoff, altering natural drainage patterns.

- The gravel track for vehicles concentrates flow along its path and alters the wetlands natural flow regime.
- Furthermore, the agricultural activities (lawn and vineyards) on the upslope adjacent farms to the north and northeast likely produce substantial artificially increased runoff (both irrigation and rainwater).

Vegetation

- The majority of the hillslope seep wetland had been cleared of natural vegetation and currently is used to grow grass for sale as roll-on lawn. Some disturbance tolerant wetland species were present; however, their extent was limited.
- No species of conservation concern were noted.

Geomorphology

- The geomorphology of the hillslope seep wetland was largely modified by ploughing, the compaction of soil, and non-native soil has been introduced in some areas.
- Ploughing and canalisation has resulted in disturbance to the wetland's natural geomorphic state.
- Compaction of soil alters the natural geomorphology of the wetlands, potentially reducing natural features like depressions and altering surface flow patterns.
- Introduction of non-native soil and compaction may lead to changes in natural sediment transport dynamics and erosion processes within the wetlands.

Water Quality

- The water quality within the hillslope seep wetland has been disturbed because of the compaction of soil, and the introduction of non-native soil in some areas.
- Runoff from agricultural activities in adjacent farms can introduce contaminants from fertilizers, pesticides, and other agricultural inputs into the wetlands, affecting water quality.
- It is likely that runoff entering the wetland through the stormwater outlet in the northwest corner is polluted by the surrounding catchment area for example, runoff from roads is likely to contain contaminants such as laterite, oil, fuel, rubber from car tires and other pollutants.

The Mill Stream UVB wetland

Hydrology

- The Mill Stream wetland lacks a defined stream channel, it is likely that the wetland receives water primarily from lateral flow originating from adjacent shallow slopes, including subsurface flow.
- The natural flow regime of the UVB Wetland has been altered as a result of excavation upstream of the R43 road bridge, along with the R43 road bridge, both of which affect the wetland's natural water flow patterns.
- The hydrology of the UVBW has been impacted by the surrounding catchment land use, such as the presence of the small industrial area in the wetland's immediate catchment, and the lawn grass farm. Urban land use such as industrial areas and tarred roads have resulted in flow diversion and catchment hardening which is associated with increased runoff and storm peak flows.

Vegetation

- The Mill Stream wetland along the western edge of the site was dominated by *Phragmites australis* and *Typha capensis* reedbeds. The southeastern portion of the site was dominated by mature *Sideroxylon inerme subsp. inerme* (milkwood) thicket with *Olea Europaea subsp. africana* also present in significant numbers. *Sideroxylon inerme subsp. inerme* (milkwood) is a protected tree and may not be damaged or removed.

Geomorphology

- The geomorphology of the UVB wetland was largely modified by the excavation of the depressional / dam area in the centre of the site.

Water Quality

- The water quality within the UVB wetland has been impaired because of the Eucalyptus plants located immediately adjacent to the wetland areas. Decomposing Eucalyptus spp. leaves release oils and polyphenols that are not native to the system, influencing soil chemical characteristics and nutrient content.
- Agricultural activities such as fertiliser and pesticide use results in contaminated runoff which enters the wetland area and degrades water quality.
- The water quality within the wetland is likely to be impacted by the small industrial area immediately upstream of the wetland.

The tributary UVB wetland

Hydrology

- The tributary wetland lacks a defined stream channel, it is likely that the wetland receives water primarily from lateral flow originating from adjacent shallow slopes, including subsurface flow.
- A small farm dam is located approximately 2 km upstream of the site and several dirt tracks run through the wetland area, resulting in altered flow regimes within the wetland.

Vegetation

- The small tributary wetland exhibits a moderately diverse wetland community dominated by native species such as *Carex clavata, Ficinia elatior, Orphium frutescence*, and *Stenotaphrum secundatum*. The wetland has been cleared recently of alien invasive species (*Acacia saligna*) and is recovering well. However, the adjacent property is still densely invaded and poses a threat to the long-term recovery and stability of the wetland vegetation. No species of conservation concern were noted.

Geomorphology

- The construction of dirt tracks, along with the recent clearance of invasive species may have altered the geomorphology of the wetland as removing vegetation can destabilise soil.

Water Quality

- Agricultural activities are located within the wetland's catchment. Agricultural activities such as fertiliser and pesticide use results in contaminated runoff which likely enters the wetland area and degrades water quality.
- Recent clearance of alien invasive species (*Acacia saligna*) from the small tributary wetland suggests an improvement in water quality, as invasive species can negatively impact water quality through processes such as nutrient uptake and alteration of habitat structure.

Ecosystem Services

The ecosystem services provided by the hillslope seep wetland and the Unchannelled Valley Bottom (UVB) wetlands were evaluated using the WET-EcoServices Version 2 assessment framework. This methodology considers sixteen ecosystem services, covering both regulating/supporting functions (such as water purification and flood attenuation) and provisioning/cultural services (such as resource harvesting, recreation, and spiritual value).

Hillslope Seep wetland

The hillslope seep wetland was found to be severely degraded, with importance scores ranging mostly between "Very Low" and "Moderately Low" across all evaluated services. Despite its degraded condition, the wetland still provides limited regulating services, including sediment trapping, phosphate assimilation, nitrate assimilation, and toxicant removal. However, the overall capacity of the wetland to perform these functions is constrained by its altered hydrology, compacted soils, and loss of natural vegetation cover. The moderate demand for toxicant removal arises from the presence of surrounding roads, industrial, and residential land uses, which may contribute pollutants to local runoff. Nonetheless, due to the wetland's poor ecological integrity, its actual contribution to these regulatory services remains low in significance.

For flood attenuation, streamflow regulation, and erosion control, both the supply and demand were assessed as limited, given the small size of the wetland and the dominance of surrounding modified landscapes. Consequently, these services were rated as "Very Low" to "Low" in overall importance.

With regard to biodiversity maintenance, the hillslope seep scored "Very Low", reflecting its degraded ecological state, absence of habitat diversity, and lack of threatened or sensitive species. Similarly, the carbon storage potential of the wetland was rated "Very Low", primarily because organic soils and peat deposits, which are essential for long-term carbon sequestration, were not present within the sampled profiles.

No evidence of direct human use of the hillslope seep's water was recorded, and no harvestable resources—such as sedges, reeds, or grasses used for craft or thatching—were observed. The site also lacks tourism, educational, or cultural uses, beyond its inclusion in the present ecological study. These findings resulted in "Very Low" significance scores for all provisioning and cultural ecosystem services associated with this wetland.

UVB Wetlands (Mill Stream and Tributary)

In contrast, the Unchanneled Valley Bottom wetlands—comprising the Mill Stream and the small tributary system—demonstrated higher ecological functioning and contributed more significantly to certain ecosystem services. Overall importance scores for these wetlands fell mostly within the "Very Low" to "Moderately Low" categories; however, several services rated higher due to the wetlands' permanent wetness, gentle gradients, and hydrological connectivity to the broader Klein River Estuary system.

The Mill Stream UVB wetland exhibited "High" importance for sediment trapping, nitrate assimilation, and toxicant assimilation, reflecting its ability to filter runoff and improve downstream water quality, particularly given the industrial and agricultural land uses in the surrounding catchment. Phosphate assimilation, biodiversity maintenance, and harvestable resources were scored between "Moderate" and "Moderately High", indicating a tangible contribution to both ecosystem regulation and biological diversity within the landscape.

The tributary UVB wetland, though smaller and more isolated, also performed valuable regulatory functions, with "Moderate" importance scores for nitrate and toxicant assimilation as well as biodiversity maintenance. Its relatively intact condition supports a diverse assemblage of wetland vegetation, providing habitat connectivity to downstream aquatic ecosystems.

Both UVB wetlands support harvestable vegetation resources such as Typha capensis and Phragmites australis, and to a lesser extent sedges, though these resources are not actively utilized in the area. The potential for cultivated food production exists but is not aligned with the intended development objectives. Consequently, the overall importance of these provisioning services was classified as "Low" to "Very Low."

In terms of cultural and recreational services, the wetlands form part of a larger aquatic system that contributes to the scenic and ecological appeal of the Stanford–Klein River area, which is used for tourism and nature-based recreation. However, the UVB wetlands themselves represent only a small portion of this broader network and are located on private property with restricted public access. As a result, tourism, education, and spiritual services were all assessed as "Very Low" in importance.

Ecological Importance and Sensitivity

The Hillslope wetland achieved median score of 2.0 which falls within the "Moderate" category, while the UVB wetlands achieved a median score of 3.0 which falls within the "High" category.

Recommended Ecological Category

According to the Aquatic Biodiversity Impact Assessment, the two UVB wetland have a Present Ecological Sate (PES) of C, with a High Score, so the management objective should be to improve the condition of the wetland to a category B, if feasible. Any planned rehabilitation should therefore target this category. Additionally, the seep has a PES Category of E and therefore is considered unsuitable and requires rehabilitation to a PES Category D.

Aquatic Impact Identification

The Aquatic Biodiversity Impact Assessment confirms that the development area coincides with approximately 0.78 ha of the seriously degraded Hillslope seep wetland. However, the two delineated UVB wetlands are set aside, along with a 32m buffer, as private open space. Based on the specialist findings, the potential impact of the development to the hillslope seep and the UVB wetlands is described below;

Construction phase

- Areas of the onsite seep (approximately 0.87 Ha) will be lost as a result of the private road construction, and residential housing.
- Alteration of the flow regime of the UVBWs during construction of the Eco-Lifestyle estate.
- Water quality impairment due to increased sediment input, potential spillage, or release of potentially contaminated runoff into the UVBWs during construction of the Eco-Lifestyle estate.

Operational Phase

- Alteration of the flow regime of the UVBWs once the Eco-Lifestyle estate is complete, due to potential flow diversion / increase in storm flows.
- Water quality impairment due to the release of potentially contaminated stormwater (hydrocarbons) into the UVBWs.

Wetland Offset, Rehabilitation and Management Plan

An Aquatic Biodiversity Assessment was undertaken on 25 July 2023, during which three distinct wetlands were confirmed and delineated within the study area. These include one hillslope seep wetland and two natural Unchanneled Valley-Bottom (UVB) wetlands, both associated with non-perennial drainage lines.

The hillslope seep wetland was found to be in a significantly degraded ecological condition. The degradation is attributed to a long history of vegetation clearance, soil compaction, ploughing, and the introduction of non-native soil materials. Much of the natural wetland vegetation has been replaced by cultivated grass for roll-on lawns, leaving only a few disturbance-tolerant wetland species surviving in isolated pockets. Hydrological functioning in this wetland has also been compromised, reducing its ecological value.

In contrast, the Mill Stream UVB wetland retains a moderate level of ecological integrity, although it is still affected by surrounding land-use pressures. Vegetation within this system is dominated by Phragmites australis (common reed) and Typha capensis (bulrush), both characteristic of permanently wet zones. However, the presence of mature alien Eucalyptus trees along the wetland margins negatively affects light availability, groundwater interactions, and native species recruitment.

The small tributary UVB wetland, which traverses the southern corner of the site, is in the best ecological condition of the three and is regarded as the most sensitive aquatic feature within the property. It supports a moderately diverse assemblage of indigenous wetland species and retains functional hydrology and soil integrity, despite localized disturbances.

Given the severely degraded condition of the hillslope seep wetland, its complete loss will occur as a result of the proposed development. To compensate for this loss, a wetland offset strategy has been proposed, which will focus on the rehabilitation and enhancement of the two remaining UVB wetlands—the Mill Stream and the small tributary wetlands. These wetlands will be formally designated as wetland offset areas.

In addition to the onsite offsets, an offsite portion of the Mill Stream UVB wetland, located within land under the jurisdiction of the Overstrand Municipality, has been identified for inclusion in the offset programme. Following consultation with municipal officials, a formal lease agreement will be established between the developer and the Overstrand Municipality to secure long-term access, rehabilitation, and management responsibilities for this offsite wetland area.

Delta Ecology has been appointed to prepare a comprehensive Wetland Offset, Rehabilitation, and Management Plan (WORMP) for the development. This plan will provide a detailed framework for the implementation of wetland restoration activities, specify ecological performance indicators, and establish monitoring and adaptive management measures to ensure that no net loss of wetland function occurs as a result of the proposed development. The current report identifies the preferred offset areas, outlines the necessary rehabilitation interventions, and presents an integrated management strategy for the long-term protection and enhancement of both onsite and offsite wetland resources.

The proposed development will result in the complete loss of the degraded seep wetland. The wetland loss was evaluated by application of the Macfarlane et al. (2016) wetland offset guidelines and calculator to determine the functional and habitat value thereof in a currency known as Hectare Equivalents (HE).

The maximum wetland offset within the site was further identified and evaluated to determine the wetland value that could be gained through maximum onsite establishment, rehabilitation, and management effort. The results of the offset calculations are presented in **Table 7** below.

Table 7: Offset balance indicating net results of the offset feasibility study.

Offset Balance Table						
Wetland Name	**Area (ha)**		**Function (HE)**		**Habitat (HE)**	
	Losses	**Gains**	**losses**	**Gains**	**Losses**	**Gains**
Seep wetland lost (LT)	-0,7000	0,0000	-0,2660	0,0000	-0,0140	0,0000
Seep wetland lost (CR)	-0,2000	0,0000	-0,0760	0,0000	-0,2400	0,0000
Mill Stream UVB wetland rehabilitated	0,0000	1,0400	0,0000	0,1304	0,0000	1,8532
Tributary UVB wetland rehabilitated	0,0000	0,2000	0,0000	0,0026	0,0000	0,3760
Subtotal (HE)	*-0,9000*	1,2400	*-0,3420*	*0,1331*	*-0,2540*	*2,2292*
Balance (HE)	**0,3400**		**-0,2089**		**1,9728**	
Offsite wetland offset area included						
Offsite Mill Stream UVB wetland rehabilitated	0,0000	1,7000	0,0000	0,2244	0,0000	2,7460
Subtotal (HE)	*-0,9000*	*2,9400*	*-0,3420*	*0,3575*	*-0,2540*	*4,9752*
Balance (HE)	**2,0400**		**0,0155**		**4,7212**	

According to the aquatic biodiversity specialist, the total wetland loss associated with the proposed development was quantified at -0.3420 Habitat Equivalent (HE) units of function and -0.2540 HE units of habitat. Through the implementation of onsite wetland offset and rehabilitation activities, a net gain of 1.9728 HE units of wetland habitat was achieved, although full functional equivalence was not reached.

Despite these positive gains, the specialist notes that the onsite offset alone does not fully compensate for the loss of the severely degraded hillslope seep wetland. To address this shortfall in wetland function, an additional offsite wetland area part of the Mill Stream Unchanneled Valley-Bottom (UVB) wetland located on municipal land adjacent to the study site has been included in the overall offset framework. This offsite area will be secured through a formal lease agreement between the developer and the Overstrand Municipality, ensuring its long-term protection and rehabilitation. The inclusion of this additional wetland area results in a positive overall wetland offset balance, both in terms of habitat and ecological function.

A detailed rehabilitation plan has been developed for the designated wetland offset areas. The plan outlines a series of interventions including the removal of alien invasive vegetation and foreign fill material, reshaping of degraded wetland zones, revegetation using locally indigenous wetland species, and the implementation of onsite water quality management measures. The successful implementation of these measures is expected to improve the Present Ecological State (PES) of the onsite wetland offsets to upper Category C, with a minimum PES score of 79%.

Following rehabilitation, a Wetland Management Plan has also been prepared to ensure that the ecological gains achieved through restoration are sustained or gradually enhanced over time. The management plan includes guidelines for monitoring, adaptive management, and maintenance activities to safeguard the restored wetland systems.

The specialist concludes that the Wetland Offset, Rehabilitation, and Management Plan is practically implementable and represents the maximum feasible onsite wetland offset, further strengthened by the inclusion of the offsite municipal wetland area. Therefore, it is the specialist's professional opinion that the proposed development can be supported from both a wetland and general biodiversity perspective, subject to the implementation of the prescribed offset, rehabilitation, and management measures as a condition of environmental authorisation.

Table 8. Results of the wetland status quo assessment (van Zyl & Morton, 2024).

	PES	EIS	WES (Highest)	REC
Mill Stream UVB Wetland	C	High	High	B
Tributary UVB Wetland	C	High	Moderate	B
Hillslope Seep Wetland	E	Moderate	Moderately Low	D

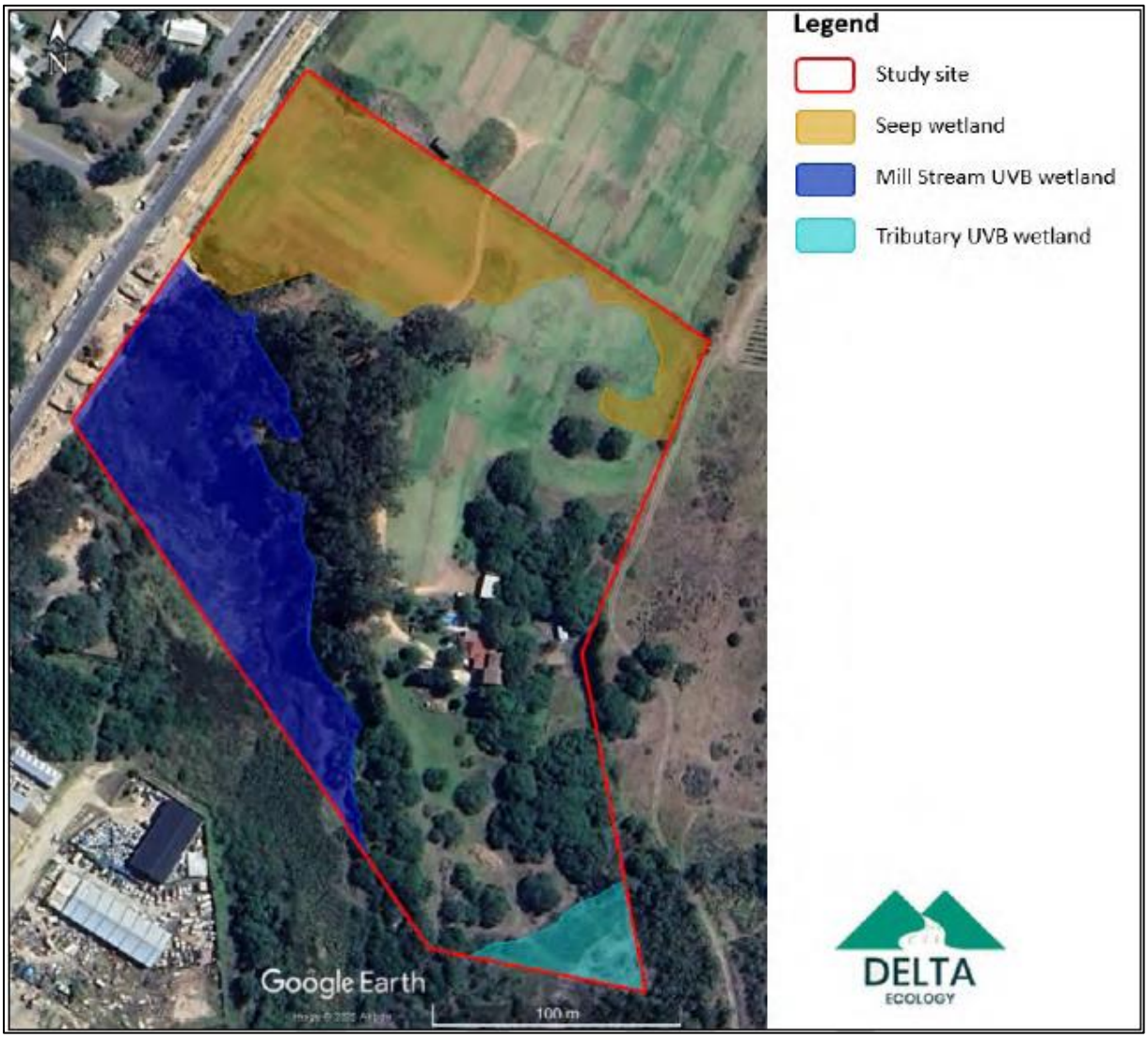


Figure 17: Wetlands delineated within Erf 438 (van Zyl & Morton, 2024).

The extent of the property is 5.3 ha in size, the seep wetland is confirmed to cover an area of approximately 0.9 ha , the Mill Stream UVB wetland covers approximately 1 ha (19 %) and the Tributary UVB wetland covers approximately 0.22

ha (4 %), leaving 3.2 ha (60 %) of terrestrial ground. A total of 3.1 ha (58 %) of the entire site will be required to establish the proposed development.

The specialist notes that the entirety of the seriously modified seep wetland within the study area will be permanently lost as a result of the proposed development. To offset this loss, rehabilitation interventions will be implemented on the Mill Stream and Tributary Unchanneled Valley-Bottom (UVB) wetlands, which will be restored and managed to enhance their ecological functioning and habitat quality.
In addition to the onsite rehabilitation measures, an offsite portion of the Mill Stream UVB wetland, located on municipal land adjacent to the site, will be incorporated into the overall wetland offset plan, contributing an additional 1.7 hectares to the total offset area. This inclusion ensures that the maximum feasible wetland offsetting opportunities have been identified for the proposed development (**Figure 18**).

The identified offset areas will undergo targeted rehabilitation activities aimed at improving hydrological function, vegetation integrity, and habitat condition. The primary objective of these interventions is to elevate the Present Ecological State (PES) of the onsite wetland offset areas to fall within the upper Category C, representing a moderately modified but functional wetland system capable of sustaining key ecological processes.

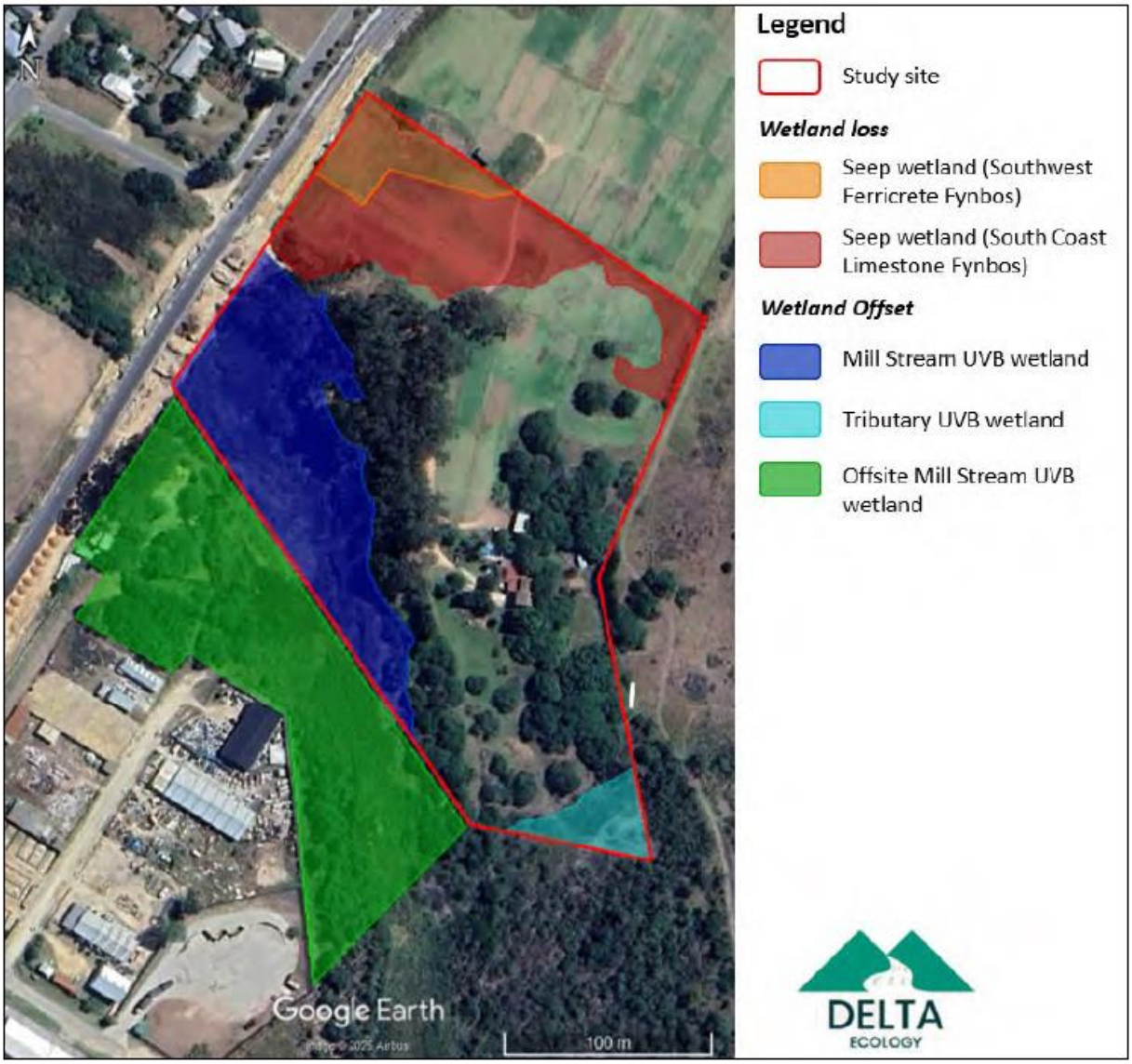


Figure 18: Wetland loss and wetland offset areas.

The Macfarlane et al. (2016) wetland offset calculator was applied to the wetland area that will be lost during development. The proposed development will result in the entirety of the Seep wetland (0.9 ha) being lost. During the calculation of residual wetland loss, the Seep wetland was split into two different portions, since the wetland occurs over two different wetland vegetation types.

The calculation yielded a total of -0,3420 HE of function and -0,2540 HE of habitat that will be lost and require offsetting (refer to Table 6-1 to Table 6-4 of the Wetland Offset Rehabilitation Management Plan).

An additional offsite portion of the Mill Stream Unchanneled Valley-Bottom (UVB) wetland has been secured for inclusion in the overall wetland offset programme. This wetland area is situated within the jurisdiction of the Overstrand Municipality. A Present Ecological State (PES) assessment was undertaken to confirm the suitability of this offsite wetland for inclusion in the offset calculations. Following a series of engagements with municipal officials, it was agreed that a formal lease agreement will be established between the developer and the Overstrand Municipality to ensure the long-term protection, use, and rehabilitation of the identified offsite wetland area.

In total, the wetland offset will comprise approximately 1.2 ha of rehabilitated onsite wetlands and an additional 1.7 ha of offsite wetland. The anticipated ecological gains from the rehabilitation and protection of these offset areas were assessed based on the assumption that all management objectives and actions detailed in Section 8.1 of the Wetland Offset Rehabilitation and Management Plan, will be fully implemented and achieved.

The offset evaluation indicated that, with effective rehabilitation interventions as outlined in Section 8 of the Wetland Offset Rehabilitation And Management Plan, the onsite wetland offset is expected to yield a gain of 0.1331 Hectares Equivalent (HE) of wetland function and 2.2292 HE of wetland habitat. Furthermore, the additional offsite wetland offset is projected to provide an additional 0.2244 HE of wetland function and 2.7460 HE of wetland habitat.

The results of the assessment for the onsite wetland offset areas are presented in Tables 7-1 through 7-6 of the Wetland Offset Rehabilitation and Management Plan, which provide a detailed breakdown of the functional and habitat gains associated with the proposed wetland offset implementation.

3. Coastal Environment

3.1.	Was a specialist study conducted?	~~YES~~	NO x
3.2.	Provide the name and/or company who conducted the specialist study.		
N/A			
3.3.	Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development.		
N/A			
3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.		
N/A			
3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.		

N/A

4. Biodiversity

4.1.	Were specialist studies conducted?	YES x	~~NO~~
4.2.	Provide the name and/or company who conducted the specialist studies.		

Nick Helme – Nick Helme Botanical Surveys: Terrestrial Biodiversity Impact Assessment

Jan Venter - Wildlife Conservation Decision Support: Terrestrial Animal Site Sensitivity Verification and Species Specialist Assessment

4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.

Terrestrial Biodiversity Impact Assessment

The Terrestrial Biodiversity Impact Assessment incorporated a range of systematic conservation planning tools and biodiversity informants to evaluate the ecological characteristics of the site and to guide the proposed development layout. These included the Western Cape Biodiversity Spatial Plan (WCBSP, 2017), the Vegetation Map of South Africa (Mucina & Rutherford 2006, with the 2024 online update), Google Earth imagery, and iNaturalist species occurrence data. Together, these sources provided a robust basis for understanding both the broader biodiversity context and site-specific ecological sensitivities.

The Western Cape Biodiversity Spatial Plan (2017) for the area indicates that the majority of the site remains unmapped, with Ecological Support Area 1 (ESA1 – aquatic) delineated along the Mill Stream, and small patches of ESA2 (terrestrial) bordering this watercourse. This mapping broadly reflects the specialist's understanding of the site's ecological configuration, particularly the presence of the Mill Stream wetland and its associated terrestrial buffer.

In contrast, the updated Western Cape Biodiversity Spatial Plan (2023) maps most of the property as a Critical Biodiversity Area (CBA1), with the remaining portion unmapped. The reclassification to CBA1 in the 2023 plan likely reflects improved spatial data and refined conservation prioritisation, particularly recognising the ecological importance of the Milkwood-dominated forest. It is important to note that the botanical assessment was initiated prior to the release of the updated Western Cape Biodiversity Spatial Plan (WCBSP, 2023). At the time of the study, the Western Cape Biodiversity Spatial Plan (2017) was the most recent and applicable planning informant available. Consequently, the assessment and the subsequent refinement of the preferred development layout were informed primarily by the 2017 WCBSP.

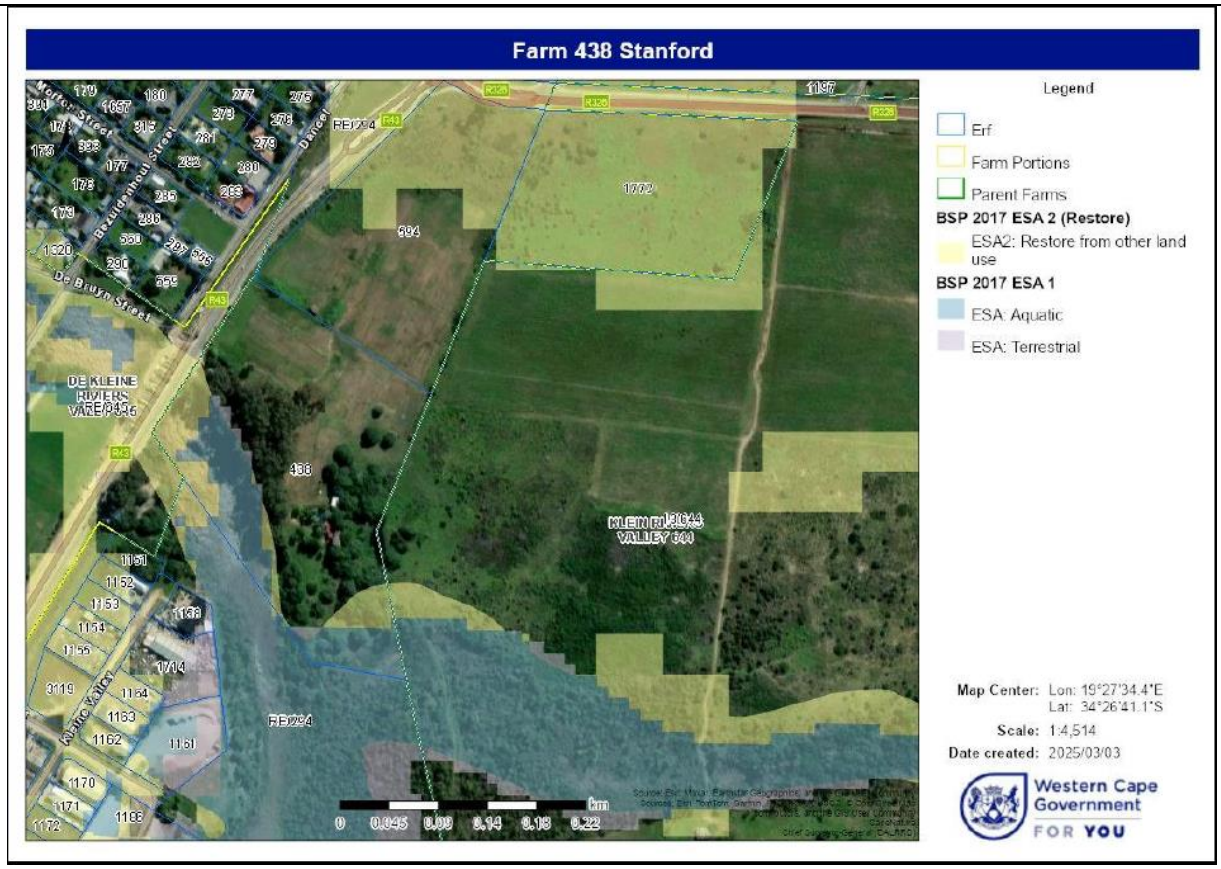


Figure 19: showing that most of the area is unmapped, with ESA1 (aquatic) along the Mill Stream, and small patches of ESA2 (terrestrial) bordering this.

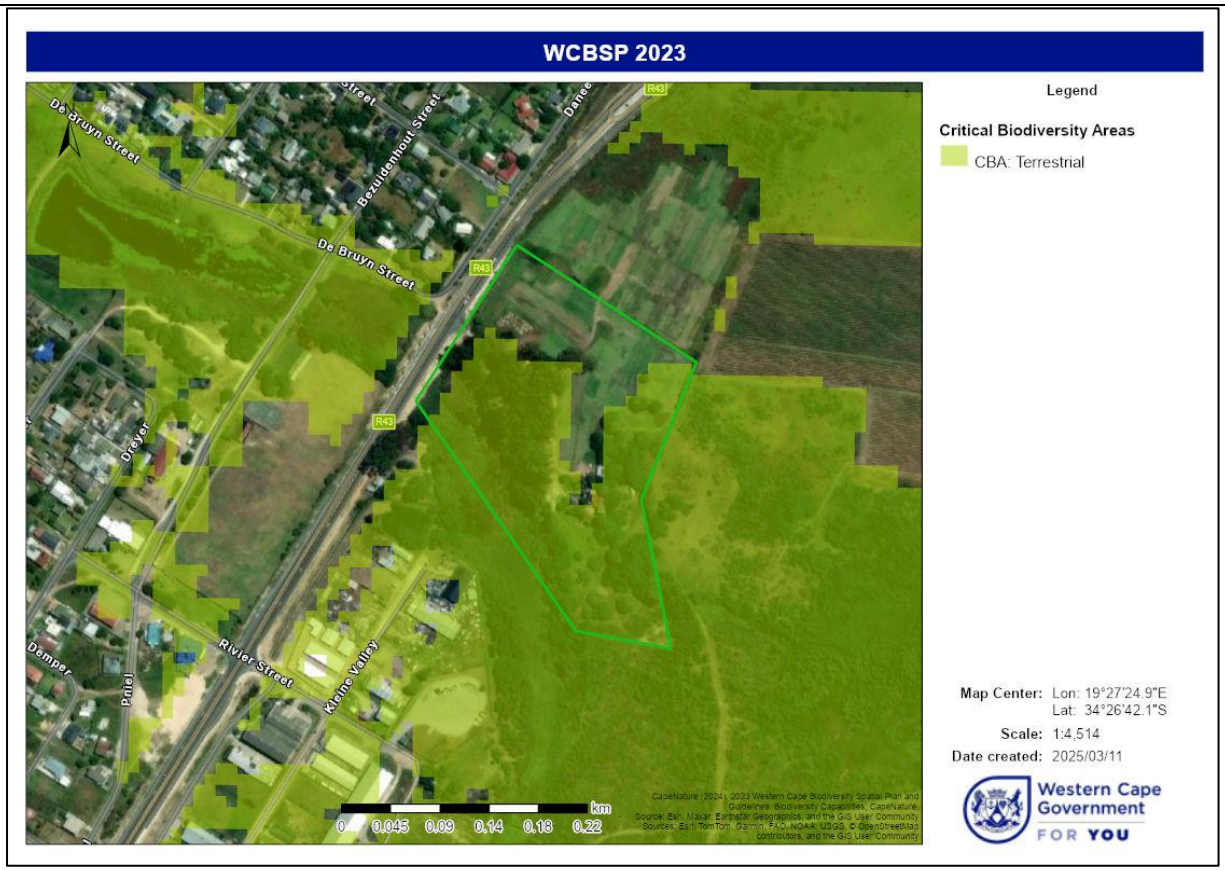


Figure 20: WCBSP (2023).

The study area is characterised by an essentially flat topography, with the Mill Stream and its associated wetland habitat located in the southwestern corner of the property. The soils across the site comprise fairly deep, acid to neutral sands and sandy loams, with underlying shale formations evident in the southeastern corner.

It is considered unlikely that the vegetation on site has been exposed to fire within the past forty years, and the vegetation type present is not strongly fire driven. Rather, it exhibits characteristics more typical of Thicket and Forest vegetation, which tend to expand and mature further in the absence of fire disturbance. The southeastern corner of the site supports seasonally wetland vegetation, which is ecologically distinct and does not conform to either Thicket or Forest communities.

Photo 9. Invasive alien gum trees (Eucalyptus) along the northern edge of the Mill Stream, with dense Phragmites reeds marking the river. *Source;* (Helme, 2025).

Photo 10. Dense alien kikuyu grass sward in foreground, with indigenous milkwoods and other Thicket species beyond. This is south of the current house. *Source*; (Helme, 2025).

Photo 11. Very High sensitivity seasonal wetland in the southeast corner, looking northeast, with dense alien Port Jackson (*Acacia saligna*) just beyond the boundary fence, and scattered plants in foreground. *Source;* (Helme, 2025).

Photo 12. Another view, looking northwest, of Very High sensitivity seasonal wetland in the southeast corner, with scattered alien Port Jackson (*Acacia saligna*) seedlings in foreground. *Source;* (Helme, 2025).

Photo 13. Interior view of the milkwood forest along the southeastern edge of the site. Most of the understorey is the invasive herb *Commelina benghalensis* (Bengal dayflower). *Source;* (Helme, 2025).

According to the Vegetation Map of South Africa (Mucina & Rutherford 2006, with the 2024 online update), the site is primarily mapped as Agulhas Limestone Fynbos, with a smaller area of Elim Ferricrete Fynbos identified toward the northwestern section of the property. Additionally, Southern Coastal Forest is mapped approximately 500 metres south of the site (**Figure 19**). However, based on field verification and specialist interpretation, the vegetation mapping in this area appears to lack fine-scale accuracy, and the vegetation occurring historically at the site would likely have been transitional in nature, incorporating elements of all three vegetation types.

During the site investigation, it was observed that Agulhas Limestone Fynbos vegetation is no longer present on the property. The current vegetation is dominated by large Milkwood (*Sideroxylon inerme subsp. inerme*) forest stands, which are characteristic of Southern Coastal Forest, rather than Limestone Fynbos. This suggests that the site has undergone significant ecological change, likely due to historic land use transformation, soil modification, and local microclimatic conditions that have favoured the establishment of forest species over time.

From a conservation perspective, Agulhas Limestone Fynbos remains an important and unique vegetation unit within the Cape Floristic Region, despite the current absence of this vegetation on-site. Nationally, the unit retains approximately 95% of its original extent, with only 8% formally conserved, against a national conservation target of 32% of its original area (Rouget et al., 2004). The vegetation type is gazetted as Critically Endangered at the national scale (Government of South Africa, 2022), primarily due to its restricted global distribution and the ongoing threats from invasive alien plants, which have significantly altered many of its remnant habitats.

Elim Ferricrete Fynbos is a vegetation unit with approximately 40% of its original extent still intact, of which only 5% is formally conserved. The national conservation target for this vegetation type is 30% of its original extent (Rouget et al., 2004). It is gazetted as Endangered at a national scale (Government of South Africa, 2022) due to its restricted global distribution and the significant threats it faces, particularly from invasive alien plant encroachment, agricultural expansion, and habitat fragmentation. This vegetation type is characteristic of ferricrete and gravelly soils, often occurring on gently undulating terrain, and supports a range of fynbos species adapted to nutrient-poor substrates.

In contrast, Southern Coastal Forest retains approximately 94% of its original extent, with a remarkably high 89% of this area formally conserved, exceeding its national conservation target of 40% (Rouget et al., 2004). It is therefore classified as Least Concern at the national level (Government of South Africa, 2022). This vegetation unit is typically associated with coastal dune systems and sheltered valleys, supporting a dense canopy dominated by species such as *Sideroxylon*

inerme subsp. inerme (Milkwood) and *Olea europaea subsp. africana* (Wild Olive). The high level of conservation and relative ecological stability of this vegetation type contribute to its lower conservation concern.

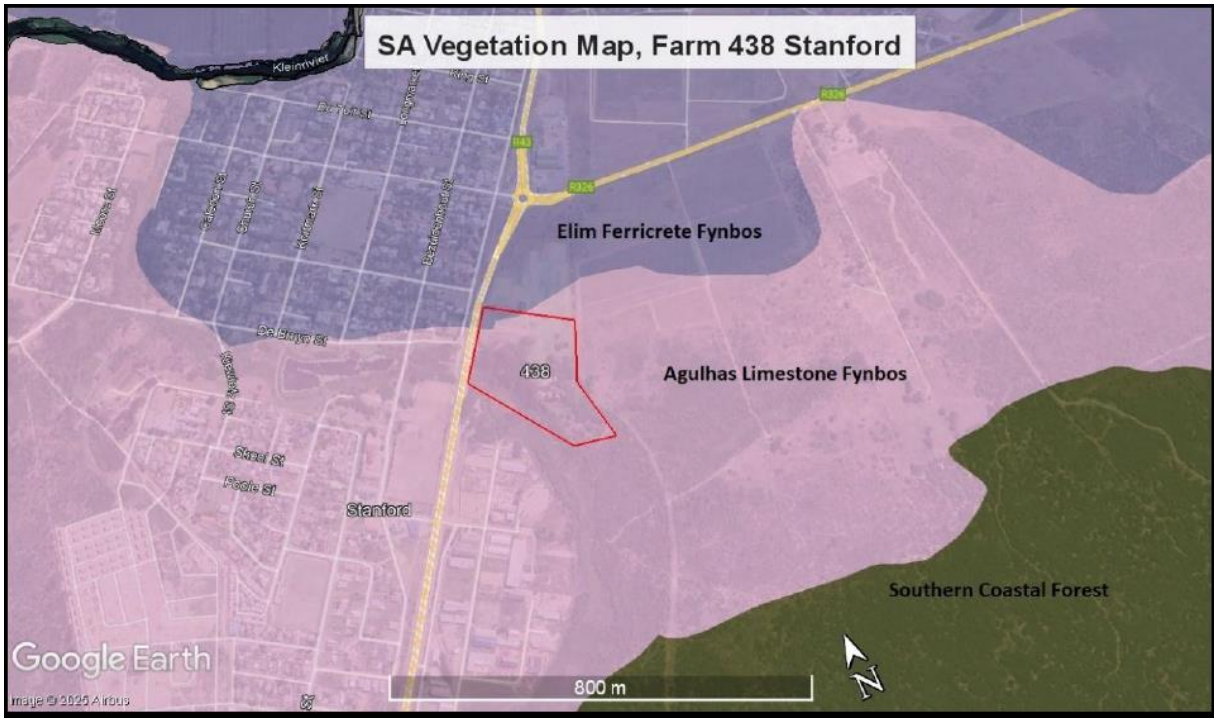


Figure 19: Showing that the primary vegetation type on site is mapped as Agulhas Limestone Fynbos, with some Elim Ferricrete Fynbos mapped in the northwestern corner. Southern Coastal Forest is shown as being about 500m to the southeast. In reality the original vegetation here would have been very transitional, with elements of all three mapped units. There is essentially no sign of Limestone Fynbos on site today. *Source;* (Helme, 2025).

The botanical specialist observed that approximately 65% of the site is currently covered by grassland, which occurs either as cultivated roll-on lawn or as alien grass sward. Of this grass cover, about 80% comprises the indigenous buffalo grass (*Stenotaphrum secundatum*), while the remaining 20% consists primarily of the alien invasive kikuyu grass (*Cenchrus clandestinus*).

Along the northern bank of the Mill Stream, extending from south of the existing dwelling to the R43, the vegetation is dominated by dense, tall stands of alien Eucalyptus (gum trees). Beneath these trees, indigenous vegetation is sparse, with only a few remnant shrubs such as *Searsia glauca, Searsia lucida, Euclea racemosa, Colpoon compressum, Olea europaea subsp. africana*, and *Gymnosporia buxifolia* persisting within the shaded understory.

The wetland elements within the main Mill Stream system were not surveyed in full detail; however, the dominant species identified include Phragmites australis (common reed), Typha capensis (bulrush), *Bolboschoenus* maritimus (sawgrass), *Senecio halimifolius* (tabakbos), and *Juncus kraussii* (steekriet). These species are characteristic of permanently and seasonally wet habitats, reflecting the wetland's ecological function and hydrological stability.

Approximately 1.0 hectare of the site supports Milkwood trees (*Sideroxylon inerme*), which occur both as scattered individuals and as dense stands. In areas where these trees form a closed canopy, the vegetation is best classified as Southern Coastal Forest. The understorey in these forested patches is dominated by the alien herb *Commelina benghalensis* (Benghal dayflower), which suggests a history of livestock disturbance or soil compaction. Few indigenous

shrub species persist in this layer, though occasional *Gymnosporia buxifolia* and *Olea europaea subsp. africana* individuals were recorded.

The southeastern corner of the site supports the most floristically diverse area, comprising approximately 0.14 hectares of seasonal wetland on clay-rich soils. This Very High sensitivity area supports a diverse assemblage of indigenous plant species, *including Orphium frutescens, Plantago carnosa, Athanasia dentata, Mariscus thunbergii, Frankenia repens, Stenotaphrum secundatum, Plecostachys serpyllifolia, Triglochin striata, Otholobium bracteolatum, Helichrysum patulum, Paspalum vaginatum, Carex sp., Osteospermum moniliferum, Passerina paludosa, Senecio pillansii, Schoenus nigricans, and Centella asiatica.* This ecologically sensitive wetland area is, however, under threat from invasive *Acacia saligna* (Port Jackson), which occurs in dense stands immediately to the east.

Plants Species of Conservation Concern

Notably, two listed plant Species of Conservation Concern (SoCC) were recorded within this southeastern wetland area within the Very High botanical Sensitive area (refer to **Figure 20**). Given the extent of disturbance across the remainder of the site, there is very limited potential for additional plant SoCC occurrences, as most of the habitat has been significantly altered and lacking the appropriate habitats (most are montane or limestone species).

The first species, *Passerina paludosa,* is classified as Endangered due to its extremely limited distribution, occurring only within seasonally wet lowlands from the Cape Flats (Rondevlei to Muizenberg) to areas near Pearly Beach, although it has not been recorded in this region since 2005. The discovery of this previously unreported population within the site is therefore regarded as highly significant. Approximately 20 individuals were recorded, forming a viable population within the southeastern section of the property. Given its rarity and the fact that suitable unsurveyed habitat may extend further up the Mill Stream valley, this population is considered regionally significant.

The second species, *Senecio pillansii*, is a perennial species listed as Near Threatened, with a broader distribution extending from the Cape Peninsula to Stilbaai. The population observed on site is relatively small, consisting of fewer than 10 individuals, and is therefore not regarded as regionally significant. Nonetheless, its presence contributes to the overall botanical value of the southeastern wetland area.

Botanical Sensitivity

According to the botanical specialist, the current botanical sensitivity of the site varies considerably across different habitat types, as illustrated in **Figure 20**. The southeastern corner of the property is classified as the only Very High sensitivity area, primarily due to the presence of two plant Species of Conservation Concern (SoCC*), Passerina paludosa* (Endangered) and *Senecio pillansii* (Near Threatened), both of which are restricted to this portion of the site.

The Mill Stream wetland is rated as having Medium botanical sensitivity as there are patches of Milkwood trees (*Sideroxylon inerme*) and other associated indigenous trees are also assigned Medium botanical sensitivity but are regarded as having High ecological value.

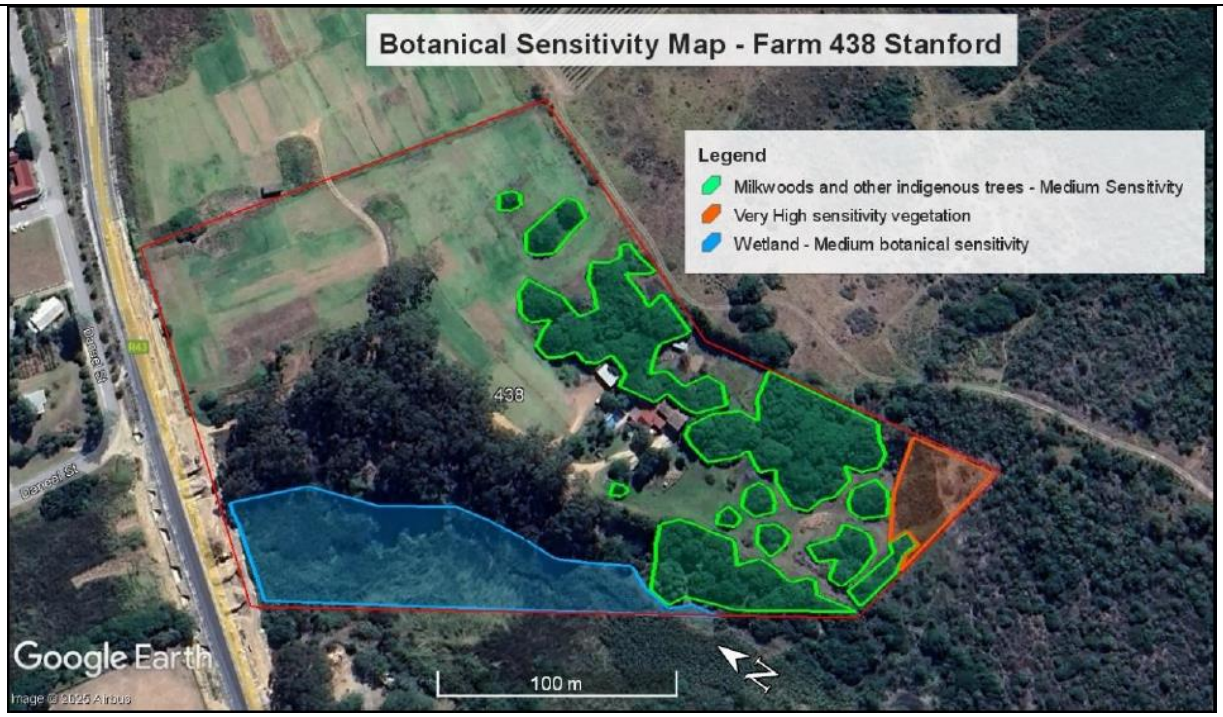


Figure 20: Map of the botanical sensitivity on Farm 438 Stanford. All unshaded areas within the study area are of Low botanical sensitivity. *Source*; (Helme, 2025).

Impact Assessment

Construction Phase Botanical Impacts

According to the botanical specialist, the primary botanical impact during the construction phase of the proposed development will be the loss or disturbance of remaining natural and semi-natural vegetation within the development footprint. Although the mapped vegetation type for the site is Agulhas Limestone Fynbos, which is gazetted as Critically Endangered on a national scale (Government of South Africa, 2022), the onsite vegetation is more accurately described as Southern Coastal Forest, a vegetation unit listed as Least Concern. The anticipated vegetation loss during construction is therefore regarded as permanent, although limited in spatial extent and low in ecological significance, particularly since most of the affected areas are already transformed.

Based on the proposed development layout and the construction methodology, it is expected that there will be minimal loss of Medium sensitivity habitat, particularly within the milkwood-dominated areas. Although some infrastructure and accommodation units (pods) are proposed under the existing milkwood canopy, the construction approach has been specifically designed to avoid disturbance to trees and their root zones. The pods will be prefabricated off-site and assembled in situ without the need for concrete foundations. Instead, elevated prefabricated bases will be utilised to minimise soil compaction and root disturbance.

In addition, all service infrastructure (including water, sewerage, and power lines) within the milkwood area will be routed beneath the elevated boardwalks connecting the accommodation pods. These service lines will then extend outward to connect with the main service corridors along the road network, further reducing ground disturbance within sensitive vegetation areas.

Importantly, no Very High botanical sensitivity areas—including the southeastern seasonal wetland supporting *Passerina paludosa* and *Senecio pillansii* will be impacted during the construction phase. The majority of the hard development

footprint falls within areas of Low botanical sensitivity, with only soft construction elements (such as boardwalks and prefabricated units) extending into Medium sensitivity areas. These activities are not expected to cause any permanent damage or vegetation loss.

The botanical significance of the anticipated construction-phase impact is therefore assessed as Low negative (both before and after mitigation), as the extent and scale is very small. Minor mitigation could be implemented at the operational phase.

No plant Species of Conservation Concern will be impacted at the construction phase.

Operational Phase Botanical Impacts

Operational phase impacts will take effect as soon as the natural vegetation in the focus area is lost or disturbed, and will persist in perpetuity, or as long as the area is not adequately rehabilitated. Operational phase impacts include loss of current levels of fair ecological connectivity across the area, and associated habitat fragmentation, plus potential positive impacts such as revegetation with locally indigenous species and alien invasive vegetation management.

Overall, the operational phase botanical impact of the development is likely to be Low negative (prior to mitigation), and Very Low negative after mitigation.

The No Go alternative would clearly have a lower indirect (operational phase) botanical impact than the development of most of this area, although even in the No Go scenario the landowner could potentially introduce very high stocking rates on site that lead to severe overgrazing, trampling and denudation of whatever vegetation remains, in which case No Go impacts could be as high as Medium negative.

Terrestrial Animal Site Sensitivity Verification and Species Specialist Assessment

The faunal assessment field survey was conducted over two consecutive days to capture both diurnal and nocturnal activity patterns of fauna within the study area. The first site visit was undertaken on 23 January 2025, between 18h00 and 22h00, to allow for the detection of nocturnal species such as small mammals, amphibians, reptiles, and nocturnal birds. A follow-up visit occurred on 24 January 2025, between 08h00 and 11h00, focusing on diurnal fauna, including avifauna, reptiles, and invertebrates.

Survey methods included direct observation, call identification, and active searching in various microhabitats such as under logs, within leaf litter, near wetland edges, and within forested and grassed areas. Evidence of faunal presence such as tracks, droppings, burrows, nests, and vocalisations was also recorded to supplement species identification.

The Project Area of Influence (PAOI) encompasses the entire development property, which measures approximately 5 hectares, as well as the immediate surrounding environment likely to experience secondary or indirect ecological impacts resulting from the proposed development (Figure 4; Table 6). This includes adjacent vegetation patches, the Mill Stream and its associated wetland system, and surrounding open areas that serve as potential dispersal or foraging habitat for local fauna.

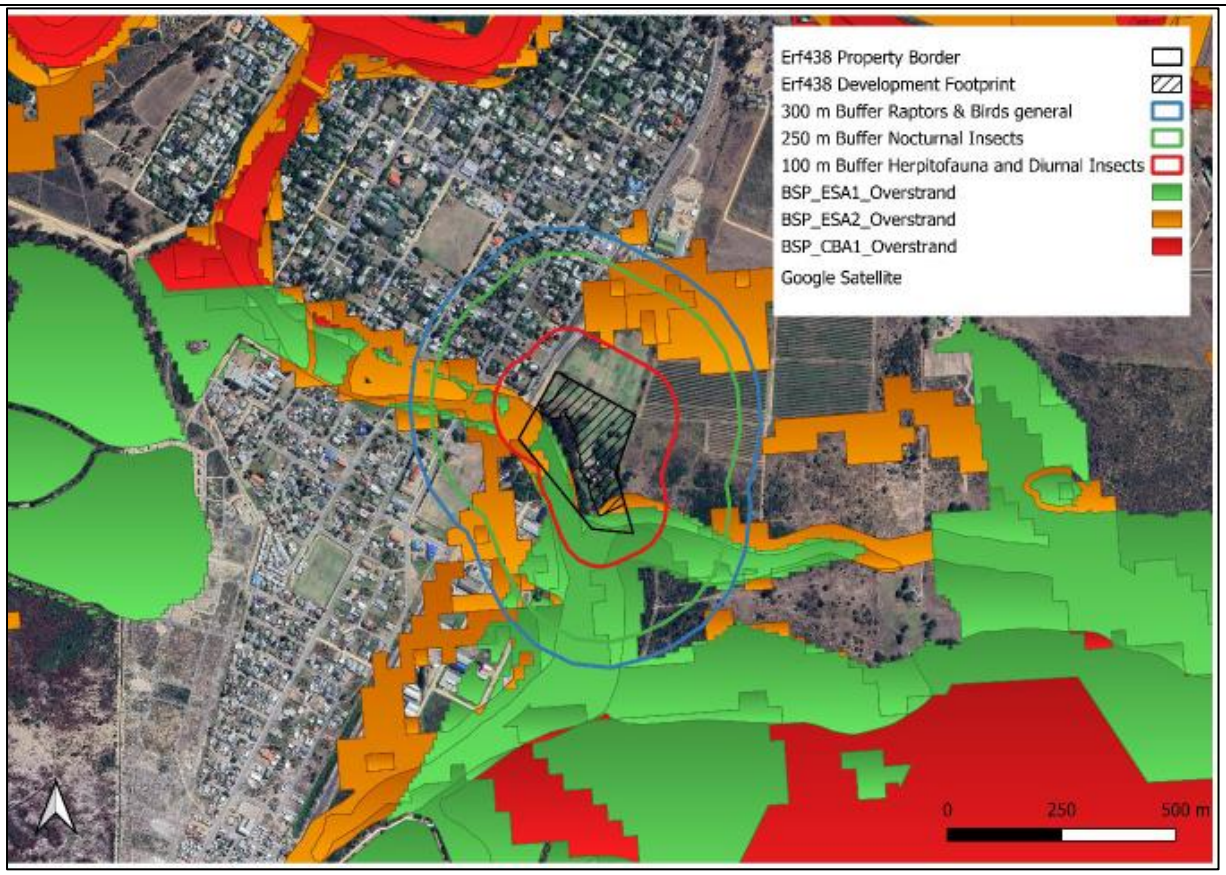


Figure 21: The PAOI was set considering main SCC we think are present on or close to the development footprint. *Source*; (Venter, 2025).

Habitat Description

A combination of desktop screening using Google Earth imagery and on-site verification was undertaken to identify and describe the key habitat types within the Project Area of Influence (PAOI) of the proposed development site. Intensive searches were carried out within the development footprint. The property is relatively simple in terms of habitat types important to faunal species due to it being highly transformed. From a faunal perspective there are five different habitat types, namely wetland, Eucalyptus forest, lawn, milkwood forest and tributary wetland habitat (Figure xx).

Wetland Habitat

The wetland habitat on site forms part of the Mill Stream system (van Zyl, 2024) and occupies approximately 7,080.15 m^2 (0.71 ha). This area includes open water and dense stands of Arundo donax (Giant reed), an invasive alien plant listed under Category 1b of NEMBA in South Africa. The wetland is situated along the western portion of the property, bordered to the east by mature Eucalyptus trees and to the west by the provincial R43 road. The wetland supports a range of species, including amphibians, small mammals, invertebrates, and wetland-associated birds (see Table 7 of the Terrestrial Aimal Species Assessment).

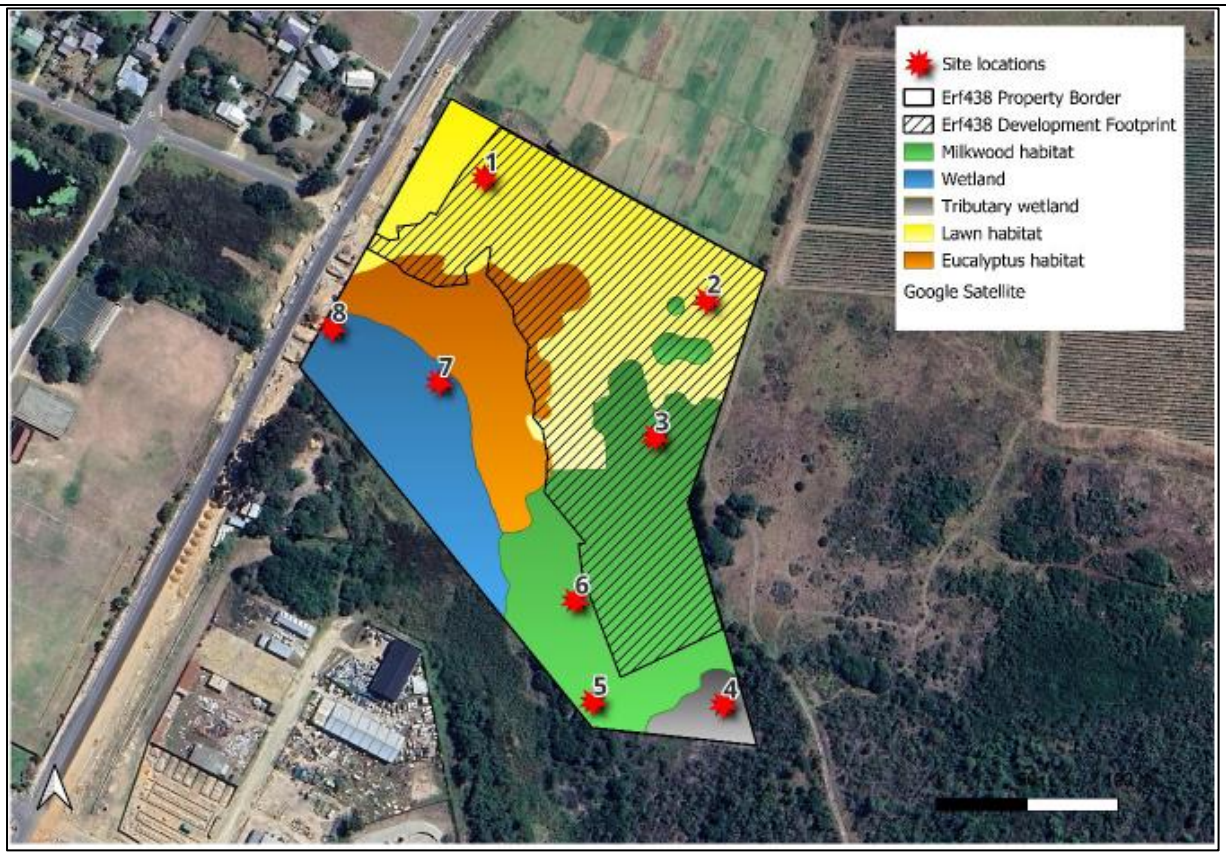


Figure 22: The entire property was covered during the search effort. Five different faunal habitat types were identified. Sites are indicated for habitat description purposes. *Source;* (Venter, 2025).

Photo 14. The wetland habitat as seen from the south of the habitat, near the property's southern boundary, dominated by tall Arundo donax, an exotic reed that forms dense stands. Source; (Venter, 2025).

Eucalyptus Forest

The Eucalyptus Forest habitat occupies approximately 7,748.27 m² (0.77 ha) on the property. The canopy is dominated by Eucalyptus trees exceeding 20 m in height, providing a dense overstorey. The understorey is sparse, with some indigenous species present, including *Maytenus oleoides* and *Searsia laevigata*. The ground layer is largely covered by Eucalyptus leaf litter, fallen branches, and scattered building rubble, limiting habitat complexity for ground-dwelling fauna. This habitat was less species diverse.

Lawn Habitat

The lawn habitat occupies approximately 15,954.03 m² (1.6 ha), predominantly in the northern and northeastern portions of the property. This habitat consists of planted grass cultivated for commercial sale, growing on a sandy substrate. Natural vegetation is largely absent, and grass height averages less than 0.2 m. The habitat also contains some transformed seep wetlands (van Zyl, 2024) and includes two isolated stands of *Sideroxylon inerme* (milkwood). The lawn is regularly irrigated, maintaining consistent moisture levels that contribute to faunal activity. Despite the highly modified nature of the habitat, it supports notable faunal activity, particularly amphibians. An abundant number of frogs were observed foraging on the lawn during nocturnal surveys.

Photo 15: The lawn habitat dominates the north and northcentral part of the property and has little to no natural vegetation within it, except for two stands of milkwood trees which hosts multiple indigenous plant species associated with coastal forest vegetation (see Milkwood habitat below). (Source, Venterr, 2025).

Milkwood Habitat

The Milkwood habitat is dominated by *Sideroxylon inerme* trees, forming tall canopy thickets with interspersed unkept grass taller than the lawn areas. This habitat covers approximately 16,440.11 m² (1.64 ha), located in the central-

southern portion of the property. This habitat exhibited greater species diversity compared to the surrounding lawns and Eucalyptus forest (Refer to Table 10 of the Animal Species Assessment). It supports a variety of indigenous, typically coastal forest-associated plant species, reflecting the area's higher ecological value. Notable species include:

- *Chionanthus foveolatus*
- *Lauridia tetragona*
- *Sideroxylon inerme*
- *Searsia glauca*
- *Searsia laevigata*
- *Olea europaea subsp. africana*
- *Olea exasperata*
- *Gymnosporia buxifolia*
- *Carissa bispinosa*
- *Osteospermum moniliferum*
- *Maytenus oleoides*
- *Myrsine Africana*

Tributary wetland habitat

The tributary wetland habitat occupies approximately 1,163.67 m² (0.12 ha) in the southernmost part of the property. This habitat primarily consists of indigenous fynbos or heathland vegetation, classified under Agulhas Limestone Fynbos (Rebelo et al., 2006). It experiences seasonal wetting, although the habitat was dry during the site visits (van Zyl, 2024).

- *Vegetation composition includes:*
- *Chironia sp. (very abundant)*
- *Falkia repens*
- *Polygala myrtifolia*
- *Gnidia squarrosa*
- *Osteospermum moniliferum*
- *Olea exasperata*
- *Passerina corymbosa*
- *Elegia sp.*
- *Restio spp.*

There is emerging invasion by Acacia spp., but these are scattered and occur in low numbers. The average vegetation height is approximately 1.4 m, and the habitat is in generally good condition, despite its small size. Several faunal species were recorded utilizing this habitat, indicating its ecological relevance within the property (refer to Table 11 of the Animal Species Assessment).

Photo 16: The sedges / fynbos habitat was relatively pristine and was dominated by a species of *Chironia*, which in turn attracted an abundance of *Xylocopa caffra*. In the foreground, *Chironia* is seen with pink flowers; in the background, a milkwood clump is seen with some invasive Acacia spp. present.

Animal Species of Conservation Concern

Transformed state of the property

The specialist notes that the property is currently in a highly transformed state, dominated by lawn for commercial ventures, and Eucalyptus trees present. However, the remaining natural vegetation is relativity in a good state, mainly composed of the milkwood forest clumps and the remnant fynbos patch at the southernmost boarder of the property. the specialist further highlights that the transformed nature of the much of the areas of the property has negative implications for animal occurrence, diversity, and density.

Connectivity for animal species

According to the Western Cape Biodiversity Spatial Plan (Pool-Stanvliet et al., 2017), the study area falls within portions of Ecological Support Areas (ESA1 and ESA2). From a faunal perspective, these areas provide critical ecological corridors that enable movement of ground-dwelling species, including the Western Leopard Toad, between Critical Biodiversity Areas (CBA1) and other ESA areas to the north and south of Stanford.

The faunal specialist highlights that the wetland habitats on site are particularly important for maintaining ecological connectivity and should therefore be avoided during development to preserve movement pathways and habitat integrity.

The proposed development footprint intersects ESA1 and ESA2 zones within the project area of influence (PAOI). Given this overlap, the faunal connectivity risk is assessed as 'medium', provided that the mitigation measures are in place to facilitate continued movement of species across the site.

Birds' species

Five of the bird species which were identified in the screening tool were not observed during site visit and therefore have been assigned **very low** negative. This is also due to the transformed nature of the site, and unsuitable habitat for some of the species, although some have been noted that they could utilise the site for foraging. Overall, it is believed that the proposed development will not impact the species.

- Black harrier (*Circus maurus)*
- African marsh harrier (*Circus ranivorus)*
- Martial eagle (*Polemaetus bellicosus)*
- Southern black korhaan (*Afrotis afra)*
- Denham's bustard (*Neotis denhami)*

Reptile species

One reptile species Southern Adder *(Bitis armata)* classified as Vulnerable was identified in the screening tool with the likelihood presence onsite. However, this species was not observed during site visit. However, the faunal specialist notes that the Milkwood and tributary habitat area are marginally suitable for this species. The impact of the development on Southern Adder Bitis armata, by the proposed development will therefore likely be '**very low'**.

Amphibian species

One amphibian Western leopard toad (*Sclerophrys pantherine)* which is listed as 'Endangered' species was identifies in the screening tool report with the likelihood occurrence onsite. One of the population strongholds for this species is located in Stanford in the Millstream wetland (Willem Appel Dam) just a few hundred meters to the west of the property (Doucette-Riise 2012, Casola 2017, Whale Coast Conservation 2024) (unpublished data CapeNature, iNaturalist and Whale Coast Conservation). Considering that the property is surrounded by sites where the toad has been observed and a confirmed breeding site just to the west it is highly likely that the species occurs and likely breeds there. This species was not observed during site investigation.

The specialist highlighted that all the habitats except perhaps the eucalyptus habitat is usable for the toads in some form. The development will result in permanent loss of habitat and if not mitigated properly long term detrimental consequences for the population. Long term impact will be mainly because of potential roadkill and connectivity issues. Disturbance during construction phase will have a negative impact. Decreased water quality from stormwater runoff affecting breeding areas downstream is also a cause for concern. The potential impact on Western leopard toad *Sclerophrys pantherine* without mitigation is classified as '**medium**'. With mitigation focussed on enhancing connectivity, preventing roadkills and maintaining stormwater runoff quality (see recommendations section) impact remains '**medium**'.

Invertebrate species

Two (2) invertebrate species, including the Yellow-winged Agile Grasshopper (*Aneuryphymus montanus*) and Mute Winter Katydid (*Brinckiella aptera*) were identified in the screening tool with the likelihood occurrence onsite. However, both of these invertebrate species were not found during site visit.

The proposed developments are classified as '**very low'** impact on *A. montanus*, due to 1) distance to mountains and low elevation (10-20m asl), 2) an absence of species data from this area, 3) no host plant records being available to link present vegetation to possible insect species occurrence, 4) no direct evidence of occurrence, and 5) the high level of transformation of large areas of the site that will not support A. montanus.

The proposed developments are classified as **low** impact on *B. aptera,* due to 1) no host plant records being available to link present vegetation to possible insect species occurrence, 2) no direct evidence of occurrence after extensive sweep netting, and 3) the high level of transformation of the majority of the site that will not support *B. aptera.*

4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.

The primary objective of the South African National Biodiversity Institute (SANBI) and the Western Cape Biodiversity Spatial Plan (WCBSP) is to guide compatible land uses that maintain the ecological integrity and biodiversity of the region, thereby contributing to the achievement of biodiversity conservation targets. The WCBSP provides spatially explicit biodiversity priorities and management guidelines to ensure that development is aligned with ecological sustainability and landscape-scale connectivity.

Aquatic Biodiversity

Following the aquatic biodiversity screening assessment conducted by Joshua Gericke on 25 July 2023, three wetlands were confirmed and delineated onsite namely, a hillslope seep wetland , a Mill Stream UVB wetland and a Tributary UVB wetland, coinciding with non-perennial drainage lines. For this reason, the site was determined to be of "Very High" aquatic sensitivity through the screening tool report. Given the confirmed presence of these wetlands, an Aquatic Biodiversity Impact Assessment was undertaken by Delta Ecology.

According to the Western Cape Biodiversity Spatial Plan (WCBSP, 2017), the Mill Stream together with the Tributary UVB wetland corridor is designated partly as ESA1 (Aquatic) and partly as ESA2 (Degraded), while the remainder of the property remains unclassified. The proposed development footprint overlaps approximately 0.87 ha of the seriously degraded hillslope seep wetland located within the unclassified area. Both delineated UVB wetlands have been set aside along the southeastern and southwestern boundaries, with a 32 m buffer, to function as private open space and to retain their ecological integrity.

The onsite hillslope seep wetland will be lost due to the construction of the private road and residential units. However, this area is already severely degraded due to prior roll-on lawn cultivation and soil modification. Importantly, it is not designated as ESA1 or ESA2 in the WCBSP (2017), and its importance score in terms of ecosystem services were all within very low and moderately low categories, as confirmed by the freshwater specialist. The WCBSP informed the specialist's field verification and played a central role in shaping the development layout (Alternative 2). By avoiding ESA1 and ESA2 areas, the development retains the most sensitive aquatic zones within the open space network (Mill Stream and tributary UVB wetland).

Moreover, to ensure a net ecological gain despite the loss of the hillslope wetland, a Wetland Offset, Rehabilitation, and Management Plan has been developed, which provides for the rehabilitation of 1.2 ha of onsite wetlands and an additional 1.7 ha of offsite wetland habitat along the Mill Stream on Municipal land. These interventions are consistent with the management objectives of ESA1 and WCBSP guidelines, ensuring that aquatic ecosystem function, hydrological connectivity, and biodiversity are restored.

The WCBSP (2017) therefore played a central role in guiding the development design by identifying aquatic features and their buffers that must be excluded from development. Through this spatial guidance, the development footprint was adjusted to maintain the ecological integrity of the Mill Stream system and to avoid all ESA1 and ESA2 areas onsite.

Terrestrial Biodiversity and Plant Species

The majority of the property is unmapped, reflecting areas proposed for development that do not currently fall within designated Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs). However, the mapping identifies a narrow ESA1 (aquatic) corridor following the Mill Stream, with adjacent ESA2 (terrestrial) zones along its borders. These zones represent areas that play an important supporting role in maintaining ecosystem function, particularly in relation to hydrological connectivity and riparian ecological processes.

Field observations and specialist assessment confirmed the presence of the Mill Stream wetland and associated buffer, validating the WCBSP's delineation of these zones. The specialist also noted that the southeastern corner of the site, which contains a mature Milkwood-dominated forest patch, holds high ecological integrity and could warrant reclassification as CBA1 (terrestrial), due to its conservation value and contribution to landscape-level biodiversity connectivity.

From a botanical perspective, the preferred layout (Alternative 2) avoids all High and Very High sensitivity areas, including the Milkwood forest and the seasonal wetland in the southeast that hosts two Species of Conservation Concern (SoCC) *Passerina paludosa* (Endangered) and *Senecio pillansii* (Near Threatened). Approximately 65% of the property comprises heavily disturbed or cultivated grassland, with no remaining representative Agulhas Limestone Fynbos present. The design of the development has therefore been guided by the avoidance of sensitive features and the concentration of infrastructure within Low sensitivity areas, in line with WCBSP management objectives.

Animal Species

From a faunal perspective, the ESA1 and ESA2 areas mapped contributes to ecological connectivity, particularly for ground-dwelling species such as the Western Leopard Toad and is therefore considered both important and essential. The faunal specialist advises that development within mapped ESA1 areas should be avoided to prevent significant biodiversity impacts.

The preferred development layout has been designed to avoid all mapped ESA areas on the property by designating these zones as open space. Consequently, the development footprint will remain entirely outside the mapped ESA onsite, maintaining critical habitat linkages and supporting the continued movement of terrestrial fauna. All habitats mapped by the faunal specialist on the site, with the possible exception of the eucalyptus-dominated areas, are potentially usable by the Western Leopard Toad (*Sclerophrys pantherina*) in some form. The proposed development is expected to result in a permanent loss of habitat, which, if not properly mitigated, could have long-term detrimental consequences for the toad population. Key long-term impacts are likely to arise from potential road mortality and reduced habitat connectivity. Disturbance during the construction phase is also anticipated to negatively affect the species, while decreased water quality from stormwater runoff impacting downstream breeding areas is an additional concern.

The potential impact on *Sclerophrys pantherina* without mitigation is classified as 'medium' . With mitigation measures focused on enhancing connectivity, preventing road mortality, and maintaining stormwater runoff quality, the impact remains classified as 'medium'. Under a 'no-go' scenario, the current landscape degradation is expected to persist, with impacts similarly classified as 'medium'. Following the recommendation for a biodiversity offset to compensate for the possible loss of Western Leopard Toad habitat, a Wetland Offset, Rehabilitation and Management Plan was prepared. The plan provides a scientifically robust offset framework, employing the Macfarlane et al. (2014) national wetland offset calculator, and identifies both onsite and offsite rehabilitation areas along the Mill Stream and its tributary wetlands.

From a faunal perspective, the plan addresses the objectives of the recommended biodiversity offset by:

- → Securing and enhancing breeding and foraging habitat for the Western Leopard Toad (*Sclerophrys pantherina*) through the restoration of functional wetland systems and associated buffer zones;
- → Removing alien vegetation, notably Eucalyptus camaldulensis, and rubble that had previously degraded amphibian and invertebrate habitats, as well as thinning and controlling dense stands of Phragmites australis;
- → Establishing indigenous vegetation within the wetland offset areas to provide habitat for faunal species of concern;
- → Implementing stormwater management and "toad-friendly" design interventions to maintain hydrological connectivity and reduce road mortality; and
- → Instituting long-term management and monitoring commitments to ensure the persistence of amphibian and wetland-dependent fauna.

The inclusion of an offsite portion of the Mill Stream wetland, secured through a lease agreement with the Overstrand Municipality, provides additional ecological compensation and connectivity benefits. Collectively, these offset measures are expected to achieve no net loss of faunal habitat function and align with the SANBI (2020) offset and SEI guidance applied in this faunal assessment.

Furthermore, the updated WCBSP (2023) now reclassifies most of the property as a Critical Biodiversity Area (CBA1), with the remaining portions unmapped. While this reflects an evolution in provincial biodiversity planning and improved spatial data resolution, it postdates the commencement of the botanical study and the formulation of the preferred development layout (Alternative 2).

It is important to note that the botanical assessment was initiated prior to the release of the updated Western Cape Biodiversity Spatial Plan (WCBSP, 2023). At the time of the study, the Western Cape Biodiversity Spatial Plan (2017) was the most recent and applicable planning informant available. Consequently, the assessment and the subsequent refinement of the preferred development layout were informed primarily by the 2017 WCBSP.

4.5.	Explain what impact the proposed development will have on the site-specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.

The proposed development has been carefully informed by the objectives and management guidelines of the Western Cape Biodiversity Spatial Plan (WCBSP, 2017). The plan identifies critical areas for conservation, including Ecological Support Areas (ESA1 and ESA2) and wetlands that contribute to both terrestrial and aquatic ecological connectivity.

Aquatic Features

Onsite wetlands include a hillslope seep wetland and two Unchanneled Valley-Bottom (UVB) wetlands associated with non-perennial drainage lines. The hillslope seep wetland, located within the unclassified portion of the property, is already significantly degraded due to historical land-use activities such as soil compaction and cultivation. Its loss as a result of construction and road development will not substantially diminish the overall aquatic ecological function of the property. In contrast, the two UVB wetlands are in moderate to good condition and have been retained in the proposed layout, with 32 m buffers provided to maintain their ecological function. These wetlands align with ESA1 and ESA2 designations in the WCBSP, and their protection has influenced the development layout by directing all construction activity away from these sensitive areas.

Terrestrial Plants and Animal Species

From a terrestrial perspective, the property contains patches of milkwood forest and scattered indigenous vegetation, which provide habitat for species such as the Western Leopard Toad and other small fauna.

From the botanical perspective, two plants species of conservation concern that were identified in the southwestern portion of the site, within the Very High botanical Sensitive area, which is the only location containing plant species of conservation concern and designated as Very High Sensitivity in the property will be avoided from construction and thus will remain as an open space. Other areas which include the Milkwood forest and other indigenous vegetation is considered as Medium botanical sensitive. It should be noted that the proposed development in this area will avoid all trees, and in the milkwood area the accommodation pods will be built off-site. There will be no concrete foundations in the milkwood area, with a prefabricated base being used. All services (water reticulation, sewerage and power) in this area are to be housed under the boardwalk connecting the pods and then lead off and connected to the main services along the road network.

4.6.	If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.

N/A

4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.

The presence of fauna on and adjacent to the proposed Stanford Eco-Estate development has significantly influenced the design, layout, and proposed management interventions. Field surveys and specialist assessment confirmed the ecological importance of the Mill Stream and tributary wetlands as key faunal habitats, particularly for the Endangered Western Leopard Toad *(Sclerophrys pantherina*), as well as other amphibian, reptile, and invertebrate species dependent on wetland and Milkwood habitats. The development area forms part of a broader ecological corridor (ESA1 and ESA2) linking Conservation Biodiversity Area (CBA1) habitats to the north and south of Stanford. This connectivity function informed both the delineation of no-go zones and the configuration of development clusters to retain ecological movement pathways.

To reduce habitat loss and ensure faunal persistence, the development footprint was refined to avoid the delineated wetlands and to maintain a 32 m wetland buffer zone around the Mill Stream and tributary systems. Infrastructure placement, such as access roads and residential erven, was designed to minimize intrusion into sensitive habitats, while open space networks and rehabilitated corridors were integrated to preserve connectivity for ground-dwelling species. The design also incorporates amphibian-friendly features, including permeable fencing, “toad holes” and underpasses to allow for safe passage of Western Leopard Toads and other small fauna across internal roads.

Lighting design and stormwater infrastructure were adapted to further mitigate faunal disturbance. Low-spectrum, downward-directed lighting was prescribed to reduce disorientation of nocturnal species, while stormwater swales, detention ponds, and vegetated filters were included to prevent degradation of downstream breeding habitats through sediment and pollutant runoff. Landscaping guidelines restrict the use of alien species and promote indigenous, low-stature vegetation to provide foraging and shelter habitat.

Recognizing the residual impact associated with permanent habitat transformation, a Wetland Offset, Rehabilitation and Management Plan was developed in alignment with the faunal specialist recommendations. This plan secures and restores additional on-site and off-site wetland areas along the Mill Stream, thereby expanding suitable breeding and foraging habitat for amphibians. It also includes the removal of alien Eucalyptus stands and suppression of dense Phragmites growth to maintain visibility and accessibility of culverts used by fauna.

Long-term conservation measures include community education, strict domestic pet management, and monitoring of amphibian movement and abundance, particularly during the breeding season (July–September). Collectively, these design and management responses demonstrate that the presence of fauna especially the Western Leopard Toad has been a major determinant of the site layout, infrastructure design, and ecological rehabilitation strategy for the Stanford Eco-Estate development.

5. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.
Extract from the Environmental Site Analysis and Planning Indicators Report by Bernard Oberholzer, addresses this aspect: "**1.2 Geology and Soils** The site lies at the transition zone between the underlying Bokkeveld Group shales to the north and the Waenhuiskrans Formation of the Bredasdorp Group to the south, which consists of semi-consolidated dune sands and calcrete. The site itself lies within the zone of light grey sandy soils, which is at the northern extremity of the Stanford Aquifer, (Umvoto, 2022). The stream emanating from the spring to the south forms a small wetland adjacent to the R43 Road, which is likely to have more organic hydromorphic soils. No soil survey has been carried out to date, however the wetland report by Delta Ecology (October 2023) mentions that the wetland soils were waterlogged and exhibited gleying. **1.3 Topography and Hydrology** The site has a gentle slope which falls from a high point of 53m elevation in the NE corner to 47m elevation at the wetland to the west. Most of the site has a gentle slope gradient of about 1:33, and a slightly steeper gradient down to the wetland ranging from 1:13 to 1:20. The Mill Stream wetland on the western part of the site has its source at the spring further south, which was once the main source of water for the village of Stanford, and is still used to supply the current irrigation, or *leiwater* system of the historical part of the village. The Mill Stream makes its way under the R43 via a number of culverts before flowing into the Willem Appel Dam further downstream. The culverts also facilitate movement of the threatened leopard toad and other fauna. The only other drainage feature is the small ephemeral tributary at the southern end of the site, which drains into the wetland. There are no other surface water features, mainly because of the relatively porous sandy soils." No further geographical aspects are identified. None of the geological features mentioned above, or soil conditions will preclude development of the property.

6. Heritage Resources

6.1.	Was a specialist study conducted?	YES x	~~NO~~
6.2.	Provide the name and/or company who conducted the specialist study.		
CTS Heritage (Jenna Lavin)			
6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.		

Heritage Impact Assessment

Archaeology Resources

The field assessment was undertaken in conjunction with S. Winter. The development area was inspected on foot from south to north. Much of the area has limited archaeological visibility due to dense buffalo grass cultivation and the leaf litter associated with the milkwood forests. Where the buffalo grass has been recently removed, the ground surface below the grass was visible. In the ground surface beneath the buffalo grass, a low-density layer of Middle Stone Age artefacts (flakes and flaked pieces) was visible. No other associated material culture was evident, and the artefacts identified are *ex situ.*

It is likely that this low-density scatter extends across the development area in the soil layer beneath the grass. This is not unexpected due to the proximity of a reliable water-source, "Die Oog" and the milkwood forest. As noted above by Webley (2013), "Very little archaeological work has been carried out in this particular area. Most of the archaeological research which has been conducted in this section of the southern Cape has been concentrated along the coast (see Hart 2010). A number of sites have been recorded along the rocky shoreline near Hermanus by Kaplan (2007). These are primarily Later Stone Age shell middens. Early and Middle Stone Age artefacts scatters have been recorded on the Hermanus Golf Club and at the Fernkloof Nature Reserve."

Although there are very few recorded examples of similar resources in this area, and as such, these artefacts have value in terms of rarity in the immediate context, the artefacts themselves have limited scientific value due to the extensive previous disturbance of the property through ongoing and historic agricultural activities on site.

None of the observations made have sufficient scientific cultural value to warrant conservation and as such, no impact to significant archaeological heritage is anticipated from the proposed development.

Recommendations

There is no objection to the proposed development from an archaeological perspective on condition that:

- Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward.

Palaeontology Resources

The area is underlain by the Strandveld Formation of the Bredasdorp Group, which holds a low palaeontological significance. Nevertheless, the sediments of the Ceres Subgroup, which has a high palaeontological sensitivity, are likely underlying the Strandveld Formation.

However, the specific nature and scope of the development have led to the determination that the palaeontological sensitivity for this project is low. This conclusion is predicated on the fact that the construction of the housing development will necessitate only minor excavation, which is restricted to the superficial sediment layers extending a

few metres into the subsurface. This limited excavation is unlikely to impact the extensive bedrock where most palaeontological resources would be found.

Given the local scale of the excavation and the measures taken to minimise the environmental footprint of the construction, the likelihood of impacting significant palaeontological resources is minimal. As such, the impact on palaeontological heritage during the development is assessed as low, with mitigation measures in place to address any unforeseen discoveries.

Recommendations

Nevertheless, the report recommends that mitigation measures be in place to address any unforeseen discoveries of palaeontological significance during the construction phase. Therefore a Chance Fossil Find Protocol has been added to the report in the unexpected event that palaeontological finds are made**.**

Cultural Landscape Resources

Cultural landscape resources have been assessed at the broader landscape, townscapes and site scale recognising the location of Stanford within Klein Rivier Valley as a distinctive cultural landscape and the location of Erf 438 within the Stanford HPOZ which is of Grade IIIA heritage value. At the site scale the following heritage resources are identified:

- "Die Bron/Die Oog" has been graded IIIA in terms of the Overstrand Heritage Survey (2009) in terms of its historical, technological and environmental significance being closely related to the development of Stanford since the mid-19th century and the nature of the gridiron pattern and associated leiwater system. The associated mill stream traversing the southern portion site is also worthy of Grade IIIA heritage value.
- The milkwood forest has been identified in the Overstrand Heritage Survey (2009) as conservation-worthy. Although no heritage grading has been assigned to the forest in terms of this survey, this distinctive landscape feature is worthy of Grade IIIA heritage value.
- The R43 and the R326 have been designated as HPOZ: Scenic Drives being routes of regional scenic significance. While the site is located adjacent to the R43, the site is located some distance from the R326 and will be obscured from view by future development to the north and north-east of the site.

The principle of development of the site is supported from a cultural landscape perspective. Heritage indicators have been prepared at the broader landscape, townscape and site scales. The proposed development is largely in accordance with the heritage indicators with further refinements required and indicated below.

Recommendations

There is no objection to the proposed development from a heritage perspective on condition that:

The following requirements are implemented in the project design and are submitted to HWC for further comment and endorsement:

- Detailed designs of the Treehouse Lodge being submitted to HWC for further comment and endorsement.
- Amendment to the double storey height of the proposed residential buildings by allowing for a roof attic/loft expression of upper storey elements and/or the Stanford Heritage Guidelines
- Detailed design development proceeding largely in accordance with the Site Plan and Landscape Plan attached as Figures 1.5 of the HIA report.
- Detailed design development proceeding largely in accordance with the Landscape Development Plan and Stanford Eco-Estate Architectural Guidelines respectively.
- There is no objection to the proposed demolition of the existing residential structure located on the site as this structure has been determined to be Not Conservation-Worthy.

- The attached HWC Chance Finds Protocol is implemented for the duration of excavation activities
- Should any buried archaeological resources, palaeontological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds.
- Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward.

7. Historical and Cultural Aspects

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.

The Heritage Specialist (J. Lavin) has indicated that, notwithstanding the inclusion of the site within the Heritage area on the Overstand Public Viewer this property is NOT within the gazetted area managed in terms of Section 31 of the NHRA. However, because it is included on the Stanford Heritage Protection Overlay Zone (HPOZ) some conditions will apply to the development:

→ The Overstrand Municipality By-Law on Municipal Land Use Planning 2020 will constrain decisions in respect of development inside the HPOZ
→ Building Plan applications must be referred to the Overstrand Heritage and Aesthetics Committee because the property is shown on the HPOZ.
→ Council may apply general provisions in respect of all HPOZ and specific provisions identified in Chapter 3

The design of the buildings (Cape Farmhouse) has influenced the architecture due the proximity to the village of Stanford, which is a Heritage Conservation area with a number of Victorian and Edwardian houses. It is important that the new buildings are not a copy of the historical buildings, but the design, including height of the structures, and size of each erf is sympathetic to the local architecture in the old area of Stanford.

The existing buildings on the property will be demolished.

8. Socio/Economic Aspects

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.

Stanford is a small village which was established in 1857. In the 1700's a number of farms were granted to Dutch and British farmers in the area. A portion of a farm originally owned by Sir Robert Stanford was subdivided to create the village.

Stanford is known for its Cape Victoria and Edwardian style buildings, many of which have been restored. In 1996 it was declared a Conservation Area (Heritage site) in terms of the National Monuments Act. The Standford Conservation Trust oversees the protection of the natural environment and heritage resources in and around the village (Stanford Heritage Committee, Oct 2008, Historical Stanford on Foot)

Historically most job opportunities would have been in the agricultural sector. The surrounding farms are very important to the economy and job creation in the area. The cultivation of grapes and making of wines typifies the integration of agriculture and tourism.

Tourism is also very important to the economy of the area. Visitors are attracted to Stanford for its attractive heritage buildings, a number of outdoor activities including cycling and boating on the Klein River, and the large number of indigenous birds and natural conservation areas, as well as close proximity to beaches.

There is an increased demand for housing in the area. While there will be people buying homes as holiday homes, there are increasing numbers of people moving out of the bigger cities as they can work from home in a small village or retiring in the area.

The residential areas of Stanford are all located on the western side of the R43. There is a mixture of residential areas, both formal and informal, adjacent to the R43. The Heritage area is north of Mill stream and most of the higher density, low cost and informal residential areas are south of the stream.

Gated residential developments, similar to the proposed development, are located north of the R326 nearer to the Klein river.

There is a small industrial area immediately southwest of the proposed development, adjacent to Mill Stream.

The economy of the area is therefore a mixture of agriculture and associated industries; hospitality, with employment opportunities for skilled and unskilled people and other tourism 'adventure' activities. There is a need for further job creation and investment in the area and the 'unlocking' of suitable development potential.

8.2.	Explain the socio-economic value/contribution of the proposed development.

Refer to the **Appendix F11** for the Socio-Economic Assessment report.

The initial direct investment

→ ~ R200 000 000. The additional basic charges payable to the Overstrand Municipality (OM) will therefore be approximately R 388 400/annum

Annual Rates Payable to the Municipality from ~ 27 homes. (The existing Single Residential zoning has only one home.)

→ ~ R 648 829

Bulk Services Levy to the Municipality

→ R 3 600 000

→ R 2 740 000 is required to upgrade bulk water and sewer.

→ The Municipality will therefore have more than R 800 000 available to upgrade other services.

The proposed development will:

→ Boost the Local Economy through increased employment and business activity.

→ Enhance tourism opportunities with the provision of a variety of accommodation options which will attract eco-tourists and families which will have a multiplier effect benefitting local tour operators, restaurants and shops.

→ Increase property values by introducing up market, high-quality residential opportunities on a secure estate which will increase the value of the surrounding properties.

→ Address the demand for housing in the Municipality

→ Long term economic impact in terms of additional rates and taxes to OM.

The planning and construction phase will employ a number of professional, skilled and semi-skilled workers Including:

→ Engineers

→ Architects

→ Surveyors

→ Project Managers

→ Excavators

→ Road building teams

→ Crane and heavy equipment operators

→ Carpenters

- → Masons
- → Electricians
- → Roofers
- → Painters
- → Cabinet makers

Many of these businesses and professionals are located with the Overstrand Municipality. The boost to the economy is therefore not limited to the Stanford area but will extend to surrounding towns and villages.

The operational phase will employ the following for the residential development:

- → Estate managers
- → Groundkeepers and landscapers
- → Security personnel
- → Housekeepers
- → Maintenance staff

In addition, specialist staff is required staff for the Lodge and Guest House:

- → Managers
- → Receptionists
- → Kitchen staff (Chefs, cooks, cleaners)
- → Waitstaff/ Bar tenders
- → Housekeeping

Job creation in the hospitality industry sector in the Lodge and Guest house may be both local and people from other areas of the Western Cape and beyond.

Local spending by home owners and visitors

- → Restaurants and Wineries
- → Gifts and shopping
- → Activities (Bikes, canoes, whale watching, hiking)
- → Art and cultural activities

The positive impact of the targeted focus on the natural environment, through the creation of accessible green areas on the Mill Stream and associated wetland and buffer, is difficult to quantify as it is not limited to the Erf 438 Stanford. This includes:

- → Ecological restoration which will improve water quality on site and downstream into the village
- → Maintain the White Milkwood area, which is identified as having heritage significance.
- → Enhance biodiversity by excluding areas from development and reducing the negative impact of the existing cultivation of roll on lawn.
- → Focus on sustainable renewable energy, water conservation, cultivation of locally indigenous vegetation and incorporate innovative technologies to achieve sustainable design guidelines.
- → Educate both visitors and staff on the surrounding environment and promote awareness and appreciation of this ecosystem.
- → Highlight to heritage significance of the village by ensuring that the building design and layout is harmonious of the development with the adjacent village
- → Access to green spaces and recreation promotes physical and mental wellbeing.

8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.

Local skill sets have been sourced, as far as possible, in the planning and design phase.

The construction phase will source skilled contractors and labour. Which will be local, or at least local semi and unskilled labour as far as practical.

The operational phase will provide employment opportunities for various skills. There will also be opportunities to upskill people in the tourism sector.

The proposed development has been guided to a great extent by "The Millstream Village Park and Greenway, Stanford, Western Cape. Concept Master Plan (August 2018)", with respect to linkages between Erf 438 Stanford and the village downstream. "his document is an urban renewal plan to re-priorities activities towards a better integrated Stanford an caters for emergent community development need while also incorporating recovery of ecological infrastructure and ecosystem functioning. The goodwill and co-operation of community leaders, stakeholders and local government is crucial for the realisation of this plan.

The Developer, Town Planners, Architect and other professionals have embraced the ethos of this document, especially as the Mill Stream is so significant on the site and has important functionality impacts both up and downstream that urgently need to be addressed to promote the ecological and heritage sustainability of the site and the adjacent Stanford village. The development will continue to be an important stakeholder into the future.

8.4.	Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.

No negative impacts are anticipated.

It is unlikely that the proposed development will adversely impact on existing Stanford resident's health and well-being during the operational phase, as it is in such very close proximity to the R43 and existing village of Stanford and industrial area.

Construction phase impacts can be mitigated and managed. Anticipated impacts are more of a short-term nuisance than significant impact to health and well-being.

The cumulative impact of traffic on a high-volume road will not be significant as indicated in the attached Traffic Statement.

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. Details of the alternatives identified and considered

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred property and site alternative.

The preferred property for the proposed development is Erf 438, Stanford. There are not alternative properties have been identified.

The following alternatives have been considered for the development on Erf 438 Stanford.

- → Alternative 1
- → Alternative 2 (Preferred Alternative)
- → Alternative 3 (No Go option): Retain the Status Quo.

The Preferred Alternative below requires the demolition of all existing buildings and infrastructure on the property and the decommissioning of the roll-on lawn business on site.

Three Alternatives are assessed in this Basic Assessment Report, these include:

ALTERNATIVE 1

This alternative was the first development proposal for the site as presented by the developer. It comprised the following:

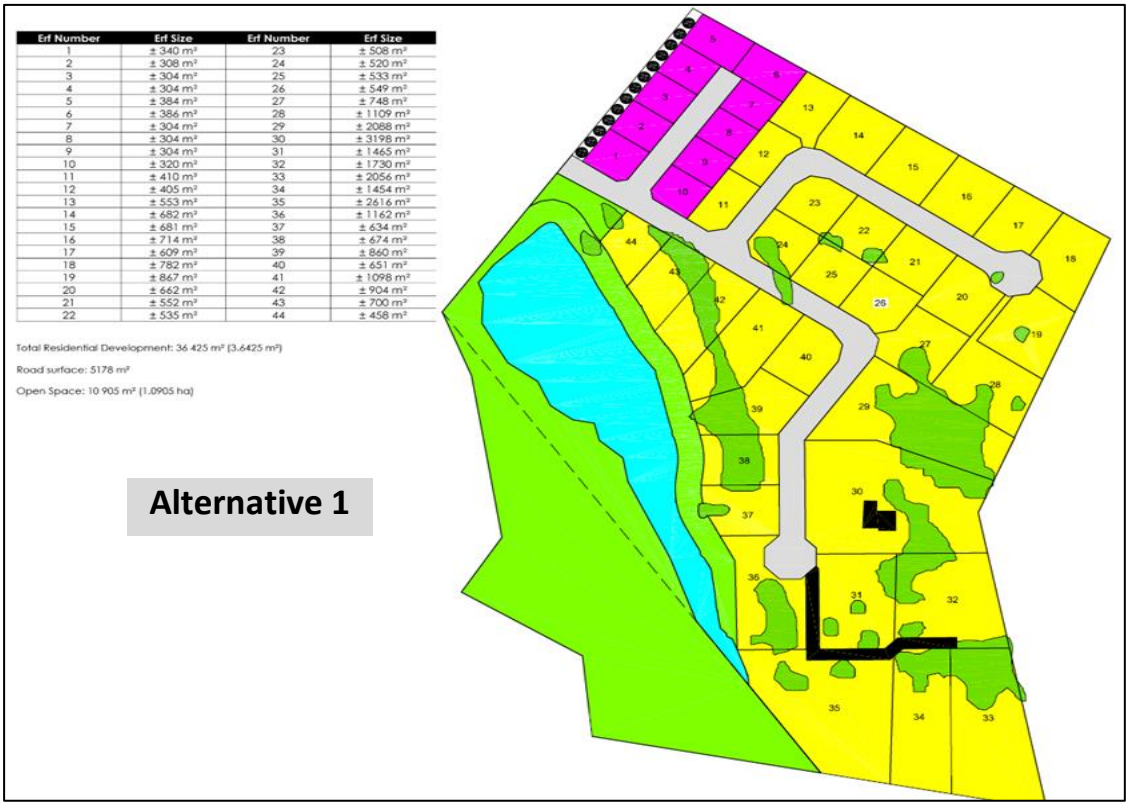
- → 44 Single residential erven (Residential Zone 1: Single Residential (RZ1:SR)
- → Internal roads and services
- → Total residential development – 36 425 m^2
- → Open space – 10 905 m^2

Table 9-1: Proposed development sizes and zoning

Erf No.	Erf size (m^2)	Zoning	Erf No.	Erf size (m^2)	Zoning
1	340	Residential Zone 1: Single Residential	23	508	Residential Zone 1: Single Residential
2	308	Residential Zone 1: Single Residential	24	520	Residential Zone 1: Single Residential
3	304	Residential Zone 1: Single Residential	25	533	Residential Zone 1: Single Residential
4	304	Residential Zone 1: Single Residential	26	549	Residential Zone 1: Single Residential
5	384	Residential Zone 1: Single Residential	27	748	Residential Zone 1: Single Residential
6	386	Residential Zone 1: Single Residential	28	1109	Residential Zone 1: Single Residential
7	304	Residential Zone 1: Single Residential	29	2088	Residential Zone 1: Single Residential
8	304	Residential Zone 1: Single Residential	30	3198	Residential Zone 1: Single Residential
9	304	Residential Zone 1: Single Residential	31	1465	Residential Zone 1: Single Residential
10	320	Residential Zone 1: Single Residential	32	1730	Residential Zone 1: Single Residential
11	410	Residential Zone 1: Single Residential	33	2056	Residential Zone 1: Single Residential

12	405	Residential Zone 1: Single Residential	34	1454	Residential Zone 1: Single Residential
13	553	Residential Zone 1: Single Residential	35	2616	Residential Zone 1: Single Residential
14	682	Residential Zone 1: Single Residential	36	1162	Residential Zone 1: Single Residential
15	681	Residential Zone 1: Single Residential	37	634	Residential Zone 1: Single Residential
16	714	Residential Zone 1: Single Residential	38	674	Residential Zone 1: Single Residential
17	609	Residential Zone 1: Single Residential	39	860	Residential Zone 1: Single Residential
18	782	Residential Zone 1: Single Residential	40	651	Residential Zone 1: Single Residential
19	867	Residential Zone 1: Single Residential	41	1098	Residential Zone 1: Single Residential
20	662	Residential Zone 1: Single Residential	42	904	Residential Zone 1: Single Residential
21	552	Residential Zone 1: Single Residential	43	700	Residential Zone 1: Single Residential
22	535	Residential Zone 1: Single Residential	44	458	Residential Zone 1: Single Residential
	10 905	Open Space		5178	Transport Zone
					TOTAL 52 508

Note: A portion of this property was expropriated for the upgrade of the R43. As a result, the property size for the original and preferred alternative is slightly different.



ALTERNATIVE 2 – PREFERRED ALTERNATIVE

The proposed development will consist of the following:

- → ***28 Residential Properties:***
  - 27 x Residential Zone 1: Single Residential (Erf 1 to 26, 28)
  - 1 x Business Zone 3: Local Business– Erf 27 (with consent use for tourist accommodation - The Lodge)
- → **Private Open Spaces**; and
- → **Private and Public Roads**

Table 9-2: Proposed development sizes and zoning

Erf no.	Erf Size (m^2)	Developable area ($m^{2)}$	Undevelopable Area (m^2) (No development zone)	Zoning
1	1005	792	213	Residential Zone 1: Single Residential
2	1051	482	569	Residential Zone 1: Single Residential
3	916	573	343	Residential Zone 1: Single Residential
4	817	420	397	Residential Zone 1: Single Residential
5	758	411	347	Residential Zone 1: Single Residential
6	820	413	407	Residential Zone 1: Single Residential
7	893	515	378	Residential Zone 1: Single Residential
8	875	610	265	Residential Zone 1: Single Residential
9	565	-	-	Residential Zone 1: Single Residential
10	671	485	186	Residential Zone 1: Single Residential
11	607	-	-	Residential Zone 1: Single Residential
12	607	-	-	Residential Zone 1: Single Residential
13	600	-	-	Residential Zone 1: Single Residential
14	600	-	-	Residential Zone 1: Single Residential
15	600	-	-	Residential Zone 1: Single Residential
16	594	-	-	Residential Zone 1: Single Residential
17	555	-	-	Residential Zone 1: Single Residential
18	592	-	-	Residential Zone 1: Single Residential
19	629	-	-	Residential Zone 1: Single Residential
20	649	-	-	Residential Zone 1: Single Residential
21	600	-	-	Residential Zone 1: Single Residential
22	613	-	-	Residential Zone 1: Single Residential
23	605	-	-	Residential Zone 1: Single Residential
24	607	-	-	Residential Zone 1: Single Residential
25	560	-	-	Residential Zone 1: Single Residential
26	597	-	-	Residential Zone 1: Single Residential
27	4902	-	-	Business Zone 3: Local Business (B3)
28	1383	792	474	Residential Zone 1: Single Residential
29	5130	-	-	Transport Zone 2: Road and Parking (A) (Private)
30 & 31	22887	-	-	Open Space Zone 3: Private Open Space
TOTAL	**52 342**	**5493**	**3579**	

Erf 27 Land use – Business Zone 3: Local Business (The Lodge)

- → Property Size: 4902 m²
- → Building Size:
  - Front of House (FOH) 250 m²
  - Back of House (BOH) 150m²
  - Accommodation Units
    - 2 x Single Room – 25m² (5m x 5m)
    - 12 x Double Suites – 50m² (5m x 10m)
    - 2 x Family – 60m² (5m x 12m)
    - Total 16 units - Total 650 m²

Erf 28 Land use – Residential Zone 1: Single Residential

- → Property Size: 1383 m^2
- → Building size: To be determined, used for guesthouse purposes, ten overnight beds, and accommodation for the homeowner

ALTERNATIVE 3 (NO GO)

No development (No-Go) Option – the status quo remains.

Intensive roll-lawn cultivation and single residential dwelling with associated infrastructure. No opportunity for rehabilitation of the cultivated area, Mill Stream or wetlands. High impact agricultural activities continue including the application of fertilisers and sterilisation of the land and eutrophication of the wetland and Mill Stream. No setback or buffer to the Mill Stream is determined or implemented. Abstraction of water from the river and eutrophication of stream as a result of fertilizer application continues indefinitely.

METHODOLOGY FOR DETERMINATION AND ASSESSMENT OF ALTERNATIVES

The Environmental Assessment practitioner (Lornay Environmental Consulting) was appointed early in the process, together with Wrap Town Planners. The Aquatic Delineation and Screening assessment was used to determine the wetland extent and types and possible No-Go areas. From this information, the preferred layout (Alternative 2) evolved. The Landscape Development Plan and surveys of the Milkwood's trees further informed the preferred layout Alternative 2.

Further investigation and recommendations by B Oberholzer, indicated the extent of the White Milkwood and Wild Olive canopy. It was therefore proposed, in order to limit the impact on these large trees, that the erven originally proposed in the area rather be consolidated into one large 4902m² erf and developed as a lodge with 16 very small accommodation buildings (Eco Pods). This allowed for flexibility in footprint and the ability to develop within the trees with minimal disturbance to them, using the forest as a feature not a hindrance. This resulted in a reduced footprint and impact on the trees compared to a SR1 residential development with a significantly higher coverage of 35% to 50 % depending on the zoning as per Town Planning Scheme.

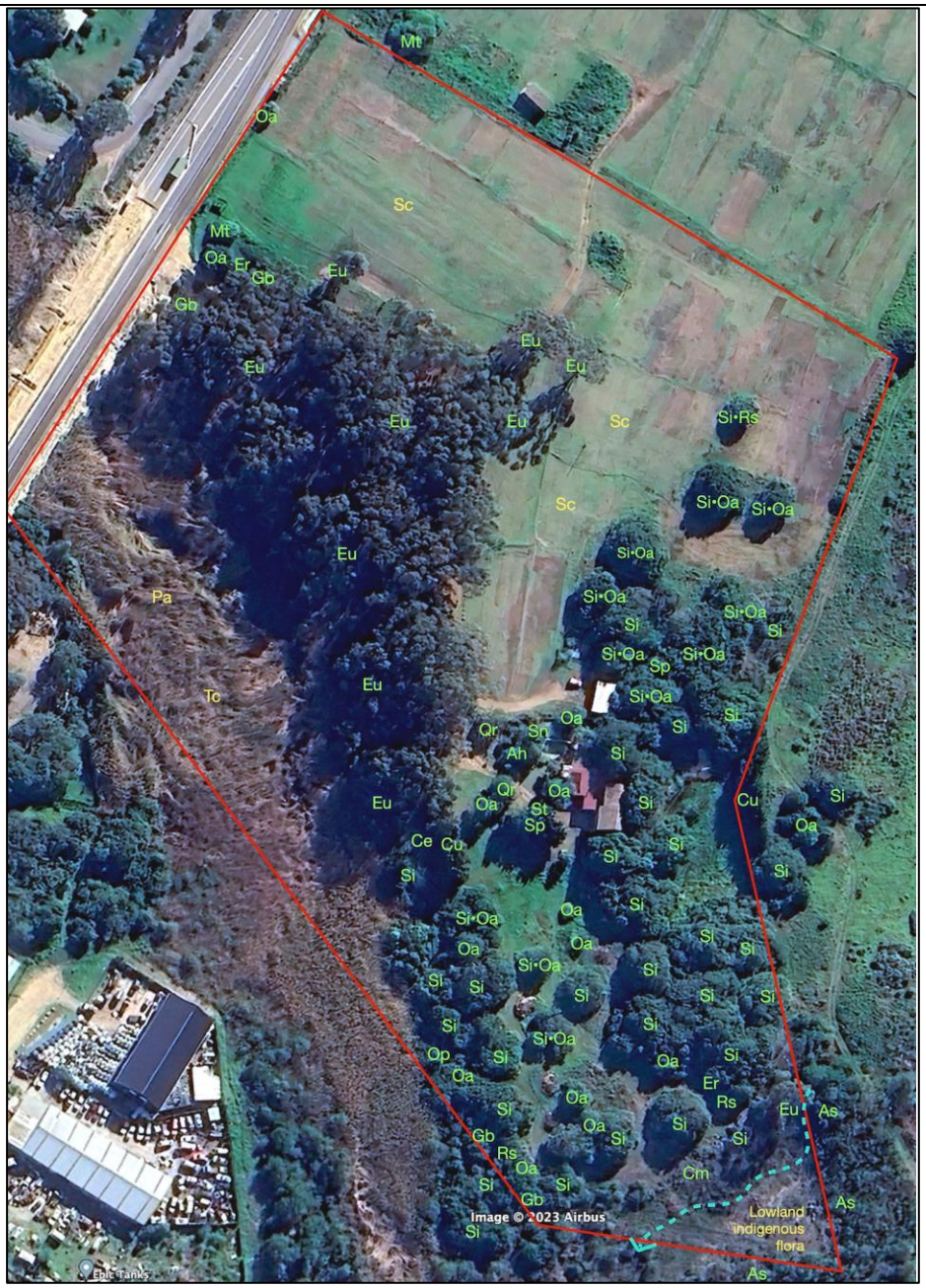


Image from B. Oberholzer, Landscape Development Plan.
Erf 438 Stanford showing existing buildings, cultivation and trees on site – Including exotic species to be removed
(Key: Si - White Milkwood Oa – Wild Olive trees Eu – Gum trees)

Specialist studies undertaken have not raised any issues that would preclude the proposed development of the property.

Provide a description of any other property and site alternatives investigated.
N/A
Provide a motivation for the preferred property and site alternative including the outcome of the site selection matrix.
This property is owned by the applicant. No other properties are being considered for the project.

Provide a full description of the process followed to reach the preferred alternative within the site.

An iterative process was followed to reach the Alternative 2 (Preferred Alternative). The process commenced with the layout shown as Alternative 1 above. Subsequent to this a number of specialist studies where undertaken, as required in terms of the SSVR.

The preferred alternative evolved from Aquatic delineation provided by the Freshwater specialists, as well as mitigation measures provided by the rest of the specialist team.

The Landscape Development Plan, highlighted the significance of the flora on the site, resulted in further modifications to the site plan and proposal as a whole, and a change in focus from only residential properties to a development with a tourism component that addressed the need to 'tread lightly' beneath the canopy of the White Milkwood Forest.

Those properties that extend into the buffer area (Erf 1 -8, 10 and 28) are restricted to confining all development, being the house, garage and swimming pool, to the area outside the 32 m buffer zone with the no go area on these erven forming part of the undeveloped Open Space of the site. This non-developable exclusive use portion of these properties will be managed according to an approved Operational Phase Environmental Management Plan (EMP) with strict guidelines relating to what is and is not permitted in the No-Development Zone.

The Heritage Assessment and associated reports confirmed that Alternative 2 remains the Preferred Alternative in respect of design aspects such as vegetated berms on the R43, to reduce the visual impact, the location and design of the entrance gate and the layout of the development.

Provide a detailed motivation if no property and site alternatives were considered.

Erf 438 Stanford is the owned by the applicant and is therefore the only property considered for the preferred residential and tourism development.

The subject property, located along the R43, offers a unique opportunity to seamlessly act as the connection between the extension of the urban edge with the rich historical fabric of Stanford. The property is positioned between the roundabout on the R43 and Stanford's industrial area with a potential to extend beyond its physical boundaries, serving as a transition between past and future, tradition, and innovation.

Erf 438 Stanford is envisioned to be transformed into a vibrant residential development, carefully designed to harmonise with the surrounding landscape while offering residents unparalleled access to the serene beauty of the Millstream traversing the property. By preserving and enhancing the natural features of the land, the developers seek to create a sustainable community that respects and protects its ecological heritage.

Acquired by the current owners in 2000, the property has served various purposes over the years, including a grass (roll on lawn) farm. Its true potential however as a cornerstone of sustainable urban development is now being proposed. The existing dwelling on the property, is planned to be demolished to make way for thoughtfully planned residential units, ensuring that the proposed development seamlessly integrates with the landscape and contributes positively to the character of Stanford.

The development represents more than just a real estate endeavour. It embodies a vision for a harmonious co-existence between human habitation and the natural world, creating a legacy of responsible stewardship for future generations to cherish and enjoy.

Given its extent, the proposed development can be developed to ensure a superior quality of living for its future residents. Notably, this project is expected not only to foster economic growth in the Stanford area but also to address the escalating demand for housing in the Overstrand region as the population continues to grow in the foreseeable future.

The developers' brief further included:

- → The development must preserve the natural environment.
- → The existing Milkwoods on the property need to be preserved and should be incorporated into the development to create an immediate perception of conservation and working with nature, not against it.
- → Dependence on Eskom for power provision must be minimised, and solar power must be introduced wherever possible and supplemented by gas.
- → Functional open spaces and recreational areas must be incorporated into the Millstream and serve a dual purpose as much as possible.
- → Access control and high-quality security are essential.
- → Only indigenous vegetation should be used in landscaping, and all efforts must be made to incorporate indigenous vegetation currently on site.
- → The architectural style should be modern but still contain elements of the Overberg- and Stanford Style.

List the positive and negative impacts that the property and site alternatives will have on the environment.

No Property alternatives are considered

Positive Impacts of existing land use:

- Thicket forming canopy with White Milkwood trees and other indigenous and exotic trees are retained on site. and excluded from the cultivated area and continue to flourish.
- Single residential dwelling and outbuildings comply with Residential Zone 1. Single residential zone in Stanford.
- Employment opportunities for a limited number of agriculture workers.

Negative Impacts of existing land use:

- Agricultural land use not consistent with **Single Residential 1** zoning.
- Only one family accommodated in one house on 5.2 Ha of land within the Urban edge.
- Hillslope seep wetland compromised as it is irrigated and cultivated with buffalo grass which is sold as roll on lawn
- Irrigation compounds water runoff from hillslope seep on northern side of property.
- The use of fertilizer, pesticides and herbicides on the cultivated area has significant negative impacts on water quality entering Mill stream and downstream to Stanford.
- Land has become sterilised providing no habitat for fauna
- Fertilizer and pesticides impact directly on fauna on site, especially amphibians.
- Large gum trees (*Eucalyptus sps*) category 2 invader species impact on the hydrology of the stream
- Other Category 1 and 2 trees, including Beefwood trees (*Casuarina equisetifolia*) have been planted as a windbreak and Prickly Pear (*Opuntia spp)* and other undesirable plants.
- Limited management and removal of reeds from the stream area.

1.2.	Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred activity alternative.

There are no significantly different activity alternatives, and the alternatives assessed herein have evolved from conception stage with specialist input.

Alternative 2 - Preferred

The preferred proposed development will consist of the following:

28 Residential Properties:

→ 28 x Residential Zone 1: Single Residential (Erf 1 to 26, 28)

→ 1 x Business Zone 3: Local Business – Erf 27 consent use for tourist accommodation (The Lodge)

Private Open Spaces; and

→ 22887 m^2

Private and Public Roads

→ 5130

Erf 27 Landuse – Business Zone 3: Local Business (The Lodge)

→ Property Size: 4902 m^2

→ Building Size:

- Front of House (FOH) 250 m^2
- Back of House (BOH) 150m^2
- Accommodation Units
  - 2 x Single Room – 25m^2 (5mx5m)
  - 12 x Double Suites – 50m^2 (5m x 10m)
  - 2 x Family – 60m^2 (5mx 12m)
  - Total 16 units - Total 650 m^2 with 34 overnight beds

Erf 28 Landuse – Residential Zone 1 : Single Residential (Consent Use as a Guest House)

→ Property Size: 1383 m^2

→ Building size: To be determined, used for guesthouse purposes, ten overnight beds and accommodation for the home owner.

→ Undevelopable portion within wetland buffer 474m^2

Table 9-3: Proposed development sizes and zoning

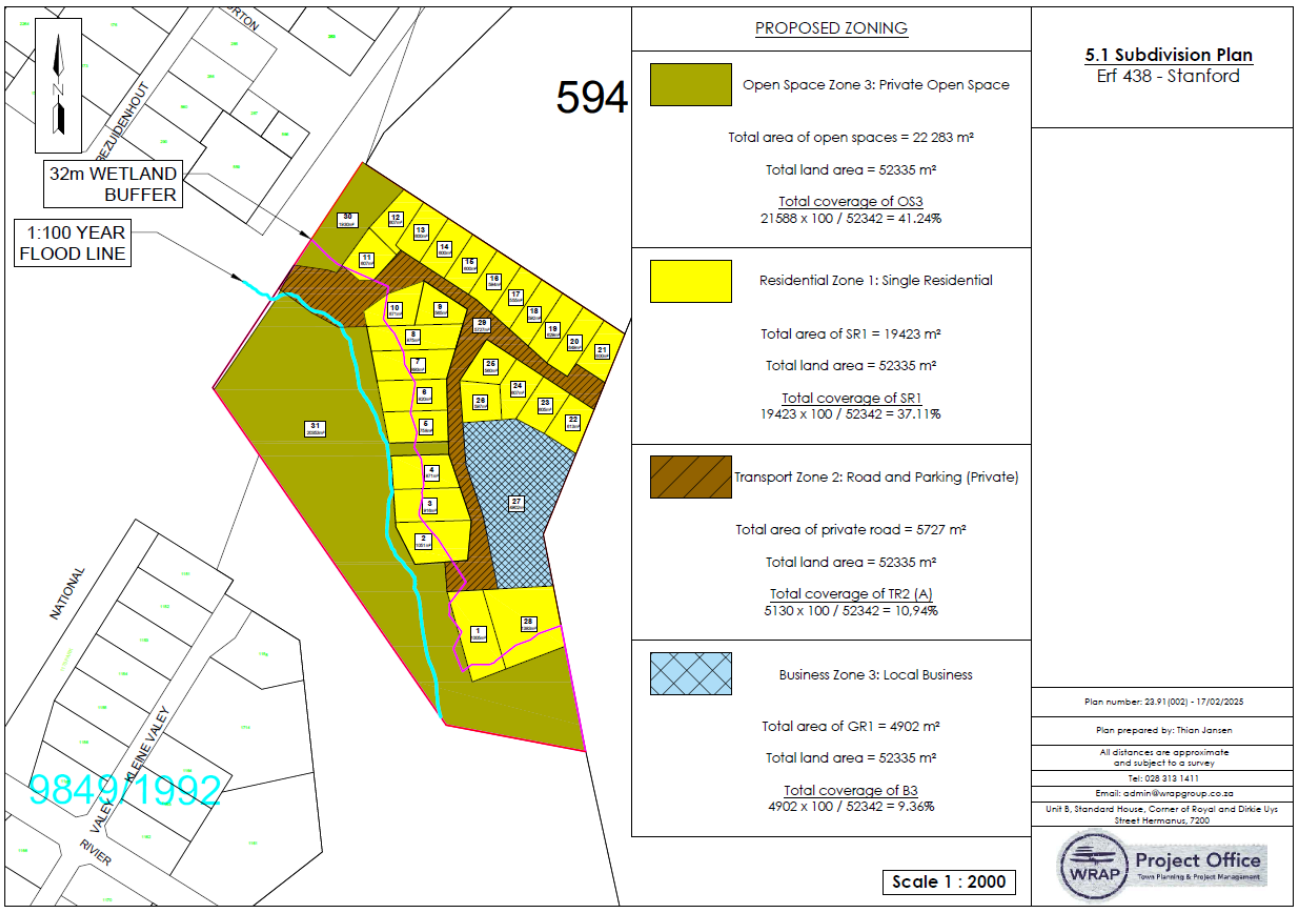
Erf no.	Erf Size (m^2)	Developable area ($m^{2)}$	Undevelopable Area (m^2) (No development zone)	Zoning
1	1005	792	213	Residential Zone 1: Single Residential
2	1051	482	569	Residential Zone 1: Single Residential
3	916	573	343	Residential Zone 1: Single Residential
4	817	420	397	Residential Zone 1: Single Residential
5	758	411	347	Residential Zone 1: Single Residential
6	820	413	407	Residential Zone 1: Single Residential
7	893	515	378	Residential Zone 1: Single Residential
8	875	610	265	Residential Zone 1: Single Residential
9	565	-	-	Residential Zone 1: Single Residential
10	671	485	186	Residential Zone 1: Single Residential
11	607	-	-	Residential Zone 1: Single Residential
12	607	-	-	Residential Zone 1: Single Residential
13	600	-	-	Residential Zone 1: Single Residential
14	600	-	-	Residential Zone 1: Single Residential
15	600	-	-	Residential Zone 1: Single Residential

16	594	-	-	Residential Zone 1: Single Residential
17	555	-	-	Residential Zone 1: Single Residential
18	592	-	-	Residential Zone 1: Single Residential
19	629	-	-	Residential Zone 1: Single Residential
20	649	-	-	Residential Zone 1: Single Residential
21	600	-	-	Residential Zone 1: Single Residential
22	613	-	-	Residential Zone 1: Single Residential
23	605	-	-	Residential Zone 1: Single Residential
24	607	-	-	Residential Zone 1: Single Residential
25	560	-	-	Residential Zone 1: Single Residential
26	597	-	-	Residential Zone 1: Single Residential
27	4902	-	-	Business Zone 3: Local Business (B3)
28	1383	792	474	Residential Zone 1: Single Residential
29	5130	-	-	Transport Zone 2: Road and Parking (A) (Private)
30 & 31	22887	-	-	Open Space Zone 3: Private Open Space
TOTAL	**52 342**	**5493**	**3579**	

Erf 438 Stanford is currently zoned Single residential Zone 1 - for residential land use and falls within the urban edge.

The Private Open Space Zone 3 is 22887 m^2 which includes the Mill stream and UVB Wetland, is excluded from all development.

The total Undevelopable area of properties 1 – 8, 10 and 28 is 3579 m^2, which is additional the area of Private Open Space. Although this is exclusively for the use of the property owners, this area will be managed as part of the Private Open Space and fences need to be permeable on the buffer boundary of these properties



Provide a description of any other activity alternatives investigated.
N/A
Provide a motivation for the preferred activity alternative.
The preferred activity alternative combines the necessity of making the best possible use of the property for residential development, while acknowledging the environmental constraints of the Mill stream, UVB Wetland and forested area. The applicant has considerable experience with tourism initiatives. The inclusion of two tourism initiatives increases the economic benefits to the surrounding area while making the most of the constraints of the site and considering them as opportunities. The Overstrand Municipal Spatial Development Framework (OMSDF) anticipates that the demand for housing will increase in the future. It is preferrable to take a proactive approach to addressing this issue, which has been done by including Erf 438 Stanford within the urban edge and with the residential zoning on agricultural land. It is now appropriate that the land use is in line with the zoning and densified to limit urban sprawl. The proposed development therefore fulfils both the anticipated need and desirability envisaged in the OMSDF. The preferred alternative reduces number of SR1 erven on the property, from Alternative 1, which is considered to be NOT appropriate for the property for environmental reasons. The proposed Preferred Layout (Alternative 2) limits the number of SR1 properties and also envisages a very specific development designed to minimize the impact on the White Milkwood and Wild Olive trees with a "tread lightly" approach to the design. The resulting Lodge will not only limit the impact on the trees but create a unique tourism infrastructure and employment opportunities. The rezoning of the property will also formalise the Private Open Spaces, which under the current Single Residential 1 zoning, are not formally protected from development. This also creates excellent connectivity with the existing conservation and rehabilitation initiative of the Mill Stream Concept Master Plan.

The above image was taken from "The Millstream Village Park & Greenway, Stanford, Western Cape, Concept Master Plan" (August 218) Prepared for Overstrand Municipality; Compiled by Sheraine van Wyk | Paul & Loraine Bewsher | Bernard Oberholzer.

Erf 438 is adjacent to a critical link between the spring of the Mill Stream (Die Oog) and the Mill Stream Village Park and Greenway, on the western side of R43. As private property it is critical that the Private Open Space on Erf 438 are maintained and managed, together with the Public Open Space and other adjacent properties, to allow for optimum functionality of the Mill stream, UVB Wetland and associated fauna and flora to flourish. The proposed development of this site is substantially in line with the vision of the Concept Master Plan.

A Heritage Impact Assessment (HIA) was required to comply with Section 38(3) of the NHRA. This specialist study was subsequent to the Palaeontological and Archaeological investigations which had established that NO critical issues that would preclude development of the site.

The HIA and Visual Impact Assessment (VIA) is largely supportive of the proposed design and layout of the development as this integrates well with the look and 'feel' of the Heritage area of Stanford.

None of the other site investigations carried out in respect of SSV requirement raised issues that would preclude any development of the site. Development of the site was supported, with suggested layout and management inputs, to optimise the proposed land use.

Provide a detailed motivation if no activity alternatives exist.
N/A
List the positive and negative impacts that the activity alternatives will have on the environment.

IMPACTS OF ALTERNATIVE 1

PLANNING AND CONSTRUCTION PHASE

Positive Impacts

- → Provision for as many houses as possible, within the existing SR1 zoning (44 houses)
- → Stream provides open space in front of adjacent properties

Negative Impacts

- → Stream and UVB wetland not delineated or buffered
- → High density of houses adjacent to R43 with associated visual impact
- → No allowance for future access to adjacent property
- → No allowance for other residents to access the stream
- → The sewage pipeline would be very close to the stream

OPERATIONAL PHASE

Positive Impact

- → Increased rates base for local municipality
- → Employment opportunities in gardens and housekeeping
- → Increase number of people to support local shops, restaurants and other businesses
- → Smaller houses probably more affordable and would appeal to more people.

Negative Impacts

- → Danger of flooding as flood lines not assessed
- → No stacking space allowance for access to R43
- → No space for garbage trucks to access site
- → Sight lines for traffic entering the R43 may be restricted
- → Ongoing degradation of wetlands, stream and Milkwood forest due to insensitive planning.

IMPACTS OF PREFERRED ALTERNATIVE 2

PLANNING AND CONSTRUCTION PHASE

Positive Impacts

- → Millstream and UVB wetland buffered (32 m) and excluded from development, properly rehabilitated and managed (Avoidance of Stream and UVB Wetland)
- → Development within the White Milkwood's and Wild Olive forest is designed to have limited impact by locating small, low impact, buildings where they will have minimal damage to the roots and trunks of the trees, with no major brick and mortar construction and foundations required in the area. This was also confirmed by the botanical specialist.
- → Lodge eco pods will be constructed on pile foundations which will limit impact on the tree canopy and roots.

- → Subdivision will provide housing for 27 families allowing for densification and infill development and limiting urban sprawl
- → The design and layout of the developed area is consistent with the heritage feel of Stanford
- → Gum trees and other undesirable species will be felled and resulting timber utilised.
- → Port Jackson Willow and other invasive species will be removed, which will reduce the fire hazard in close proximity to Stanford
- → Maintenance Management Plan will guide the long term rehabilitation, maintenance and management of the Mill Stream and adjacent wetland
- → The development will be screened from the R43 with vegetated berms and 25 m setback and offer a more aesthetically pleasing view relative to the current situation.
- → The development will impact the areas which are already degraded onsite.

Negative Impact of Preferred Alternative 2

- → Construction Site Clearance, Noise, Demolition, Traffic in short to medium term
- → Water quality impairment in UVB Wetland and stream in short term. Attenuation /water polishing structure required
- → Altered flow regime in UVB Wetland and stream in short term. Attenuation /water polishing structure required
- → Hillslope seep included within the development footprint.
- → Demolition of existing house and outbuildings.

OPERATIONAL PHASE

Positive Impacts

- → The proposed development contributes to provision of housing as per the SR1 zoning.
- → The Business Zone 3: Local Business – 4902 m² erf 27, developed as a Lodge and managed together with the Guest House on erf 28, will create permanent employment opportunities for more local people.
- → Tourism has knock-on economic benefits for the community. The restaurants and shops of Stanford will have a larger clientele.
- → Tourism development will provide employment opportunities and economic development beyond that of a residential only development.
- → Increased employment opportunities for a number of people within the hospitality industry.
- → The Private Open Space will allow for greater ecological connectivity and is in line with the aspirations of the Stanford Mill Stream Village Park and Greenway Concept Master Plan.
- → Millstream and UVB wetland buffered (32m) will be managed by the Home Owners Association and utilised for a nature trail and bird hide. (Avoidance of Stream and UVB Wetland)
- → A programme to manage the removal of Alien Invasive Plants, especially Port Jackson Willow, will reduce fire hazard to the surrounding properties and increase biodiversity on the site.
- → Environmental education and conservation awareness opportunities.
- → Conservation opportunities for fauna, especially the endangered Western Leopard toad.

Negative Impacts

- → Increased demand for services. (The Municipality have confirmed there is capacity for this development.).
- → Increase traffic (TIA undertaken indicates that proposed design of access is appropriate and within the capacity of the R43.)
- → General operational noise impacts.

IMPACTS OF ALTERNATIVE 3 – NO GO

PLANNING AND CONSTRUCTION PHASE

Positive Impacts

→ N/A Status Quo remains

Negative impacts

→ No opportunity for improvement of the current status of the site – intensive roll on lawn agriculture
→ No opportunity to improve the visual aesthetic and offering for the broader Stanford area
→ No opportunity for investment in the area, job creation or skills transfer
→ No opportunity for rehabilitation of the Mill Stream and long term protection of the Milkwood forest

OPERATIONAL PHASE

Positive Impacts

→ Status quo remains, intensive roll-on lawn and single residential dwelling

Negative Impacts

→ Ongoing degradation of the environmental through application of fertilizers etc
→ Ongoing eutrophication of the wetlands and Mill Stream
→ Risk of inappropriate land use
→ Risk of loss of Milkwood Forest

1.3.	Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts

Provide a description of the preferred design or layout alternative.

Two alternatives have been assessed herein, as well as the No-go option. These include:

→ Alternative 1
→ Alternative 2 (Preferred)
→ No Go

Alternative 1 was the very first alternative put forward for development of the site. The proposal was in line with land use and town planning requirements but had limited to no environmental considerations.

Alternative 2 (Preferred) is the result of careful planning and environmental consideration, emerging as the preferred alternative for the development. This plan takes into full account both the wetland and the Milkwood trees, ensuring that these critical ecological features are preserved and enhanced with the development.

This alternative allows for environmental integration into the design. The wetland area is fully mapped and integrated into the development plan. This approach not only preserves the wetland but allows for rehabilitation and long-term management of this area, creating a natural feature that contributes to the aesthetic and ecological value of the development. The UVB wetlands also form part of the Wetland Offset Rehabilitation and Management plan, allowing for rehabilitation and restoration of the wetland areas onsite. A key aspect in this alternative is the preservation of all milkwood trees. Both the canopy area and trunks have been surveyed and added to the site plan. Unlike Alternative 1, this plan proposes no removal of these protected trees. Instead, the Milkwoods are incorporated into the design of the Stanford

Estate Treehouse Lodge. This lodge will provide a unique eco-tourism experience, allowing guests to enjoy the natural beauty of the milkwood forest while ensuring its conservation. The Stanford Estate Treehouse Lodge is a central feature of the preferred alternative. Located within the milkwood forest, the lodge will offer a unique and sustainable tourism experience. The design of the lodge focuses on minimal environmental impact and maximizes the use of natural surroundings to create a serene and immersive experience for guests.

As part of the preferred alternative, and to allow for a more cohesive development, the existing house is not retained in this alternative. This decision facilitates a better integration of new residential units with the wetland and ensures a seamless transition between the built environment and natural features. This alternative demonstrates a comprehensive and balanced approach to development of the site and improving the current state of the land. By fully integrating the wetland and preserving the milkwood trees, this plan sets a new standard for sustainable development in Stanford. It not only meets the housing needs of the area but also creates a unique eco-tourism destination, fostering economic growth and environmental stewardship. This alternative allows for improvement of the current status quo which presents high risks for the Milkwood forest, Mill Stream and general ecological offerings.

Further information relating to Alternative 2 (Preferred):

The layout endeavours to minimise impact on the Mill stream, which flows on the Western side of the property, and a delineated UVB wetland. Both of which are protected by a 32m buffer, which effectively also sets all buildings higher than the 1:100-year flood line. Water management system of swales or attenuation structures will ensure that the quantity and quality of water emanating from the development area will be managed appropriately. Vegetated berms reduce the visual impact of the development from the R43.

The tourism initiative consists of two separate developments on Portion 27 and 28. It is envisaged that these will be managed as a single entity, but they will provide very different experiences for guests. The Lodge will provide accommodation in 16 free standing, single storey Eco Pods on a potion zone as Business Zone 3: Local Business. The Guest house will require consent but will be a property zoned for SR1 development, consistent with the rest of the development.

The protected White Milkwood trees and other indigenous trees form a canopy prevent the construction of conventional buildings on a large part of Portion 27. The design feature of the Lodge will emphasise the connection to nature. Sixteen freestanding Eco-pods will be constructed off site and will be positioned on piles or piers to minimise impact to the roots of the trees. They will have en-suite bathrooms and relaxation decks. The clear glass roof will allow guests to see the tree canopy or open sky and they will be located far apart on the site to ensure privacy. The pods are 5m wide and the majority will be 12m long. There will be two small 5mx5m pods and two 5mx12m family pods. These pods are too small to be used as self-catering accommodation. The maximum tourism beds on this property will be 34. There will be no roads within this area.

The guest area supporting the visitors staying in the pods will also be available to the guests staying in the Guest House and will also be available to residents of houses the development. These structures will include reception, indoor and outdoor restaurants and bar, lounge, gym, library and natural swimming pool. Back of house will include kitchen, store rooms, utilities, parking and staff facilities. Fruit trees and vegetable gardens are also envisaged.

The Guest House on Portion 28 will accommodate 10 guests and the home owners or facility manager. This house will have suitable number of parking bays. The design of this building will also need to accommodate a number of White Milkwood trees and includes an exclusive use non-developable area on the UVB wetland.

(No-Go) is the no development option, where the status quo remains.

Provide a motivation for the preferred design or layout alternative.

The preferred design and layout plan (Alternative 2) was developed through an iterative process involving consultation with a number of professionals including;

- → Town Planners
- → Architects
- → Engineers
- → Environmental specialists
  - o Wetland scientists
  - o Landscape designers

- Architects
- Faunal specialists
- Palaeontologist
- Heritage specialist
- Agricultural specialist
- Environmental Assessment Practitioner
- Town Planners

It is important to clarify that although a portion of Erf 438 Stanford falls within the boundaries of the Stanford HPOZ, the heritage-related planning parameters have been fully considered in shaping the proposal. The development has been guided by the purpose of the HPOZ as outlined in the Overstrand Municipality Land Use Scheme (2020), specifically the aims set out in section 14.2 in the motivational report. These include protecting and enhancing the visual relationship between the village, the Klein River, and the natural spring, "Die Oog." The proposed layout respects this objective by preserving significant environmental features such as the wetland and milkwood groves and by maintaining generous open space areas that support visual continuity with the surrounding landscape.

Alternative 2 (Preferred) is the result of careful planning and environmental consideration, emerging as the preferred alternative for the development. This plan takes into full account both the wetland and the Milkwood trees, ensuring that these critical ecological features are preserved and enhanced with the development.

This alternative allows for environmental integration into the design. The wetland area is fully mapped and integrated into the development plan. This approach not only preserves the wetland but allows for rehabilitation and long-term management of this area, creating a natural feature that contributes to the aesthetic and ecological value of the development. A key aspect in this alternative is the preservation of all milkwood trees. Both the canopy area and trunks have been surveyed and added to the site plan. Unlike Alternative 1, the current preferred layout proposes no removal of these protected trees. Instead, the Milkwoods are incorporated into the design of the Stanford Estate Treehouse Lodge. This lodge will provide a unique eco-tourism experience, allowing guests to enjoy the natural beauty of the milkwood forest while ensuring its conservation. The Stanford Estate Treehouse Lodge is a central feature of the preferred alternative. Located within the milkwood forest, the lodge will offer a unique and sustainable tourism experience. The design of the lodge focuses on minimal environmental impact and maximizes the use of natural surroundings to create a serene and immersive experience for guests.

As part of the preferred alternative, and to allow for a more cohesive development, the existing house is not retained in this alternative. This decision facilitates a better integration of new residential units with the wetland and ensures a seamless transition between the built environment and natural features. This alternative demonstrates a comprehensive and balanced approach to development of the site and improving the current state of the land. By fully integrating the wetland and preserving the milkwood trees, this plan sets a new standard for sustainable development in Stanford. It not only meets the housing needs of the area but also creates a unique eco-tourism destination, fostering economic growth and environmental stewardship. This alternative allows for improvement of the current status quo which presents high risks for the Milkwood forest, Mill Stream and general ecological offerings.

The required services are available.

- → Electrical Services Report, Driger Consulting. Overstrand Municipality (OM) will provide access to the grid where the solar system is unable to supply maximum demand. A substation will be located near the entrance gate.
- → The Engineering Services Report, AVDM Consulting Engineers, incorporates and addresses the capacity report by GLS Consulting. There is capacity in the sewage network and the reservoir to accommodate the proposed development, subject to recommended upgrades. This is confirmed by OM.

- → A Traffic Impact Statement by UDS Africa Transport Engineers concluded that the existing access is appropriately situated. The peak hour traffic flow will not be significant.
  It is unlikely that the tourism facilities will create a significant amount of peak hour traffic with only 21 vehicles.
- → 2 parking bays are provided on each erf as required in terms of OMLUS. Additional parking has been provided for the tourism development.
- → The access and egress system is set back from the R43 to allow for stacking of vehicle and accommodate garbage trucks and reduce visual impact.
- → The entrance gate allows well managed controlled access and includes surveillance security measures.
- → Storm water management measures combine functionality with aesthetics by including a 'leiwater' appearance furrow, similar to Stanford village and water polishing / detention ponds / attenuation structures before water is released into the Mill stream.
- → Grass block parking areas and cobbled roads reduce the velocity and volume of storm water runoff.

The design of the SR1 homes has been carefully considered and informed by the existing landscape and built environment in Stanford.

The architectural approach for all street-facing and prominent structures has been informed by the "Stanford style" as described in municipal guidelines and heritage references. The Stanford Style allows modern interpretations which includes the use of appropriate forms, materials, and proportions that align with the established aesthetic character of the village. While a consent use and departures have been applied for, they do not undermine the core heritage objectives but rather support flexibility to allow for context-sensitive design that remains visually compatible with its setting

Additionally, the design process included input from a professional team including a landscape architect, heritage practitioners, and an environmental consultant, all of whom have contributed to ensuring that the development is contextually appropriate. The layout does not attempt to mimic historical structures inauthentically but rather aims to provide a modern interpretation that pays respect to Stanford's unique cultural and architectural character. This approach aligns with heritage best practices and ensures that the development enhances, rather than detracts from, the sense of place.

The proposal recognises the village's heritage value, acknowledged by Heritage Western Cape as one of the best-preserved villages in the province, and responds with a development model that is environmentally sensitive, architecturally appropriate, and spatially respectful. The applicant welcomes continued engagement with the municipality to ensure that the architectural controls and conditions tied to the HPOZ are effectively implemented during the building plan approval stage.

The visual impact of the development and the importance of ensuring that homes within the development have optimal views, has been carefully considered.

- → The buildings height and density ensure that the development does not dominate the skyline. The buildings will be double storey and less than 7.5m high. There will be varying roof heights which prevents large, shadowed area and ensures sunlight can reach all parts of the development area.
- → Open spaces and view corridors provide unobstructed views on and beyond the site.
- → Screening from the R43 will be in the form of vegetated berms which will also provide a buffer from the prevailing wind and reduce the impact of noise from the road. There is also a 25m setback as is required for this Scenic Route.
- → Dark night sky lighting, which minimises light pollution and nighttime visual impact, will be implemented on the site. This approach addresses security concerns while also reducing the impact on wildlife on the property and surrounding area.

→ The style, colour, texture and materials have been selected to reduce the visual impact of the complex.

With respect to monitoring, servitudes, and access, it is noted that the Stanford Conservation Trust (SCT) has proposed the establishment of a servitude along the Millstream to expand the wandelpad. Erf 438 Stanford is privately owned, and the registration of public servitudes over private land is not considered appropriate in this context. The southern bank of the Millstream, however, located on Erf 294, Stanford, is owned by the municipality and zoned as Public Open Space. This area would be ideally suited to allow public access to the Millstream, as envisaged in the Millstream Master Plan. The applicant is willing to contribute to the funding of possible raised boardwalks and upgrades to the trail on Erf 294 Stanford.

Furthermore, the applicant is currently working in collaboration with the municipality and community stakeholders (Stanford Conservation, Ratepayers and Stanford heritage) to explore practical and legally appropriate mechanisms to align the development with the broader objectives of the Millstream Master Plan.

Protection of Milkwoods and indigenous vegetation is a non-negotiable priority in this development. No milkwood trees are proposed to be removed. On the contrary, they form an integral part of the conservation-led design. Construction activities will be tightly controlled through an Environmental Management Programme (EMP), which will outline restrictions on the movement of contractors, materials, and equipment to avoid unnecessary disturbance. Furthermore, the project will appoint an Environmental Control Officer (ECO) to monitor compliance throughout the construction period and ensure accountability for any damage caused.

Provide a detailed motivation if no design or layout alternatives exist.

N/A

List the positive and negative impacts that the design alternatives will have on the environment.

Alternative 1 Layout

Positive Impact

→ Housing for 44 families
→ Complies with existing residential zoning
→ Inappropriate agricultural landuse on property zoned as residential discontinued
→ Negative impacts of irrigation and fertilization and other cultivation input will be discontinued

Negative Impact

→ No buffer on wetland and Mill stream
→ Development within the 1 in 100 year flood line
→ Highest density of houses is adjacent to R43 Scenic route.
→ Development within 25m of R43
→ Visual impact not considered
→ The significance of White Milkwood trees on the property not taken into account
→ Private open space on Mill Stream not accessible to all property owners
→ No long terms management and rehabilitation plans for the Mill Stream area
→ No economic benefits to the surrounding community from tourism.

This proposal did not progress beyond the layout stage. There is no design for the proposed houses on the site under this alternative.

Alternative 2 (Preferred Alternative)

- → 27 properties zoned SR1. (One of these properties to be used as a guest house)
- → 1 property to be developed as a Lodge with accommodation provided in 16 pods.
- → Provision for an Open Space
- → Roads and parking

Positive Impact

- → Complies substantially with existing residential zoning.
- → Provides housing for at least 26 families
- → Increases tourist accommodation within the Stanford area
- → Wetland and Mill stream delineated and buffered with 32m buffer
- → Large area of Private Open space accessible to residents and visitors
- → Lodge development celebrates the White Milkwoods and other indigenous trees with appropriate small pods used as guest accommodation.
- → All residential buildings outside the 1:100 year flood line
- → Cultivation of roll-on lawn with associated negative impacts of irrigation, fertilization and use of pesticides and herbicides will be discontinued.
- → Provides employment opportunities in the long term, beyond that offered by homes only.
- → Provides an economic benefit to the community from residents and guest spending.
- → Building planning need to be submitted to OM and HWC for approval
- → Construction and Operational Phase EMP in place to guide and monitor the project.
- → No significant additional infrastructure required. Can be easily connected to existing municipal services.
- → Easily accessed from R43 via existing access
- → No loss of Very High sensitivity vegetation will occur, including the plants species of conservation concern.

Negative Impact

- → The development will contribute to the loss of a seriously degraded seep wetland onsite.
- → The primary construction phase botanical impact of the proposed development would be loss of any natural and partly natural vegetation in the development footprint.
- → The development will result in permanent loss of habitat and if not mitigated properly longer detrimental consequences for the population. Long term impact will be mainly because of potential roadkills and connectivity issues.

1.4.	Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred technology alternative:

No specific technology alternatives exist however, energy efficiency is an important consideration, and the following are proposed:

- → North orientation to ensure that as many well-used spaces face north as possible. Sun control is more difficult on East and West facing windows
- → Use of good insulation in the roof and walls to keep the inside temperature warm in winter or cool in summer
- → Solar water heaters to be included in the design phase
- → Suitable roof overhangs to let in the lower winter sun but provide shade from the summer sun
- → Sensible fenestration – let in the light and catch the winter sun, but not too much window area so that warmth or cool cannot be retained inside when needed. They can be combined with shading and reflecting devices - such as overhangs, screens, shutters, awnings, trees, planting and different glass types which will aid to control the

amount, quality and time of daylight entering the building. Double glazing should be considered near high traffic (R43) to reduce noise and on north facing windows.

→ Suitable ventilation for fresh air and cool breezes

→ Natural lighting through windows and light wells

→ Night lighting must be such that as dark as possible night sky is maintained.

The use of solar panels to supplement and compliment electricity supply and rainwater tanks to supplement water supply will not replace the Municipal supply of the services and is therefore not a technological alternative.

The Overstrand Municipality requires all building plans submitted for approval to comply with a range of technologies to avoid and mitigate negative impacts. The Architects will ensure that this design of the buildings includes and exceed these requirements.

Provide a description of any other technology alternatives investigated.

N/A

Provide a motivation for the preferred technology alternative.

N/A

Provide a detailed motivation if no alternatives exist.

N/A

List the positive and negative impacts that the technology alternatives will have on the environment.

N/A

1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred operational alternative.

No operational alternatives exist – the development proposed is in line with the current zoning of the site.

Provide a description of any other operational alternatives investigated.

N/A

Provide a motivation for the preferred operational alternative.

The proposed tourism initiative provides positive socio-economic and environmental benefits for the Stanford area and surrounding region.

→ Job creation in the construction phase for are range of skills from professional to labourers.

→ Permanent employment with opportunities for diverse quality hospitality jobs for a range of skills from management to chefs, reception, bar keepers, gardeners and housekeepers.

→ Promotion of eco-tourism through the use of low impact accommodation which celebrates the forested nature of Portion 27 and limits impact to both the canopy and roots of protected indigenous trees

→ Provides economic benefits to local businesses through guest spending

→ Sustainable buildings using sustainable energy solutions and eco-friendly structures. A 'tread lightly' approach.

→ The development will be compatible with the adjacent and surrounding residential land uses.

→ The visual impact of the accommodation Eco Pods will be minimal
→ There will be no roads or garages within the forested area.
→ The use if this 4902m² Erf 27 for 4 free standing homes with a permitted coverage of 50% would require almost complete clearance of the vegetated forested area however the eco centred approach with the lodge proposed in the preferred alternative, allows for the development to 'touch the earth lightly' and use the forest as a feature
→ The proposed "tread lightly" approach could not easily be applied beneath the canopy with conventional housing
→ Large specialist team has been used to allow for the finalisation of the preferred alternative
→ Opportunity for rehabilitation of the Mill Stream
→ Opportunity for long term protection of the Milkwood Forest
→ Improvement from current degradation on site
→ Positive aesthetics for the Stanford area.

Provide a detailed motivation if no alternatives exist.

N/A

List the positive and negative impacts that the operational alternatives will have on the environment.

No operational alternatives exist.

1.6.	The option of not implementing the activity (the 'No-Go' Option).

Provide an explanation as to why the 'No-Go' Option is not preferred.

The No-Go option implies the maintenance of the status quo on this site.

→ This property is zoned Residential Zone 1 Single Residence. There is one dwelling on the property, which provides accommodation to one family. This does not address the need for accommodation for a growing population or the tourism aspirations of the Overstrand Municipality and SPLUMA.
→ The current agricultural activity is the cultivation of roll-on lawn (Buffalo grass). The area under cultivation currently occurs on less than half of the 5 Ha property. The cultivation of grass is not a 'high value' crop and it does not contribute to food production in the Western Cape.
→ The roll-on lawn business requires large input of fertilizers pesticides and water which has impacts on ecological functioning on site and beyond. Evidence of eutrophication of the Mill Stream was noted.
→ Agricultural land use is not compatible with the Residential zoning.
→ Current land use is not aesthetically pleasing and detracts from the quaint village feel of Stanford.
→ The operation of this facility does not employ a large number of people. And therefore, does not significantly contribute to employment opportunities in this area.
→ The R43, is the primary access route from Hermanus to Gansbaai, a very busy tourist route. The property is therefore appropriate for tourism offerings but currently does not capture this opportunity
→ The property is easily accessible from the R43 which means that it has good connectivity to the surrounding area.
→ The property is connected to the municipal water and sewer system which means that the proposed development does not require extensive upgrades to municipal infrastructure and the cost of these upgrades will be carried by the developer and not the municipality.
→ There are number of large Gum trees which must be removed, especially where they impact on water resources, which will not be undertaken with the current land use.
→ Other category 2 alien invasive plant species on this site result in loss of biodiversity and are a fire hazard for the site and surrounding area.
→ Water quality and run off from the property is compromised by the cultivation of lawn grass and associated, irrigation and use of fertilizer and herbicides.

→ Amphibians, especially the Western Leopard toad, are negatively impacted by the current agricultural activities.	
1.7.	Provide an explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist.

The specialist input, including design, town planning, landscape, environmental and heritage specialists have adequately assessed the property and proposed development and attempted to achieve an optimal layout and design. The developer has extensive experience in tourism.

No other reasonable or feasible alternatives have been identified – the subject property and its zoning have guided the proposed activity and limits other feasible options for the site.

1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.

The location of Erf 438 Stanford, immediately adjacent to the major tourist route from Hermanus to Gansbaai (R43) and the village of Stanford, as well as the various environmental constraints, have informed a development that fulfils the Overstrand Municipalities vision and includes a small-scale tourism venture with positive socio- economic and ecological benefits for the community.

The delineated Mill Stream and associated UVB wetland, with a 32 m buffer, effectively locates the houses above the 1 in 100-year flood line.

The freshwater specialist, who assessed the property, advised that the Hillslope Seep Wetland, which is currently cultivated for roll on lawn, is seriously modified and offers moderately low ecosystem services. This portion of the site is therefore included in the development footprint. However long-term rehabilitation and preservation of the Mill Stream forms a critical part of the proposal.

Professional input from engineers and services providers have confirmed that there is capacity for this development and it can relatively easily be connected to existing services, with only limited upgrades. Sewage and water connection is located close to the entrance gate security complex. This permit good monitoring of these services to ensure no overflows or leaks.

The Heritage constraints of the proximity to Stanford have guided the architects in their vision for the development in the design of the homes. None of the existing buildings on the property have any heritage value and will be demolished. The Heritage Impact assessment is broadly supportive of the proposed layout and design and has guided the development concept to include the sensitive heritage environment within Stanford and surrounds.

The proposed design of the Lodge, using Eco pods for 16 accommodation rooms for a maximum of 34 guests is an innovative solution to the constraints of building within the Grade IIIA listed Milkwood grove, forested areas. This will allow for a 'tread lightly' approach to maximise the use of the property while minimising the impact on the trees and allowing for long term protection and show casing of this feature on site. Current activities on site are no regulated a pose significant threat to this forest.

More than 2 Ha of the site will be retained and managed as Private Open Space (POS), which includes the Mill Stream and UVB wetland and 32 m buffer. This allows for improved health and connectivity for the rest of the Mill Stream in Stanford and the proposed development is substantially in line with the Concept Master Plan for Mill Stream. Co-ordinating the management of the stream, advised by the MMP, should be prioritised. The POS will also provide a buffer between the residential area and the industrial area on the south side of the river.

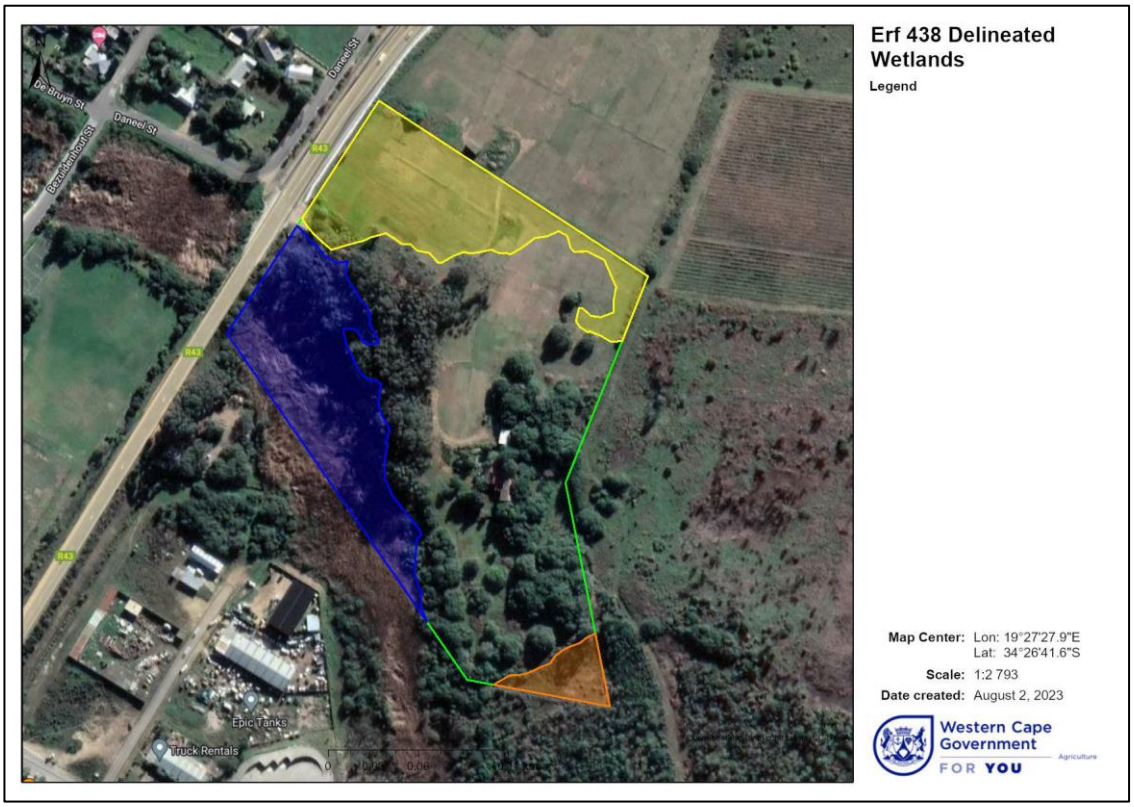
Attenuation and vegetated swales or polishing ponds should ensure that the stormwater from the development does not result in erosion downstream, and that the quality of water entering the system is as clean as possible. The use of arum lilies in vegetated swales will also create habitat for amphibians and increase the attractiveness of the development as an eco-tourism destination. Recommendations in this regard, made by the specialist team are included in this report. None of

the specialist have concluded that the proposed development is inappropriate or that the property cannot or should not be used for residential or tourism purposes.

2. "No-Go" areas

Explain what "no-go" area(s) have been identified during identification of the alternatives and provide the co-ordinates of the "no-go" area(s).

See the attached Aquatic Biodiversity Screening in which the wetland and 32 m buffer are delineated:



The Unchanneled Valley Bottom Wetland (UVB Wetland) is delineated and shown in orange. Mill Stream is shown in blue. **These two areas are considered No-Go Areas in the long term and will be rehabilitated and managed as part of the post-commencement activities on site.**

These wetlands have an additional 32 m buffer which connects the wetland and stream. **This 32m buffer is a Non-Developable area and therefore can now be protected, and enhanced, in perpetuity.**

The Hillslope Seep wetland is delineated and shown in yellow. An assessment of this wetland showed that it has been extensively impacted by many years of cultivation and irrigation and is therefore marginal and need not be excluded from the development area. **The 32 m buffer is therefore appropriate as an off-set for this wetland.**

3. Methodology to determine the significance ratings of the potential environmental impacts and risks associated with the alternatives.

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.

An impact is any change to a resource or receptor brought about by a project component or through the execution of a project related activity. The evaluation of baseline data provides information for the process of evaluating and describing how the project could affect the biophysical and socio-economic environment.

Impacts are described according to their nature or type, as follows:

Nature / type of impact

Nature / Type of impact	Definition
Positive	An impact that is considered to represent an improvement on the baseline or introduces a positive change
Negative	An impact that is considered to represent an adverse change from the baseline, or introduces a new undesirable factor
Direct	Impacts that result from a direct interaction between a planned project activity and the receiving environment/receptors (e.g. between occupation of a site and the pre-existing habitats or between an effluent discharge and receiving water quality).
Indirect	Impacts that result from other activities that are encouraged to happen as a consequence of the Project (e.g. in-migration for employment placing a demand on resources).
Cumulative	Impacts that act together with other impacts (including those from concurrent or planned future third-party activities) to affect the same resources and/or receptors as the Project.

Significance

Impacts are described in terms of 'significance'. Significance is a function of the magnitude of the impact and the likelihood of the impact occurring:

Impact Magnitude	
Extent	**On site** – impacts that are limited to the boundaries of the development site.
	Local – impacts that affect an area in a radius of 20 km around the Development site.
	Regional – impacts that affect regionally important environmental resources or are experienced at a regional scale as determined by administrative boundaries, habitat type/ecosystem.
	National – impacts that affect nationally important environmental resources or affect an area that is nationally important/ or have macro-economic consequences
Duration	**Temporary** – impacts are predicted to be of short duration and intermittent/occasional.
	Short-term – impacts that are predicted to last only for the duration of the construction period.

	Long-term – impacts that will continue for the life of the Project but ceases when the project stops operating.
	Permanent – impacts that cause a permanent change in the affected receptor or resource (e.g. removal or destruction of ecological habitat) that endures substantially beyond the project lifetime.
Intensity	**BIOPHYSICAL ENVIRONMENT**
	Negligible – the impact on the environment is not detectable.
	Low – the impact affects the environment in such a way that natural functions and processes are not affected
	Medium – where the affected environment is altered but natural functions and processes continue, albeit in a modified way.
	High – where natural functions or processes are altered to the extent that they will temporarily or permanently cease.
	SOCIO-ECONOMIC
	Negligible – there is no perceptible change to people's livelihood.
	Low - people/communities are able to adapt with relative ease and maintain pre-impact livelihoods.
	Medium – people/communities are able to adapt with some difficulty and maintain pre-impact livelihoods but only with a degree of support.
	High - affected people/communities will not be able to adapt to changes or continue to maintain pre-impact livelihoods.

Likelihood – the likelihood that an impact will occur

Likelihood	
Unlikely	The impact is unlikely to occur.
Likely	The impact is likely to occur under most conditions.
Definite	The impact will occur.

Once an assessment is made of the magnitude and likelihood, the impact significance is rated through a matrix process:

		Significance		
Magnitude		Unlikely	Likely	Definite
	Negligible	Negligible	Negligible	Minor
	Low	Negligible	Minor	Minor
	Medium	Minor	Moderate	Moderate
	High	Moderate	Major	Major

Definitions of significance:

Negligible	An impact of negligible significance (or an insignificant impact) is where a resource or receptor (including people) will not be affected in any way by a particular activity, or the predicted effect is deemed to be 'negligible'
Minor	An impact of minor significance is one where an effect will be experienced, but the impact magnitude is small (with and without mitigation) and within accepted standards, and/or the receptor is of low sensitivity/value
Moderate	An impact of moderate significance is one within accepted limits and standards. The emphasis for moderate impacts is on demonstrating that the impact has been reduced to a level that is as low as reasonably practicable. This does not necessarily mean that 'moderate' impacts have to be reduced to 'minor' impacts, but that moderate impacts are managed effectively and efficiently.
Major	An impact of major significance is one where an accepted limit or standard may be exceeded, or large magnitude impacts occur to highly valued / sensitive resource / receptors. A goal of the EIA process is to get to a position where the Project does not have any major residual impacts.

Significance of an impact is then qualified through a statement of the degree of ***confidence***. Degree of confidence is expressed as low, medium or high.

Significance colour scale (if applicable):

Negative	Positive
Negligible	Negligible
Minor	Minor
Moderate	Moderate
Major	Major

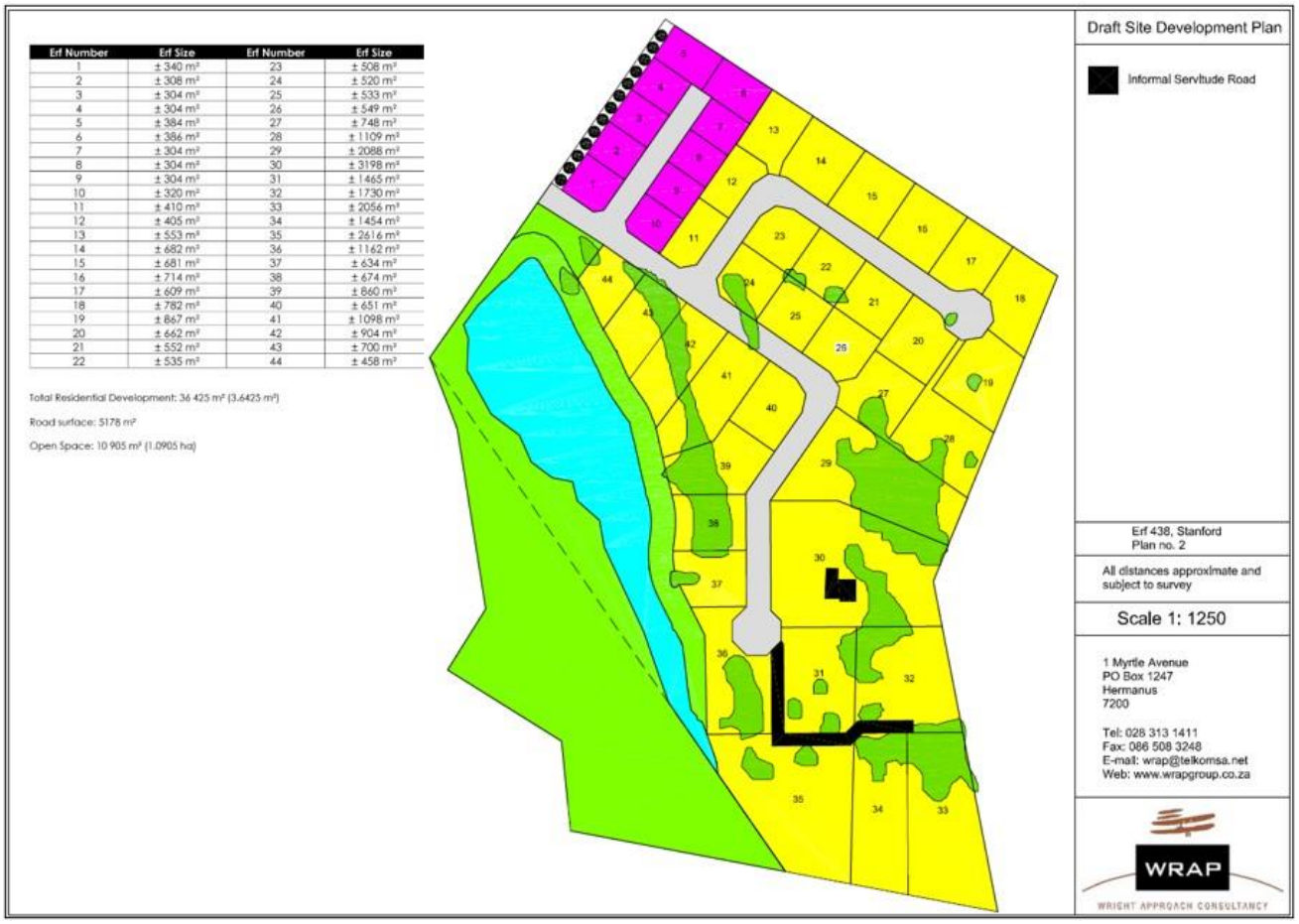
Impact rating colour scale:

Negative	Positive
Negligible	Negligible
Low	Low
Medium	Medium
High	High

4. Assessment of each impact and risk identified for each alternative

Note: The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. The EAP may decide to include this section as Appendix J to this BAR.

ALTERNATIVE 1



The original site development plan, Alternative 1, subdivided the property into 44 residential erven

The Mill Stream was excluded from the development but not buffered and the other wetlands on site where not determined. Single residential development is proposed for the Milkwood forest area which would result in loss of this area.

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Socio -Economic**
Nature of impact:	Employment opportunities for a wide range of skills from professionals to labourers
Extent and duration of impact:	Approx 2 – 5 years – short term
Consequence of impact or risk:	Positive.
Probability of occurrence:	Definite

Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	Positive impact on economy of surrounding area
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High +ve
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Use local skills both professional and labours
Residual impacts:	Improve local economy and livelihoods
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High +ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Heritage Impacts (Archaeological, Palaeontological, Visual and Cultural Landscape)**
Nature of impact:	Loss or disturbance of palaeontological resources; minor disturbance of archaeological artefacts; alteration of visual aspects of the cultural landscape.
Extent and duration of impact:	Localised to the development footprint; short-term during construction phase; long-term visual changes post-construction.
Consequence of impact or risk:	Minor loss of non-significant palaeontological and archaeological material; limited alteration of cultural landscape character.
Probability of occurrence:	Low for palaeontological impact due to shallow excavation; low for archaeological impact due to artefacts being surface-level; low for visual/cultural landscape impact as development aligns with existing landscape context.
Degree to which the impact may cause irreplaceable loss of resources:	Very low; no significant palaeontological or archaeological resources are expected within the shallow excavation zone.
Degree to which the impact can be reversed:	N/A
Indirect impacts:	Minimal; includes potential minor disturbance to adjacent areas during construction (e.g., temporary visual intrusion).
Cumulative impact prior to mitigation:	Low; development footprint is limited and similar impacts are common in regional context.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	Moderate; sensitive areas can be avoided through careful design and excavation management.
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Detailed designs of the Treehouse Lodge being submitted to HWC for further comment and endorsement. → Amendment to the double storey height of the proposed residential buildings by allowing for a roof attic/loft expression of upper storey elements and/or the Stanford Heritage Guidelines

	→ Detailed design development proceeding largely in accordance with the Site Plan and Landscape Plan attached as Figures 1.5 of the HIA report. → Detailed design development proceeding largely in accordance with the Landscape Development Plan and Stanford Eco-Estate Architectural Guidelines respectively. → There is no objection to the proposed demolition of the existing residential structure located on the site as this structure has been determined to be Not Conservation-Worthy. → The attached HWC Chance Finds Protocol is implemented for the duration of excavation activities → Should any buried archaeological resources, palaeontological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward
Residual impacts:	Very Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Removal of protected trees**
Nature of impact:	Removal of a large number of White Milkwood (*Sideroxylon inerme*), a specially protected tree, to enable the construction of homes on SR1 zoned erven
Extent and duration of impact:	Local / Permanent
Consequence of impact or risk	Legal – permit for removal required White Milkwood trees may not be removed without a permit. Loss of biodiversity Loss of habitat Loss of endangered vegetation type Loss of sense of place
Probability of occurrence:	Very High -ve
Degree to which the impact may cause irreplaceable loss of resources:	Very High
Degree to which the impact can be reversed:	Impact cannot be reversed
Indirect impacts:	Loss of biodiversity
Cumulative impact prior to mitigation:	High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High
Degree to which the impact can be avoided:	Impact cannot be avoided
Degree to which the impact can be managed:	Impact cannot be managed
Degree to which the impact can be mitigated:	Low

Proposed mitigation:	Apply to DWAF for permits to remove large number of White Milkwood trees.
Residual impacts:	Ongoing. Trees cannot be replaced due to density of development
Cumulative impact post mitigation:	Due to nature of development trees can never be replaced
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Hillslope Seep and Unchanneled Valley Bottom Wetland**
Nature of impact:	Hillslope seep and UVB wetland area included in development footprint, not excluded from Alternative 1 layout
Extent and duration of impact:	Limited to this site / Permanent
Consequence of impact or risk	Loss of hillslope seep wetland. Area of +1 Ha included in development Legal application for WULA
Probability of occurrence:	Very High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	High cost / Low likelihood of success
Indirect impacts:	Limited
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be avoided:	Not possible
Degree to which the impact can be managed:	Not possible
Degree to which the impact can be mitigated:	Not possible
Proposed mitigation:	N/A
Residual impacts:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Altered flow Regime – UVB Wetland and Stream**
Nature of impact:	Site clearance, Infilling and compaction of the catchment of the stream and wetland may alter the flow regime of the wetland and Mill Stream
Extent and duration of impact:	Extends downstream onto Stanford sections of Mill Stream / Permanent
Consequence of impact or risk	Increased volume and velocity of runoff
Probability of occurrence:	Very high unless mitigated
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Relatively easily with low-cost rehabilitation
Indirect impacts:	Moderative significance. Limited to site
Cumulative impact prior to mitigation:	None

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	Not possible
Degree to which the impact can be mitigated:	Possible
Proposed mitigation:	None
Residual impacts:	High
Cumulative impact post mitigation:	Medium
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential Impact and risk	**Water Quality Impairment – UVB Wetland and Stream**
Nature of impact:	Accidental spills of cement, petrochemicals from vehicles, sewage from site toilets and / or construction chemicals
Extent and duration of impact:	Extends downstream/ Short term during construction
Consequence of impact or risk	Contaminated water may be toxic to endangered fauna and other animals. It may contaminate the stream within Stanford village
Probability of occurrence:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Passive restoration / High likelihood of success
Indirect impacts:	None
Cumulative impact prior to mitigation:	None
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium high
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	None
Residual impacts:	None
Cumulative impact post mitigation:	None
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Construction – includes, Site Clearance, Noise, Excavation, Dust, Traffic**
Nature of impact:	Construction associated with clearing the developable area of the property and construction of roads, infrastructure and buildings.
Extent and duration of impact:	Local / Medium term
Consequence of impact or risk:	Nuisance for neighbours and passing traffic
Probability of occurrence:	High
Degree to which the impact may cause irreplaceable loss of resources:	Very Low
Degree to which the impact can be reversed:	Impact can be managed but not reversed
Indirect impacts:	Loss of functionality / biodiversity

Cumulative impact prior to mitigation:	High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Moderately easily
Degree to which the impact can be mitigated:	Moderately easily
Proposed mitigation:	− Comply with Construction Phase EMP
Residual impacts:	None
Cumulative impact post mitigation:	None
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Visual – Construction site and activities within sight of R43 and Stanford**
Nature of impact:	Buildings
Extent and duration of impact:	Local /Medium term
Consequence of impact or risk:	Aesthetic of local area reduced for tourists
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely
Degree to which the impact can be reversed:	Easily
Indirect impacts:	None
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be avoided:	Unavoidable
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	− Screen building construction camp from road − Locate construction camp away from road in disturbed area
Residual impacts:	None
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Visual – Overstrand Heritage Guidelines for Scenic Routes 25m setback**
Nature of impact:	Reduce the visibility of the development from the R43 scenic route
Extent and duration of impact:	Limited to the approx. 150m of R43 eastern boundary / Permanent
Consequence of impact or risk:	Development visible from main R43 road near a Heritage area

Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	None
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium / Low
Degree to which the impact can be avoided:	Not possible
Degree to which the impact can be managed:	Easily
Degree to which the impact can be mitigated:	Easily and relatively cheaply
Proposed mitigation:	→ Buildings and entrance gate set back from R43 by required 25m → Planted earth berms of 2m high parallel to R43
Residual impacts:	High
Cumulative impact post mitigation:	High
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Fauna impacts**
Nature of impact:	This endangered species, Western Leopard Toad (*Sclerophyrys pantherinus*)and other amphibians are not confined to streams., They moves away from water to forage and spawn in water, depending on the season and the species.
Extent and duration of impact:	Regional / Permanent
Consequence of impact or risk:	Loss of habitat and therefore survival of the species
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	High -ve
Degree to which the impact can be reversed:	Unlikely
Indirect impacts:	Continued loss of species
Cumulative impact prior to mitigation:	High -ve
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High / Harmful
Degree to which the impact can be avoided:	Impact cannot be completely avoided
Degree to which the impact can be managed:	Possible
Degree to which the impact can be mitigated:	Possible
Proposed mitigation:	None
Residual impacts:	-
Cumulative impact post mitigation:	-
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very High -ve

POST – CONSTRUCTION PHASE	
Potential impact and risk:	**Socio-Economic**
Nature of impact:	− Residential homes supply increased − Injection into economy by investment and buying power of residents. − Employment opportunities (Security, Garden, Maintenance, Housekeeping).
Extent and duration of impact:	Permanent Positive
Consequence of impact or risk	Increased financial injection into local community
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Very unlikely
Degree to which the impact can be reversed:	N/A
Indirect impacts:	Knock on effect into local and regional community
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High +ve
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	Ensure employment opportunities are offered to local people of both genders Encourage residents to support local
Residual impacts:	None
Cumulative impact post mitigation:	High +ve
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High +ve
POST – CONSTRUCTION PHASE	
Potential Impact and risk	**Water Quality Impairment – UVB Wetland and Stream**
Nature of impact:	− Pollutants may enter the Stream and UVB Wetland via stormwater or leaking sewage pipes. − No attenuation or water polishing structures − No buffer on stream
Extent and duration of impact:	Limited to site / Short term
Consequence of impact or risk	Contamination of the Private open space and downstream by surface pollutants
Probability of occurrence:	Less than once in 20 years
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Passive restoration /High likelihood of success
Indirect impacts:	None
Cumulative impact prior to mitigation:	None

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	Possible
Degree to which the impact can be managed:	Possible if 32m buffer, swales and attenuation structures are considered in the design
Degree to which the impact can be mitigated:	Possible
Proposed mitigation:	→ Stream retained as Private Open Space → Sewage pipes and pumps station must be properly maintained and monitored for leaks.
Residual impacts:	None
Cumulative impact post mitigation:	None
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
POST – CONSTRUCTION PHASE	
Potential Impact and risk	**Altered flow regime in UVB Wetland**
Nature of impact:	Infilling, compaction and stormwater management structures may alter the run-off and therefore the flow regime
Extent and duration of impact:	Limited to site / Permanently
Consequence of impact or risk	Medium / Harmful
Probability of occurrence:	Unlikely
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Moderately likely success with low-cost rehabilitation
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	None
Degree to which the impact can be managed:	Possible
Degree to which the impact can be mitigated:	Possible
Proposed mitigation:	None
Residual impacts:	None
Cumulative impact post mitigation:	High
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve

Decommissioning not applicable

PREFERRED ALTERNATIVE 2

PLANNING, DESIGN AND DEVELOPMENT PHASE

Potential impact and risk:	**Socio -Economic**
Nature of impact:	Employment opportunities for a wide range of skills from professionals to labourers
Extent and duration of impact:	Approx 2 years but up to 5 years
Consequence of impact or risk:	Positive
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A

Degree to which the impact can be reversed:	N/A
Indirect impacts:	Positive impact on economy of surrounding area
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High +ve
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Use local skills both professionals and labours
Residual impacts:	Improve local economy and livelihoods
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High +ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Botanical Impacts**
Nature of impact:	Negative: The primary construction phase botanical impact of the proposed development would be loss of any natural and partly natural vegetation in the development footprint.
Extent and duration of impact:	Local; long- term
Consequence of impact or risk:	Low- Medium - given that the loss is largely confined to degraded vegetation but includes some areas of ecological value.
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low — as the vegetation type is largely transformed and not of irreplaceable conservation value.
Degree to which the impact can be reversed:	Irreversible
Indirect impacts:	Potential for soil erosion and alien vegetation invasion if cleared areas are left unrehabilitated. Loss of small-scale faunal habitat associated with disturbed vegetation.
Cumulative impact prior to mitigation:	Low - Medium — given continued transformation of similar vegetation in the broader urban area.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	Low – Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ All woody invasive alien vegetation (mainly *Acacia saligna*, *Acacia cyclops* and *Eucalyptus*) on the property must be felled using a hand or chainsaw, following appropriate methodology as per Martens et al (2021). No heavy machinery may be used (except perhaps in the case of the large gum trees in the western sector along the Mill stream), and Port Jackson (*Acacia saligna*) stems should be cut at close to ground level and immediately (within ten minutes) painted (not sprayed) with a suitable herbicide such as

	Garlon. Small seedlings (<15cm) of Port Jackson can usually be hand pulled, provided the root is removed. This alien vegetation control must be undertaken within six months of any authorisation, and must repeated annually to ensure no regrowth. → All non-woody invasive alien vegetation should also be removed, with a particular focus on kikuyu grass (*Cenchrus clandestinus*), other annual grasses such as Avena (oats), Briza (brome) and Lolium (ryegrass), and the blue flowered *Commelina benghalensis* under the milkwoods. → No disturbance of the Very High sensitivity area (as per Figure 5 Terrestrial Biodiversity Assessment) may take place at any stage in the future, and to safeguard and ensure this the area should be clearly demarcated as Very High sensitivity with suitable signage on its perimeters. → No milkwoods (*Sideroxylon inerme*) with stem diameter greater than 5cm should be felled or removed. No milkwood roots greater than 3cm diameter should be cut. → No livestock may be allowed into the Very High sensitivity section. → Rehabilitation of the disturbed (Low and Medium sensitivity) areas should be undertaken on an ongoing basis and should include alien invasive plant management and replanting with suitable locally indigenous plant species. → The planting list of suitable locally indigenous species for the Estate and the various zones must be compiled with input from the botanist, and approved in writing by the botanist.
Residual impacts:	Low
Cumulative impact post mitigation:	Very – Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Heritage Impacts (Archaeological, Palaeontological, Visual and Cultural Landscape)**
Nature of impact:	Loss or disturbance of palaeontological resources; minor disturbance of archaeological artefacts; alteration of visual aspects of the cultural landscape.
Extent and duration of impact:	Localised to the development footprint; short-term during construction phase; long-term visual changes post-construction.
Consequence of impact or risk:	Minor loss of non-significant palaeontological and archaeological material; limited alteration of cultural landscape character.
Probability of occurrence:	Low for palaeontological impact due to shallow excavation; low for archaeological impact due to artefacts being surface-level; low for visual/cultural landscape impact as development aligns with existing landscape context.

Degree to which the impact may cause irreplaceable loss of resources:	Very low; no significant palaeontological or archaeological resources are expected within the shallow excavation zone.
Degree to which the impact can be reversed:	N/A
Indirect impacts:	Minimal; includes potential minor disturbance to adjacent areas during construction (e.g., temporary visual intrusion).
Cumulative impact prior to mitigation:	Low; development footprint is limited and similar impacts are common in regional context.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	Moderate; sensitive areas can be avoided through careful design and excavation management.
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Detailed designs of the Treehouse Lodge being submitted to HWC for further comment and endorsement. → Amendment to the double storey height of the proposed residential buildings by allowing for a roof attic/loft expression of upper storey elements and/or the Stanford Heritage Guidelines → Detailed design development proceeding largely in accordance with the Site Plan and Landscape Plan attached as Figures 1.5 of the HIA report. → Detailed design development proceeding largely in accordance with the Landscape Development Plan and Stanford Eco-Estate Architectural Guidelines respectively. → There is no objection to the proposed demolition of the existing residential structure located on the site as this structure has been determined to be Not Conservation-Worthy. → The attached HWC Chance Finds Protocol is implemented for the duration of excavation activities → Should any buried archaeological resources, palaeontological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. → Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward
Residual impacts:	Very Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Wetland Loss in the delineated hillslope seep**
Nature of impact:	At present the proposed development area (as a whole) coincides with approximately 0.87 Ha of the seep. The seep has a PES score in the E category (Seriously Modified) and exhibits Moderate EIS. The wetland vegetation type is CR, although the fynbos onsite is considered highly degraded. There is also limited hydrological connection to the downstream Mill stream UVBW due to the seriously impacted hydrological, and geomorphology.
Extent and duration of impact:	Limited to project site; Permanent
Consequence of impact or risk:	Medium, given that the loss is largely confined to degraded wetland
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	High cost / Low likelihood of success
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	Medium – loss of wetland onsite, even though degraded.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	→ There is no mitigation for wetland loss. It is however recommended that the onsite UVBWs are maintained / protected in perpetuity as a wetland offset area for the loss of the onsite seep wetland. The alien invasive vegetation (specifically Eucalyptus spp.) present within the UVBW wetland areas must be removed and replanted with indigenous wetland vegetation. A suitable Rehabilitation and Management Plan should be drafted for the UVB wetlands onsite.
Residual impacts:	Medium
Cumulative impact post mitigation:	Medium
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium (-)**

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Altered flow regime within the delineated UVBWs**
Nature of impact:	Site clearance, infilling and compaction in the catchment area of the UVBWs may result in alteration of the flow regime of the UVBWs.

Extent and duration of impact:	Limited to project site; Permanent
Consequence of impact or risk:	Medium
Probability of occurrence:	High — likely to occur during and after construction if appropriate stormwater management is not implemented
Degree to which the impact may cause irreplaceable loss of resources:	Medium
Degree to which the impact can be reversed:	Low-cost rehabilitation / Moderately high likelihood of success
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	Ongoing hydrological modification in the broader catchment increases the sensitivity to additional disturbance.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be avoided:	Low – Medium
Degree to which the impact can be managed:	Low – Medium
Degree to which the impact can be mitigated:	Low – Medium
Proposed mitigation:	→ The significance of this impact can be largely mitigated by establishing a 32 m buffer area around the UVBW wetland areas; and by ensuring that runoff / SW generated onsite flows into the wetland areas through an appropriately designed broad, vegetated earth swale. → The alien invasive vegetation (specifically Eucalyptus spp.) present within the UVBW wetland areas must be removed and replanted with indigenous wetland vegetation. → A suitable Rehabilitation and Management Plan should be drafted for the UVB wetlands onsite.
Residual impacts:	Low -Medium
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Water Quality Impairment within the UVBWs**
Nature of impact:	Accidentally spilled cement, construction chemicals, sewage from temporary toilets or petrochemicals from construction vehicles may find their way into the UVBWs.
Extent and duration of impact:	Limited to project site; Passive restoration / High likelihood of success
Consequence of impact or risk:	Low
Probability of occurrence:	Low
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	High
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	N/A

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	Medium – High
Degree to which the impact can be managed:	Medium – High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ The significance of this impact can be largely mitigated by demarcating the UVBWs as No-Go areas during construction. Bunded, impervious areas that are more than 32 m away from the UVBW must be designated by an Environmental Control Officer for temporary toilets, vehicle parking/servicing areas, and for pouring and mixing of concrete/cement, paint, and chemicals. → It is essential that no pollutants are allowed to filtrate/run into the UVBWs due to the presence of the EN *Sclerophrys pantherinus* within the site. → Construction workers / employees should be notified of the importance of this species to ensure that no toads are killed and that the UVBWs remain as No-go areas.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Fauna impacts**
Nature of impact:	Negative; Habitat loss (wetland, milkwood, fynbos)Western Leopard Toad breeding and foraging disruption
Extent and duration of impact:	Local; Long-term
Consequence of impact or risk:	Medium — loss of already disturbed habitat with limited but important ecological function.
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low to Moderate — affected habitats are mostly degraded, though local ecological connectivity (particularly for amphibians) may be reduced.
Degree to which the impact can be reversed:	Moderate to High — through ecological landscaping, rehabilitation of buffer zones, and creation of faunal movement corridors.
Indirect impacts:	→ Disturbance and displacement of fauna due to noise, vibration, and lighting. → Increased risk of road mortality for amphibians and small mammals. → Potential introduction or spread of invasive alien species. → Reduced ecological connectivity across the site for ground-dwelling fauna.

Cumulative impact prior to mitigation:	Medium-High — cumulative reduction of habitat and connectivity in the broader Stanford–Mill Stream landscape.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ All construction personnel must receive environmental awareness training regarding amphibian species present on site, including the Western Leopard Toad. → Training should emphasize the risks of amphibian entrapment in trenches, pipes, and foundation works. Trench inspections must be conducted daily, and amphibians removed safely by a trained ECO (Environmental Control Officer). → Appoint an ECO with amphibian expertise to monitor implementation of all mitigation measures. → The ECO must be present during key earthworks within 50 m of any delineated wetland or amphibian corridor. → Strictly avoid encroachment into the 32 m buffer zone around delineated wetlands, especially the Mill Stream and tributary Unchanneled Valley-Bottom wetlands (UVBW) (see van Zyl (2024)) → Temporary fencing should demarcate and protect all no-go zones. → Implementing stormwater management and “toad-friendly” design interventions to maintain hydrological connectivity and reduce road mortality. → A comprehensive Alien Plant Eradication and Rehabilitation Plan must be developed and implemented for the property. This plan should address the removal of invasive species and the ecological rehabilitation of disturbed areas. It must be formally incorporated into the long-term management and maintenance of communal open spaces. → Only plant species that are indigenous to the local area should be permitted in residential gardens. This will support local biodiversity and prevent the introduction of potentially invasive alien species. → During the construction phase, all construction zones must be clearly demarcated and physically separated from adjacent wetland and sensitive habitats to prevent accidental disturbance, habitat destruction, and pollution. → Prior to and following construction, all designated ‘Private Open Space’ areas must be rehabilitated. This includes the removal of construction rubble, litter, and any other debris to restore ecological functionality. → All boundary and internal fences must remain semi-permeable to allow free movement of small terrestrial fauna

	such as genets and mongooses, particularly along the Mill Stream wetland corridor. → A pre-construction search and rescue operation must be conducted for slow-moving or sedentary fauna within designated development footprints. Rescued animals must be relocated within suitable nearby open space areas on site and not removed from the property. → Rodent control should be achieved through environmentally sensitive methods, including the installation of owl nesting boxes and raptor perches to promote natural predation rather than chemical baiting, which poses a secondary poisoning risk to wildlife. → The clearing of indigenous fynbos and Milkwood (*Sideroxylon inerme*) vegetation must be minimised. All-natural vegetation, particularly fynbos and Milkwood forest clumps surrounding the development footprint, must be protected from unnecessary disturbance and trampling during and after construction. → Removal, thinning and control of dense stands of P*hragmites australis.* → Establishment of indigenous vegetated in the wetland offset areas which will provide habitat for faunal species of concern. → Establishing long-term management and monitoring commitments to ensure persistence of amphibian and wetland-dependent fauna.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Visual – Overstrand Heritage Guidelines for Scenic Routes 25 m setback**
Nature of impact:	Reduce the visibility of the development from the R43 scenic route
Extent and duration of impact:	Limited to the approx. 150m of R43 eastern boundary / Permanent
Consequence of impact or risk:	Development visible from main R43 road in a Heritage area
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	None
Cumulative impact prior to mitigation:	N/A

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium / Low
Degree to which the impact can be avoided:	Not possible
Degree to which the impact can be managed:	Possible
Degree to which the impact can be mitigated:	Possible
Proposed mitigation:	→ Buildings and entrance gate are set back from R43 by required 25m → Planted earth berms of m high parallel to R43
Residual impacts:	N/A
Cumulative impact post mitigation:	Positive for the development and general Stanford area, the proposal allows for a more aesthetically pleasing view from the scenic route and Stanford and Surrounds. Construction activities are short term and will be managed and screened in line with recommendations of specialists and management plan.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Building beneath the canopy of White Milkwood trees**
Nature of impact:	Positive development proposal using the milkwood forest as a feature with eco-designed development.
Extent and duration of impact:	Mostly confined to the Portion 27, (Lodge) / Permanent
Consequence of impact or risk:	Careful design taking both the canopy and roots into considerations provides an example of low impact development which utilises the ecological features instead of removing them or harming them
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low – give the design proposed
Degree to which the impact can be reversed:	N/A
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	Possible
Degree to which the impact can be mitigated:	Possible
Proposed mitigation:	→ Avoid concrete footings and slabs under Milkwood canopy – ensure the low impact eco cabins are used for the lodge development. → Use of pile foundations only → Small single storey Eco Pods as guest rooms → Use decking to raise building above the ground and allow for internal access under canopy
Residual impacts:	The design will provide an example of how to work with nature with limited impacts

Cumulative impact post mitigation:	Not applicable
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Construction – includes, Site Clearance, Noise, Excavation, Dust, Traffic.**
Nature of impact:	Construction associated with clearing the developable area of the property and construction of roads, infrastructure and buildings.
Extent and duration of impact:	Local / Medium term
Consequence of impact or risk:	Nuisance for neighbours and passing traffic
Probability of occurrence:	Moderately High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Impact can be managed but not reversed
Indirect impacts:	None
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Mod High
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Moderately easily
Degree to which the impact can be mitigated:	Moderately easily
Proposed mitigation:	Comply with Construction Phase EMP
Residual impacts:	None`
Cumulative impact post mitigation:	None
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Visual - Construction site and activities within sight**
Nature of impact:	Site camp and construction activity
Extent and duration of impact:	Local /Medium term
Consequence of impact or risk:	Aesthetic of local area reduced for tourists
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely
Degree to which the impact can be reversed:	Easily
Indirect impacts:	None
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be avoided:	Unavoidable
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium

Proposed mitigation:	→ Screen building construction camp from road → Locate construction camp away from road in disturbed area
Residual impacts:	None
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Construction – includes, Site Clearance, Noise, Excavation, Dust, Traffic.**
Nature of impact:	Construction and upgrading of existing sewer pipeline and new sewer lines within the property
Extent and duration of impact:	Local / Long term
Consequence of impact or risk:	Contamination of soil and water with downstream impacts
Probability of occurrence:	Unlikely
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely but not impossible
Degree to which the impact can be reversed:	Impact can be managed but not reversed
Indirect impacts:	Contaminated water and bad smells to surrounding properties
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
Degree to which the impact can be avoided:	Easily
Degree to which the impact can be managed:	Easily
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	• Construct sewer pipelines in accordance with relevant SANS / SABS specifications • Design pipelines to accommodate operating and surge pressures • Provide surge protection e.g. air valves • Allow for surcharge containments and emergency storage of 2 hours peak flow at manholes located upslope of the stream. • Containment may include a concrete box surrounding the manholes which may be improved by raising the height of the manhole to professional design specifications.
Residual impacts:	None
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve

POST-CONSTRUCTION PHASE	
Potential impact and risk:	**Socio-Economic**
Nature of impact:	− Injection into economy by investment and buying power of residents − Injection into local economy by tourists (Restaurants, Curios, Guides) − Employment opportunities in residences homes (Security, Garden, Maintenance, Housekeeping) − Employment opportunities in tourism (Management, Housekeeping, Tour Guides) − Residential homes supply increased.
Extent and duration of impact:	Permanent Positive
Consequence of impact or risk	Increased financial injection into local community
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Very unlikely
Degree to which the impact can be reversed:	N/A
Indirect impacts:	Knock on effect into local and regional community and economy
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High +ve
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	− Ensure employment opportunities are offered to local people of both genders − Encourage residents and tourists to support local enterprises.
Residual impacts:	None
Cumulative impact post mitigation:	High +
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very High +ve

POST-CONSTRUCTION PHASE	
Potential Impact and risk	**Altered flow regime within the UVB wetlands**
Nature of impact:	Site clearance, infilling and compaction may result in alteration of the flow regime for the onsite UVBWs.
Extent and duration of impact:	Limited to project site; Permanent
Consequence of impact or risk	Erosional patterns and sedimentation
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Passive restoration /High likelihood of success

Indirect impacts:	None
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	− The significance of this impact can be largely mitigated by establishing a 32 m buffer area around the UVBW wetland areas; and by ensuring that runoff / SW generated onsite flows into the wetland areas through an appropriately designed broad, vegetated earth swale. − The alien invasive vegetation present within the UVBW wetland areas must be removed and replanted with indigenous wetland vegetation. − Additionally, a suitable Rehabilitation and Management Plan should be drafted for the onsite UVB wetlands
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**
POST-CONSTRUCTION PHASE	
Potential Impact and risk	**Water quality impairment of the UVBWs**
Nature of impact:	Pollutants may enter the onsite wetlands via stormwater or sewage leaks (although highly unlikely).
Extent and duration of impact:	Limited to site; Short-term
Consequence of impact or risk	Low – potential short-term degradation of wetland water quality and associated aquatic biota.
Probability of occurrence:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Passive restoration / High likelihood of success
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ The significance of this impact can be largely mitigated by establishing a 32 m buffer area around the UVBW wetland areas; and by ensuring that runoff / SW generated onsite flows into the wetland areas through an appropriately designed broad, vegetated earth swale.

	→ Tie into mainline sewage if at all possible or use fully contained conservancy tanks serviced by truck. No sewage treatment, irrigation or soak-aways should be contemplated. → Repair all sewage leaks as soon as reasonably possible after detection. Inspection of all sewage pipes should be conducted by a plumber once every 10 years. → Residents should be made aware of the presence of EN *Sclerophrys pantherinus* within the site. Should any pollution events occur, such as spills of petrol, etc. the spread to the UVBWs should be prevented, by applying / covering with absorbent materials. In no circumstance should pollutants enter the SW system or the UVBWs.
Residual impacts:	None
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**Faunal impacts (amphibians)**
Nature of impact:	Habitat fragmentation; Road mortality of amphibians (incl. Western Leopard Toad); Artificial light impact on nocturnal insects & toads
Extent and duration of impact:	Local; Permanent
Consequence of impact or risk:	Loss of ecological connectivity for small mammals, reptiles and amphibians; High risk of roadkill during breeding season due to lack of amphibian crossings; Loss of usable habitat, increased mortality, and stormwater impacts on breeding; Attraction and disorientation of nocturnal invertebrates and amphibians
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Low – Medium
Indirect impacts:	Loss of ecological connectivity for small mammals, reptiles and amphibians
Cumulative impact prior to mitigation:	High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be avoided:	Medium – Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	**Habitat Connectivity and Permeability** → All perimeter and internal fences must be permeable to amphibians. Avoid solid barriers like brick or precast walls. → Install toad-friendly passages such as:

	○ "Toad holes" (min. 100 mm diameter, ≤300 mm in length) every 20 m in walls and fences. ○ Open-bottomed boundary fences or gaps at ground level. → Include amphibian underpasses (e.g. drainage culverts or pipes) beneath internal roads at key crossing points to minimize road mortalities. **Road Verge and Kerb Design** → All new kerbs must not exceed 50 mm in height and should incorporate shallow V-shaped gutters to allow safe passage for toadlets (see Whale Coast Conservation (2024)). → Adequate road reserve should be implemented for internal access roads within the estate to facilitate the movement of toads. **Stormwater Management** → Cover stormwater drains with grates or mesh to prevent toad entrapment. → Treat all stormwater in vegetated detention ponds or swales before discharge into wetlands, see van Zyl (2024) → Monitor stormwater for pollutants and nutrients; implement community-based campaigns to prevent dumping of chemicals or waste into drains. → Tie into mainline sewage or use fully contained conservancy tanks serviced by truck. → No sewage treatment, irrigation or soak-aways should be contemplated, see (van Zyl, 2024). **Garden and Landscape Guidelines** → Gardens should prioritize indigenous vegetation and "wild" landscaping (e.g. woodpiles, compost heaps, leaf litter) to provide habitat for adult toads. → Encourage the planting of Arum Lilies (Zantedeschia aethiopica) in wetland buffers to support the amphibian diversity and filter stormwater runoff. **Swimming Pool Safety for Amphibians** → Enforce a compulsory "frog escape" net or ladder requirement for all swimming pools. → Promote use of non-chlorinated eco-pools or "beach-entry" designs to allow safe amphibian exit (van Zyl 2024). **Control of Invasive Vegetation** → Systematic removal of invasive grasses and maintenance of fynbos-dominated groundcover on road verges and open areas is critical.

	→ Reed cutting in the Mill Stream and tributaries should occur only during the dry season (December–May) and follow best practices:
	  o Do not exceed 300 m² per cut (as per regulation).
	  o Remove all cut biomass immediately to prevent nutrient leaching.
	→ Removal of Eucalyptus forest and rehabilitation to indigenous vegetation will improve habitat suitability for toads along Mill stream corridor
	
	Signage and Speed Control
	
	→ Install educational signage throughout the estate highlighting Western Leopard Toad presence, breeding season (July–September), and road mortality risks.
	→ Impose and enforce a maximum speed limit of 30 km/h within the estate, especially during breeding and emergence seasons.
	
	Resident Awareness Program
	
	→ Distribute educational materials to new residents on amphibian-friendly living, including:
	→ Stormwater pollution prevention
	→ Gardening for toads
	→ Responsible pet and chemical use
	
	Citizen Science and Ecotourism
	
	→ Explore opportunities for annual toad migration events and night walks during the breeding season (August), which coincide with the low tourism season and offer potential for ecotourism-based engagement.
	
	Legislative Compliance and Long-Term Management
	
	Wetland Protection and Offsets
	
	→ Secure and implement a Wetland Offset, Rehabilitation and Management Plan, especially for the impacted hillslope seep wetland (PES: E).
	→ No water abstraction from wetlands unless authorized via a valid Water Use Licence.
	
	Monitoring and Review
	
	→ Establish a post-development biodiversity monitoring program to assess amphibian diversity and abundance.
	→ Review mitigation effectiveness annually and adjust management practices accordingly.

	Domestic Pet Management → Free-roaming dogs must be strictly prohibited from accessing open space areas to prevent disturbance or predation of wildlife. Cats should not be permitted on the property due to their significant adverse impact on small mammals, reptiles, amphibians, and birds. **Lighting and Insect Attraction Management** → Lights should be turned off when not in use. → Lighting should be fitted with motion sensors or timers to limit unnecessary operation. → Fixtures must include shielding to prevent light spill and direct illumination only where necessary. → All outdoor lighting should shine downward and avoid illuminating natural habitats. → Use long-wavelength lighting (e.g., red or amber filtered LEDs) to reduce ecological disruption; avoid blue and green light spectrums where possible. → A site-specific lighting plan must be developed to minimise ecological light pollution.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**Botanical impacts**
Nature of impact:	Loss of current levels of fair ecological connectivity across the area, and associated habitat fragmentation, plus potential positive impacts such as revegetation with locally indigenous species and alien invasive vegetation management.
Extent and duration of impact:	Local & regional; Long term and permanent
Consequence of impact or risk:	Low – limited permanent loss of disturbed vegetation, with opportunities for restoration and ecological enhancement through management in some areas.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low – the vegetation to be affected is largely degraded and of low botanical sensitivity; no irreplaceable loss anticipated.
Degree to which the impact can be reversed:	Irreversible -possible restoration, invasive species control, and indigenous planting can improve long-term botanical integrity in other areas of the site.
Indirect impacts:	Possible indirect improvement of ecological quality through management of alien vegetation and enhancement of indigenous plant cover within open space areas.

Cumulative impact prior to mitigation:	Low – cumulative effect on the local vegetation system is minimal, particularly given the already modified condition of the site.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	Partially avoidable through effective landscape design and maintenance of ecological corridors
Degree to which the impact can be managed:	High – can be effectively managed through implementation of the Wetland Offset, Rehabilitation Management Plan.
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ All woody invasive alien vegetation (mainly *Acacia saligna*, Acacia cyclops and Eucalyptus) on the property must be felled using a hand or chainsaw, following appropriate methodology as per Martens et al (2021). No heavy machinery may be used (except perhaps in the case of the large gum trees in the western sector along the Mill stream), and Port Jackson (*Acacia saligna*) stems should be cut at close to ground level and immediately (within ten minutes) painted (not sprayed) with a suitable herbicide such as Garlon. Small seedlings (<15cm) of Port Jackson can usually be hand pulled, provided the root is removed. This alien vegetation control must be undertaken within six months of any authorisation and must repeated annually to ensure no regrowth. → All non-woody invasive alien vegetation should also be removed, with a particular focus on kikuyu grass (*Cenchrus clandestinus*), other annual grasses such as *Avena* (oats), *Briza* (brome) and *Lolium* (ryegrass), and the blue flowered *Commelina benghalensis* under the milkwoods. → No disturbance of the Very High sensitivity area (as per Figure 5 Terrestrial Biodiversity Assessment) may take place at any stage in the future, and to safeguard and ensure this the area should be clearly demarcated as Very High sensitivity with suitable signage on its perimeters. → No milkwoods (*Sideroxylon inerme*) with stem diameter greater than 5cm should be felled or removed. No milkwood roots greater than 3cm diameter should be cut. → No livestock may be allowed into the Very High sensitivity section. → Rehabilitation of the disturbed (Low and Medium sensitivity) areas should be undertaken on an ongoing basis and should include alien invasive plant management and replanting with suitable locally indigenous plant species.
Residual impacts:	Very Low – overall vegetation condition likely to improve post-rehabilitation and ongoing management
Cumulative impact post mitigation:	Very – Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very – Low (-)**

Decommissioning not applicable

NO - GO OPTION

Status quo remains – intensive roll-on lawn and single residential dwelling, risk of continued degradation to wetlands and Mill Stream, Risk to Milkwood Forest and loss of habitat.

Potential Impact and Risk	**Roll on Lawn Agriculture continues**
Nature of Impact	On-going utilisation of Hillslope seep area for the cultivation of Buffalo grass under irrigation
Extent and duration of Impact	Permanent
Consequence of impact or risk	High
Probability of occurrence:	Highly likely given on-going land use
Degree to which the impact may cause irreplaceable loss of resources:	This wetland assessed as marginal. However the irrigation and fertilization of this agricultural crop is contributing significantly to downstream eutrophication and higher nutrient loads in the Mill Stream
Degree to which the impact can be reversed:	Cannot be reversed.
Indirect impacts:	This area is effectively a green dessert. Fertilizer and pesticides used may be toxic to frogs and other animals

Cumulative impact prior to mitigation:	Locally not high significance
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium to low
Degree to which the impact can be avoided:	Not Possible
Degree to which the impact can be managed:	Not Possible
Degree to which the impact can be mitigated:	Not possible
Proposed mitigation:	No mitigation or management proposed as this is a significant portion of the cultivatable area of the property and the land use is on-going.
Significance of impact after mitigation(e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
Potential Impact and Risk	**Mill stream and UVB Wetland**
Nature of Impact	− Alien invasive plants − Water abstracted for irrigation − Fertilizer washed into stream and wetland from cultivated land − The flow regime and water quality from the existing cultivated irrigated land use is compromised and causes downstream impacts.
Extent and duration of Impact	0.7Ha permanent given no change in land use
Consequence of impact or risk	High
Probability of occurrence:	Highly likely
Degree to which the impact may cause irreplaceable loss of resources:	Wetlands assessed as C meaning that it is Moderately modified and moderate change in ecosystem processes but remains largely intact.
Degree to which the impact can be reversed:	Unlikely given no change in land use
Indirect impacts:	Low but good connectivity with Stanford open space system
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	None. On-going land use
Significance of impact after mitigation(e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
Potential Impact and Risk	**Hillslope Seep**
Nature of Impact	− Cultivation of Buffalo grass Roll on lawn − Irrigation and compaction has altered natural flow regimes − Fertilizer washing into stream and wetland from cultivated land − Soil introduced for access tracks alters natural flow regimes. − All the natural vegetation removed. − Geomorphology modified by ploughing and compaction − Contamination of water by fertilizer, hydrocarbons, pesticides and herbicides.

	− The flow regime and water quality from the existing cultivated irrigated la*nd use is compromised and causes downstream impacts.*
Extent and duration of Impact	permanent given no change in land use
Consequence of impact or risk	High
Probability of occurrence:	Highly likely
Degree to which the impact may cause irreplaceable loss of resources:	Wetlands assessed as E meaning that it is Seriously modified.
Degree to which the impact can be reversed:	Unlikely given no change in land use
Indirect impacts:	Medium
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	None. On-going land use
Significance of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
Potential Impact and Risk	**Socio- Economic**
Nature of Impact	Single residence and outbuildings with an agricultural land use
Extent and duration of Impact	Limited to a small area of the property. Permanent
Consequence of impact or risk	− Housing for only one family − Property zoned as Single Residential SR1 − Limited contribution to rates base − Agricultural labour opportunities for limited number of people − Low value crop. Does not contribute to food security. − In appropriate land use. − Visual impacts to Stanford and R43 Scenic route
Probability of occurrence:	High
Degree to which the impact may cause irreplaceable loss of resources:	Very unlikely
Degree to which the impact can be reversed:	Unlikely given no change in land use
Indirect impacts:	Low. Densification will significantly increase rates base.
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Indirect impacts;	Failure to unlock property potential
Proposed mitigation:	Not applicable with no change in land use
Significance of impact after mitigation(e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
Potential Impact and Risk	**Flora**

Nature of Impact	Loss of Protected White Milkwood trees and forest on site
Extent and duration of Impact	Historical photographs show that the area under tree canopy has been in existence for a long time and has grown significantly since 1930's.
Consequence of impact or risk	High
Probability of occurrence:	Likely given no change in land use
Degree to which the impact may cause irreplaceable loss of resources:	Very unlikely
Degree to which the impact can be reversed:	N/A
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	Unregulated activities on site pose a risk to the Milkwood trees
Proposed mitigation	Not applicable with no change in land use.
Significance of impact after mitigation(e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
Potential Impact and Risk	**Fauna**
Nature of Impact	Continued agricultural activities on site pose a significant risk to the Endangered Western Leopard Toad and other amphibians
Extent and duration of Impact	Stanford area, long term
Consequence of impact or risk	High negative
Probability of occurrence:	Likely should status quo remain
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Possible with land use change
Indirect impacts:	Continued loss of habitat and faunal species
Cumulative impact prior to mitigation:	Loss of fauna
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High through land use change
Proposed mitigation:	Decommission roll on lawn business and allow for improved landuse
Degree to which the impact can be reversed:	Low
Indirect impacts:	Downstream connectivity with Stanford Open Space positive and movement of fauna should the aquatic areas and milkwood forest be rehabilitated and allowed to connect with the larger Stanford system
Proposed mitigation	Decommission current activities
Significance of impact after mitigation(e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

1.	Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.

A comprehensive specialist team has been appointed to assess the impacts of the proposed development and provide feasible mitigation measures as far as possible.

Alternative 2 - The Preferred Alternative was informed by these specialist studies:

AGRICULTURAL COMPLIANCE STATEMENT FOR A PROPOSED RESIDENTIAL DEVELOPMENT IN STANFORD, WESTERN CAPE

Report by Johann Lanz 29 April 2024
See Appendix F1.
Screening tool – very high

The screening tool classified approximately half the property with a high agricultural sensitivity and the balance as medium sensitivity. This is disputed by the specialist.

The property is within the urban edge and is zoned as a residential. The site falls outside an area that is classified as a Protected Agricultural Area (PAA). It used for the cultivation of role on lawn and not as cropland and therefore does not contribute to food security in the Western Cape. Viable rain-fed crop production is constrained by the combination of low rainfall and poor soil on the site, which further reduces the land capability.

The specialist concluded that the nature and layout of the proposed development will have no bearing on the significance of agricultural impacts, as agriculture will be completely excluded from the property. Likewise in the absence of the proposed development i.e. the No-Go option, will also not have an agricultural impact as this is marginal agricultural land, within the urban edge, zoned as residential and not productive cropland.

ARCHAEOLOGICAL IMPACT ASSESSMENT

Report by Jenna Lavin CTS Heritage April 2024
See Appendix F4
Screening tool – very high

This specialist study was undertaken as requested by Heritage Western Cape, in the Section 38(8) response dated 27 February 2024.

The specialist was appointed to verify the sensitivity of the property. A thorough investigation of the site established that there is low density Middle Stone Age (MSA) scatter of artifacts on the soil surface in the accessible areas where the grass is being cultivated that probably extends across the property in inaccessible areas under the leaf litter under the trees and the lawned areas.

The artefacts have limited scientific value due to the many years of ongoing agricultural activity on the property. They do not have enough cultural value to warrant conservation but they are valuable in terms of rarity as not much research has been done in the area. The reliable water from the spring and the shade from the trees would have made the area attractive to these people who lived here. These finding are not unexpected as a similar archaeological signature is evident across the Western Cape in undeveloped areas.

The specialist had no objection to the proposed development in terms of the archaeology but the following mitigation measure must be included in the EMP / condition of authorisation:

"Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward."

HERITAGE IMPACT ASSESSMENT INCLUDING VISUAL AND PALAEONTOLOGICAL)

Report by Jenna Lavin CTS Heritage April 2024
See Appendix F4
Screening tool – very high

The proposed development is located in an area that has generally high levels of palaeontological, archaeological and cultural landscape value and as such, any proposed development must therefore be carefully assessed in terms of impacts to these significant resources.

In terms of impacts to **palaeontological heritage**, the underlying geology of the site is described as a transition zone between the Bokkeveld Group shales to the north and the Waenhuiskrans Formation of the Bredasdorp Group to the south. The site's primary geological layer, the Strandveld Formation, consists of semi-consolidated dune sands and calcrete. The palaeontological sensitivity of the site is considered low due to sparse fossil records in the upper strata. However, the underlying Ceres Subgroup of the Bokkeveld Group, with high palaeontological sensitivity, contains rich marine invertebrate fossils from the Early to Mid-Devonian period. The assessment shows that the impact on palaeontological resources is **low**, as the development will only require minor excavation, reducing the risk of disturbing significant palaeontological heritage. Despite this low risk, the report recommends implementing mitigation measures, such as a Chance Fossil Find Protocol, to address any unexpected palaeontological discoveries during construction.

In terms of impacts to **archaeological resources**, it is likely that a low density MSA scatter extends across the development area in the soil layer beneath the grass. This is not unexpected due to the proximity of a reliable water-source, (Die Oog, and the milkwood forest). Very little archaeological work has been carried out in this particular area. Most of the archaeological research which has been conducted in this section of the southern Cape has been concentrated along the coast (see Hart 2010). A number of sites have been recorded along the rocky shoreline near Hermanus by Kaplan (2007). These are primarily Later Stone Age shell middens. Early and Middle Stone Age artefacts scatters have been recorded on the Hermanus Golf Club and at the Fernkloof Nature Reserve.

Although there are very few recorded examples of similar resources in this area, and as such, these artefacts have value in terms of rarity in the immediate context, the artefacts themselves have limited scientific value due to the extensive previous disturbance of the property through ongoing and historic agricultural activities on site. Cultural landscape resources have been assessed at the broader landscape, townscapes and site scales recognising the location of Stanford within Klein Rivier Valley as a distinctive cultural landscape and the location of Erf 438 within the Stanford HPOZ which is of Grade IIIA heritage value. At the site scale the following heritage resources are identified:

- → Die Bron/Die Oog has been graded IIIA in terms of the Overstrand Heritage Survey (2009) in terms of its historical, technological and environmental significance being closely related to the development of Stanford since the mid-19th century and the nature of the gridiron pattern and associated leiwater system. The associated mill stream traversing the southern portion site is also worthy of Grade IIIA heritage value.
- → The milkwood forest has been identified in the Overstrand Heritage Survey (2009) as conservation-worthy. Although no heritage grading has been assigned to the forest in terms of this survey, this distinctive landscape feature is worthy of Grade IIIA heritage value.

→ The R43 and the R326 have been designated as HPOZ: Scenic Drives being routes of regional scenic significance. While the site is located adjacent to the R43, the site is located some distance from the R326 and will be obscured from view by future development to the north and north-east of the site.

The principle of development of the site is supported from a cultural landscape perspective. Heritage indicators have been prepared at the broader landscape, townscape and site scales. The proposed development is largely in accordance with the heritage indicators with further refinements required and indicated below.

There is no objection to the proposed development from a heritage perspective on condition that:

1. The following refinements are implemented in the project design and are submitted to HWC for further comment and endorsement:
    a. Detailed designs of the Treehouse Lodge being submitted to HWC for further comment and endorsement.
    b. Amendment to the double storey height of the proposed residential buildings by allowing for a roof attic/loft expression of upper storey elements.
2. Detailed design development proceeding largely in accordance with the Site Plan and Landscape Plan as below:

3. Detailed design development proceeding largely in accordance with the Landscape Development Plan and Stanford Eco-Estate Architectural Guidelines respectively.
4. The HWC Chance Finds Protocol as attached in the PIA, is implemented for the duration of excavation activities

5. Should any buried archaeological resources, palaeontological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward.

AQUATIC BIODIVERSITY THEME

Site screening and delineation report prepared by Delta Ecology – Joshua Gericke
Impact assessment report prepared by Delta Ecology – Kim van Zyl
See Appendix F2
Screening Tool – very high

The report sets out the results from a desktop analysis, as well as two field assessments conducted on the 25th of July 2023 and the 1st of March 2024, to assess the potential aquatic impacts associated with the proposed development of a residential eco-estate on Erf 438, Standford, Western Cape. Three wetlands were identified within the proposed site, including the Mill Stream wetland (classified as a UVBW), a small tributary thereof (also a UVBW) and a hillslope seep wetland within the onsite farmed area.

In this impact assessment, the delineated onsite wetlands were assessed using current best practice assessment methodologies to determine the present ecological state (PES), ecological importance and sensitivity (EIS), wetland ecosystem services (WES), and recommended ecological category (REC) metrics. The results of these assessments are as follows:

Table 9-1: Results of the wetland status quo assessment.

	PES	EIS	WES (Highest)	REC
Mill Stream UVB Wetland	C	High	High	B
Tributary UVB Wetland	C	High	Moderate	B
Hillslope Seep Wetland	E	Moderate	Moderately Low	D

Although the condition of the onsite UVB wetlands was moderately disturbed, the high to moderately high EIS and WES scores indicate that these wetlands are sensitive and important in terms of conservation planning or provision of ecosystem services. The hillslope seep wetland is seriously disturbed, and of moderate to low importance in terms of conservation planning or provision of ecosystem services and hence has been included in the development footprint.

Aquatic biodiversity impacts associated with the development were identified and assessed using both an impact assessment methodology compliant with NEMA requirements and the Risk Assessment Matrix prescribed by GN509 of 2016. The results of the assessment of wetland loss along with four additional impacts during the construction and operational phases, given implementation of the listed mitigation measures, are summarised in the table below which has been extracted from the Aquatic Biodiversity Impact Assessment:

Table 9-2: Summary of impact/risk assessment results (with mitigation)

	Rating	Risk Class	Applicable to
		Construction Phase	
Impact 1: Wetland Loss	Medium	Moderate	Hillslope Seep
Impact 2: Altered flow	Low	Low	UVBWs
Impact 3: Water Quality Impairment	Very Low	Low	UVBWs
		Operational Phase	
Impact 4: Altered flow	Low	Low	UVBWs
Impact 5: Water quality impairment	Very Low	Low	UVBWs
"No Go" Scenario	Low	Not Assessed	Hillslope seep & UVBWs

Four out of five of the post-mitigation scores fell within the within the "Low" to "Very Low" impact categories. Wetland loss received the highest impact significance score, which fell within the 'Medium' category. Ordinarily, wetland loss would fall within the 'high' category, but the limited area of wetland loss (0,87 Ha) and the degraded nature of the wetland has reduced the impact significance.

Although it is unknown whether the development area would be further developed in future, it is assumed that the site would remain as is. The No-Go option would result in the continuation of impact to the wetlands due to onsite and adjacent land uses – and would therefore still result in negative impact to the delineated wetlands.

The Moderate risk rating confirms that a Water Use Licence will be required for this project due to the encroachment into the onsite seep wetland.

The key recommendations therefore are:

- → Avoid encroachment into the delineated UVBWs during construction and operational phases
- → Avoid encroachment into the 32 m buffer area around each wetland, apart from limited activities – specifically indigenous gardens and pools (recommended to be non-chlorinated eco pools)
- → Tie into mainline sewage if possible or use fully contained conservancy tanks serviced by truck. No sewage treatment, irrigation or soak-aways should be contemplated. Note that the development will connect to existing municipal infrastructure and service confirmation has been provided by the Overstrand Municipality.
- → Allowance must be made for stormwater to be treated in a vegetated detention pond and/or a substantial vegetated swale before release into the UVBWs.
- → Municipal water supply should be used if possible. If not, groundwater abstraction would be preferable to wetland abstraction. Note that only municipal water will be sued as per the attached municipal confirmation and engineering reports.

The following mitigation measures have been adopted from the Rebelo *et al.* 2004 Biodiversity Management Plan for the Western Leopard Toad *Sclerophrys pantherinus*. It is essential that these proposed mitigation measures are implemented with the aim to minimize the impact of urban development (specifically habitat fragmentation, obstacles to toads' movements, and road mortalities) on the species:

- → It is recommended that a suitably qualified Environmental Control Officer (ECO) is appointed during the construction phase to ensure that recommendations as per this report, and other specialist reports, are implemented.
- → Toad-friendly curbs stones should be installed i.e. small curbs stones that are less than 50 mm tall, or half road gutters which provide passageways for toads. These can be implemented throughout the estate or at intervals of 50 m.
- → An appropriate road reserve should be implemented for internal access roads within the estate to facilitate the movement of toads.
- → Boundary walls and fences should be permeable to toads. Integrate toad holes of at least 100 mm diameter, spaced every 20 meters, and not exceeding 300 mm in length at ground level. Alternatively open gutters can be a suitable option.
- → Stormwater systems should be designed with suitably spaced escape areas, allowing toads to escape. These escape areas should be positioned at intervals of at least 50 m.
- → The estate should install non-chlorinated eco pools, ideally with a "beach pool" design with gently sloping sides emulating the natural bank of a wetland allowing toads to enter and exit the pool freely. Alternatively, if a pool design with high sides is installed, incorporate escape pathways such as toad ladders, toad friendly steps, or floating vegetated platforms anchored to the side of the pool.
- → To prevent road mortalities, Western Leopard Toad signage should be erected and a speed limit within the eco estate should be implemented and strictly adhered to.
- → Toad friendly gardens should be created, when it is not the toads breeding season (late July to September with the main breeding month being August), they inhabit suburban gardens. Natural vegetation should be planted to create ideal toad habitat.

Specific mitigation measures for construction:

Impact 1: Wetland Loss in the delineated hillslope seep		
Description		At present the proposed development area (as a whole) coincides with approximately 0.87 Ha of the seep. The seep has a PES score in the E category (Seriously Modified) and exhibits Moderate EIS. The wetland vegetation type is CR, although the fynbos onsite is considered highly degraded. There is also limited hydrological connection to the downstream Mill stream UVBW due to the seriously impacted hydrological, and geomorphology.
Mitigation Measures		There is no mitigation for wetland loss. It is however recommended that the onsite UVBWs are maintained / protected in perpetuity as a wetland offset area for the loss of the onsite seep wetland. The alien invasive vegetation (specifically *Eucalyptus spp.*) present within the UVBW wetland areas must be removed and replanted with indigenous wetland vegetation. A suitable Rehabilitation and Management Plan should be drafted for the UVB wetlands onsite.

Impact 2: Altered flow regime within the delineated UVBWs		
Description		Site clearance, infilling and compaction in the catchment area of the UVBWs may result in alteration of the flow regime of the UVBWs.
Mitigation Measures		The significance of this impact can be largely mitigated by establishing a 32 m buffer area around the UVBW wetland areas; and by ensuring that runoff / SW generated onsite flows into the wetland areas through an appropriately designed broad, vegetated earth swale. The alien invasive vegetation (specifically *Eucalyptus spp.*) present within the UVBW wetland areas must be removed and replanted with indigenous wetland vegetation. A suitable Rehabilitation and Management Plan should be drafted for the UVB wetlands onsite.

Impact 3: Water Quality Impairment within the UVBWs		
Description		Accidentally spilled cement, construction chemicals, sewage from temporary toilets or petrochemicals from construction vehicles may find their way into the UVBWs.
Mitigation Measures		The significance of this impact can be largely mitigated by demarcating the UVBWs as No-Go areas during construction. Bunded, impervious areas that are more than 32 m away from the UVBW must be designated by an Environmental Control Officer for temporary toilets, vehicle parking/servicing areas, and for pouring and mixing of concrete/cement, paint, and chemicals. It is essential that no pollutants are allowed to filtrate/run into the UVBWs due to the presence of the EN *Sclerophrys pantherinus* within the site. Construction workers / employees should be notified of the importance of this species to ensure that no toads are killed and that the UVBWs remain as No-go areas.

Specific mitigation measures for operations / post commencement:

Impact 4: Altered flow regime within the UVB wetlands		
Description		Site clearance, infilling and compaction may result in alteration of the flow regime for the onsite UVBWs.
Mitigation Measures		The significance of this impact can be largely mitigated by establishing a 32 m buffer area around the UVBW wetland areas; and by ensuring that runoff / SW generated onsite flows into the wetland areas through an appropriately designed broad, vegetated earth swale. The alien invasive vegetation present within the UVBW wetland areas must be removed and replanted with indigenous wetland vegetation. Additionally, a suitable Rehabilitation and Management Plan should be drafted for the onsite UVB wetlands.

Impact 5: Water quality impairment of the UVBWs		
Description		Pollutants may enter the onsite wetlands via stormwater or sewage leaks (although highly unlikely).
Mitigation Measures		The significance of this impact can be largely mitigated by establishing a 32 m buffer area around the UVBW wetland areas; and by ensuring that runoff / SW generated onsite flows into the wetland areas through an appropriately designed broad, vegetated earth swale. Tie into mainline sewage if at all possible or use fully contained conservancy tanks serviced by truck. No sewage treatment, irrigation or soak-aways should be contemplated. Repair all sewage leaks as soon as reasonably possible after detection. Inspection of all sewage pipes should be conducted by a plumber once every 10 years.
		Residents should be made aware of the presence of EN *Sclerophrys pantherinus* within the site. Should any pollution events occur, such as spills of petrol, etc. the spread to the UVBWs should be prevented, by applying / covering with absorbent materials. In no circumstance should pollutants enter the SW system or the UVBWs.

The Risk Assessment Matrix prescribed by GN 509 of 2016 was applied to the proposed project with the following outcomes:

1. The risk associated with Impact 1 (wetland loss), was found to be within the **Moderate** - Risk category.
    a. The delineated hillslope seep has a PES score in the E category (Seriously Modified), exhibits Moderate EIS and offers Moderately Low ecosystem services.
    b. The historical wetland vegetation type is CR, although the fynbos onsite is considered highly degraded.
    c. There is limited hydrological connection to the downstream Mill Stream UVBW due to the seriously impacted hydrological, and geomorphology components of the seep.
2. The risks associated with Impacts 2-5 were all found to fall within the **Low**-Risk category. The key factors included:
    a. With the implementation of appropriate mitigation / management measures, the risk of the impacts can be largely reduced / minimized onsite.
    b. Of importance is that the UVBWs will be set aside as No-Go areas and a buffer area of 32 m will designated within which limited activities – specifically natural indigenous gardens and non-chlorinated eco-pools are only permitted. This is a no development zone.

It is therefore the opinion of the specialist that the proposed development should be approved subject to application of the mitigation measures listed in this report, as well as the implementation of a suitable Wetland Offset, Rehabilitation and Management Plan.

TERRESTRIAL BIODIVERSITY AND PLANT SPECIES

Report by Bernard Oberholzer

See Appendix F5

Screening tool – Terrestrial Biodiversity - very high, Plant Species - medium

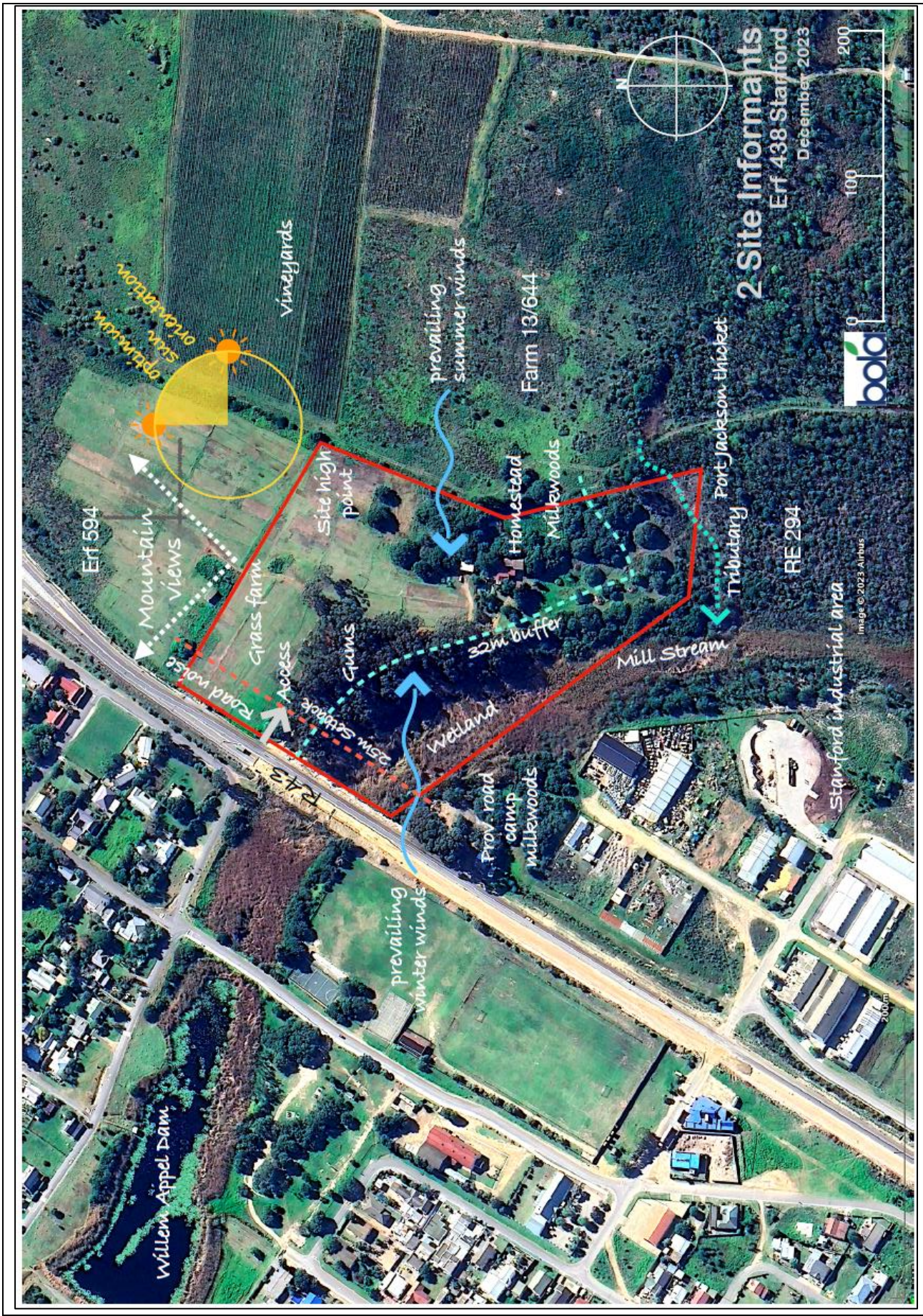
The specialist has identified and listed the plants found on the property, including the UVB wetlands. The two most important species are White Milkwood (*Sideroxylon inerme*) and Olive (*Olea europea subsp. africana*). The White Milkwood is Specially Protected species. No other specially protected or endangered species were identified within the development area.

This property has been inhabited for many years. There are a number of exotic garden species and trees planted as wind breaks (e.g. Blue Gum Trees, and Casuarina Trees,) some of these trees should be removed as they are Invasive Species that impact on the Wetland areas, and are category 1b, 2 or 3. There are indigenous plants (Reeds and bulrushes) in the UVB wetland and stream, as well as invasive species (Prickly pears and Port Jackson Willow) which must be removed and will require ongoing removal and management.

A large portion of the property is planted to Buffalo grass, of which most is in the cultivated area that is identified as a Hillslope Seep wetland, and which is sold as roll on lawn. This grass is indigenous, but cultivation requires irrigation, fertilizers herbicides and removal of a small amount of top soil with every roll of grass 'harvested'. Soil is introduced on site to replace the removed soil.

The specialist supports the proposed development as it would form part of the ecological corridor extending from the spring, (Die Oog) upstream of the property, to the Klein River, below Stanford. This open space system could also function as stormwater attenuation to reduce downstream impacts in Stanford using sustainable urban drainage systems (SUDS). This is also recommended by the wetland scientists.

The preferred layout of the development was informed by this report.


2.Site Informants
Erf 438 Stanford
December 2023
0
100
200
N
bold
Vineyards
Optimum sun orientation
Mountain Views
Erf 594
Grass farm
Road noise
Access
25m Setback
Gums
32m buffer
Site high point
Homestead
Milkwoods
prevailing summer winds
Farm 13/644
Port Jackson thicket
Tributary
RE 294
Mill Stream
Wetland
R43
Prov. road camp Milkwoods
Stanford industrial area
prevailing winter winds
Willem Appel Dam
Image © 2023 Airbus


Mt
Oa
Sc
Mt
Oa
Er
Gb
Eu
Gb
Eu
Eu
Eu
Eu
Sc
Si·Rs
Sc
Si·Oa
Si·Oa
Eu
Si·Oa
Pa
Si·Oa
Si
Si·Oa
Si·Oa
Si
Si·Oa
Sp
Si·Oa
Tc
Eu
Si·Oa
Si
Qr
Sn
Oa
Ah
Si
Qr
Oa
Eu
Oa
St
Sp
Si
Cu
Si
Oa
Ce
Cu
Si
Si
Si
Si
Si·Oa
Si
Oa
Oa
Si
Si
Si·Oa
Si
Si
Si
Si
Si
Si
Si
Si·Oa
Op
Si
Oa
Si
Oa
Er
Rs
Eu
As
Oa
Oa
Si
Si
Gb
Rs
Oa
Cm
Si
Si
Gb
Image © 2023 Airbus
Lowland indigenous flora
As
Si
As
Fuel Tanks

Map symbol	Botanical name	Description
Southern and western parts of the site. Wetland, gum trees and road entrance.		
Pa	*Phramites australis*	Fluitjiesriet. Prolific reed growing in the Mill Stream wetland.
Tc	*Typha capensis*	Bulrush. Grows in the Mill Stream wetland.
Eu	*Eucalyptus sp.*	Blue gum. Category 2 invasive tree. Would be harvested for timber and replaced with indigenous vegetation.
Op	*Opuntia sp.*	Prickly pear. Large specimen. Category 1 invasive plant which should be removed.
Gb	*Gymnosporia buxifolia (Maytenus heterophylla)*	Common spike-thorn. Indigenous thorny tree of forest margins.
Oa	*Olea europaea subsp. africana*	Wild olive. Indigenous bushy tree at the entrance.
Er	*Euclea racemosa*	Dune guarri. Indigenous tree found on sandy soils. Berries attract birds.
Mt	*Myoporum tenuifolium (M. insulare)*	Manatoka. Category 3 invasive alien tree near the entrance road.
As	*Acacia Saligna*	Port Jackson willow. Category 2 invasive plant, seeded from neighbouring properties.

Terrestrial Biodiversity Impact Assessment
Nick Helme - See Appendix F13

A detailed Botanical Impact Assessment was undertaken by Helme (2025) for Erf 438, Stanford, to determine the site's ecological condition, sensitivity, and botanical significance. The assessment found that approximately 65% of the property is highly transformed, consisting primarily of cultivated grassland used for roll-on lawns and patches of alien invasive vegetation, both of which were rated as having Low botanical sensitivity. The remaining portions of the property comprise Southern Coastal Forest (Least Concern) dominated by *Sideroxylon inerme* (White Milkwood), patches of Elim Ferricrete Fynbos (Endangered), and a small seasonal wetland area that supports higher ecological value.

Two plant Species of Conservation Concern (SoCC) were confirmed on site. The first, *Passerina paludosa* (Endangered), occurs in a small but viable population of about twenty individuals within the southeastern seasonal wetland. This discovery is considered regionally significant, as it represents the first recent record of the species near Stanford. The second, *Senecio pillansii* (Near Threatened), was found in small numbers (fewer than ten individuals) and is of lower regional significance. The southeastern seasonal wetland, covering approximately 0.14 ha, was rated as Very High botanical sensitivity, while the Mill Stream wetland and Milkwood forest were rated as Medium sensitivity, though they hold high ecological value due to their structural diversity and habitat function. The remainder of the site was classified as Low sensitivity due to extensive historical disturbance, compaction, and cultivation. Importantly, no Species of Conservation Concern fall within the proposed development footprint.

The primary construction phase botanical impact of the proposed development would be loss of any natural and partly natural vegetation in the development footprint. From the specialist perspective, the development layout and process is likely to be very little loss of Medium sensitivity habitat at the construction phase, even though infrastructure and units will be placed under the milkwood canopy, as the proposed construction in this area will avoid all trees, and in the milkwood area the accommodation pods will be built off-site. There will be no concrete foundations in the milkwood area, with a prefabricated base being used. All services (water reticulation, sewerage and power) in this area are to be housed under the boardwalk connecting the pods and then lead off and connected to the main services along the road network.

No loss of Very High sensitivity vegetation will occur. Essentially all hard footprints will be in Low sensitivity areas, apart from the "soft" footprints in the Medium sensitivity milkwood areas, but this should not cause any permanent damage or loss of what is there currently.

The botanical specialist determined that the proposed development is ecologically acceptable, with an overall **Low** negative botanical impact both before and after mitigation.

No plant Species of Conservation Concern will be impacted at the construction phase.

The No Go alternative would clearly have had a lower direct (construction phase) botanical impact than the proposed development - presumably best rated as Neutral.

Operational phase impacts

Operational phase impacts will take effect as soon as the natural vegetation in the focus area is lost or disturbed, and will persist in perpetuity, or as long as the area is not adequately rehabilitated. Operational phase impacts include loss of current levels of fair ecological connectivity across the area, and associated habitat fragmentation, plus potential positive impacts such as revegetation with locally indigenous species and alien invasive vegetation management.

Overall the operational phase botanical impact of the development is likely to be **Low negative** (prior to mitigation), and **Very Low** negative after mitigation.

The No Go alternative would clearly have a lower indirect (operational phase) botanical impact than the development of most of this area, although even in the No Go scenario the landowner could potentially introduce very high stocking rates on site that lead to severe overgrazing, trampling and denudation of whatever vegetation remains, in which case No Go impacts could be as high as **Medium** negative.

Positive ecological impacts could be realised in the future only if the applicant/their homeowner representative implements all required mitigation and the proposed site management guidelines.

The No Go Alternative

The No Go alternative is usually considered to mean a continuation of the status quo, which in this case is taken to mean no further habitat loss to development, moderate unmanaged alien plant invasion, ongoing roll–on lawn production, no grazing and trampling by livestock, but with possible unpredictable future agricultural type impacts – such as introduction of high numbers of livestock. Confidence in the likelihood of impacts is thus low, but the No Go alternative could range from being the environmentally preferred alternative, with perhaps a Very Low negative impact, to the least preferred alternative, with a **Medium** negative impact.

Cumulative Impacts

The cumulative ecological impacts are in many ways equivalent to the regional ecological impacts, in that the vegetation type/s impacted by the proposed development have been, and will continue to be, impacted by numerous developments and other factors (the cumulative impacts) within the region. The primary cumulative impacts in the region are loss of natural vegetation and threatened plant species to ongoing agriculture, urban development and alien plant invasion (Mucina & Rutherford 2012; Helme et al 2016).

The overall cumulative ecological impact of the proposed development in the study area at the regional scale is likely to be Very Low negative, as it is small cale, with little loss of natural vegetation.

Positive Impacts

Positive ecological impacts on this site that could be realised would include ongoing removal and management of all alien invasive vegetation on the site, as well as selective replanting of suitable locally indigenous plant species in all areas except the Very High sensitivity area.

Mitigation Measures recommended by the specialist

- → All woody invasive alien vegetation (mainly *Acacia saligna, Acacia cyclops* and *Eucalyptus*) on the property must be felled using a hand or chainsaw, following appropriate methodology as per Martens et al (2021). No heavy machinery may be used (except perhaps in the case of the large gum trees in the western sector along the Mill stream), and Port Jackson (*Acacia saligna*) stems should be cut at close to ground level and immediately (within ten minutes) painted (not sprayed) with a suitable herbicide such as Garlon. Small seedlings (<15cm) of Port Jackson can usually be hand pulled, provided the root is removed. This alien vegetation control must be undertaken within six months of any authorisation, and must repeated annually to ensure no regrowth.
- → All non-woody invasive alien vegetation should also be removed, with a particular focus on kikuyu grass (*Cenchrus clandestinus*), other annual grasses such as *Avena* (oats), *Briza* (brome) and *Lolium* (ryegrass), and the blue flowered *Commelina benghalensis* under the milkwoods.
- → No disturbance of the Very High sensitivity area (as per Figure 5) may take place at any stage in the future, and to safeguard and ensure this the area should be clearly demarcated as Very High sensitivity with suitable signage on its perimeters.
- → No milkwoods (*Sideroxylon inerme*) with stem diameter greater than 5cm should be felled or removed. No milkwood roots greater than 3cm diameter should be cut.
- → No livestock may be allowed into the Very High sensitivity section.
- → Rehabilitation of the disturbed (Low and Medium sensitivity) areas should be undertaken on an ongoing basis, and should include alien invasive plant management and replanting with suitable locally indigenous plant species.
- → The planting list of suitable locally indigenous species for the Estate and the various zones must be compiled with input from the botanist, and approved in writing by the botanist.

FAUNAL ASSESSMENTS

Report by Whale Coast Conservation (Sheraine van Wyk)
See Appendix F8a
Screening tool – High

Due to the transformed nature of the site in the roll-on lawn sections, and the presences of wetlands and the Mill Stream with some natural vegetation, the presence of amphibians is highly likely. This coupled with the likelihood of the Leopard toad, resulted in the investigation of the faunal situation on site with specific focus on amphibians.

This report is informed by historic frog records extracted from the Virtual Museum of the Animal Demographic Unit, UCT (given in **Figure 1**) and two site visits done on Wednesday, 24 July 2024 at 12:30 and 26 July at 18:30. Frog calls were thus monitored during the day as well as after dark.

The following observations were made:

Observations on site

- → During the daytime site visit the Common Caco and Clicking Stream Frogs were heard calling. During my nighttime site visit I detected over 200 calling males of the Common Caco frogs, over 100 calling males of the Clicking Stream Frogs, and one Cape Sand Frog calling. These were detected in the area marked in yellow on the aerial photograph of the site.

→ Most of the frogs were found in the northernmost area on municipal land currently leased to a roll-on grass operation, and in the riparian area of the Mill Stream in the south. The agricultural area between these areas showed high levels of ecological disturbance and was unoccupied by frogs, most likely due to the application of pesticides and fertilizer. As noted in the Aquatic Biodiversity Impact Assessment, soil has been brought into this area and compacted. Although I did not test water quality, I observed many instances of algae growth in the standing water in the central agriculturally active area, which would indicate that the water is nutrient enriched.

→ Although the vegetation in the northern area appears ideal for chameleons, we did not find any during our night survey of the area.

→ There is invasive grass growing everywhere on the site. This grass is outcompeting the natural vegetation in the north, encroaching into the tributary wetland in the southeast area and, is also prominent in the Milkwood Forest. Grass invasion generally in a milkwood forest is accompanied by dieback of the trees.

→ The Milkwood Forest is a jewel on this property, and Whale Coast Conservation support Bernard Oberholzer's recommendations regarding its protection and preservation.

→ Nesting Spotted Eagle Owls were observed in one of the Milkwood trees (close to the prickly pears, which should be removed). If this breeding site is to be preserved (and it should be), then it should ideally be cordoned off from humans as part of the site design. According to Stanford Bird Club, there are two breeding pairs of Spotted Eagle Owls (mottled brown) on the site and Sparrow Hawks are regularly seen flying over the area.

→ There are several alien and invasive plant species (including gum trees) growing on the site that must be removed.

→ Water use for the roll-on lawn area would appear to be having a marked impact on the natural water systems on site. There is a water pump next to the Mill Stream, presumably used to pump water to irrigate the roll-on lawn area during the dry season. There should be a Water User's License for this; if so, the conditions of use should be checked. There is also a drainage canal draining water from the roll-on lawn cultivation area through the hillslope seep wetland area, and eventually discharging enriched water into the Mill Stream.

Mitigation measures to enhance faunal conservation on site

→ In the Western Cape the water is naturally slightly acidic, and the soils are generally infertile. When this is changed through agricultural application of fertilizer, the pH of the water increases and the chemical composition changes too, which drives all but the most resilient frogs from the area. This is why one must not only consider whether frogs are present but also the abundance of those species that are present. Typically, in the Overstrand highly disturbed areas with chemically enriched water will support large numbers of Raucous Toads and Painted Reed Frogs as these species can tolerate these adverse conditions. The numbers of the more sensitive frog species dwindle and often these frogs disappear altogether. In general, a healthy aquatic ecosystem should have smaller

numbers of each species but a greater number of different species of frogs present. This should be the conservation or management goal of any strategy to improve the wetland health on a site. This is possible even in a development estate such as Stanford Eco-Estate. I would recommend the following measures which align to the recommendations proposed in other reports and assessments for this development.

→ Remove as much of the invasive grass present on the property as possible. Grass should be limited to only what is necessary and restricted to indigenous local species. As far as possible grass should be replaced with fynbos vegetation, particularly on road verges (such as ground covers like Arctotis and Gazania species) to provide safe corridors for frogs and other animals to move through. The journey for tiny toadlets on their first emergence from their breeding ponds to their foraging grounds is extremely arduous. Many of them die while crossing roads and other hard surfaces without protection from the sun. Shelter plants protect them from the elements and from predators.

→ Road verges should be U-shaped without any edge. The 50 mm edge along De Bruyn Street in Stanford North was a death trap to emerging Western Leopard toadlets coming out of the breeding pond there and crossing to their foraging grounds. This occurs approximately 10 weeks after breeding when the toadlets emerge from mid-October to early December. To address this problem, Whale Coast Conservation (WCC) filled the spaces in the verge stones along De Bruyn Street, Stanford, to create a shallow V-shape. We have not found any dead toadlets in these verges for the last three years

→ Most frogs are not fully aquatic; they spend most of their lives in their foraging grounds and only return to their breeding ponds once a year to spawn. For the rest of the year, they will be in gardens, fields and forests, generally in moist, shady areas foraging for food. To encourage their presence on the estate, the vegetation in gardens must be as “wild” as possible and preferably landscaped with indigenous plants. Wood piles, compost heaps and leaf litter provide food and hiding places for these creatures.

→ A “No pesticides” rule must be non-negotiable.

→ Garden ponds should be discouraged as they tend to attract the noisy frogs during the breeding season

→ All frogs, other than the aquatic Platannas which can breathe in water, will drown in a pool or pond if they are trapped there for too long treading water. Pools and ponds must have a means of escape for a frog. There are various ways this can be achieved using rock piles, frog ladders and toad savers or using “walk-in” pool designs.

- → Chlorinated water will kill frogs and will pollute the surrounding natural water bodies when the water is drained. No chlorine should be used on the estate at all.
- → Numerous small corridors between houses should be accommodated in the wetland to allow both for the free movement of the frogs and natural drainage of water. The Mill Stream is classified as a floodplain wetland or an unchanneled valley bottom wetland and presents an opportunity to create a visually pleasing river front area.
- → The aquatic report mentions that the open water pool upstream from the R43 has been artificially excavated, presumably to make a farm dam to divert and store water (Van Zyl & Morton, 2024, p25). It should be noted that South Africa's environmental laws prohibit these activities, and that if there is no Water User's License water extraction should stop.
- → Regular reed cutting should take place. Cutting reeds improves the water quality; pruned reeds absorb excess nitrates and phosphates from the water as they regrow. WCC's water testing in the past has identified very high levels of these chemical compounds in the stormwater discharging into the Mill Stream on the bank opposite Erf 438. In addition, in the areas where WCC has cut reed, we have found that this activity promotes an increase in biodiversity and broadens faunal habitat use. We have noticed more wading birds and insects in the open areas as they gain access to a food source previously obscured by congested reed growth.
- → Reed cutting should only occur in the hot and dry months from December to May. Note that environmental law prohibits the dredging of more than 300 square meters of reed from a riverbank or riparian zone as this destabilises the substrate. Reeds or reed rhizomes should not be removed as reeds are highly efficient at reducing water pollution provided, they are regularly cut during the dry season, preferably when the water volume is at its lowest at the end of autumn. An early December cut and a repeat cut in May is recommended. All cut material must be removed immediately lest the nutrients in the cut reed biomass leach back into the water. (WCC shreds the reed biomass and includes it in a compost mix.)
- → WCC is collaborating with Guillaume Nel Environmental Consultants on the rehabilitation of the area disturbed by R43 road construction through Stanford. The multiple large culverts installed in the new R43 bridge construction facilitate connection between the eastern and western arms of the Mill Stream and allow for a safer, easier passage for fauna between these. On either side of this bridge, we will be experimenting with ways to suppress reed growth and will be planting lower-growing indigenous wetland plants to facilitate faunal movement. We anticipate that this will encourage faunal population as the ecological use of the ecosystem is improved. This will support the intention to make the area adjacent Erf 438 more nature orientated, expressed in *The Mill Stream Village Park and Greenway, Concept Master Plan* prepared on behalf of the Stanford Ward Committee Members for the Overstrand Municipality (Van Wyk, Bewsher, Bewsher & Oberholzer, 2018)
- → WCC agree with the recommendations made by Oberholzer (2024) for planted berms along the R43 and a 32m buffer along the Mill Stream as well as a swale suggested by Van Zyl and Morton for this buffer zone. This area should be planted with arum lilies to encourage the return of Arum Lily Frogs. Arum Lilies are also efficient filter plants for enriched water and anecdotal reports by long-standing residents refer to a profusion of arum lily plants in the Mill Stream catchment.
- → If these recommendations are implemented, I am confident that various species of frogs and toads will repopulate the site. Not only will they make an important contribution to the biodiversity of Erf 438, but they will also present an opportunity for the estate to showcase its efforts to restore the ecological processes of the site.
- → The resident frog and toad species hold potential as subjects for environmental tours or events, such as showcasing the Western Leopard Toad breeding season in the middle of winter – which is traditionally a quiet tourism time.

Terrestrial Animal Site Sensitivity Verification and Species Specialist Assessment Report
Jan Venter (Wildlife Conservation Decision Support) – See Appendix F8b

A faunal site assessment was undertaken on 23–24 January 2025 to identify key species, evaluate habitat condition, and assess the ecological sensitivity of the site. The survey included nocturnal, diurnal, and crepuscular assessments under suitable weather conditions.

The study area covers approximately 5 ha and consists of five primary habitat types: wetland, Eucalyptus forest, lawn, milkwood forest, and tributary wetland. Despite historical disturbance and transformation, each habitat type provides varying degrees of ecological value for fauna.

Wetland Habitat (0.71 ha)

Forms part of the Mill Stream system and contains open water and dense stands of the invasive reed Arundo donax. Several amphibian species, including the Western Leopard Toad (*Sclerophrys pantherina*)—a species of conservation concern—were observed utilising this habitat for foraging and potential breeding.

Eucalyptus Forest (0.77 ha)

Dominated by tall Eucalyptus trees with sparse indigenous understorey. This habitat provides limited faunal diversity but serves as perching and roosting sites for avifauna such as doves and raptors.

Lawn Habitat (1.6 ha)

Consists primarily of cultivated grass with minimal structural complexity. The area is regularly irrigated, attracting numerous amphibians and invertebrates at night.

Milkwood Forest (1.64 ha)

Characterised by dense *Sideroxylon inerme* stands supporting higher species richness, including birds, reptiles, and small mammals. This habitat serves as an important refuge and foraging area.

Tributary Wetland (0.12 ha)

A small but ecologically valuable patch dominated by indigenous vegetation typical of Agulhas Limestone Fynbos. It supports amphibians and invertebrates and provides connectivity between wetland systems.

No animal species of conservation concern that were identified during site visit on the property. However, One of the population strongholds for the Western leopard toad *Sclerophrys pantherine* species is located in Stanford in the Millstream wetland (Willem Appel Dam) just a few hundred meters to the west of the property (Doucette-Riise 2012, Casola 2017, Whale Coast Conservation 2024) (unpublished data CapeNature, iNaturalist and Whale Coast Conservation)(Figure 14). Considering that the property is surrounded by sites where the toad has been observed and a confirmed breeding site just to the west it is highly likely that the species occurs and likely breeds there. This species was not observed during the field visits.

All the habitats except perhaps the eucalyptus habitat is usable for the toads in some form. The development will result in permanent loss of habitat and if not mitigated properly long-term detrimental consequences for the population. Long term impact will be mainly because of potential roadkills and connectivity issues. Disturbance during construction phase will have a negative impact. Decreased water quality from stormwater runoff affecting breeding areas downstream is also a cause for concern. The potential impact on Western leopard toad *Sclerophrys pantherine* without mitigation is classified as 'medium' (Table 15). With mitigation focussed on enhancing connectivity, preventing roadkills and maintaining stormwater runoff quality (see recommendations section) impact remains 'medium'. With a 'no-go' scenario the current degradation of the landscape is expected to continue and impact remains 'medium'.

The Western Cape Biodiversity Spatial Plan (2017) identifies ESA1 and ESA2 areas across portions of the property, highlighting the ecological importance of maintaining connectivity particularly for ground-dwelling and semi-aquatic species such as the Western Leopard Toad. The preferred development layout avoids these mapped ESA areas by designating them as open space, thus retaining key ecological corridors.

The overall SEI for the PAOI is considered 'Medium'.

Overall, the faunal specialist concludes that the proposed development is unlikely to result in significant long-term impacts on faunal species or habitat, provided that mitigation and management measures are effectively implemented.

Mitigation measures recommended by the specialist

Alien Plant Eradication and Rehabilitation Plan

A comprehensive Alien Plant Eradication and Rehabilitation Plan must be developed and implemented for the property. This plan should address the removal of invasive species and the ecological rehabilitation of disturbed areas. It must be formally incorporated into the long-term management and maintenance of communal open spaces.

Use of Indigenous Plant Species

Only plant species that are indigenous to the local area should be permitted in residential gardens. This will support local biodiversity and prevent the introduction of potentially invasive alien species.

Construction Area Demarcation

During the construction phase, all construction zones must be clearly demarcated and physically separated from adjacent wetland and sensitive habitats to prevent accidental disturbance, habitat destruction, and pollution.

Rehabilitation of Private Open Spaces

Prior to and following construction, all designated 'Private Open Space' areas must be rehabilitated. This includes the removal of construction rubble, litter, and any other debris to restore ecological functionality.

Permeable Fencing

All boundary and internal fences must remain semi-permeable to allow free movement of small terrestrial fauna such as genets and mongooses, particularly along the Mill Stream wetland corridor.

Wildlife Search and Rescue

A pre-construction search and rescue operation must be conducted for slow-moving or sedentary fauna within designated development footprints. Rescued animals must be relocated within suitable nearby open space areas on site and not removed from the property.

Domestic Pet Management

Free-roaming dogs must be strictly prohibited from accessing open space areas to prevent disturbance or predation of wildlife. Cats should not be permitted on the property due to their significant adverse impact on small mammals, reptiles, amphibians, and birds.

Environmentally Responsible Rodent Control

Rodent control should be achieved through environmentally sensitive methods, including the installation of owl nesting boxes and raptor perches to promote natural predation rather than chemical baiting, which poses a secondary poisoning risk to wildlife.

Lighting and Insect Attraction Management

To mitigate the impact of artificial lighting on nocturnal wildlife and reduce insect mortality, the following measures must be adopted:

- → Lights should be turned off when not in use.
- → Lighting should be fitted with motion sensors or timers to limit unnecessary operation.
- → Fixtures must include shielding to prevent light spill and direct illumination only where necessary.
- → All outdoor lighting should shine downward and avoid illuminating natural habitats.
- → Use long-wavelength lighting (e.g., red or amber filtered LEDs) to reduce ecological disruption; avoid blue and green light spectrums where possible.
- → A site-specific lighting plan must be developed to minimise ecological light pollution.

Vegetation Protection and Trampling Avoidance

The clearing of indigenous fynbos and Milkwood (*Sideroxylon inerme*) vegetation must be minimised. All natural vegetation, particularly fynbos and Milkwood forest clumps surrounding the development footprint, must be protected from unnecessary disturbance and trampling during and after construction.

Western Leopard Toad specific recommended mitigation measures

Construction phase

Contractor Induction and Awareness

- → All construction personnel must receive environmental awareness training regarding amphibian species present on site, including the Western Leopard Toad.
- → Training should emphasize the risks of amphibian entrapment in trenches, pipes, and foundation works. Trench inspections must be conducted daily, and amphibians removed safely by a trained ECO (Environmental Control Officer).

Environmental Control Officer (ECO)

- → Appoint an ECO with amphibian expertise to monitor implementation of all mitigation measures.
- → The ECO must be present during key earthworks within 50 m of any delineated wetland or amphibian corridor.

Wetland Buffer and No-Go Zones

- → Strictly avoid encroachment into the 32 m buffer zone around delineated wetlands, especially the Mill Stream and tributary Unchanneled Valley-Bottom wetlands (UVBW) (see van Zyl (2024)).
- → Temporary fencing should demarcate and protect all no-go zones.

Operational Phase Mitigation

Habitat Connectivity and Permeability

- → All perimeter and internal fences must be permeable to amphibians. Avoid solid barriers like brick or precast walls.
- → Install toad-friendly passages such as:
  - "Toad holes" (min. 100 mm diameter, ≤300 mm in length) every 20 m in walls and fences.
  - Open-bottomed boundary fences or gaps at ground level.
- → Include amphibian underpasses (e.g. drainage culverts or pipes) beneath internal roads at key crossing points to minimize road mortalities.

Road Verge and Kerb Design

- → All new kerbs must not exceed 50 mm in height and should incorporate shallow Vshaped gutters to allow safe passage for toadlets (see Whale Coast Conservation (2024)).
- → Adequate road reserve should be implemented for internal access roads within the estate to facilitate the movement of toads.

Stormwater Management

- → Cover stormwater drains with grates or mesh to prevent toad entrapment.
- → Treat all stormwater in vegetated detention ponds or swales before discharge into wetlands, see van Zyl (2024)
- → Monitor stormwater for pollutants and nutrients; implement community-based campaigns to prevent dumping of chemicals or waste into drains.
- → Tie into mainline sewage or use fully contained conservancy tanks serviced by truck. No sewage treatment, irrigation or soak-aways should be contemplated, see (van Zyl, 2024).

Garden and Landscape Guidelines

- → Gardens should prioritize indigenous vegetation and "wild" landscaping (e.g. woodpiles, compost heaps, leaf litter) to provide habitat for adult toads.
- → Encourage the planting of Arum Lilies (Zantedeschia aethiopica) in wetland buffers to support the amphibian diversity and filter stormwater runoff.

Swimming Pool Safety for Amphibians

- → Enforce a compulsory "frog escape" net or ladder requirement for all swimming pools.
- → Promote use of non-chlorinated eco-pools or "beach-entry" designs to allow safe amphibian exit (van Zyl 2024).

Control of Invasive Vegetation

- → Systematic removal of invasive grasses and maintenance of fynbos-dominated groundcover on road verges and open areas is critical.
- → Reed cutting in the Mill Stream and tributaries should occur only during the dry season (December–May) and follow best practices:
  - Do not exceed 300 m² per cut (as per regulation).
  - Remove all cut biomass immediately to prevent nutrient leaching.
- → Removal of Eucalyptus forest and rehabilitation to indigenous vegetation will improve habitat suitability for toads along Mill stream corridor

Community Engagement and Education

Signage and Speed Control

- → Install educational signage throughout the estate highlighting Western Leopard Toad presence, breeding season (July–September), and road mortality risks.
- → Impose and enforce a maximum speed limit of 30 km/h within the estate, especially during breeding and emergence seasons.

Resident Awareness Program

- → Distribute educational materials to new residents on amphibian-friendly living, including:
- → Stormwater pollution prevention
- → Gardening for toads
- → Responsible pet and chemical use

Citizen Science and Ecotourism

- → Explore opportunities for annual toad migration events and night walks during the breeding season (August), which coincide with the low tourism season and offer potential for ecotourism-based engagement.

Legislative Compliance and Long-Term Management

Wetland Protection and Offsets

- → Secure and implement a Wetland Offset, Rehabilitation and Management Plan, especially for the impacted hillslope seep wetland (PES: E).
- → No water abstraction from wetlands unless authorized via a valid Water Use Licence.

Monitoring and Review

- → Establish a post-development biodiversity monitoring program to assess amphibian diversity and abundance.
- → Review mitigation effectiveness annually and adjust management practices accordingly.

Securing and enhancing breeding and foraging habitat for the Western Leopard Toad (*Sclerophrys pantherina*) through restoration of functional wetland systems and surrounding buffer zones;

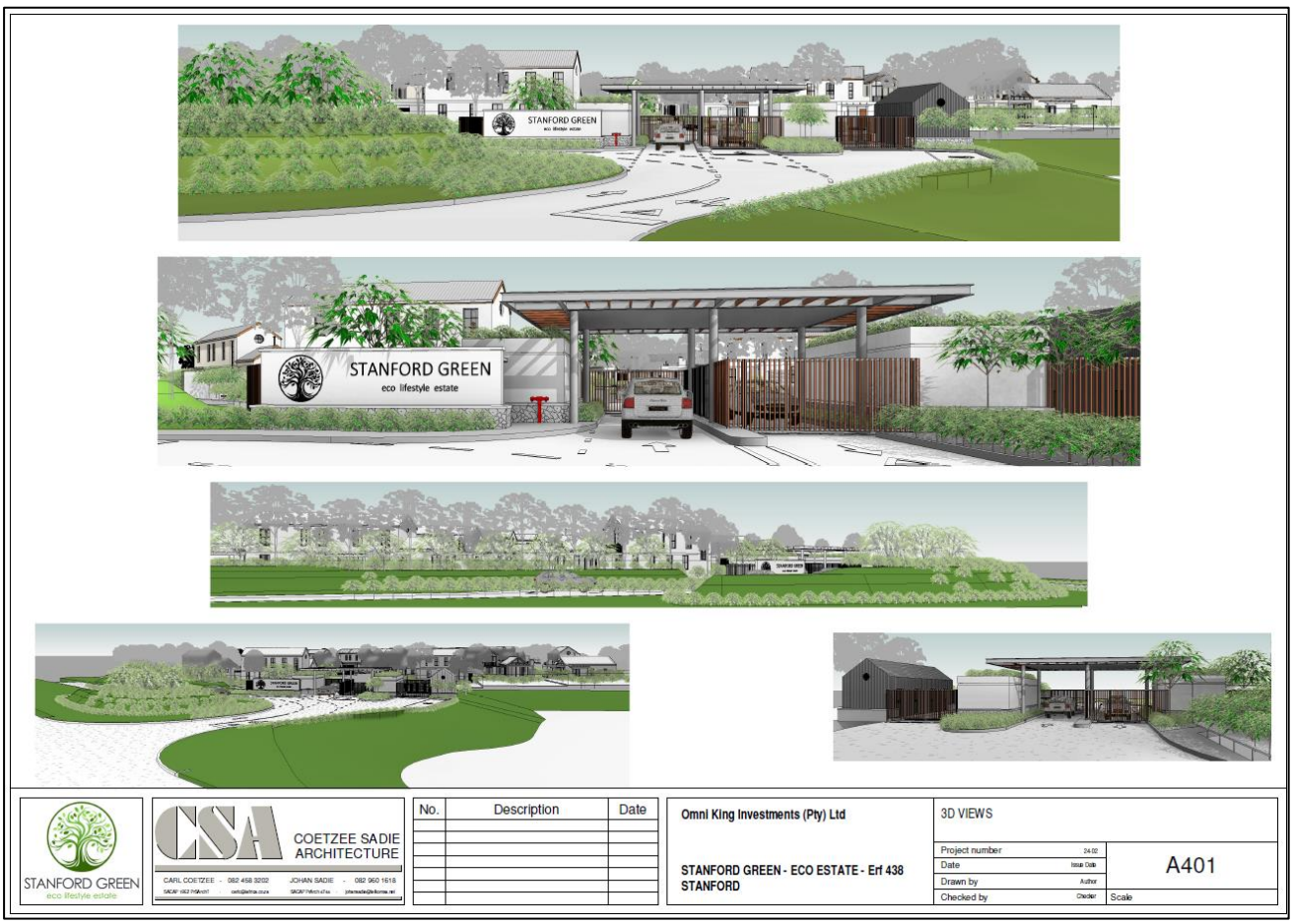
- → Removing alien vegetation (notably Eucalyptus camaldulensis) and rubble that previously degraded amphibian and invertebrate habitat;
- → Removal, thinning and control of dense stands of Phragmites australis.
- → Establishment of indigenous vegetated in the wetland offset areas which will provide habitat for faunal species of concern.
- → Implementing stormwater management and “toad-friendly” design interventions to maintain hydrological connectivity and reduce road mortality; and
- → Establishing long-term management and monitoring commitments to ensure persistence of amphibian and wetland-dependent fauna.

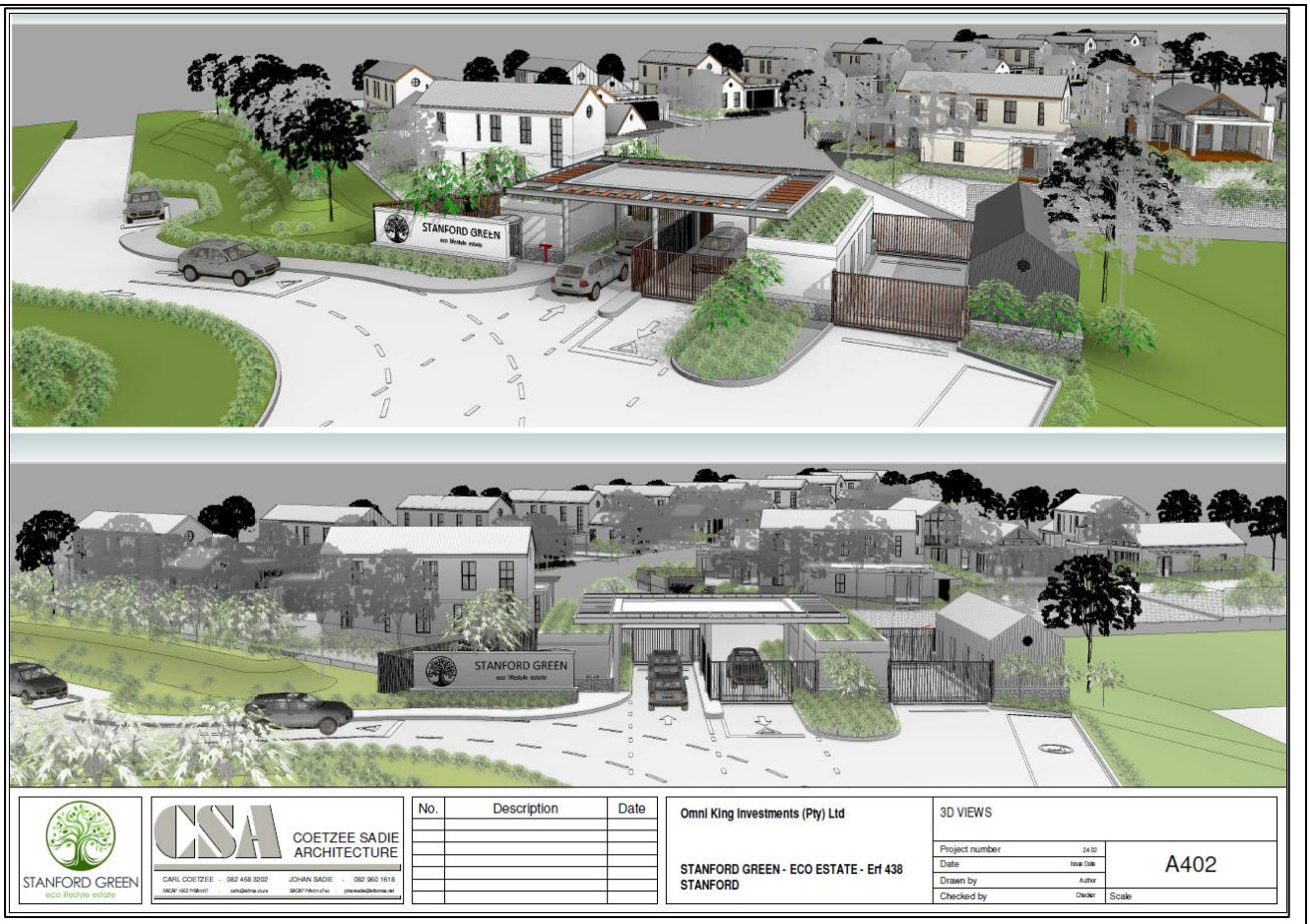
STANFORD ECO LIFESTYLE ESTATE – ARCHITECTURAL GUIDELINE FOR HOMEOWNERS

The sense of place Stanford Eco lifestyle Estate is of utmost importance. Its identification with its location and reflection of the history of the area. The typical Stanford styles include the simple cottage, the Victorian barn, and the eclectic gabled house (Victorian or Cape Dutch Revival). Stanford Eco Lifestyle Estate aims to encapsulate the rural Cape farmyard architectural style in creating a contemporary habitation among the milkwood trees and wetland. Whilst attempting not to slavishly imitate any particular style type. Borrowed elements used in varied forms and integrated into a simple architectural shape to create individual and unique designs.

- → Unbroken expanses of white plaster
- → Verticality of windows
- → Celebrated entrances
- → Contrasting textures and materials
- → Interplay of light and shade
- → Proportions of rooms

See Appendix F3 for the Guideline document, to be approved as part of the EA and EMP.





Traffic Impact Statement

The summary of the Traffic Impact Statement findings is:

That access to the proposed development is proposed to remain approximately where currently situated along the R43;
That the proposed development would have the potential to generate 31 peak hour trips (8 in, 23 out during the AM peak hour and 22 in, 9 out during the PM peak hour) for which external road upgrades are not considered necessary;

That the position of the proposed development access along the R43 conforms to the relevant intersection spacing requirements, and that the proposed development layout allows for future linkage to the neighbouring properties should it be required;

That landscaping along the R43 to the north of the access should be maintained to obtain sufficient line of sight from the access;

That construction currently underway along the R43 in the vicinity of the subject property involves the upgrade of the cross-section of the road;

That the stacking space at the proposed access, as well as internal road reserves allowed for provides sufficient space for the traffic expected to be generated by the proposed residential erven on the subject property;

That should refuse removal be handled by the Municipality, sufficient space and facilities in accordance with the Municipal requirements should be provided;

That 2 parking bays per dwelling unit will be required, and that sufficient space would be available along the internal street for the required isle widths behind on-site parking spaces; and

That based on the extent and location of the proposed development, it is not considered necessary to provide additional formal public- or non-motorised transport facilities as result of the proposed development.

Recommendations

→ It is recommended that the proposed residential development on Erf 438, Stanford, be considered for approval from a traffic flow point of view.

Socioeconomic & Economic Impact Statement

WRAP – Appendix F11

Economic Growth and Employment

Job Creation: The development of Stanford Eco-Estate will generate numerous employment opportunities during both the construction and operational phases. This includes jobs for construction workers, project managers, architects, engineers, and various tradespeople during the construction phase. Once operational, the estate will create jobs in property management, maintenance, security, landscaping, hospitality, and tourism.

Boost to Local Economy: Increased employment and business activities related to the development will result in higher local spending, boosting the Stanford and Overstrand regional economy. Local businesses, such as suppliers of building materials, landscaping companies, and service providers, will benefit from the increased demand for their products and services.

Tourism Enhancement: The establishment of the Stanford Eco-Estate Treehouse Lodge will attract eco-tourists, honeymooners, and nature seekers, bringing additional revenue to the local tourism sector. This will have a multiplier effect, benefiting nearby restaurants, shops, and tour operators.
Increased Property Values: The introduction of a high-quality, eco-friendly residential estate is likely to increase the value of surrounding properties. This uplift in property values can result in higher tax revenues for the local municipality, which can be reinvested into community infrastructure and services.

Long-term economic impact: Long term economic impact will be in terms of the additional rates and taxes that will be payable to the Overstrand Municipality.

Calculated at a ratio of only 3 people per dwelling unit the residential additionality was calculated at 78 which means that the development will bring at least 78 new permanent people to Stanford. These people will spend money in Stanford on various items such as food, petrol, restaurant, repairs etc, contributing to the local economy, excluding transient guest who will be visiting the lodge. With an occupancy rate of only 50 % of the 16 rooms, an additional 5 850 people will visit the lodge and Stanford.

The initial direct investment into the development was calculated to be approximately R 200 000 000. Based on this investment the additional basic charges payable to the Municipality will be approximately R 388 400 per annum.
The annual rates payable to the Overstrand from the development, calculated at the average value of dwellings in the development, will be approximately R 648 829 per annum.

The bulk services levy that the development will need to pay to the Overstrand Municipality is approximately R 3 600 000. In terms of the GLS report approximately R 2 740 000 will be required to upgrade bulk water and sewer networks to accommodate the proposed and other developments, leaving approximately R 900 000 for the Municipality to upgrade other services in and surround the Stanford area.

Social Impact and Community Development

Housing Provision: By addressing the escalating demand for housing in the Overstrand region, the development will provide much-needed residential options. This will help to accommodate the growing population and relieve pressure on the existing housing market.

Environmental Education: The project's commitment to environmental sustainability and the preservation of natural habitats will provide educational opportunities for residents and visitors. Initiatives such as the flora and fauna information library and nature tours will promote awareness and appreciation of the local ecosystem.

Cultural Preservation: The integration of the Millstream and the preservation of Milkwood trees emphasize the cultural and historical significance of the area. This fosters a sense of heritage and continuity, enriching the community's identity.

Health and Well-being: Access to green spaces, walking trails, and recreational areas promotes physical and mental well-being. The emphasis on sustainable living practices and organic gardening also encourages healthier lifestyles.

Environmental Impact and Sustainability

Ecological Restoration: The environmental management plan aims to improve water quality and restore the Millstream's wetland system. This will enhance biodiversity, support endangered species, and create a healthier ecosystem.

Sustainable Living: The development's focus on renewable energy, water conservation, and the use of indigenous vegetation aligns with global sustainability goals. Residents will benefit from lower utility costs and a reduced environmental footprint.

Innovative Technologies: The incorporation of sustainable design guidelines and innovative technologies will set a precedent for future developments in the region, promoting broader adoption of green building practices.

2.	List the impact management measures that were identified by all Specialists that will be included in the EMPr

Mitigation and management measures often overlap. Mitigation measures are interpreted to be those measures that are put in place to achieve a certain outcome that may need on-going management and maintenance throughout the life span of the development. The impact management measures are included in the Construction and Operational Phase of the development and may be modified over time, especially as technology advances. It is important that these measures are included in the construction contract in order that they can be appropriately costed.

The measures management measures proposed below are a combination of recommendations by the specialists and must be read in conjunction with Section 1 above and the specialists impact assessments themselves:

- → It is recommended that a suitably qualified Environmental Control Officer (ECO) is appointed during the construction phase to ensure that recommendations as per all specialist reports, and the CEMP, OEMP and MMP are implemented.
- → On site wetlands and buffer must be maintained and manged in perpetuity to offset the loss of the Hillslope seep wetland
- → Suitably qualified professionals must advise on the maintenance and monitoring of all infrastructure (e.g. pipelines, cables, roads and other structures within all public spaces) within the development.
- → The HOA must ensure that private properties and exclusive use Private Open Spaces are maintained and managed as per the OEMP.
- → A method statement must be developed and approved by the ECO, prior to commencement of construction, indicating how the contractor will minimise the passage of contaminants within the Private Open Space
- → Construction within the stream, wetland, 32m buffer Private Open Space area should be undertaken in the dry summer season (stormwater system, sewage upgrade, entrance building, recycling room, floating deck and nature trail).

- → Fuel, chemical and hazardous substances must be stored as far as possible from the stream, wetland and buffer area.
- → Clean up any spillages immediately
- → Spoil material must be disposed of appropriately. No infill or construction material with leaching or pollution potential may be used on site
- → Site camp and portable toilets, laydown areas, stockpile areas, construction material storage areas, vehicle parking, refuelling and servicing areas must be located outside the 32m buffer area.
- → A suitably bunded and impervious area must be created within previous disturbed area, for the mixing and transferring of chemicals, cement and fuel, washing of vehicles
- → Concrete should be ready mix as far as possible
- → Cast concrete must be contained while casting to limit contamination.
- → No waste concrete or mortar may be disposed of or cleaned from equipment in the stormwater system, stream or wetland
- → Left-over concrete must be removed from site to be disposed of appropriately at as landfill site
- → Garbage must be contained on site and removed regularly to an approved landfill site. The wetland stream and buffer area must be monitored dumping and any refuse or waste must be removed for appropriate disposal.
- → Used oils, was water containing cement or mortar and other pollutant must be disposed of at an approved landfill.
- → Vegetation removal should be restricted to the relevant development components and indigenous vegetation cover should be retained as far as possible.
- → Timber from removed trees must not be dumped. Where possible it should be utilised on site or sold.
- → Stumps must not be removed where the removal thereof will result in erosion.
- → The site must be checked weekly and after heavy rain to assess stormwater runoff and sedimentation. Immediate corrective measures must be implemented
- → In line with Alien Invasive Plants must be controlled and suitable indigenous plants planted in their place.
- → Reeds must be cut regularly, according the MMP. Cut reed must be removed from area. Thet must not be left to rot in situ as this compounds the eutrophication. The roots and/or rhizomes should not be removed unless appropriate alternative indigenous species are proposed.
- → Sewage pipes and pumpstation must be properly maintained and monitored for leaks.
- → Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward.
- → The Chance Fossil Find Protocol must be implemented in the unexpected event of a palaeontological find.
- → Pesticides may not be used on site.
- → Fynbos soils are naturally slightly acidic and nutrient poor. Fertilizers should therefore not be used in POS
- → Chlorine must not be used in swimming pools
- → As much grass as possible should be removed. Lawned areas should be kept to a minimum. Indigenous groundcovers should be used to provide cover for frogs
- → The area under Milkwood trees should not be lawned as lawn grass invasion is accompanied by dieback of these trees.
- → Compost, leaf litter and wood piles provide cover for foraging frogs and Toads.
- → Spotted Eagle Owl nesting sites should be cordoned off while these birds are nesting.

Terrestrial Animal Site Sensitivity Verification and Species Specialist Assessment

Mitigation measures recommended by the specialist

Alien Plant Eradication and Rehabilitation Plan

A comprehensive Alien Plant Eradication and Rehabilitation Plan must be developed and implemented for the property. This plan should address the removal of invasive species and the ecological rehabilitation of disturbed areas. It must be formally incorporated into the long-term management and maintenance of communal open spaces.

Use of Indigenous Plant Species

Only plant species that are indigenous to the local area should be permitted in residential gardens. This will support local biodiversity and prevent the introduction of potentially invasive alien species.

Construction Area Demarcation

During the construction phase, all construction zones must be clearly demarcated and physically separated from adjacent wetland and sensitive habitats to prevent accidental disturbance, habitat destruction, and pollution.

Rehabilitation of Private Open Spaces

Prior to and following construction, all designated 'Private Open Space' areas must be rehabilitated. This includes the removal of construction rubble, litter, and any other debris to restore ecological functionality.

Permeable Fencing

All boundary and internal fences must remain semi-permeable to allow free movement of small terrestrial fauna such as genets and mongooses, particularly along the Mill Stream wetland corridor.

Wildlife Search and Rescue

A pre-construction search and rescue operation must be conducted for slow-moving or sedentary fauna within designated development footprints. Rescued animals must be relocated within suitable nearby open space areas on site and not removed from the property.

Domestic Pet Management

Free-roaming dogs must be strictly prohibited from accessing open space areas to prevent disturbance or predation of wildlife. Cats should not be permitted on the property due to their significant adverse impact on small mammals, reptiles, amphibians, and birds.

Environmentally Responsible Rodent Control

Rodent control should be achieved through environmentally sensitive methods, including the installation of owl nesting boxes and raptor perches to promote natural predation rather than chemical baiting, which poses a secondary poisoning risk to wildlife.

Lighting and Insect Attraction Management

To mitigate the impact of artificial lighting on nocturnal wildlife and reduce insect mortality, the following measures must be adopted:

- → Lights should be turned off when not in use.
- → Lighting should be fitted with motion sensors or timers to limit unnecessary operation.

- → Fixtures must include shielding to prevent light spill and direct illumination only where necessary.
- → All outdoor lighting should shine downward and avoid illuminating natural habitats.
- → Use long-wavelength lighting (e.g., red or amber filtered LEDs) to reduce ecological disruption; avoid blue and green light spectrums where possible.
- → A site-specific lighting plan must be developed to minimise ecological light pollution.

Vegetation Protection and Trampling Avoidance

The clearing of indigenous fynbos and Milkwood (*Sideroxylon inerme*) vegetation must be minimised. All natural vegetation, particularly fynbos and Milkwood forest clumps surrounding the development footprint, must be protected from unnecessary disturbance and trampling during and after construction.

Western Leopard Toad specific recommended mitigation measures

Construction phase

Contractor Induction and Awareness

- → All construction personnel must receive environmental awareness training regarding amphibian species present on site, including the Western Leopard Toad.
- → Training should emphasize the risks of amphibian entrapment in trenches, pipes, and foundation works. Trench inspections must be conducted daily, and amphibians removed safely by a trained ECO (Environmental Control Officer).

Environmental Control Officer (ECO)

- → Appoint an ECO with amphibian expertise to monitor implementation of all mitigation measures.
- → The ECO must be present during key earthworks within 50 m of any delineated wetland or amphibian corridor.

Wetland Buffer and No-Go Zones

- → Strictly avoid encroachment into the 32 m buffer zone around delineated wetlands, especially the Mill Stream and tributary Unchanneled Valley-Bottom wetlands (UVBW) (see van Zyl (2024)).
- → Temporary fencing should demarcate and protect all no-go zones.

Operational Phase Mitigation

Habitat Connectivity and Permeability

- → All perimeter and internal fences must be permeable to amphibians. Avoid solid barriers like brick or precast walls.
- → Install toad-friendly passages such as:
  - "Toad holes" (min. 100 mm diameter, ≤300 mm in length) every 20 m in walls and fences.
  - Open-bottomed boundary fences or gaps at ground level.
- → Include amphibian underpasses (e.g. drainage culverts or pipes) beneath internal roads at key crossing points to minimize road mortalities.

Road Verge and Kerb Design

- → All new kerbs must not exceed 50 mm in height and should incorporate shallow Vshaped gutters to allow safe passage for toadlets (see Whale Coast Conservation (2024)).
- → Adequate road reserve should be implemented for internal access roads within the estate to facilitate the movement of toads.

Stormwater Management

- → Cover stormwater drains with grates or mesh to prevent toad entrapment.
- → Treat all stormwater in vegetated detention ponds or swales before discharge into wetlands, see van Zyl (2024)
- → Monitor stormwater for pollutants and nutrients; implement community-based campaigns to prevent dumping of chemicals or waste into drains.
- → Tie into mainline sewage or use fully contained conservancy tanks serviced by truck. No sewage treatment, irrigation or soak-aways should be contemplated, see (van Zyl, 2024).

Garden and Landscape Guidelines

- → Gardens should prioritize indigenous vegetation and "wild" landscaping (e.g. woodpiles, compost heaps, leaf litter) to provide habitat for adult toads.
- → Encourage the planting of Arum Lilies (Zantedeschia aethiopica) in wetland buffers to support the amphibian diversity and filter stormwater runoff.

Swimming Pool Safety for Amphibians

- → Enforce a compulsory "frog escape" net or ladder requirement for all swimming pools.
- → Promote use of non-chlorinated eco-pools or "beach-entry" designs to allow safe amphibian exit (van Zyl 2024).

Control of Invasive Vegetation

- → Systematic removal of invasive grasses and maintenance of fynbos-dominated groundcover on road verges and open areas is critical.
- → Reed cutting in the Mill Stream and tributaries should occur only during the dry season (December–May) and follow best practices:
    - Do not exceed 300 m² per cut (as per regulation).
    - Remove all cut biomass immediately to prevent nutrient leaching.
- → Removal of Eucalyptus forest and rehabilitation to indigenous vegetation will improve habitat suitability for toads along Mill stream corridor

Community Engagement and Education

Signage and Speed Control

- → Install educational signage throughout the estate highlighting Western Leopard Toad presence, breeding season (July–September), and road mortality risks.
- → Impose and enforce a maximum speed limit of 30 km/h within the estate, especially during breeding and emergence seasons.

Resident Awareness Program

- → Distribute educational materials to new residents on amphibian-friendly living, including:
- → Stormwater pollution prevention

- → Gardening for toads
- → Responsible pet and chemical use

Citizen Science and Ecotourism

- → Explore opportunities for annual toad migration events and night walks during the breeding season (August), which coincide with the low tourism season and offer potential for ecotourism-based engagement.

Legislative Compliance and Long-Term Management

Wetland Protection and Offsets

- → Secure and implement a Wetland Offset, Rehabilitation and Management Plan, especially for the impacted hillslope seep wetland (PES: E).
- → No water abstraction from wetlands unless authorized via a valid Water Use Licence.

Monitoring and Review

- → Establish a post-development biodiversity monitoring program to assess amphibian diversity and abundance.
- → Review mitigation effectiveness annually and adjust management practices accordingly.

Securing and enhancing breeding and foraging habitat for the Western Leopard Toad (*Sclerophrys pantherina*) through restoration of functional wetland systems and surrounding buffer zones;

- → Removing alien vegetation (notably Eucalyptus camaldulensis) and rubble that previously degraded amphibian and invertebrate habitat;
- → Removal, thinning and control of dense stands of Phragmites australis.
- → Establishment of indigenous vegetated in the wetland offset areas which will provide habitat for faunal species of concern.
- → Implementing stormwater management and "toad-friendly" design interventions to maintain hydrological connectivity and reduce road mortality; and
- → Establishing long-term management and monitoring commitments to ensure persistence of amphibian and wetland-dependent fauna.

Faunal Assessment by Whale Coast Conservation

Mitigation measures to enhance faunal conservation on site

- → In the Western Cape the water is naturally slightly acidic, and the soils are generally infertile. When this is changed through agricultural application of fertilizer, the pH of the water increases and the chemical composition changes too, which drives all but the most resilient frogs from the area. This is why one must not only consider whether frogs are present but also the abundance of those species that are present. Typically, in the Overstrand highly disturbed areas with chemically enriched water will support large numbers of Raucous Toads and Painted Reed Frogs as these species can tolerate these adverse conditions. The numbers of the more sensitive frog species dwindle and often these frogs disappear altogether. In general, a healthy aquatic ecosystem should have smaller numbers of each species but a greater number of different species of frogs present. This should be the conservation or management goal of any strategy to improve the wetland health on a site. This is possible even in a development estate such as Stanford Eco-Estate. I would recommend the following measures which align to the recommendations proposed in other reports and assessments for this development.

- → Remove as much of the invasive grass present on the property as possible. Grass should be limited to only what is necessary and restricted to indigenous local species. As far as possible grass should be replaced with fynbos vegetation, particularly on road verges (such as ground covers like Arctotis and Gazania species) to provide safe corridors for frogs and other animals to move through. The journey for tiny toadlets on their first emergence from their breeding ponds to their foraging grounds is extremely arduous. Many of them die while crossing roads and other hard surfaces without protection from the sun. Shelter plants protect them from the elements and from predators.
- → Road verges should be U-shaped without any edge. The 50 mm edge along De Bruyn Street in Stanford North was a death trap to emerging Western Leopard toadlets coming out of the breeding pond there and crossing to their foraging grounds. This occurs approximately 10 weeks after breeding when the toadlets emerge from mid-October to early December. To address this problem, Whale Coast Conservation (WCC) filled the spaces in the verge stones along De Bruyn Street, Stanford, to create a shallow V-shape. We have not found any dead toadlets in these verges for the last three years

- → Most frogs are not fully aquatic; they spend most of their lives in their foraging grounds and only return to their breeding ponds once a year to spawn. For the rest of the year, they will be in gardens, fields and forests, generally in moist, shady areas foraging for food. To encourage their presence on the estate, the vegetation in gardens must be as "wild" as possible and preferably landscaped with indigenous plants. Wood piles, compost heaps and leaf litter provide food and hiding places for these creatures.
- → A "No pesticides" rule must be non-negotiable.
- → Garden ponds should be discouraged as they tend to attract the noisy frogs during the breeding season
- → All frogs, other than the aquatic Platannas which can breathe in water, will drown in a pool or pond if they are trapped there for too long treading water. Pools and ponds must have a means of escape for a frog. There are various ways this can be achieved using rock piles, frog ladders and toad savers or using "walk-in" pool designs.
- → Chlorinated water will kill frogs and will pollute the surrounding natural water bodies when the water is drained. No chlorine should be used on the estate at all.
- → Numerous small corridors between houses should be accommodated in the wetland to allow both for the free movement of the frogs and natural drainage of water. The Mill Stream is classified as a floodplain wetland or an unchanneled valley bottom wetland and presents an opportunity to create a visually pleasing river front area.

- → The aquatic report mentions that the open water pool upstream from the R43 has been artificially excavated, presumably to make a farm dam to divert and store water (Van Zyl & Morton, 2024, p25). It should be noted that South Africa's environmental laws prohibit these activities, and that if there is no Water User's License water extraction should stop.
- → Regular reed cutting should take place. Cutting reeds improves the water quality; pruned reeds absorb excess nitrates and phosphates from the water as they regrow. WCC's water testing in the past has identified very high levels of these chemical compounds in the stormwater discharging into the Mill Stream on the bank opposite Erf 438. In addition, in the areas where WCC has cut reed, we have found that this activity promotes an increase in biodiversity and broadens faunal habitat use. We have noticed more wading birds and insects in the open areas as they gain access to a food source previously obscured by congested reed growth.
- → Reed cutting should only occur in the hot and dry months from December to May. Note that environmental law prohibits the dredging of more than 300 square meters of reed from a riverbank or riparian zone as this destabilises the substrate. Reeds or reed rhizomes should not be removed as reeds are highly efficient at reducing water pollution provided, they are regularly cut during the dry season, preferably when the water volume is at its lowest at the end of autumn. An early December cut and a repeat cut in May is recommended. All cut material must be removed immediately lest the nutrients in the cut reed biomass leach back into the water. (WCC shreds the reed biomass and includes it in a compost mix.)
- → WCC is collaborating with Guillaume Nel Environmental Consultants on the rehabilitation of the area disturbed by R43 road construction through Stanford. The multiple large culverts installed in the new R43 bridge construction facilitate connection between the eastern and western arms of the Mill Stream and allow for a safer, easier passage for fauna between these. On either side of this bridge, we will be experimenting with ways to suppress reed growth and will be planting lower-growing indigenous wetland plants to facilitate faunal movement. We anticipate that this will encourage faunal population as the ecological use of the ecosystem is improved. This will support the intention to make the area adjacent Erf 438 more nature orientated, expressed in *The Mill Stream Village Park and Greenway, Concept Master Plan* prepared on behalf of the Stanford Ward Committee Members for the Overstrand Municipality (Van Wyk, Bewsher, Bewsher & Oberholzer, 2018)
- → WCC agree with the recommendations made by Oberholzer (2024) for planted berms along the R43 and a 32m buffer along the Mill Stream as well as a swale suggested by Van Zyl and Morton for this buffer zone. This area should be planted with arum lilies to encourage the return of Arum Lily Frogs. Arum Lilies are also efficient filter plants for enriched water and anecdotal reports by long-standing residents refer to a profusion of arum lily plants in the Mill Stream catchment.
- → If these recommendations are implemented, I am confident that various species of frogs and toads will repopulate the site. Not only will they make an important contribution to the biodiversity of Erf 438, but they will also present an opportunity for the estate to showcase its efforts to restore the ecological processes of the site.
- → The resident frog and toad species hold potential as subjects for environmental tours or events, such as showcasing the Western Leopard Toad breeding season in the middle of winter – which is traditionally a quiet tourism time.

Terrestrial Biodiversity Impact Assessment

The following mitigation for the proposed development is deemed feasible, reasonable and mandatory:

- → All woody invasive alien vegetation (mainly *Acacia saligna, Acacia cyclops* and *Eucalyptus*) on the property must be felled using a hand or chainsaw, following appropriate methodology as per Martens et al (2021). No heavy machinery may be used (except perhaps in the case of the large gum trees in the western sector along the Mill stream), and Port Jackson (*Acacia saligna*) stems should be cut at close to ground level and immediately (within ten minutes) painted (not sprayed) with a suitable herbicide such as Garlon. Small seedlings (<15cm) of Port Jackson can usually be hand pulled, provided the root is removed. This alien vegetation control must be undertaken within six months of any authorisation and must repeated annually to ensure no regrowth.

- → All non-woody invasive alien vegetation should also be removed, with a particular focus on kikuyu grass (*Cenchrus clandestinus),* other annual grasses such as Avena (oats), Briza (brome) and Lolium (ryegrass), and the blue flowered *Commelina benghalensis* under the milkwoods.
- → No disturbance of the Very High sensitivity area (as per Figure 5) may take place at any stage in the future, and to safeguard and ensure this the area should be clearly demarcated as Very High sensitivity with suitable signage on its perimeters.
- → No milkwoods (*Sideroxylon inerme*) with stem diameter greater than 5cm should be felled or removed. No milkwood roots greater than 3cm diameter should be cut.
- → No livestock may be allowed into the Very High sensitivity section.
- → Rehabilitation of the disturbed (Low and Medium sensitivity) areas should be undertaken on an ongoing basis and should include alien invasive plant management and replanting with suitable locally indigenous plant species.
- → The planting list of suitable locally indigenous species for the Estate and the various zones must be compiled with input from the botanist and approved in writing by the botanist.

Aquatic Biodiversity Impact Assessment

Mitigation measures

- → It is recommended that a suitably qualified Environmental Control Officer (ECO) is appointed during the construction phase to ensure that recommendations as per this report, and other specialist reports, are implemented.
- → Toad-friendly curbs stones should be installed i.e. small curbs stones that are less than 50 mm tall, or half road gutters which provide passageways for toads. These can be implemented throughout the estate or at intervals of 50 m.
- → An appropriate road reserve should be implemented for internal access roads within the estate to facilitate the movement of toads.
- → Boundary walls and fences should be permeable to toads. Integrate toad holes of at least 100 mm diameter, spaced every 20 meters, and not exceeding 300 mm in length at ground level. Alternatively open gutters can be a suitable option.
- → Stormwater systems should be designed with suitably spaced escape areas, allowing toads to escape. These escape areas should be positioned at intervals of at least 50 m.
- → The estate should install non-chlorinated eco pools, ideally with a “beach pool” design with gently sloping sides emulating the natural bank of a wetland allowing toads to enter and exit the pool freely. Alternatively, if a pool design with high sides is installed, incorporate escape pathways such as toad ladders, toad friendly steps, or floating vegetated platforms anchored to the side of the pool.
- → To prevent road mortalities, Western Leopard Toad signage should be erected and a speed limit within the eco estate should be implemented and strictly adhered to.
- → Toad friendly gardens should be created, when it is not the toads breeding season (late July to September with the main breeding month being August), they inhabit suburban gardens. Natural vegetation should be planted to create ideal toad habitat.
- → It is however recommended that the onsite UVBWs are maintained / protected in perpetuity as a wetland offset area for the loss of the onsite seep wetland.
- → The alien invasive vegetation (specifically *Eucalyptus spp.)* present within the UVBW wetland areas must be removed and replanted with indigenous wetland vegetation.
- → Avoid encroachment into the delineated UVBWs during construction and operational phases
- → Avoid encroachment into the 32 m buffer area around each UVB wetland, apart from limited activities – specifically indigenous gardens and pools (recommended to be non-chlorinated eco pools, please refer to Section 8.4.2. of the Aquatic Biodiversity Impact Assessment).

- → Tie into mainline sewage if possible or use fully contained conservancy tanks serviced by truck. No sewage treatment, irrigation or soak-aways should be contemplated.
- → Allowance must be made for stormwater to be treated in a vegetated detention pond and/or a substantial vegetated swale before release into the UVBWs.
- → Municipal water supply should be used if possible. If not, groundwater abstraction would be preferable to wetland abstraction.
- → The significance of this impact can be largely mitigated by demarcating the UVBWs as No-Go areas during construction. Bunded, impervious areas that are more than 32 m away from the UVBW must be designated by an Environmental Control Officer for temporary toilets, vehicle parking/servicing areas, and for pouring and mixing of concrete/cement, paint, and chemicals. It is essential that no pollutants are allowed to filtrate/run into the UVBWs due to the presence of the EN *Sclerophrys pantherinus* within the site. Construction workers / employees should be notified of the importance of this species to ensure that no toads are killed and that the UVBWs remain as No-go areas.
- → The significance of this impact can be largely mitigated by establishing a 32 m buffer area around the UVBW wetland areas; and by ensuring that runoff / SW generated onsite flows into the wetland areas through an appropriately designed broad, vegetated earth swale. The alien invasive vegetation present within the UVBW wetland areas must be removed and replanted with indigenous wetland vegetation. Additionally, a suitable Rehabilitation and Management Plan should be drafted for the onsite UVB wetlands.
- → The significance of this impact can be largely mitigated by establishing a 32 m buffer area around the UVBW wetland areas; and by ensuring that runoff / SW generated onsite flows into the wetland areas through an appropriately designed broad, vegetated earth swale. Tie into mainline sewage if at all possible or use fully contained conservancy tanks serviced by truck. No sewage treatment, irrigation or soak-aways should be contemplated.
- → Repair all sewage leaks as soon as reasonably possible after detection. Inspection of all sewage pipes should be conducted by a plumber once every 10 years.
- → Residents should be made aware of the presence of EN *Sclerophrys pantherinus* within the site. Should any pollution events occur, such as spills of petrol, etc. the spread to the UVBWs should be prevented, by applying / covering with absorbent materials. In no circumstance should pollutants enter the SW system or the UVBWs.

Archaeological Impact Assessment

Mitigation measures recommended

- → Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward.

Wetland Offset Rehabilitation, Management Plan

Mitigation measures recommended by the specialist

The following mitigation measures have been adopted from the Rebelo et al. 2004 Biodiversity management plan for the Western Leopard Toad. It is essential that these measures are implemented with the aim to minimize the impact of urban development (specifically habitat fragmentation, obstacles to toads' movements, and road mortalities) on the species:

- → It is recommended that a suitably qualified Environmental Control Officer (ECO) is appointed during the construction phase to ensure that recommendations as per this report, and other specialist reports, are implemented.
- → Search and rescue for toads should be conducted within the construction footprint prior to commencement of construction.

- → During construction, holes and trenches should only be excavated when required. Trenches / open holes / excavations should be closed again as soon as is practically possible given their construction purpose. The appointed ECO / Ecologist should routinely monitor each open trench / hole / excavation. The appointed ECO / Ecologist should thoroughly examine each open trench / hole / excavation by checking beneath any leaf litter for trapped toads. Should any trapped biota be found, the appointed ECO / Ecologist should carefully remove trapped biota from the excavation (taking care not to damage the animal), place them into a plastic bucket with adequate aeration (holes in the lid), and immediately move them into surrounding natural areas.
- → Toad-friendly curbs stones should be installed i.e. small curbs stones that are less than 50 mm tall, or half road gutters which provide passageways for toads. These can be implemented throughout the estate or at intervals of 50 m.
- → An appropriate road reserve should be implemented for internal access roads within the estate to facilitate the movement of toads.
- → Boundary walls and fences should be permeable to toads. Integrate toad holes of at least 100 mm diameter, spaced every 20 meters, and not exceeding 300 mm in length at ground level. Alternatively open gutters can be a suitable option.
- → Stormwater systems should be designed with suitably spaced escape areas, allowing toads to escape. These escape areas should be positioned at intervals of at least 50 m.
- → The estate should install non-chlorinated eco pools, ideally with a “beach pool” design with gently sloping sides emulating the natural bank of a wetland allowing toads to enter and exit the pool freely. Alternatively, if a pool design with high sides is installed, incorporate escape pathways such as toad ladders, toad friendly steps, or floating vegetated platforms anchored to the side of the pool.
- → To prevent road mortalities, Western Leopard Toad signage should be erected and a speed limit within the eco estate should be implemented and strictly adhered to.
- → Toad friendly gardens should be created, when it is not the toads breeding season (late July to September with the main breeding month being August), they inhabit suburban gardens. Natural vegetation should be planted to create ideal toad habitat.

Stormwater management

The following mitigation measures should be incorporated:

- → A suitable sediment forebay should be installed in the stormwater inlet zone to trap litter, debris, coarse sediment, and other gross pollutants before they enter the wetland offset area.
- → Vegetated swales must be utilised rather than concrete drains or underground stormwater pipes to encourage infiltration, particularly next to roadways. Only indigenous vegetation is to be utilised within these swales.
- → Even flow should be established throughout the constructed SW swale to prevent heavily concentrated flows or stagnation in certain areas.
- → Energy dissipaters / erosion protection measures (such as lining with stones, grass, reno mattresses, or gabions) should be considered where stormwater is released into downstream wetland to reduce the runoff velocity and therefore erosion.
- → Incorporate measures into the stormwater design to trap solid waste, debris and sediment carried by stormwater. Measures may include the use of curb inlet drain grates and debris baskets/bags.
- → Homeowners must be encouraged to landscape their gardens with the use of indigenous species to decrease the area of hardened surface and increase infiltration.
- → Homeowners, if adjacent to the wetland offset area should store any potential pollutants in such a way that pollution will not occur to the wetland offset areas (such as any fuel, etc.). Potential pollutants should be stored in an adequately bunded area.
- → The use of herbicides, pesticides and any other poisons within private gardens must be strictly prohibited. The home owner’s association must be responsible for ensuring that residents are compliant with this.

- → Backwashing of swimming pools directly into the wetland offset area must be strictly prohibited. Backwash water can be collected in settling tanks where dirt and debris settle to the bottom. The cleaner water can then be reused for non-potable purposes or even filtered back into the pool system. Backwash water can be diverted to greywater tanks.
- → Monitor the wetland offset and the SW system for erosion and sedimentation after heavy rainfall events. Any erosion noted must be immediately addressed. Rehabilitation measures may include the removal of accumulated sediment by hand, filling of erosion gullies and rills, the stabilisation of gullies with silt fences, riprap, and the revegetation of stabilised areas.
- → Stormwater systems will require ongoing maintenance. Any build-up of silt or debris within stormwater drains or swales will need to be cleared to ensure the continued functioning of the systems.
- → Any damage to stormwater infrastructure, and any flaws identified in the functionality of stormwater infrastructure, must be rectified immediately.
- → Stormwater systems must be monitored and maintained into perpetuity and collections of debris and solid waste removed from grates and baskets. The developer must confirm who will be responsible for this monitoring and maintenance as well as their roles.
- → Given the presence of the Endangered Western Leopard Toad within the site, all stormwater infrastructure must be designed to prevent entrapment and facilitate safe movement of amphibians. Stormwater systems should incorporate suitably spaced escape areas, such as gently sloped ramps or vegetated ledges, at intervals of no more than 50 metres. These features must allow toads to exit easily should they become trapped. Deep stormwater channels, pits, or attenuation ponds with vertical or sheer walls are particularly hazardous and should be avoided where possible. If such structures cannot be avoided, escape features must be incorporated into the design to allow toads and other small fauna to exit safely. Additionally, all stormwater outlets and culverts should be designed to prevent trapping and support safe passage during both wet and dry conditions.
- → The stormwater system must be designed by a suitably qualified engineer.

Heritage Impact Assessment

- → Detailed designs of the Treehouse Lodge being submitted to HWC for further comment and endorsement.
- → Amendment to the double storey height of the proposed residential buildings by allowing for a roof attic/loft expression of upper storey elements and/or the Stanford Heritage Guidelines
- → Detailed design development proceeding largely in accordance with the Site Plan and Landscape Plan attached as Figures 1.5 of the HIA report.
- → Detailed design development proceeding largely in accordance with the Landscape Development Plan and Stanford Architectural Guidelines respectively.
- → There is no objection to the proposed demolition of the existing residential structure located on the site as this structure has been determined to be Not Conservation-Worthy.
- → The attached HWC Chance Finds Protocol is implemented for the duration of excavation activities
- → Should any buried archaeological resources, palaeontological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds.
- → Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward

3.	List the specialist investigations and the impact management measures that will **not** be implemented and provide an explanation as to why these measures will not be implemented.

All the specialist investigation and impact management measures have been included in the Construction and Operational EMP and will be implemented.

Civil Aviation has a high sensitivity rating, however the proposed development is unlikely to have any greater impact on local civil aviation than the existing adjacent village of Stanford or the industrial and commercial areas in close proximity

to the site. There are no management measures that could be put in place that will in any way influence local civil aviation. This specialist study will not be implemented.

4.	Explain how the proposed development will impact the surrounding communities.

This property is within the Stanford Urban Edge. The surrounding community is therefore within 100m of the development. See **Appendix F11** for Socio-Economic report.

A Concept Master plan has been submitted by the Stanford Ward Committee in respect of the Millstream Park and Greenway. This proposal extends past Erf 438 Stanford western boundary and is therefore ecologically linked to Stanford by the Mill stream running through the development. 2.1 Ha of the 5.2 Ha property will be excluded from development and maintained a Private Open Space adjacent to the adjoining Municipal land.

In addition to the Private Open Space, the importance of the large White Milkwood trees found on the property, outside the POS is recognized. The cultural heritage of these trees will be optimised by the important place they play in the layout and design of the Lodge. This will further enhance to chances of survival of the Western Leopard toad and other amphibians compromised by the agricultural land use.

The proposed development is limited to 27 Single Residential properties. The size of these homes is constrained by the Town Planning Clauses. The density of the development is relatively low and the properties are similar in size to those in Stanford. This development will go some way towards filling the demand for high quality housing in the Overstrand and will be appropriately scaled to the neighbouring residential area.

The tourism initiative will extend the employment opportunities of a Residential only development. These include:-

- → Reception
- → Kitchen staff
- → Housekeeping
- → Wait staff and Bar Tenders
- → Landscaping
- → Security

The development will increase property values and therefore the rates base, which will have a knock-on effect to the local community for the supply of good and services. The economic benefits will also extend beyond local shopping to eco-tourism, restaurants etc.

No negative impacts have been identified that will impact the surrounding community.

5.	Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.

The 1:50 year and 1:100-year flood line has been established for this property. Both fall within the Wetland / Mill stream area and the 32m buffer.

The incorporation of sustainable design guidelines and innovative technologies will set a precedent for future developments in the region, promoting broader adoption of green building practices and can therefore play a small part in limiting the impacts of climate change.

6.	Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.

None identified.

7.	Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.

→ The development can be connected to the existing sewage system. There is capacity at the sewage treatment plant but certain upgrades / developer contributions will be required to the sewer pipeline.
  - Pipelines must be constructed in accordance with the relevant SANS / SABS specifications
  - The design capacity must accommodate operating and surge pressures.
  - Surge protection features e.g. air valves must be installed to the engineer's specifications
  - Provision must be made for surcharge containment and emergency storage of 2 hours of peak flow. This can be in concrete boxes the capacity of which is increase by raising the manhole to the engineer's specifications
  - Allow for scour valves so that pipelines can be emptied by honey suckers if required.

→ The visual impact of the development from the R43 Scenic route must be screened by a 2m high vegetated berm, parallel to the R43. This will also act as a barrier to road noise and wind

→ The entrance gate / security building must be as low as possible and set back by 25m from the R43 to reduce the visual impact of the development.

→ There is sufficient room for municipal garbage trucks to collect garbage and stacking space.

→ Access through Erf 438 to adjacent properties north of the site should be included as the proximity to the existing Stanford traffic circle will preclude another access point. The existing access point cannot be moved.

→ Stormwater must be managed to ensure that the volume of water and increased velocity does not have downstream impacts and water quality is not impaired and contaminates the wetland and Millstream.
  - A "leiwater" system of stormwater furrows to mimic the village of Stanford is proposed parallel to the street.
  - Stormwater will be discharged into an attenuation /polishing structure and or swales.
  - Arum lilies should be planted in these structures to provide habitat for different species of frogs
  - The curbs must be U shaped without vertical sides to permit the movement of baby frogs.
  - The streets should be paved with cobbles to reduce the velocity of run off.
  - Grates and or debris basket can be used to trap debris and solid waste.
  - Sand traps can be used to trap contaminants from parking areas and roads in stormwater.

Aquatic Impact Assessment

The following mitigation measures have been adopted from the Rebelo *et al.* 2004 Biodiversity management plan for the endangered Western Leopard Toad *Sclerophrys pantherinus*. It is essential that these measures are implemented with the aim to minimize the impact of urban development (specifically habitat fragmentation, obstacles to toads' movements, and road mortalities) on the EN species:

→ It is recommended that a suitably qualified Environmental Control Officer (ECO) is appointed during the construction phase to ensure that recommendations as per this report, and other specialist reports, are implemented.

→ Toad-friendly curbs stones should be installed i.e. small curbs stones that are less than 50 mm tall, or half road gutters which provide passageways for toads. These can be implemented throughout the estate or at intervals of 50 m.

→ An appropriate road reserve should be implemented for internal access roads, and gaps between buildings, within the estate to facilitate the movement of amphibians.

→ Boundary walls and fences should be permeable to toads and frogs. Integrate toad holes of at least 100 mm diameter, spaced every 20 meters, and not exceeding 300 mm in length at ground level. Alternatively open gutters can be a suitable option.

→ Stormwater systems should be designed with suitably spaced escape areas, allowing toads to escape. These escape areas should be positioned at intervals of at least 50 m.

- → The estate should install non-chlorinated eco pools, ideally with a "beach pool" design with gently sloping sides emulating the natural bank of a wetland allowing toads to enter and exit the pool freely. Alternatively, if a pool design with high sides is installed, incorporate escape pathways such as toad ladders, toad friendly steps, or floating vegetated platforms anchored to the side of the pool.
- → To prevent road mortalities, Western Leopard Toad signage should be erected and a speed limit within the eco estate should be implemented and strictly adhered to.
- → Toad friendly gardens should be created, when it is not the toads breeding season (late July to September with the main breeding month being August), they inhabit suburban gardens. Natural vegetation should be planted to create ideal toad habitat.
- → All staff and labourers on site must be informed of the importance of this species."

The following recommendations are included in respect of the Wetlands and Mill stream

- → On site wetlands and buffer must be maintained and protected in perpetuity to offset the loss of the Hillslope seep wetland
- → A 32m wide buffer along the UVB wetland and Mill stream must be excluded from all development
- → Gum trees (*Eucalyptus sp*) and other exotic species must be removed from within the buffer.
- → Stormwater runoff should be managed by the construction of appropriately sized attenuation structures and/or vegetated earth swales.
- → A suitably sized bunded, impervious area must be constructed outside the 32m buffer area for the duration of the construction period to ensure that no contaminants reach the UCVB wetland or stream from vehicles or other equipment. (Spilled concrete / paint / petrochemicals/chemicals)
- → No pollutants are allowed to run into or filtrate into the wetlands due to the presence of EN *Sclerophrys pantherinus (Western Leopard Toad)* on site.
- → Construction workers, employees and future residents and occupiers of the must be notified of this species (and others) with a no kill policy
- → All wetlands are no go areas
- → Alien Invasive plants must be removed from the wetland and the area replanted with suitable indigenous plants.
- → Sewage pipes and pumpstation must be properly maintained and monitored for leaks.
- → A suitable Rehabilitation and Management Plan must be drafted for the onsite wetlands as a condition of Environmental Authorisation

Heritage Impact Assessment (Visual and Palaeontological)

There is no objection to the proposed development from a heritage perspective on condition that:

- → The following refinements are implemented in the project design and are submitted to HWC for further comment and endorsement:
    - o Detailed designs of the Treehouse Lodge being submitted to HWC for further comment and endorsement.
    - o Amendment to the double storey height of the proposed residential buildings by allowing for a roof attic/loft expression of upper storey elements.
    - o Detailed design development proceeding largely in accordance with the Site Plan and Landscape Plan
- → Detailed design development proceeding largely in accordance with the Landscape Development Plan and Stanford Eco-Estate Architectural Guidelines respectively.
- → The HWC Chance Finds Protocol as attached in the PIA, is implemented for the duration of excavation activities
- → Should any buried archaeological resources, palaeontological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward.

Mitigation measures to enhance faunal conservation on site (Whale Coast Conservation)

- → In the Western Cape the water is naturally slightly acidic, and the soils are generally infertile. When this is changed through agricultural application of fertilizer, the pH of the water increases and the chemical composition changes too, which drives all but the most resilient frogs from the area. This is why one must not only consider whether frogs are present but also the abundance of those species that are present. Typically, in the Overstrand highly disturbed areas with chemically enriched water will support large numbers of Raucous Toads and Painted Reed Frogs as these species can tolerate these adverse conditions. The numbers of the more sensitive frog species dwindle and often these frogs disappear altogether. In general, a healthy aquatic ecosystem should have smaller numbers of each species but a greater number of different species of frogs present. This should be the conservation or management goal of any strategy to improve the wetland health on a site. This is possible even in a development estate such as Stanford Eco-Estate. I would recommend the following measures which align to the recommendations proposed in other reports and assessments for this development.
- → Remove as much of the invasive grass present on the property as possible. Grass should be limited to only what is necessary and restricted to indigenous local species. As far as possible grass should be replaced with fynbos vegetation, particularly on road verges (such as ground covers like Arctotis and Gazania species) to provide safe corridors for frogs and other animals to move through. The journey for tiny toadlets on their first emergence from their breeding ponds to their foraging grounds is extremely arduous. Many of them die while crossing roads and other hard surfaces without protection from the sun. Shelter plants protect them from the elements and from predators.
- → Road verges should be U-shaped without any edge. The 50 mm edge along De Bruyn Street in Stanford North was a death trap to emerging Western Leopard toadlets coming out of the breeding pond there and crossing to their foraging grounds. This occurs approximately 10 weeks after breeding when the toadlets emerge from mid-October to early December. To address this problem, Whale Coast Conservation (WCC) filled the spaces in the verge stones along De Bruyn Street, Stanford, to create a shallow V-shape. We have not found any dead toadlets in these verges for the last three years
- → Most frogs are not fully aquatic; they spend most of their lives in their foraging grounds and only return to their breeding ponds once a year to spawn. For the rest of the year, they will be in gardens, fields and forests, generally in moist, shady areas foraging for food. To encourage their presence on the estate, the vegetation in gardens must be as “wild” as possible and preferably landscaped with indigenous plants. Wood piles, compost heaps and leaf litter provide food and hiding places for these creatures.
- → A “No pesticides” rule must be non-negotiable.
- → Garden ponds should be discouraged as they tend to attract the noisy frogs during the breeding season
- → All frogs, other than the aquatic Platannas which can breathe in water, will drown in a pool or pond if they are trapped there for too long treading water. Pools and ponds must have a means of escape for a frog. There are various ways this can be achieved using rock piles, frog ladders and toad savers or using “walk-in” pool designs.
- → Chlorinated water will kill frogs and will pollute the surrounding natural water bodies when the water is drained. No chlorine should be used on the estate at all.
- → Numerous small corridors between houses should be accommodated in the wetland to allow both for the free movement of the frogs and natural drainage of water. The Mill Stream is classified as a floodplain wetland or an unchanneled valley bottom wetland and presents an opportunity to create a visually pleasing river front area.
- → The aquatic report mentions that the open water pool upstream from the R43 has been artificially excavated, presumably to make a farm dam to divert and store water (Van Zyl & Morton, 2024, p25). It should be noted that South Africa’s environmental laws prohibit these activities, and that if there is no Water User’s License water extraction should stop.
- → Regular reed cutting should take place. Cutting reeds improves the water quality; pruned reeds absorb excess nitrates and phosphates from the water as they regrow. WCC’s water testing in the past has identified very high levels of these chemical compounds in the stormwater discharging into the Mill Stream on the bank opposite Erf 438. In addition, in the areas where WCC has cut reed, we have found that this activity promotes an increase in biodiversity and broadens faunal habitat use. We have noticed more wading birds and insects in the open areas as they gain access to a food source previously obscured by congested reed growth.

- → Reed cutting should only occur in the hot and dry months from December to May. Note that environmental law prohibits the dredging of more than 300 square meters of reed from a riverbank or riparian zone as this destabilises the substrate. Reeds or reed rhizomes should not be removed as reeds are highly efficient at reducing water pollution provided, they are regularly cut during the dry season, preferably when the water volume is at its lowest at the end of autumn. An early December cut and a repeat cut in May is recommended. All cut material must be removed immediately lest the nutrients in the cut reed biomass leach back into the water. (WCC shreds the reed biomass and includes it in a compost mix.)
- → WCC is collaborating with Guillaume Nel Environmental Consultants on the rehabilitation of the area disturbed by R43 road construction through Stanford. The multiple large culverts installed in the new R43 bridge construction facilitate connection between the eastern and western arms of the Mill Stream and allow for a safer, easier passage for fauna between these. On either side of this bridge, we will be experimenting with ways to suppress reed growth and will be planting lower-growing indigenous wetland plants to facilitate faunal movement. We anticipate that this will encourage faunal population as the ecological use of the ecosystem is improved. This will support the intention to make the area adjacent Erf 438 more nature orientated, expressed in *The Mill Stream Village Park and Greenway, Concept Master Plan* prepared on behalf of the Stanford Ward Committee Members for the Overstrand Municipality (Van Wyk, Bewsher, Bewsher & Oberholzer, 2018)
- → WCC agree with the recommendations made by Oberholzer (2024) for planted berms along the R43 and a 32m buffer along the Mill Stream as well as a swale suggested by Van Zyl and Morton for this buffer zone. This area should be planted with arum lilies to encourage the return of Arum Lily Frogs. Arum Lilies are also efficient filter plants for enriched water and anecdotal reports by long-standing residents refer to a profusion of arum lily plants in the Mill Stream catchment.
- → If these recommendations are implemented, I am confident that various species of frogs and toads will repopulate the site. Not only will they make an important contribution to the biodiversity of Erf 438, but they will also present an opportunity for the estate to showcase its efforts to restore the ecological processes of the site.
- → The resident frog and toad species hold potential as subjects for environmental tours or events, such as showcasing the Western Leopard Toad breeding season in the middle of winter – which is traditionally a quiet tourism time.

Archaeological Impact Assessment

Mitigation measures recommended

- → Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. Heritage Western Cape (HWC) must be contacted immediately in order to determine an appropriate way forward.

Wetland Offset Rehabilitation, Management Plan

Mitigation measures recommended by the specialist

The following mitigation measures have been adopted from the Rebelo et al. 2004 Biodiversity management plan for the Western Leopard Toad. It is essential that these measures are implemented with the aim to minimize the impact of urban development (specifically habitat fragmentation, obstacles to toads' movements, and road mortalities) on the species:

- → It is recommended that a suitably qualified Environmental Control Officer (ECO) is appointed during the construction phase to ensure that recommendations as per this report, and other specialist reports, are implemented.
- → Search and rescue for toads should be conducted within the construction footprint prior to commencement of construction.

- → During construction, holes and trenches should only be excavated when required. Trenches / open holes / excavations should be closed again as soon as is practically possible given their construction purpose. The appointed ECO / Ecologist should routinely monitor each open trench / hole / excavation. The appointed ECO / Ecologist should thoroughly examine each open trench / hole / excavation by checking beneath any leaf litter for trapped toads. Should any trapped biota be found, the appointed ECO / Ecologist should carefully remove trapped biota from the excavation (taking care not to damage the animal), place them into a plastic bucket with adequate aeration (holes in the lid), and immediately move them into surrounding natural areas.
- → Toad-friendly curbs stones should be installed i.e. small curbs stones that are less than 50 mm tall, or half road gutters which provide passageways for toads. These can be implemented throughout the estate or at intervals of 50 m.
- → An appropriate road reserve should be implemented for internal access roads within the estate to facilitate the movement of toads.
- → Boundary walls and fences should be permeable to toads. Integrate toad holes of at least 100 mm diameter, spaced every 20 meters, and not exceeding 300 mm in length at ground level. Alternatively open gutters can be a suitable option.
- → Stormwater systems should be designed with suitably spaced escape areas, allowing toads to escape. These escape areas should be positioned at intervals of at least 50 m.
- → The estate should install non-chlorinated eco pools, ideally with a “beach pool” design with gently sloping sides emulating the natural bank of a wetland allowing toads to enter and exit the pool freely. Alternatively, if a pool design with high sides is installed, incorporate escape pathways such as toad ladders, toad friendly steps, or floating vegetated platforms anchored to the side of the pool.
- → To prevent road mortalities, Western Leopard Toad signage should be erected and a speed limit within the eco estate should be implemented and strictly adhered to.
- → Toad friendly gardens should be created, when it is not the toads breeding season (late July to September with the main breeding month being August), they inhabit suburban gardens. Natural vegetation should be planted to create ideal toad habitat.

Stormwater management

The following mitigation measures should be incorporated:

- → A suitable sediment forebay should be installed in the stormwater inlet zone to trap litter, debris, coarse sediment, and other gross pollutants before they enter the wetland offset area.
- → Vegetated swales must be utilised rather than concrete drains or underground stormwater pipes to encourage infiltration, particularly next to roadways. Only indigenous vegetation is to be utilised within these swales.
- → Even flow should be established throughout the constructed SW swale to prevent heavily concentrated flows or stagnation in certain areas.
- → Energy dissipaters / erosion protection measures (such as lining with stones, grass, reno mattresses, or gabions) should be considered where stormwater is released into downstream wetland to reduce the runoff velocity and therefore erosion.
- → Incorporate measures into the stormwater design to trap solid waste, debris and sediment carried by stormwater. Measures may include the use of curb inlet drain grates and debris baskets/bags.
- → Homeowners must be encouraged to landscape their gardens with the use of indigenous species to decrease the area of hardened surface and increase infiltration.
- → Homeowners, if adjacent to the wetland offset area should store any potential pollutants in such a way that pollution will not occur to the wetland offset areas (such as any fuel, etc.). Potential pollutants should be stored in an adequately bunded area.
- → The use of herbicides, pesticides and any other poisons within private gardens must be strictly prohibited. The home owner’s association must be responsible for ensuring that residents are compliant with this.

- → Backwashing of swimming pools directly into the wetland offset area must be strictly prohibited. Backwash water can be collected in settling tanks where dirt and debris settle to the bottom. The cleaner water can then be reused for non-potable purposes or even filtered back into the pool system. Backwash water can be diverted to greywater tanks.
- → Monitor the wetland offset and the SW system for erosion and sedimentation after heavy rainfall events. Any erosion noted must be immediately addressed. Rehabilitation measures may include the removal of accumulated sediment by hand, filling of erosion gullies and rills, the stabilisation of gullies with silt fences, riprap, and the revegetation of stabilised areas.
- → Stormwater systems will require ongoing maintenance. Any build-up of silt or debris within stormwater drains or swales will need to be cleared to ensure the continued functioning of the systems.
- → Any damage to stormwater infrastructure, and any flaws identified in the functionality of stormwater infrastructure, must be rectified immediately.
- → Stormwater systems must be monitored and maintained into perpetuity and collections of debris and solid waste removed from grates and baskets. The developer must confirm who will be responsible for this monitoring and maintenance as well as their roles.
- → Given the presence of the Endangered Western Leopard Toad within the site, all stormwater infrastructure must be designed to prevent entrapment and facilitate safe movement of amphibians. Stormwater systems should incorporate suitably spaced escape areas, such as gently sloped ramps or vegetated ledges, at intervals of no more than 50 metres. These features must allow toads to exit easily should they become trapped. Deep stormwater channels, pits, or attenuation ponds with vertical or sheer walls are particularly hazardous and should be avoided where possible. If such structures cannot be avoided, escape features must be incorporated into the design to allow toads and other small fauna to exit safely. Additionally, all stormwater outlets and culverts should be designed to prevent trapping and support safe passage during both wet and dry conditions.
- → The stormwater system must be designed by a suitably qualified engineer.

Terrestrial Biodiversity Impact Assessment

The following mitigation for the proposed development is deemed feasible, reasonable and mandatory:

- → All woody invasive alien vegetation (mainly *Acacia saligna, Acacia cyclops* and *Eucalyptus*) on the property must be felled using a hand or chainsaw, following appropriate methodology as per Martens et al (2021). No heavy machinery may be used (except perhaps in the case of the large gum trees in the western sector along the Mill stream), and Port Jackson (*Acacia saligna*) stems should be cut at close to ground level and immediately (within ten minutes) painted (not sprayed) with a suitable herbicide such as Garlon. Small seedlings (<15cm) of Port Jackson can usually be hand pulled, provided the root is removed. This alien vegetation control must be undertaken within six months of any authorisation and must repeated annually to ensure no regrowth.
- → All non-woody invasive alien vegetation should also be removed, with a particular focus on kikuyu grass (*Cenchrus clandestinus),* other annual grasses such as Avena (oats), Briza (brome) and Lolium (ryegrass), and the blue flowered *Commelina benghalensis* under the milkwoods.
- → No disturbance of the Very High sensitivity area (as per Figure 5) may take place at any stage in the future, and to safeguard and ensure this the area should be clearly demarcated as Very High sensitivity with suitable signage on its perimeters.
- → No milkwoods (*Sideroxylon inerme*) with stem diameter greater than 5cm should be felled or removed. No milkwood roots greater than 3cm diameter should be cut.
- → No livestock may be allowed into the Very High sensitivity section.
- → Rehabilitation of the disturbed (Low and Medium sensitivity) areas should be undertaken on an ongoing basis and should include alien invasive plant management and replanting with suitable locally indigenous plant species.

→ The planting list of suitable locally indigenous species for the Estate and the various zones must be compiled with input from the botanist and approved in writing by the botanist.

Terrestrial Animal Site Sensitivity Verification and Species Specialist Assessment

Mitigation measures recommended by the specialist

Alien Plant Eradication and Rehabilitation Plan

A comprehensive Alien Plant Eradication and Rehabilitation Plan must be developed and implemented for the property. This plan should address the removal of invasive species and the ecological rehabilitation of disturbed areas. It must be formally incorporated into the long-term management and maintenance of communal open spaces.

Use of Indigenous Plant Species

Only plant species that are indigenous to the local area should be permitted in residential gardens. This will support local biodiversity and prevent the introduction of potentially invasive alien species.

Construction Area Demarcation

During the construction phase, all construction zones must be clearly demarcated and physically separated from adjacent wetland and sensitive habitats to prevent accidental disturbance, habitat destruction, and pollution.

Rehabilitation of Private Open Spaces

Prior to and following construction, all designated 'Private Open Space' areas must be rehabilitated. This includes the removal of construction rubble, litter, and any other debris to restore ecological functionality.

Permeable Fencing

All boundary and internal fences must remain semi-permeable to allow free movement of small terrestrial fauna such as genets and mongooses, particularly along the Mill Stream wetland corridor.

Wildlife Search and Rescue

A pre-construction search and rescue operation must be conducted for slow-moving or sedentary fauna within designated development footprints. Rescued animals must be relocated within suitable nearby open space areas on site and not removed from the property.

Domestic Pet Management

Free-roaming dogs must be strictly prohibited from accessing open space areas to prevent disturbance or predation of wildlife. Cats should not be permitted on the property due to their significant adverse impact on small mammals, reptiles, amphibians, and birds.

Environmentally Responsible Rodent Control

Rodent control should be achieved through environmentally sensitive methods, including the installation of owl nesting boxes and raptor perches to promote natural predation rather than chemical baiting, which poses a secondary poisoning risk to wildlife.

Lighting and Insect Attraction Management

To mitigate the impact of artificial lighting on nocturnal wildlife and reduce insect mortality, the following measures must be adopted:

- → Lights should be turned off when not in use.
- → Lighting should be fitted with motion sensors or timers to limit unnecessary operation.
- → Fixtures must include shielding to prevent light spill and direct illumination only where necessary.
- → All outdoor lighting should shine downward and avoid illuminating natural habitats.
- → Use long-wavelength lighting (e.g., red or amber filtered LEDs) to reduce ecological disruption; avoid blue and green light spectrums where possible.
- → A site-specific lighting plan must be developed to minimise ecological light pollution.

Vegetation Protection and Trampling Avoidance

The clearing of indigenous fynbos and Milkwood (*Sideroxylon inerme*) vegetation must be minimised. All natural vegetation, particularly fynbos and Milkwood forest clumps surrounding the development footprint, must be protected from unnecessary disturbance and trampling during and after construction.

Western Leopard Toad specific recommended mitigation measures

Construction phase

Contractor Induction and Awareness

- → All construction personnel must receive environmental awareness training regarding amphibian species present on site, including the Western Leopard Toad.
- → Training should emphasize the risks of amphibian entrapment in trenches, pipes, and foundation works. Trench inspections must be conducted daily, and amphibians removed safely by a trained ECO (Environmental Control Officer).

Environmental Control Officer (ECO)

- → Appoint an ECO with amphibian expertise to monitor implementation of all mitigation measures.
- → The ECO must be present during key earthworks within 50 m of any delineated wetland or amphibian corridor.

Wetland Buffer and No-Go Zones

- → Strictly avoid encroachment into the 32 m buffer zone around delineated wetlands, especially the Mill Stream and tributary Unchanneled Valley-Bottom wetlands (UVBW) (see van Zyl (2024)).
- → Temporary fencing should demarcate and protect all no-go zones.

Operational Phase Mitigation

Habitat Connectivity and Permeability

- → All perimeter and internal fences must be permeable to amphibians. Avoid solid barriers like brick or precast walls.
- → Install toad-friendly passages such as:
    - "Toad holes" (min. 100 mm diameter, ≤300 mm in length) every 20 m in walls and fences.
    - Open-bottomed boundary fences or gaps at ground level.
- → Include amphibian underpasses (e.g. drainage culverts or pipes) beneath internal roads at key crossing points to minimize road mortalities.

Road Verge and Kerb Design

- → All new kerbs must not exceed 50 mm in height and should incorporate shallow Vshaped gutters to allow safe passage for toadlets (see Whale Coast Conservation (2024)).
- → Adequate road reserve should be implemented for internal access roads within the estate to facilitate the movement of toads.

Stormwater Management

- → Cover stormwater drains with grates or mesh to prevent toad entrapment.
- → Treat all stormwater in vegetated detention ponds or swales before discharge into wetlands, see van Zyl (2024)
- → Monitor stormwater for pollutants and nutrients; implement community-based campaigns to prevent dumping of chemicals or waste into drains.
- → Tie into mainline sewage or use fully contained conservancy tanks serviced by truck. No sewage treatment, irrigation or soak-aways should be contemplated, see (van Zyl, 2024).

Garden and Landscape Guidelines

- → Gardens should prioritize indigenous vegetation and "wild" landscaping (e.g. woodpiles, compost heaps, leaf litter) to provide habitat for adult toads.
- → Encourage the planting of Arum Lilies (Zantedeschia aethiopica) in wetland buffers to support the amphibian diversity and filter stormwater runoff.

Swimming Pool Safety for Amphibians

- → Enforce a compulsory "frog escape" net or ladder requirement for all swimming pools.
- → Promote use of non-chlorinated eco-pools or "beach-entry" designs to allow safe amphibian exit (van Zyl 2024).

Control of Invasive Vegetation

- → Systematic removal of invasive grasses and maintenance of fynbos-dominated groundcover on road verges and open areas is critical.
- → Reed cutting in the Mill Stream and tributaries should occur only during the dry season (December–May) and follow best practices:
    - Do not exceed 300 m² per cut (as per regulation).
    - Remove all cut biomass immediately to prevent nutrient leaching.
- → Removal of Eucalyptus forest and rehabilitation to indigenous vegetation will improve habitat suitability for toads along Mill stream corridor

Community Engagement and Education

Signage and Speed Control

- → Install educational signage throughout the estate highlighting Western Leopard Toad presence, breeding season (July–September), and road mortality risks.
- → Impose and enforce a maximum speed limit of 30 km/h within the estate, especially during breeding and emergence seasons.

Resident Awareness Program

- → Distribute educational materials to new residents on amphibian-friendly living, including:
- → Stormwater pollution prevention
- → Gardening for toads
- → Responsible pet and chemical use

Citizen Science and Ecotourism

- → Explore opportunities for annual toad migration events and night walks during the breeding season (August), which coincide with the low tourism season and offer potential for ecotourism-based engagement.

Legislative Compliance and Long-Term Management

Wetland Protection and Offsets

- → Secure and implement a Wetland Offset, Rehabilitation and Management Plan, especially for the impacted hillslope seep wetland (PES: E).
- → No water abstraction from wetlands unless authorized via a valid Water Use Licence.

Monitoring and Review

- → Establish a post-development biodiversity monitoring program to assess amphibian diversity and abundance.
- → Review mitigation effectiveness annually and adjust management practices accordingly.

Securing and enhancing breeding and foraging habitat for the Western Leopard Toad (*Sclerophrys pantherina*) through restoration of functional wetland systems and surrounding buffer zones;

- → Removing alien vegetation (notably Eucalyptus camaldulensis) and rubble that previously degraded amphibian and invertebrate habitat;
- → Removal, thinning and control of dense stands of Phragmites australis.
- → Establishment of indigenous vegetated in the wetland offset areas which will provide habitat for faunal species of concern.
- → Implementing stormwater management and “toad-friendly” design interventions to maintain hydrological connectivity and reduce road mortality; and
- → Establishing long-term management and monitoring commitments to ensure persistence of amphibian and wetland-dependent fauna.

General conditions outlined in both the Construction and Operational Environmental Management Plans must be implemented.

8.	Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.

The mitigation hierarchy consisting of avoidance, minimisation, rehabilitation, and offset was systematically applied during the planning and assessment process to ensure that the proposed development represents the Best Practicable Environmental Option (BPEO).

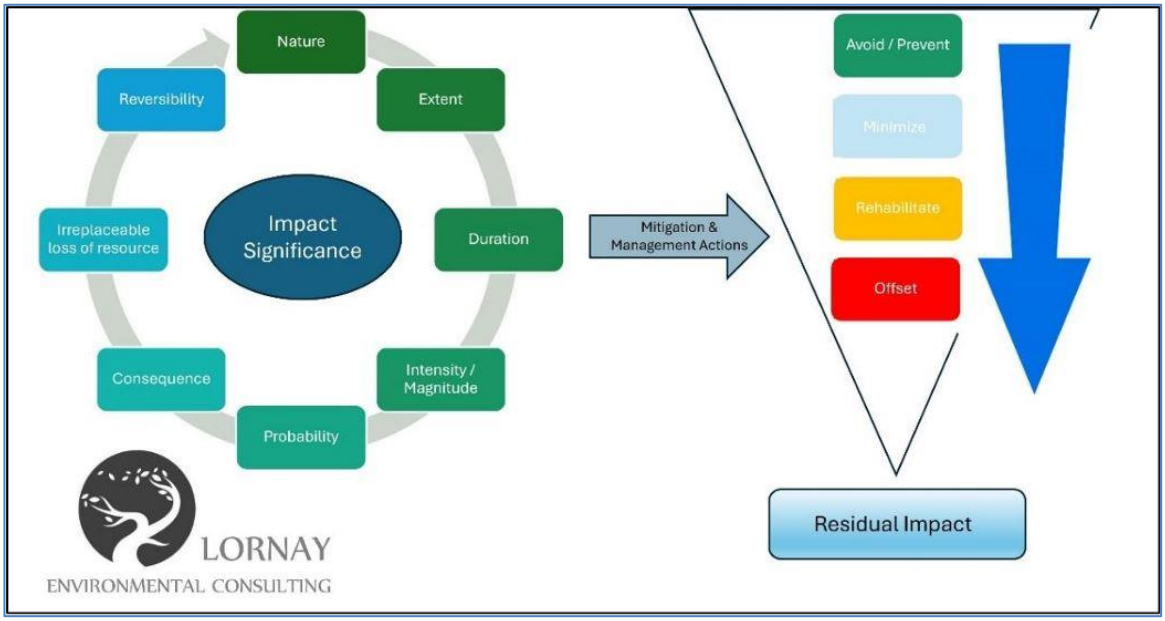


Figure 23. Mitigation hierarchy.

Avoidance

The initial step in applying the mitigation hierarchy involved identifying and avoiding all areas of Very High and Medium ecological sensitivity as defined by the specialist studies. The botanical, faunal, and aquatic assessments collectively informed the development layout (Alternative 2) ensuring that key ecological features including the Mill Stream and tributary wetlands, the southeastern seasonal wetland supporting *Passerina paludosa,* and the Milkwood forest — were retained, buffered and protected in perpetuity through a detailed design process. These areas are excluded and avoided from the development footprint and designated as private open space. The preferred layout (Alternative 2) was therefore designed to avoid development within mapped ESA1 and ESA2 areas, maintaining ecological connectivity for hydrological connectivity as well as for animal species such as the Western Leopard Toad and protecting habitat for indigenous flora and fauna.

However, the initial layout (Alternative 1) incorporates some erven which would otherwise encroach into the UVB wetland situated on the southeastern portion of the site and therefore contributing to the loss of plant species of conservation concerns identified by the botanical specialist within very high botanical sensitive area of the site.

Minimisation

Where complete avoidance of disturbance was not possible, impacts were minimised through design refinements, construction methods, and infrastructure placement. In the Milkwood forest, for example, accommodation units will be prefabricated off-site and installed on raised, non-invasive foundations, eliminating the need for concrete footings and preventing damage to tree roots. Service lines (water, sewerage, and electricity) will be routed beneath elevated boardwalks, thereby reducing ground disturbance. In the aquatic environment, 32-metre buffer zones have been established around the delineated Unchanneled Valley Bottom (UVB) wetlands, ensuring protection of wetland hydrology and habitat. Stormwater will be managed through a low-impact drainage system designed to maintain natural flow

regimes and prevent erosion or sedimentation downstream. All of these measures are applicable and remain implementable under Alternative 2 option.

Rehabilitation

The proposed development includes a Wetland Offset Rehabilitation and Management Plan aimed at offsetting for the loss of the degraded wetland due to the proposed development onsite. The botanical specialist recommended the revegetation of cleared areas using locally indigenous plant species, particularly within wetland buffers and open spaces. The Wetland Offset Rehabilitation and Management Plan (Delta Ecology, 2025) also outlines actions such as alien invasive species removal, erosion control, and re-establishment of wetland vegetation, all intended to enhance the ecological functioning of retained habitats. Implementation of these measures will improve the Present Ecological State (PES) of the remaining wetlands to at least a Category C (Moderately Modified) condition.

Offset

As complete avoidance of the seriously modified hillslope seep wetland (0.87 ha) was not feasible, its loss will be offset through the rehabilitation of the Mill Stream and tributary UVB wetlands, as well as an additional 1.7 ha offsite wetland area on municipal land. This offset strategy will achieve a positive ecological gain, with calculated improvements of over 2.2 hectares of rehabilitated wetland habitat and measurable increases in wetland function. A formal lease agreement will be established between the developer and the Overstrand Municipality to secure the long-term protection and management of the offsite wetland. Moreover, the plan identifies both onsite and offsite rehabilitation areas along the Mill Stream and tributary wetlands, integrating faunal and wetland offset objectives to achieve ecological balance:

From a faunal perspective, the offset plan effectively meets biodiversity offset objectives by:

- → Securing and enhancing breeding and foraging habitat for the Western Leopard Toad through restoration of functional wetland systems and surrounding buffers;
- → Removing alien vegetation such as Eucalyptus camaldulensis and rubble that previously degraded amphibian and invertebrate habitat;
- → Thinning and controlling dense stands of Phragmites australis to restore native wetland vegetation structure;
- → Re-establishing indigenous wetland vegetation, improving habitat diversity and providing shelter for wetland-dependent fauna;
- → Implementing stormwater and “toad-friendly” design interventions to maintain hydrological connectivity and reduce road mortality; and
- → Establishing long-term monitoring and management commitments to ensure continued ecological improvement and persistence of amphibian populations.

Additionally, the inclusion of an offsite portion of the Mill Stream wetland, secured through a lease agreement with the Overstrand Municipality, provides added ecological compensation and enhances connectivity between faunal habitats. Collectively, these offset measures will likely achieve no net loss of faunal habitat function, aligning with SANBI (2020) and Sustainable Ecological Infrastructure (SEI) offset guidance principles.

Through the combined application of the mitigation hierarchy and integration of faunal and wetland offsets, Alternative 2 has been identified as the Best Practicable Environmental Option. This layout effectively balances development feasibility with the conservation of ecological integrity. It avoids areas of high sensitivity, enhances degraded habitats, and implements measurable offsets to achieve a positive net ecological outcome. The biodiversity specialists collectively conclude that, with the implementation of the recommended mitigation, rehabilitation, and offset measures, the proposed development is environmentally acceptable and consistent with sustainable land-use principles.

SECTION J: GENERAL

1. Environmental Impact Statement

1.1.	Provide a summary of the key findings of the EIA.

Aquatic Biodiversity Findings

The Aquatic Biodiversity Assessment confirmed the presence of three wetlands within the study area—a hillslope seep wetland, and two Unchanneled Valley Bottom (UVB) wetlands associated with the Mill Stream and a tributary. The seep wetland is classified as seriously modified (PES Category E) due to historical transformation for the cultivation of roll-on lawn, with limited ecological function remaining. In contrast, the Mill Stream UVB wetland retains moderate ecological function, and the tributary wetland in the southeast corner is of high ecological sensitivity, supporting diverse indigenous wetland flora and faunal species.

The proposed development will result in the loss of approximately 0.87 ha of the degraded seep wetland; however, this area does not fall within the mapped Ecological Support Area (ESA) according to the Western Cape Biodiversity Spatial Plan (WCBSP, 2017). A Wetland Offset, Rehabilitation and Management Plan (Zdanow & Morton, 2025) has been developed to compensate for this residual loss. The plan identifies both onsite and offsite rehabilitation areas along the Mill Stream and tributary wetlands, restoring 1.2 ha onsite and 1.7 ha offsite through alien vegetation removal, reshaping, and revegetation with indigenous wetland species.

The offset implementation will achieve a positive net ecological outcome, improving the Present Ecological State (PES) of the rehabilitated wetlands to upper Category C and ensuring long-term hydrological and faunal connectivity.

A Water Use Licence (WUL) will be required for the inclusion of the seep wetland within the development footprint, as this triggers Section 21(c) and (i) water uses under the National Water Act (Act 36 of 1998).

Terrestrial Botanical Findings

The Botanical Impact Assessment (Helme, 2025) found that the site is largely transformed, with approximately 65% covered by grassland (predominantly indigenous *Stenotaphrum secundatum*), 20% Milkwood forest, and smaller patches of Eucalyptus woodland and seasonal wetland vegetation. The southeastern wetland supports two plant Species of Conservation Concern (SoCC) — *Passerina paludosa* (Endangered) and *Senecio pillansii* (Near Threatened). Both are confined to the Very High sensitivity area in the southeast and will not be impacted by the proposed development.

Vegetation within the Mill Stream wetland and Milkwood forest was classified as Medium botanical sensitivity and is largely retained within the proposed open space network. The remainder of the site, dominated by disturbed grassland, is of Low botanical sensitivity.

The botanical specialist concluded that the development will result primarily in the loss of Low sensitivity vegetation, and the overall botanical significance of impacts is Low negative both before and after mitigation. The proposal to cluster development within already disturbed areas and use raised, prefabricated structures within the Milkwood forest minimises ecological disturbance.

Faunal Findings

The Faunal Assessment identified five primary habitat types: wetland, Eucalyptus woodland, lawn, Milkwood forest, and tributary wetland. Overall faunal diversity was moderate, and no Species of Conservation Concern (SCC) were observed

during field surveys. However, the site provides potential habitat for Western Leopard Toad (*Sclerophrys pantherina*), a species of conservation concern, particularly within the Mill Stream and tributary wetland habitats.

The specialist emphasised the importance of maintaining ecological connectivity along the Mill Stream and tributary corridors, consistent with the ESA1 and ESA2 designations under the WCBSP (2017). The preferred layout (Alternative 2) achieves this by avoiding all mapped ESA areas and designating these zones as open space.

Residual impacts on fauna were rated as Medium, but with the implementation of the Wetland Offset Plan and faunal-friendly mitigation measures—such as toad crossings, stormwater controls, and alien vegetation removal—the long-term impact is reduced to Low.

Integration of Mitigation Hierarchy

The mitigation hierarchy was applied throughout the EIA process:

Avoidance: Development was entirely avoided in areas of Very High and Medium ecological sensitivity (wetlands, Milkwood forest, and the southeastern wetland).

Minimisation: Design measures include prefabricated pod-style units installed on raised platforms, boardwalk access, and underground services routed beneath existing pathways to prevent soil compaction and tree disturbance.

Rehabilitation: Alien vegetation control and indigenous revegetation are proposed within buffer zones and degraded areas.

Offset: The integrated Wetland and Faunal Offset Plan ensure ecological compensation and functional improvement of wetland and faunal habitats, securing both onsite and municipal wetland areas through a formal lease agreement.

Heritage and Visual Findings

The Milkwood forest located on the property has been identified as a Grade IIIA Heritage Feature. The Heritage Assessment recommended that this feature be retained and incorporated as a key design element, which has been successfully achieved in the preferred development layout. No other built heritage resources of cultural or architectural significance were identified on the site.

From a palaeontological perspective, the area is underlain by the Strandveld Formation of the Bredasdorp Group, which has a low palaeontological significance. Although the underlying Ceres Subgroup is of high sensitivity, the proposed development involves only shallow excavations restricted to superficial sediment layers, and the likelihood of disturbing significant fossil resources is minimal. As such, palaeontological impacts are assessed to be of low significance, provided that a Chance Fossil Find Procedure is implemented during construction.

In terms of archaeological resources, isolated surface artefacts were identified within the development footprint, which are consistent with the background scatter commonly found across the Western Cape coastal region. These artefacts lack stratified archaeological context and are of limited scientific value. Consequently, the proposed development is not expected to have a significant impact on archaeological heritage.

The Visual Impact Assessment on Cultural Landscape concluded that the removal of large exotic gum trees will enhance the scenic quality of the area, while any increased visibility of the development can be effectively mitigated through landscaped earth berms and the establishment of indigenous vegetation screening. From a cultural landscape perspective, the principle of development is supported, as the proposed design remains compatible with the existing spatial and visual character of the surrounding area.

Overall, heritage-related impacts — including visual, cultural landscape, palaeontological, and archaeological aspects — are assessed to be of low significance, both before and after the implementation of mitigation measures.

Planning and Sustainability Considerations

The preferred development alternative aligns with the Overstrand Spatial Development Framework (OSDF) and Integrated Development Plan (IDP) objectives by promoting eco-tourism and optimising the Residential Zone 1 land use through a low-impact tourism lodge rather than dense residential subdivision.

The proposed 16-room lodge (34 guests) has been designed to blend with the natural environment, maintaining the sense of place, and promoting passive energy efficiency through orientation, shading, insulation, solar energy use, and water conservation measures such as rainwater harvesting and low-flow fixtures.

The EIA concludes that the Preferred Layout (Alternative 2) represents the Best Practicable Environmental Option (BPEO). It avoids ecologically sensitive areas, integrates biodiversity offsets, preserves key heritage and ecological features, and provides meaningful socio-economic benefits through tourism, job creation, and ecological restoration.

With the implementation of the recommended mitigation, rehabilitation, and offset measures, the proposed development is considered environmentally acceptable and consistent with the principles of sustainable development under the National Environmental Management Act (Act 107 of 1998).

1.2.	Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)

See **Appendix B**

1.3.	Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.

ALTERNATIVE 1

CONSTRUCTION PHASE IMPACTS

Negative Impacts:

→ Visual impacts of Site including temporary office, and building activity
→ Noise associated with clearing of site and construction
→ Clearing of vegetation including a large number of protected White Milkwood trees and other indigenous species
→ Increased stormwater runoff into the wetland and stream
→ Impaired water quality of water entering the wetland and stream.
→ Impact on the Western Leopard toads and other toads and frogs as they move away from the stream to forage into the construction area.

Positive Impacts:

→ Removal of Category 1b Gum trees (*Eucalyptus sps.*)
→ Employment opportunities over a long period of time
→ Provision of a number of houses on a site with Single Residential (SR1) zoning.
→ The closure of the roll-on lawn business – this will have direct positive impacts on the quality and quality of the natural freshwater system on and adjacent to the site. It has been found that the roll-on lawn business has created a sterile and nutrient loaded landscape which has had negative impacts on the ecosystems on and adjacent to the site.

OPERATIONAL PHASE IMPACTS

Negative Impacts:

→ Increased traffic
→ Increased demand/ load for water, electricity, sewer and garbage
→ Visibility of the development from the R43 scenic route.
→ Development does not recognize Heritage importance of the adjacent Stanford village
→ Development within the 1 in 100 year flood line

Positive Impacts:

→ Development complies with the Residential zoning of Erf 438 Stanford
→ Permanent exclusion of Millstream and UVB wetland.
→ Maintenance and management of the Millstream only.
→ Provision of housing for a larger number of families

ALTERNATIVE 2 (PREFERRED)

The Preferred Alternative (Alternative 2) for Erf 438, Stanford, proposes a low-impact eco-tourism development consisting of 16 accommodation pods (34 guests), communal facilities, and associated infrastructure within a 5.23 ha property. This design evolved through an iterative process that incorporated the findings and recommendations of all specialist studies, including botanical, faunal, aquatic, wetland offset, heritage, and visual assessments. The layout represents an environmentally responsible balance between development and conservation, optimising the site's existing zoning while preserving ecological integrity and visual character.

CONSTRUCTION PHASE IMPACTS

Negative Impacts:

→ Visual impacts of Site including temporary office, and building activity
→ Noise associated with clearing of site and construction
→ Risk of short terms impaired water quality of water entering the wetland and stream unless mitigated by stormwater management structures

Positive Impacts:

→ Appropriate land use that complies with the Residential zoning
→ Removal of Category 1b Gum trees (*Eucalyptus sps.*)
→ Employment opportunities over a long period of time
→ Provision of a number of houses on a site with Single Residential (SR1) zoning.
→ Rehabilitation of the Mill Stream section on subject property
→ Alternative 2 (Preferred) allows for a 32 buffer from the wetland edge which will be demarcated as a no development zone. these areas will be rehabilitated and kept in a good quality natural state with no permanent infrastructure.
→ The closure of the roll-on lawn business – this will have direct positive impacts on the quality and quality of the natural freshwater system on and adjacent to the site. It has been found that the roll-on lawn business has created a sterile and nutrient loaded landscape which has had negative impacts on the ecosystems on and adjacent to the site.

→ Preferred Alternative 2 evolved in such a way to work with the location of the Milkwood trees to significantly reduce the need for removal. Surveys of both the canopy and trunks were used to inform the design. The Portion 27 Lodge was designed to maximise the opportunities around the Milkwood forest.

OPERATIONAL PHASE IMPACTS

Negative Impacts

→ The operational phase will lead to an increase in service demand, including water, electricity, and waste management. There will also be modest increases in local traffic, particularly during peak tourist periods.
→ Operational activities may introduce light and noise that could affect nocturnal and wetland-dependent fauna.

→ From a visual and heritage perspective, the introduction of tourism infrastructure may alter the local landscape character, although the low-scale pod design is consistent with the site's natural form and surrounding visual environment.

Positive Impacts

→ Long-term environmental and social benefits are expected to outweigh the temporary construction disturbances.
→ The proposed layout permanently protects the Mill Stream and Unchanneled Valley Bottom (UVB) wetlands and their 32 m buffer areas as Private Open Space, thereby securing ecological corridors and contributing to the Western Cape Biodiversity Spatial Plan (WCBSP) objectives for maintaining ecological connectivity and function.
→ The Wetland Offset, Rehabilitation and Management Plan and Faunal Offset Framework provide for the restoration and enhancement of 1.2 ha of onsite wetlands and 1.7 ha of offsite wetlands, which will improve wetland ecological condition and connectivity across the broader Mill Stream catchment.
→ This rehabilitation will also secure breeding and foraging habitat for the Western Leopard Toad (*Sclerophrys pantherina*) and other wetland-dependent fauna.
→ The botanical assessment confirmed the presence of two plant Species of Conservation Concern (SoCC) — *Passerina paludosa* (Endangered) and *Senecio pillansii* (Near Threatened). These species are restricted to the southeastern wetland area, which has been excluded from the development footprint and designated for long-term protection.
→ The Milkwood forest (*Sideroxylon inerme*) — a Grade IIIA heritage feature — forms an integral part of the development design, ensuring all mature trees are retained and incorporated into the layout as natural shade and windbreak features.
→ Socio-economically, the proposed tourism use offers sustained employment and skills development opportunities exceeding those associated with residential subdivision. It promotes eco-tourism, environmental education, and local economic diversification, aligning with the Overstrand Spatial Development Framework (OSDF) and Integrated Development Plan (IDP) objectives to strengthen nature-based tourism nodes around Stanford.
→ Additionally, the development will improve energy and water efficiency through the installation of solar energy systems, rainwater harvesting tanks, and low-consumption water fittings, reducing long-term service demand.
→ The rehabilitated open space system will enhance the visual entrance to Stanford, providing a scenic transition zone that reinforces the village's sense of place.

The Construction and Post Commencement Phase will be guided by an approved EMP and MMP.

1. Recommendation of the Environmental Assessment Practitioner ("EAP")

2.1.	Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr

This impact assessment has highlighted issues that have been identified by specialists and the EAP that are included in the EMP for both the Construction and Operational Phase. A suitably qualified ECO must be employed for the duration of the construction phase to ensure that mitigation measures and conditions of authorisation are implemented.

Hillslope Seep Wetland

The Hillslope Seep, located within the area currently under cultivation on the property, is significantly modified and has a reduced ecological functionality. Therefore, this portion of the site is proposed to be included in the development footprint. The 32 m buffer from the Mill stream and UVB wetland is confirmed as appropriate to offset the development of this wetland (Delta Ecology) and allows for the long terms rehabilitation and management of these areas and improved management of the entire Milll Stream, through Stanford.

Millstream and Unchanneled Valley Bottom (UVB) Wetland

→ A semi-permanent suitable barrier must be erected on the 32m non-developable buffer boundary of the wetland and stream. Including where the Undevelopable exclusive use area is included into the erf of a SR1 homes. This temporary barrier must last for the entire construction phase.
→ This area must be considered as a No-Go area during construction, except for those construction activities which are located in this area e.g. attenuation structures, swales, stormwater management, infrastructure
→ Stormwater runoff must be manged to attenuate volume and velocity of water entering the system by the construction of appropriate attenuation structures or swales.
→ The construction area must include a bunded impervious area for concrete mixing, parking and other construction activities.
→ Water with impaired quality must not be allowed to enter the wetland or stream.
→ Monitor sewer pipes and pump station for leaks.

Trees

→ Remove large Gum (*Eucalyptus* sps) trees prior to commencement of construction. Some of these trees are in the Mill stream and buffer area. Either sell or utilise the resulting timber on site. Do not dump.
→ Identify all White Milkwood (*Sideroxylon inerme*) trees to be retained on site and ensure that high viz barrier netting is erected around a clump of trees or an individual tree. This barrier must last for the entire construction phase
→ Pod units used as Lodge accommodation must be erected on piles / pillars or piers with the decking on beams, off the ground, to limit damage to tree roots.

Biodiversity

→ Ensure that all workers are informed about the Western Leopard Toad and other amphibians, chameleons and birds, with a no kill policy in place
→ Ensure that barrier netting is not pegged to the ground along the entire length so that all small animals can move in and out of the wetland / stream area.
→ Continue the existing programme to remove Port Jackson Willow and other invasive species.
→ Implement the MMP for the management of the stream as soon as possible.
→ Ensure that all involved in the development are aware of the restrictions on planting plants that are not indigenous.

→ The design of fencing, curbs, drains and "Leiwater" must not endanger the Western Leopard toad and other frogs and toads, or restrict their movements. Engineering specifications must be informed by Specialist recommendations.
→ Cordon off trees when Spotted Eagle Owls are nesting.

Visibility

Vegetated berms must be created between the R43 and the development to minimise visibility from the R43 Scenic Route and Stanford and appropriately vegetated with plants that do not impede sight line of vehicles accessing R43 from the site.

General construction and operational mitigations as outlined in the EMP must be implemented.

2.2.	Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.

The following aspects must be included as conditional to the authorisation

1. Pre-construction site inspection for Wildlife fauna

A pre-construction search and rescue operation must be conducted for slow-moving or sedentary fauna within designated development footprints. Rescued animals must be relocated within suitable nearby open space areas on site and not removed from the property.

All construction personnel must receive environmental awareness training regarding amphibian species present on site, including the Western Leopard Toad.

Training should emphasize the risks of amphibian entrapment in trenches, pipes, and foundation works. Trench inspections must be conducted daily, and amphibians removed safely by a trained ECO (Environmental Control Officer).

Strictly avoid encroachment into the 32 m buffer zone around delineated wetlands, especially the Mill Stream and tributary Unchanneled Valley-Bottom wetlands (UVBW) (see van Zyl (2024)).

2. Implementation of the Wetland Offset, Rehabilitation and Management Plan

The Wetland Offset, Rehabilitation and Management Plan (Delta Ecology, 2025) must be implemented in full to compensate for the loss of the degraded hillslope seep wetland (±0.87 ha).

The plan includes the rehabilitation and long-term management of the Mill Stream and Tributary UVB wetlands (±1.2 ha onsite and 1.7 ha offsite) to achieve a net ecological gain.

The offsite wetland area, located on municipal land adjacent to the property, must be formally secured through a lease agreement with the Overstrand Municipality prior to construction commencement.

The wetland offset areas must achieve an improvement in the Present Ecological State (PES) to upper Category C through alien clearing, reshaping, and re-vegetation with indigenous wetland species.

3. Protection of the Mill Stream and UVB Wetlands

The Mill Stream and UVB wetland systems, including their 32 m buffer zones, must be permanently excluded from development and zoned as Private Open Space.

No infrastructure, fill, or disturbance may occur within these delineated buffer areas.

Ongoing water quality monitoring must be undertaken in accordance with the management plan to ensure maintenance of downstream ecological integrity.

4. Integration of Faunal and Wetland Offsets

The Faunal Impact Assessment findings are conditional upon the integration of faunal and wetland offsets as part of the approved Wetland Offset Rehabilitation Management Plan.

The offset plan must secure and enhance breeding and foraging habitat for the Western Leopard Toad (*Sclerophrys pantherina*) and other wetland-dependent fauna through:

- Restoration of wetland habitat and buffer zones;
- Removal of alien vegetation (notably Eucalyptus camaldulensis);
- Establishment of indigenous vegetation to support faunal species; and
- Maintenance of hydrological connectivity to reduce habitat fragmentation.

These measures collectively satisfy the biodiversity offset objectives outlined in the SANBI (2020) and Macfarlane et al. (2014) national wetland offset guidelines.

5. Protection and Management of the Milkwood Forest

The White Milkwood trees (*Sideroxylon inerme*), which are specially protected species under the National Forests Act (Act 84 of 1998), must be retained and protected in situ.

No cutting, trimming, or removal of these trees may occur without a permit from the Department of Forestry, Fisheries and the Environment (DFFE).

The layout and architectural design of the tourism lodge must continue to avoid impacts to the root systems and canopy structure of these trees.

A tree protection plan must be implemented during the construction phase, ensuring minimal disturbance to soil and root zones.

6. Conservation of Plant Species of Conservation Concern (SoCC)

The Endangered *Passerina paludosa* population and Near Threatened *Senecio pillansii* identified within the southeastern wetland area must be protected from all development-related disturbance.

This area is designated as Very High botanical sensitivity and must remain undisturbed open space under long-term management.

Any future vegetation management or ecological monitoring must include periodic assessments of these populations to ensure their persistence.

7. Water Use Authorisation

A Water Use Licence (WUL) must be obtained from the Department of Water and Sanitation (DWS) for activities that trigger Section 21(c) and (i) of the National Water Act (Act 36 of 1998), relating to the partial loss of the hillslope seep wetland and potential alteration of flow in the Mill Stream system.

8. Alien Vegetation and Site Rehabilitation

All Category 1b invasive alien species (as per NEM:BA Regulations, 2021) must be removed and controlled throughout the site, including *Eucalyptus spp., Arundo donax,* and *Acacia saligna*.

Indigenous species from locally appropriate sources must be used for rehabilitation and landscaping within both the development footprint and offset areas.

9. Long-term Environmental Management and Monitoring

A comprehensive Environmental Management Programme (EMPr) must be implemented, incorporating recommendations from all specialists.

Annual monitoring reports must be submitted to the competent authority for a minimum of five years post-construction to demonstrate compliance with the offset and rehabilitation objectives.

A qualified Environmental Control Officer (ECO) must oversee compliance during construction and initial operation.

10. Heritage and Visual Protection

The Milkwood forest, recognised as a Grade IIIA heritage feature, must remain a central ecological and aesthetic element of the development.

All architectural elements must align with the Stanford heritage character and Overstrand Spatial Development Framework (OSDF) design guidelines to maintain the visual integrity of the landscape.

2.3.	Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.

In the opinion of the EAP the proposed residential and lodge development as described in Alternative 2 (Preferred Alternative) should be approved:

- → It is in line with the existing Overstrand Municipal Residential zoning, and application for rezoning for tourism activities requiring Special Consent does not substantially change the land use.
- → The preferred layout is informed by field assessments by appropriate specialists.
- → The current agricultural land use is not appropriate for property with a Residential zoning within the urban edge.
- → The current agricultural land use has been found to have serious negative impacts on the ecosystems on site and downstream.
- → All the specialists have addressed sensitivity issues raised in the SSV report
- → No significant negative impacts have been identified however many opportunities and positive impacts have been indicated
- → Workable mitigation and management measures have been recommended
- → Building plans will need to be submitted to the Overstrand Infrastructure and Planning Department for approval prior to construction
- → The proposal is a positive step towards achieving the Mill Stream Rehabilitation proposal for Stanford

- → The mitigation and management measures in this Basic Assessment Report and Environmental Management Plans, if properly applied, will ensure sustainability and should be conditional on the authorisation.
- → It is possible to ensure that a development, with a competent Home Owners Association (HOA) and a tourism component, is managed appropriately in the long term.
- → Provision of a 5 to 10 m vegetated area along the R43 to allow the connection of the eastern and western arms of the Mill Stream and the movement of Fauna. This will require suppression of the reeds and the establishment of indigenous, low height vegetation in these areas.
- → Whale Coast Conservation to be provided with nighttime access to the site during Leopard toad breeding period, to allow for monitoring (July to September).

Conditions of Authorisation

Pre-construction site inspection for Wildlife fauna

A pre-construction search and rescue operation must be conducted for slow-moving or sedentary fauna within designated development footprints. Rescued animals must be relocated within suitable nearby open space areas on site and not removed from the property.

All construction personnel must receive environmental awareness training regarding amphibian species present on site, including the Western Leopard Toad.

Training should emphasize the risks of amphibian entrapment in trenches, pipes, and foundation works. Trench inspections must be conducted daily, and amphibians removed safely by a trained ECO (Environmental Control Officer).

Strictly avoid encroachment into the 32 m buffer zone around delineated wetlands, especially the Mill Stream and tributary Unchanneled Valley-Bottom wetlands (UVBW) (see van Zyl (2024)).

Implementation of the Wetland Offset, Rehabilitation and Management Plan

The Wetland Offset, Rehabilitation and Management Plan (Delta Ecology, 2025) must be implemented in full to compensate for the loss of the degraded hillslope seep wetland (±0.87 ha).

The plan includes the rehabilitation and long-term management of the Mill Stream and Tributary UVB wetlands (±1.2 ha onsite and 1.7 ha offsite) to achieve a net ecological gain.

The offsite wetland area, located on municipal land adjacent to the property, must be formally secured through a lease agreement with the Overstrand Municipality prior to construction commencement.

The wetland offset areas must achieve an improvement in the Present Ecological State (PES) to upper Category C through alien clearing, reshaping, and re-vegetation with indigenous wetland species.

Protection of the Mill Stream and UVB Wetlands

The Mill Stream and UVB wetland systems, including their 32 m buffer zones, must be permanently excluded from development and zoned as Private Open Space.

No infrastructure, fill, or disturbance may occur within these delineated buffer areas.

Ongoing water quality monitoring must be undertaken in accordance with the management plan to ensure maintenance of downstream ecological integrity.

Integration of Faunal and Wetland Offsets

The Faunal Impact Assessment findings are conditional upon the integration of faunal and wetland offsets as part of the approved rehabilitation plan.

The offset plan must secure and enhance breeding and foraging habitat for the Western Leopard Toad (*Sclerophrys pantherina*) and other wetland-dependent fauna through:

- Restoration of wetland habitat and buffer zones;
- Removal of alien vegetation (notably Eucalyptus camaldulensis);
- Establishment of indigenous vegetation to support faunal species; and
- Maintenance of hydrological connectivity to reduce habitat fragmentation.

These measures collectively satisfy the biodiversity offset objectives outlined in the SANBI (2020) and Macfarlane et al. (2014) national wetland offset guidelines.

Protection and Management of the Milkwood Forest

The White Milkwood trees (*Sideroxylon inerme*), which are specially protected species under the National Forests Act (Act 84 of 1998), must be retained and protected in situ.

No cutting, trimming, or removal of these trees may occur without a permit from the Department of Forestry, Fisheries and the Environment (DFFE).

The layout and architectural design of the tourism lodge must continue to avoid impacts to the root systems and canopy structure of these trees.

A tree protection plan must be implemented during the construction phase, ensuring minimal disturbance to soil and root zones.

Conservation of Plant Species of Conservation Concern (SoCC)

The Endangered *Passerina paludosa* population and Near Threatened *Senecio pillansii* identified within the southeastern wetland area must be protected from all development-related disturbance.

This area is designated as Very High botanical sensitivity and must remain undisturbed open space under long-term management.

Any future vegetation management or ecological monitoring must include periodic assessments of these populations to ensure their persistence.

Water Use Authorisation

A Water Use Licence (WUL) must be obtained from the Department of Water and Sanitation (DWS) for activities that trigger Section 21(c) and (i) of the National Water Act (Act 36 of 1998), relating to the partial loss of the hillslope seep wetland and potential alteration of flow in the Mill Stream system.

Alien Vegetation and Site Rehabilitation

All Category 1b invasive alien species (as per NEM:BA Regulations, 2021) must be removed and controlled throughout the site, including Eucalyptus spp., Arundo donax, and *Acacia saligna*.

Indigenous species from locally appropriate sources must be used for rehabilitation and landscaping within both the development footprint and offset areas.

Long-term Environmental Management and Monitoring

A comprehensive Environmental Management Programme (EMPr) must be implemented, incorporating recommendations from all specialists.

Annual monitoring reports must be submitted to the competent authority for a minimum of five years post-construction to demonstrate compliance with the offset and rehabilitation objectives.

A qualified Environmental Control Officer (ECO) must oversee compliance during construction and initial operation.

Heritage and Visual Protection

The Milkwood forest, recognised as a Grade IIIA heritage feature, must remain a central ecological and aesthetic element of the development.

All architectural elements must align with the Stanford heritage character and Overstrand Spatial Development Framework (OSDF) design guidelines to maintain the visual integrity of the landscape.

2.4.	Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

None that the EAP is aware of.

2.5.	The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.

This Environmental Authorisation should be granted for:

(a) A period of five years from the date of issue, during which period the holder must commence with the authorised listed activities.
(b) A period of ten (10) years, from the date the holder commenced with the authorised listed activities, during which period the authorised listed activities must be concluded.

2. Water

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.

The GLS report confirms that the development will be connected to the mains treated water supply for Stanford. There is capacity in the reservoir, however the pipeline supplying the development will need to be upgraded relatively easily and cheaply.

There is an Environmental Management Plan for both the Construction and Operational phases. Water use is addressed in this document. Water must not be abstracted from the wetland or stream.

The following water saving principles are recommended and should be implemented:

→ Efficient water use habits should be encouraged. Rainwater storage tanks should be installed to collect runoff rainwater. Rainwater tanks should be installed in such a way that overflow water is discharged onto lawns / vegetated areas.
→ Shower and wash basin taps should be fitted with the latest and most efficient technology flow reduction devices, aerators, and motion sensors to maximise water conservation and reduce wastage.
→ All internal and external taps should be regularly inspected and maintained to prevent water wastage through drips and leaks, especially those in the lodge and common areas.
→ All toilets should be the most efficient technology available, including bowl evacuation and dual flush or similar systems.
→ Grey water from showers, baths, basins and washing machines, may be collected and treated for reuse (gardening, outside washing etc.)
→ Dry brushing and / or sweeping should be used in preference to water cleaning, where possible (cleaning pathways, machinery etc.)
→ Drains, especially commercial lodge kitchen drains should be fitted with grease traps which remove oils and solids from wastewater, to improve the quality of the wastewater discharged into the sewer.
→ Runoff into the wetland and stream must be attenuated and monitored to ensure contaminants are not entering the system or sedimentation from erosion.
→ Endemic and indigenous plants should be used for gardens and landscaping to minimize water demand i.e. water wise landscaping.
→ Should irrigation be required, these should be on timed systems and active at low evaporation hours (early morning, late evening).
→ Dry brushing and / or sweeping should be used in preference to water cleaning, where possible (cleaning pathways, machinery etc.)

3. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.

The GLS report confirms that the development will be connected to the Stanford WWTP. There is capacity in the treatment plant, however the sewage pumping station and pipeline from the development will need to be upgraded a part of the developer contributions:

→ The sewage system must be installed to professional design SANS / SABS specifications to accommodate operating a surge pressures. It must be connected to the Municipal water treatment system. It must include at least 2 hours peak flow emergency storage in concrete box/es. Surge protection air valves and scour valves to enable evacuation by honey suckers must be installed.
→ The sewage system must be monitored regularly checked for leaks which must be timeously repaired.
→ There is an Environmental Management Plan for both the Construction and Post Commencement (Operational) phases.
→ General waste is collected as scheduled by the Overstrand Municipality and transferred to the Gansbaai Landfill from where recycled waste is diverted as appropriate. This service has been confirmed by the Municipality
→ Waste minimisation strategies will be implemented through avoidance, reduction, reuse, recycling, recovery, treatment, or responsible disposal.
→ On site bins will be animal and weatherproof.

- → The planned refuse area is close to the access gate, for ease of collection and is secure and screened to avoid visual impacts
- → Refuse areas are provide for waste sorting (tins, glass, paper etc.).

4. Energy Efficiency

8.1.	Explain what design measures have been taken to ensure that the development proposal will be energy efficient.

Measures to encourage energy efficiency will be implemented as far as practical, including:

- → Solar panels
- → Inverters
- → Solar water heaters
- → Dark night sky street lighting
- → Efficient/LED light fittings
- → Design and location of windows to optimise light while minimising heat into the house to limit air conditioning and to minimise heat loss during winter.

In Process Basic Assessment Report

SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

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

I KWIN ALAN KING ID number 5609145809185 in my personal capacity or duly authorised thereto hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, and any relevant Specific Environmental Management Act and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;
- I am aware that it is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;
- I appointed the Environmental Assessment Practitioner ("EAP") (if not exempted from this requirement) which:
  - meets all the requirements in terms of Regulation 13 of the NEMA EIA Regulations; or
  - meets all the requirements other than the requirement to be independent in terms of Regulation 13 of the NEMA EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the NEMA EIA Regulations;
- I will provide the EAP and any specialist, where applicable, and the Competent Authority with access to all information at my disposal that is relevant to the application;
- I will be responsible for the costs incurred in complying with the NEMA EIA Regulations and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any legitimately person contracted by the EAP;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the NEMA EIA Regulations;
  - Legitimate costs in respect of specialist(s) reviews; and
  - the provision of security to ensure compliance with applicable management and mitigation measures;
- I am responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority, hereby indemnify, the government of the Republic, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which I or the EAP is responsible in terms of the NEMA EIA Regulations and any Specific Environmental Management Act.

Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

Signature of the Applicant: Date: 11/11/2025.

Omni King Investments

Name of company (if applicable):

FORM NO. BAR10/2019 Page 255 of 259

DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I **MICHELLE NAYLOR** EAPASA Registration number **2019/698** as the appointed EAP hereby declare/affirm the correctness of the:

- Information provided in this BAR and any other documents/reports submitted in support of this BAR;
- The inclusion of comments and inputs from stakeholders and I&APs;
- The inclusion of inputs and recommendations from the specialist reports where relevant; and
- Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties, 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 activity or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another EAP that meets the general requirements set out in Regulation 13 of NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review EAP must be submitted);
- In terms of the remainder of the general requirements for an EAP, am fully aware of and meet all of the requirements and that failure to comply with any the requirements may result in disqualification;
- I have disclosed, to the Applicant, the specialist (if any), the Competent Authority and registered interested and affected parties, all material information that have or may have the potential to influence the decision of the Competent Authority or the objectivity of any report, plan or document prepared or to be prepared as part of this application;
- I have ensured that information containing all relevant facts in respect of the application was distributed or was made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- I have ensured that the comments of all interested and affected parties were considered, recorded, responded to and submitted to the Competent Authority in respect of this application;
- I have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, where relevant;
- I have kept a register of all interested and affected parties that participated in the public participation process; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations;

MNaylor

30-08-2024

Signature of the EAP: Date:

LORNAY ENVIRONMENTAL CONSULTING

Name of company (if applicable):

DECLARATION OF THE REVIEW EAP

I ....., EAPASA Registration number ..... as the appointed Review EAP hereby declare/affirm that:

- I have reviewed all the work produced by the EAP;
- I have reviewed the correctness of the information provided as part of this Report;
- I meet all of the general requirements of EAPs as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), 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 as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE SPECIALIST PENDING

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

I ……, 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

  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);

- 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.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE REVIEW SPECIALIST

I ……., as the appointed Review Specialist hereby declare/affirm that:

- I have reviewed all the work produced by the Specialist(s):
- I have reviewed the correctness of the specialist information provided as part of this Report;
- I meet all of the general requirements of specialists as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the review EAP (if applicable), the Specialist(s), 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 as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):