LORNAY
ENVIRONMENTAL CONSULTING

PRE-APPLICATION BASIC ASSESSMENT REPORT

Proposed Residential development on Erf 438, Stanford, Caledon RD

STANFORD GREEN
eco lifestyle estate

Consultant:

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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

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			**✓ (Tick) or x (cross)**
Appendix A:	**Maps**		
	Appendix A1:	**Locality Map**	✓
	Appendix	**Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning**	N/A
	Appendix	**Map with the GPS co-ordinates for linear activities**	N/A
Appendix B:	**Appendix B1:**	**Site development plan(s)** **APPENDIX B1 – Alternative Layout 1** **APPENDIX B2 – Alternative Layout 2 (Preferred)**	✓
	Appendix	**A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;**	As Above
Appendix C:	**Photographs**		✓
Appendix D:	**Biodiversity overlay map**		✓
Appendix E:	**Public Participation** **Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality.** **Public participation information: including a copy of the register of I&APs, the comments and responses Report, proof of notices, advertisements and any other public participation information as is required.**		
	Appendix E1:	**Final comment/ROD from HWC**	Pending
	Appendix E2:	**Copy of comment from Cape Nature**	Pending
	Appendix E3:	**Final Comment from the DWS**	Pending
	Appendix E4:	**Comment from the DEA: Oceans and Coast**	N/A
	Appendix E5:	**Comment from the DAFF**	N/A
	Appendix E6:	**Comment from WCG: Transport and Public Works**	Pending

	Appendix E7:	**Comment from WCG: DoA**	N/A
	Appendix E8:	**Comment from WCG: DHS**	N/A
	Appendix E9:	**Comment from WCG: DoH**	N/A
	Appendix E10:	**Comment from DEA&DP: Pollution Management**	N/A
	Appendix E11:	**Comment from DEA&DP: Waste Management**	N/A
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	N/A
	Appendix E13:	**Comment from DEA&DP: Air Quality**	N/A
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	N/A
	Appendix E15:	**Comment from the local authority**	Pending
	Appendix E16:	**Confirmation of all services (water, electricity, sewage, solid waste management)**	✓
	Appendix E17:	**Comment from the District Municipality**	Pending
	Appendix E18:	**Copy of an exemption notice**	N/A
	Appendix E19	**Pre-approval for the reclamation of land**	N/A
	Appendix E20:	**Proof of agreement/TOR of the specialist studies conducted.**	See Specialists Reports
	Appendix E21:	**Proof of land use rights**	See Town planning Report
	Appendix E22:	**Proof of public participation agreement for linear activities**	N/A
Appendix F:	**Specialist Report(s)** **APP F1 Agriculture compliance** **APP F2 Aquatic Reports** **APP F3 Guide for Homeowners** **APP F4 Heritage** **App F5 Landscape** **APP F6 Services** **APP F7 Surveys** **APP F8 Faunal WCC** **APP F9 Traffic Impact Assessment** **APP F10 Town planning Report – pending**		✓

	APP F11 Socio Economic **App F12 Millstream Village Park & Greenway, Concept Master Plan**	
Appendix G:	**EMPr** **App H1 – Construction EMP** **App H2 – Post commencment EMP and MMP**	✓
Appendix H:	**Screening tool report and SSVR**	✓
Appendix I:	**The impact and risk assessment for each alternative**	As outlined in the BAR and specialist reports
Appendix KJ:	**Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline**	Outlined in the BAR
Appendix…..	**Any other attachments must be included as subsequent appendices**	

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:	PO Box 1990	
	Hermanus	Postal code: 7200
Telephone:	0832456556	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 Municipality in whose area of jurisdiction the proposed activity will fall:	OVERSTRAND MUNICIPALITY
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 and flagged for future development. Although it is currently used for agricultural purposes, it is zoned as Single Residential 1 (SR1). It is located outside the built-up urban area as per the NEMA definition. The site is impacted by the current land use, i.e. the cultivation of roll-on lawn and a dwelling and outbuildings. 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. It is within sight and sound of the property. **This is therefore considered a brownfield site**.

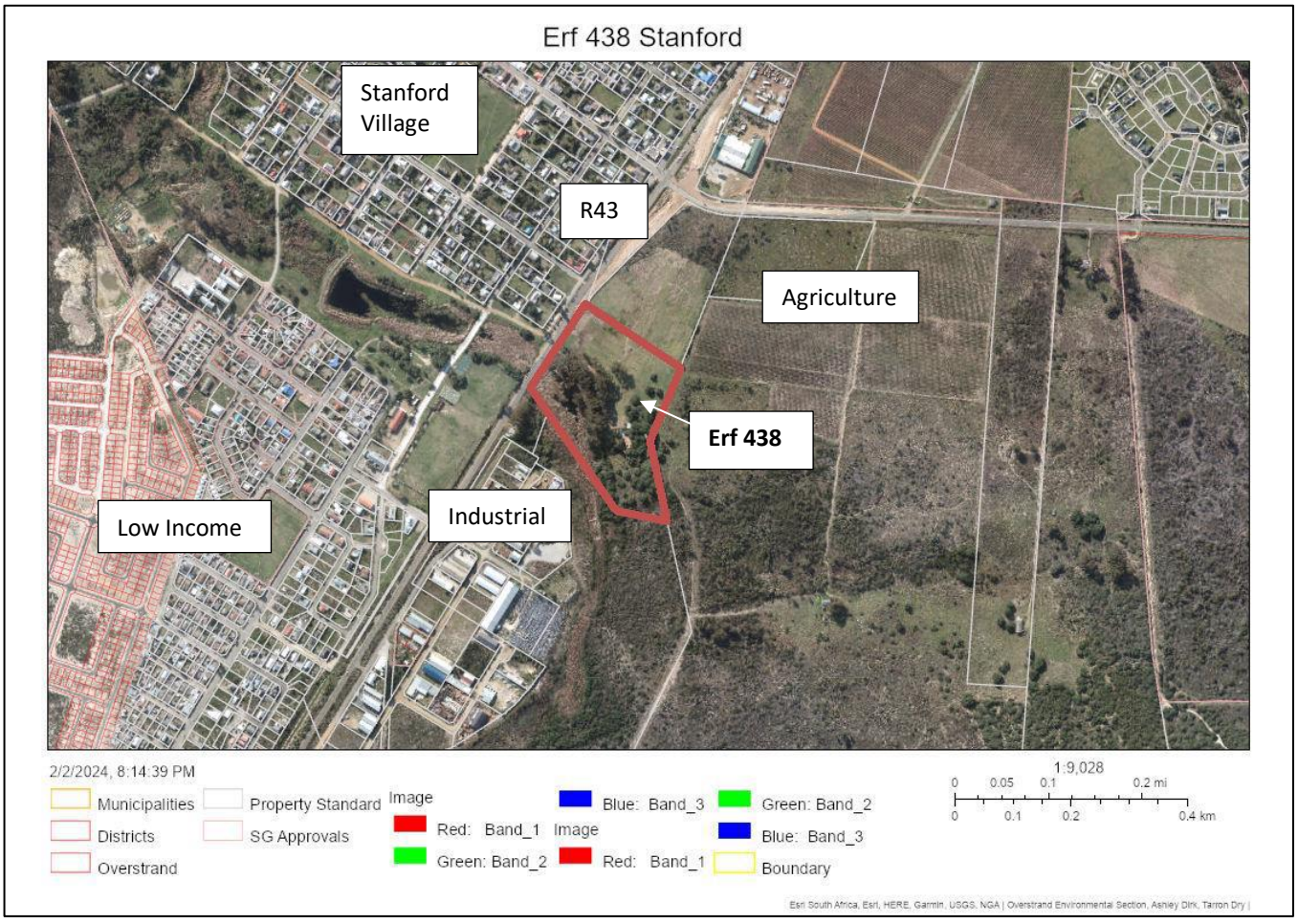


Figure 1. Erf 438 and surrounding Landuse.

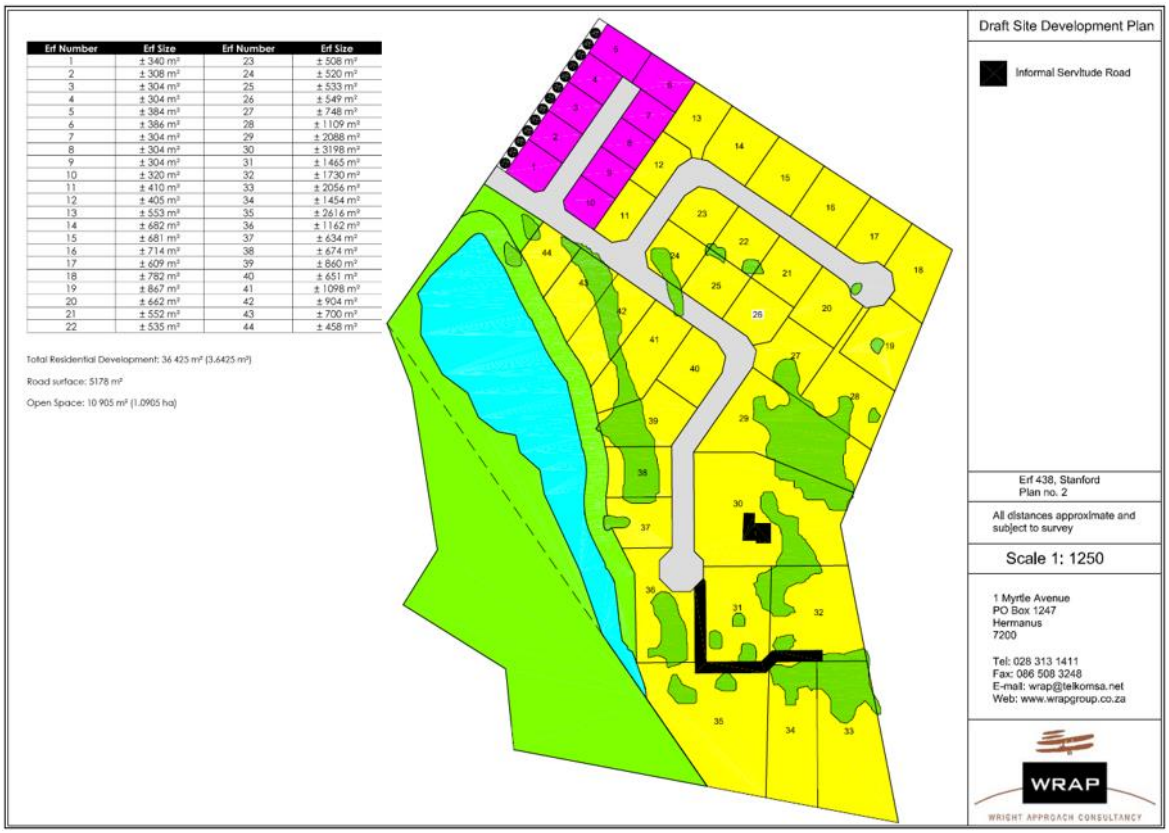
3.	**For Linear activities or developments N/A**			
3.1.	~~Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:~~			
3.2.	~~Development footprint of the proposed development for all alternatives.~~	m²		
3.3.	~~Provide a description of the proposed development (e.g. for roads the length, 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):		5,23Ha 52 342m²	
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. ±2300m² 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 2**		Private Open Space (Wetland) = 21 588m² Transport Zone (Pvt) = 5 130m² Transport Zone (Public) = 1 299m² General Residential: Town Housing (Lodge) = 4 902m² Residential Zone 1: Single Res = 19 423m² **Total Property size = 52 342m²**	
	Alternative 1		Private Open Space = 10 905m² Transport Zone = 5178m² Residential =36 425m²	

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) General Residential Zone 1: Town Housing (GR1) erf, two (2) Open Space Zone 2: Private Open Space (OS3) erven, one (1) Transport Zone 2: Road and Parking (TR2-A) erf and one (1) Transport Zone 2: Road and Parking (TR2-B) 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 – Bernie 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
- → Flood Line Determination – Fourth Element Consulting

The proposed development comprises the following:

28 Residential Properties:

- → 27 x Residential Zone 1: Single Residential (Erf 1 to 26, 28)
- → 1 x General Residential Zone 1: Town Housing – Erf 27 consent use for tourist accommodation (The lodge)

Private Open Spaces; and
Private and Public Roads

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	21588	41,56%
	General Residential Zone 1: Town Housing	4902	9,36%
	Residential Zone 1: Single Residential	19423	37,11%
	Transport Zone 2: Road and Parking (A) (Private)	5130	9,80%
	Transport Zone 2: Road and Parking (B) (Public)	1299	2,64%
	Total	52342	100,00%

Table 2. Property sizes for the Preferred Alternative 2.

Erf no.	Erf Size (m²)	Undevelopable Area (m²) (No development zone)	Zoning
1	1005	213	Residential Zone 1: Single Residential
2	1051	569	Residential Zone 1: Single Residential
3	916	343	Residential Zone 1: Single Residential
4	817	397	Residential Zone 1: Single Residential
5	758	347	Residential Zone 1: Single Residential
6	820	407	Residential Zone 1: Single Residential
7	893	378	Residential Zone 1: Single Residential
8	875	265	Residential Zone 1: Single Residential
9	565	-	Residential Zone 1: Single Residential
10	671	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	-	General Res. Zone 1: Town Housing
28	1383	474	Residential Zone 1: Single Residential
	5130	-	Transport Zone 2: Road and Parking (A) (Private)
	1299	-	Transport Zone 2: Road and Parking (B) (Public)
	21588	-	Open Space Zone 3: Private Open Space
TOTAL	**52342**	**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.

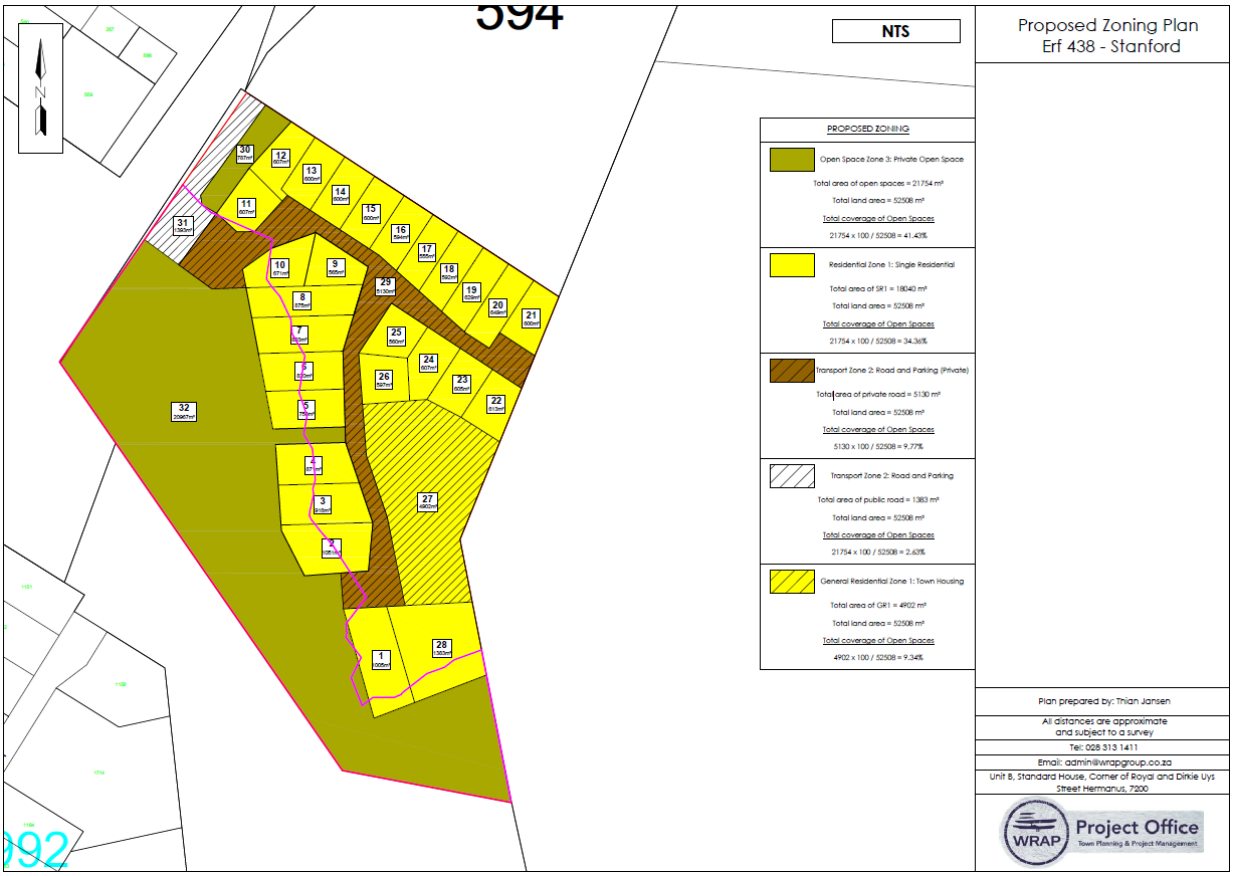


Figure 3. Proposed layout for Preferred Alternative 2.

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).

Preferred Alternative 2 will consist of the following:

28 Residential Properties:

- → 27 x Residential Zone 1: Single Residential
- → 1 x General Residential Zone 1: Town Housing (The Lodge)

Private Open Spaces; and
Private and Public Roads

Details for Erf 27 and 28:

Erf 27 Landuse - General Residential: Town Housing (The Lodge)

- → 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.
- → 474m² Undevelopable area

The 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.

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.

The key reasons why this development is a green and wellbeing- focused initiative are:

Environmental Preservation and Enhancement: The proposal takes cognisance of the ecological features on site and the preferred alternatives includes a fully delineated wetland with appropriate buffer zones with the aim to rehabilitate and preserve this ecological feature. The wetland will not only enhance the natural beauty of the area but also supports biodiversity by providing a habitat for various species such as the endangered leopard toad. Furthermore, the development prioritises the preservation of the unique Milkwood Forest and 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. Strict landscaping guidelines have been provided to ensure that gardens are natural with indigenous species rather than imported domesticated species.

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 Mill Stream area, providing residents with access to nature and promotion of 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 of the proposed erven along the wetland side, will include an Undevelopable Area which may not be developed. The aim of this “no development zone” is to prevent development and landscaping from extending into the 32m wetland buffer zone, with the aim to create natural, untouched gardens along the Wetland. The area adjacent to the Mill Stream / wetland on the western side of the pink line will be used exclusively by the owner of these properties. The area may be gardened, as per conditions in the EMP and Homeowners Association, and may have hedging or permeable fencing to allow toads, and other small fauna to access the wetland and stream, on the boundary closest to the stream (western) side. No permanent / built structures, swimming pools or domesticated lawns and plants are permitted in this area.

Access to the complex will be through an entrance gate building, set back from the R43, in order to reduce the visual impact of a gated estate and permit traffic stacking. This will also allow for future access to properties north of the site as no additional access points can be established due to the proximity to Stanford traffic circle and the bridge over Mill stream. Also located in the entrance gate area will be the garbage handling facility, which can easily accommodate large garbage trucks. The existing sewage and electricity will require an upgrade to the pipelines, a pump station and a small substation. This building will extend into the wetland buffer, however it cannot be relocated, as discussed above.

A vegetated berm will be constructed parallel to the R43 in order to further reduce the visual impact of the property and provide a barrier to reduce wind and traffic noise on the estate. This is inline with the Landscape Architects recommendations.

Water attenuation structures and / or swale will be required to manage stormwater runoff from the developed areas and ensure that this water is cleaned prior to flowing into Mill Stream. This is inline with the recommendations of the Aquatic Specialist.

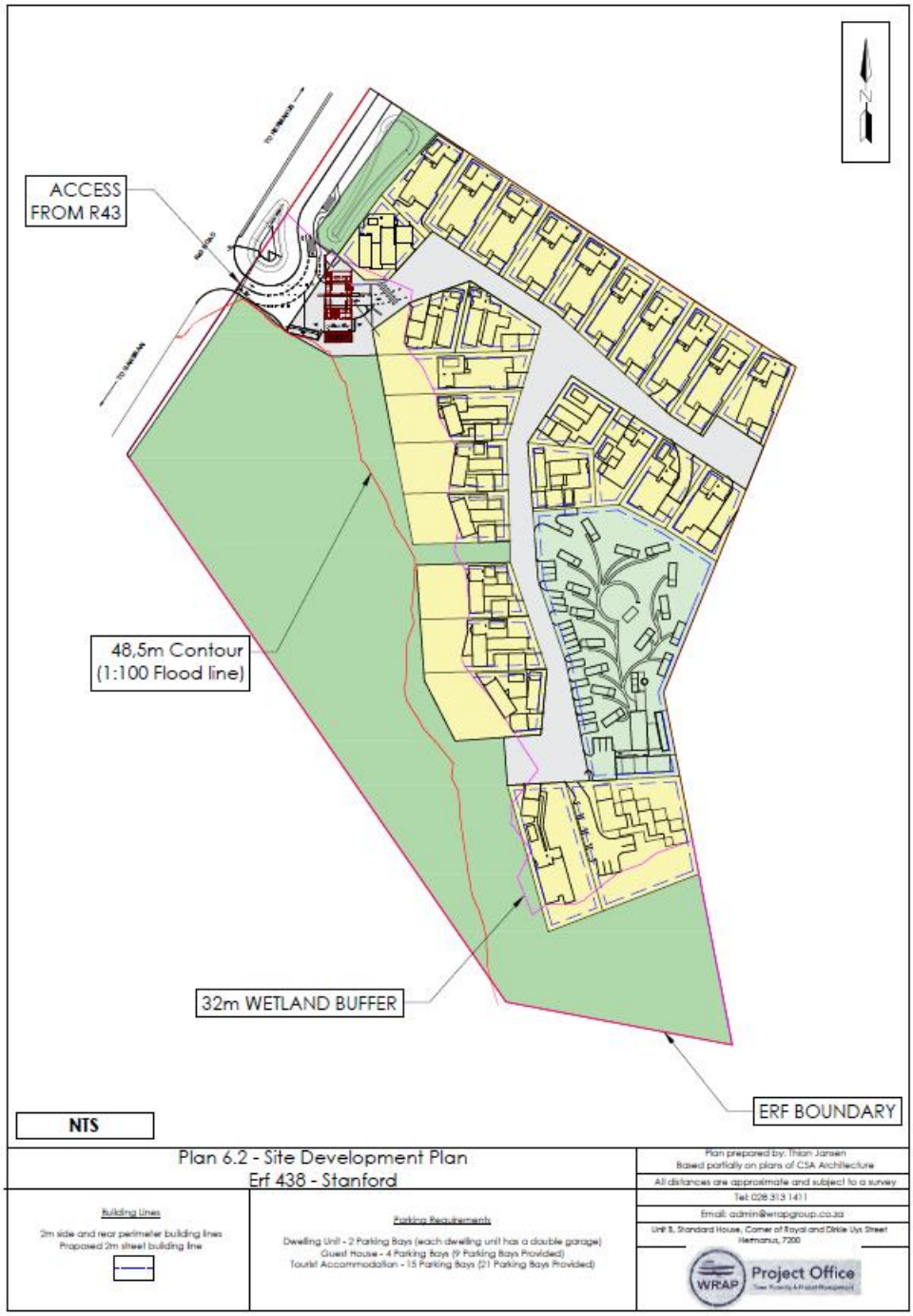


Figure 4. Preferred Alternative 2 Site Development plan with 1:100 flood line and 32m stream and wetland buffer.

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

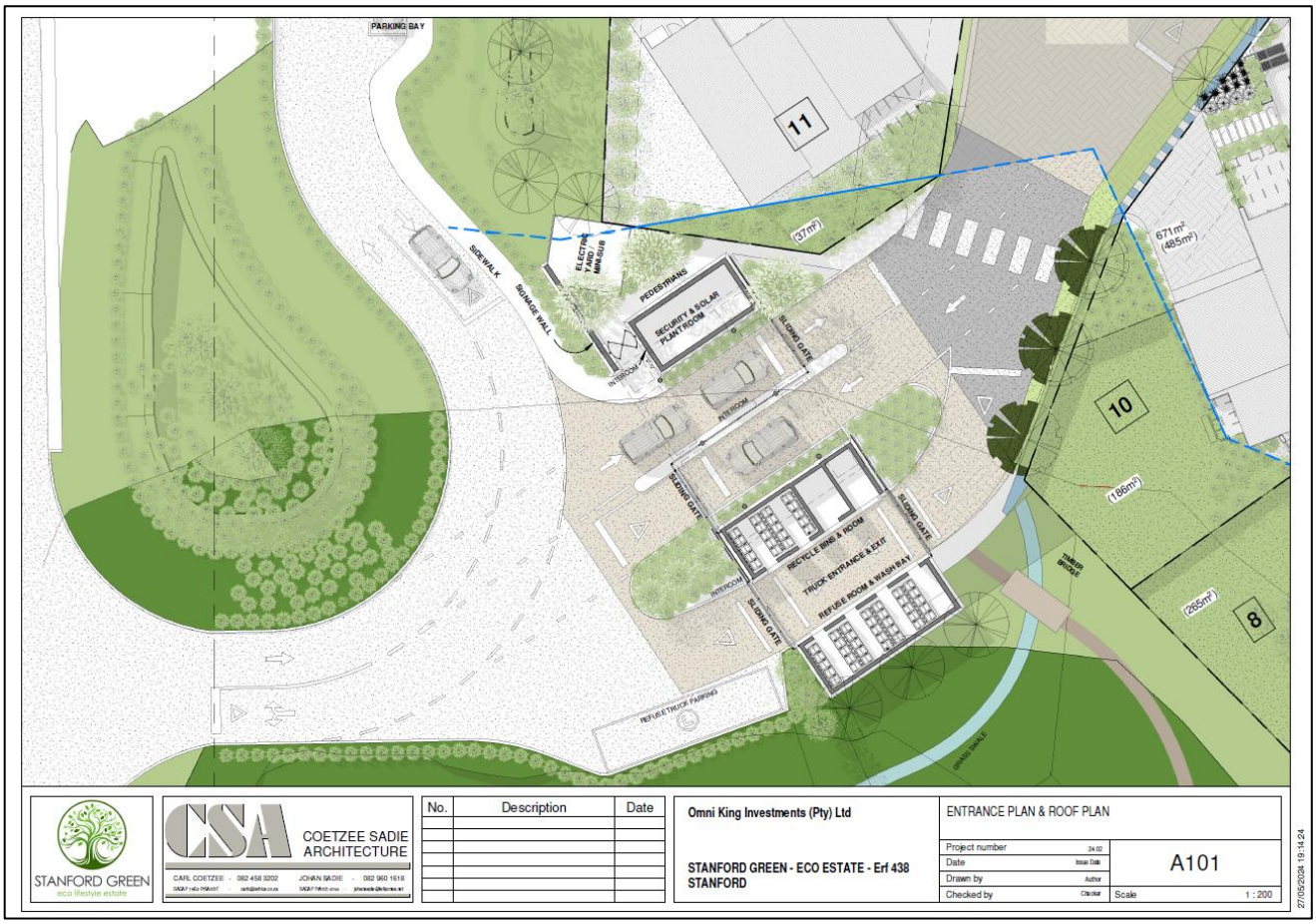


Figure 6. Plan of entrance gate and access road to neighbouring property.

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.

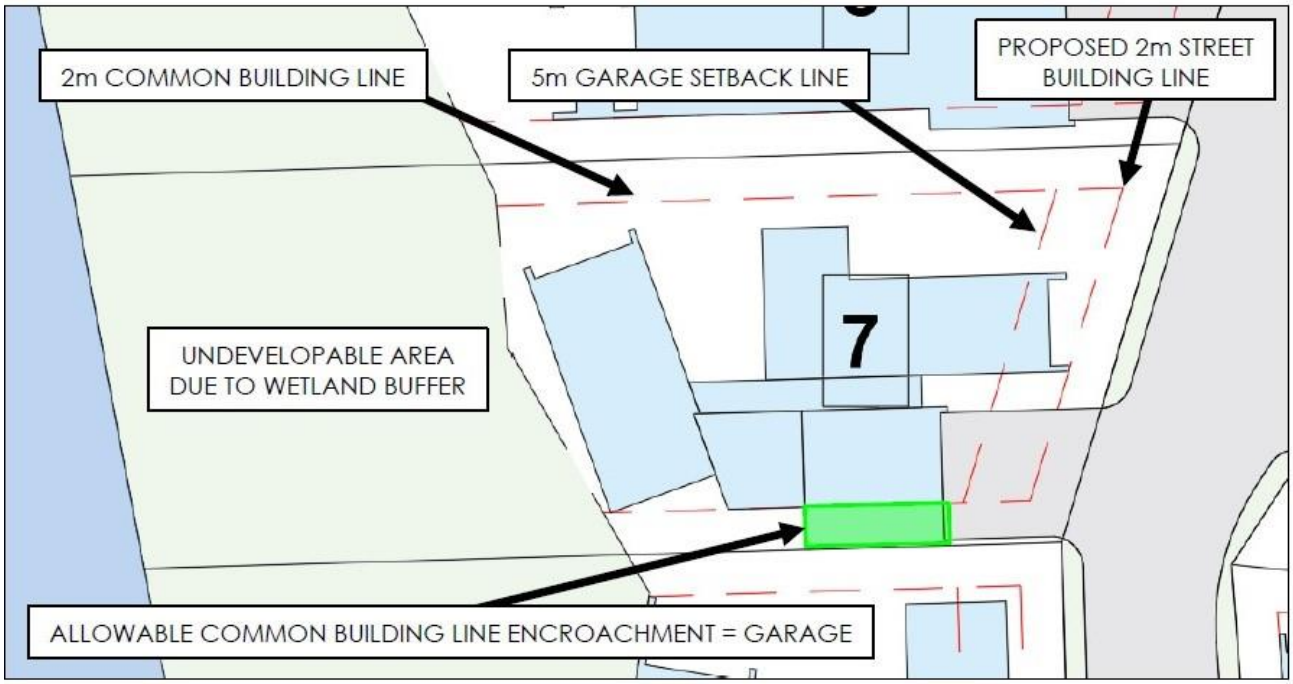


Figure 8. Typical example of Undevelopable area for the exclusive use of the property owner of Portions 1 -8, 10 and 28.

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 General Residential: Town Housing. 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 16 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.

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).

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)	34º	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 process is underway in accordance with the NHRA. Heritage Western Cape will review the documents and issue final comment in due course. 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 Specialist. The proposed layout encroaches onto the Hillslope Seep with a Moderate Ecological Importance and Sensitivity (EIS). An application for a Water Use Licence (WUL) is therefore required.**	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.
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

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
- → Report by Johann Lanz, 29 April 2024

Summary of findings:

- → 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

- → Comments to this theme are included in the Aquatic Impact Assessment (Appendix F2).
- → Amphibian Report for Erf 438, Stanford prepared by Whale Coast Conservation (WCC), July 2024 (Appendix F8).
- → 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. Frogs and toads are not fully aquatic. Most of their lives are spent foraging in gardens, fields and forests, only returning to ponds to spawn and each species at different time of year.
- → 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 north eastern 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 conducted

→ Van Zyl, K., & Morton, R. 2024. Aquatic Biodiversity Impact Assessment Erf 438 Standford V1.0 Delta Ecology. RSA

→ 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 Green Residential Development near Stanford, in the Western Cape Province. Report by Jenna Lavin for CTS Heritage. April 2024
- → Palaeontological Specialist Study the Proposed Stanford Green Residential Development near Stanford, in the Western Cape Province. Report by Ryan Nel for CTS Heritage. April 2024
- → Heritage Impact Assessment for the Proposed Stanford Green Residential Development 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 north western 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 Green 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
- → 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 Aquatic Impact Assessment
- → See Faunal Survey and Assessment
- → See Landscape Development Plan

None of the specialists considered this property to have a high terrestrial biodiversity. All the specialists were of the opinion that a change in land use and suitable buffer along the stream and wetland, if properly managed, would increase the biodiversity potential of the property. The property is not largely in a natural or functional condition.

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, 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.	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.

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 Subdivision 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 27 Residential Zone 1: Single Residential (SR1) erven and 1 General Residential: Town Housing (GR1) property to be used as a lodge.

The proposal includes the construction of Single residential zone (SR1) erven, Town housing (GR1), roads and parking which requires a total footprint size of 30 754m^2 (3.7 ha). An area of 21 581m² (41,5%) 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 and will be for the exclusive use for the property owner only.

An area of 7 216m² is allocated to road reserve.

The largest Erf 27, is proposed to be zoned General Residential Zone: Town Housing. It is 4902m² in extent. The proposed Lodge on this site allows for buildings designed to minimise impact on White Milkwoods trees. The Lodge accommodation will be freestanding pods nestled between the Milkwood trunks, roots and canopies.

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 Green 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.

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 twenty-seven (27) Residential Zone 1: Single Residential (SR1) erven, one (1) General Residential Zone 1: Town Housing (GR1) erf, two (2) Open Space Zone 2: Private Open Space (OS3) erven, one (1) Transport Zone 2: Road and Parking (TR2-A) erf and one (1) Transport Zone 2: Road and Parking (TR2-B) 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.

The guiding principles of the Western Cape SDF includes

- Sustainability,
- Resilience
- Spatially efficient

Urban growth must be managed to be sustainable while safeguarding biodiversity and the functionality of ecosystem services, and must capitalise on heritage assets and landscape. Mixed use developments and densification which attracts economic activity, including tourism, to strengthen and revitalise urban economics is appropriate.

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.

This preferred layout is in line with this objective. Although it is outside the built up urban area it is within the municipal urban edge with a residential zoning.

4.4.	The Environmental Management Framework applicable to the area.

The Overstrand Municipality, Environmental Management Overlay Zone (EMOZ) Regulations 2020 can be considered as part of the EMF.

The property is indicated as an Urban Conservation area. This conflicts with the current existing agricultural land use.

This document stipulates that the design of new buildings and infrastructure must complement the character and sense of place of the area. In addition, maintaining and protecting a healthy wetland and river environment that is capable of 'natural flood detention' and that promotes the function and supports the ecological processes of river corridors and wetland systems.

The municipality will promulgate overarching regulations with regard to the serious threat to biodiversity and fire hazard posed by alien invasive plant species.

Erf 294 Stanford, immediately adjacent to on the west side of the property, and is owned by the Municipality, and is considered integral to the ecological connectivity of the Stanford village with the undeveloped surrounding area.

The proposed development recognises and addresses these concerns.

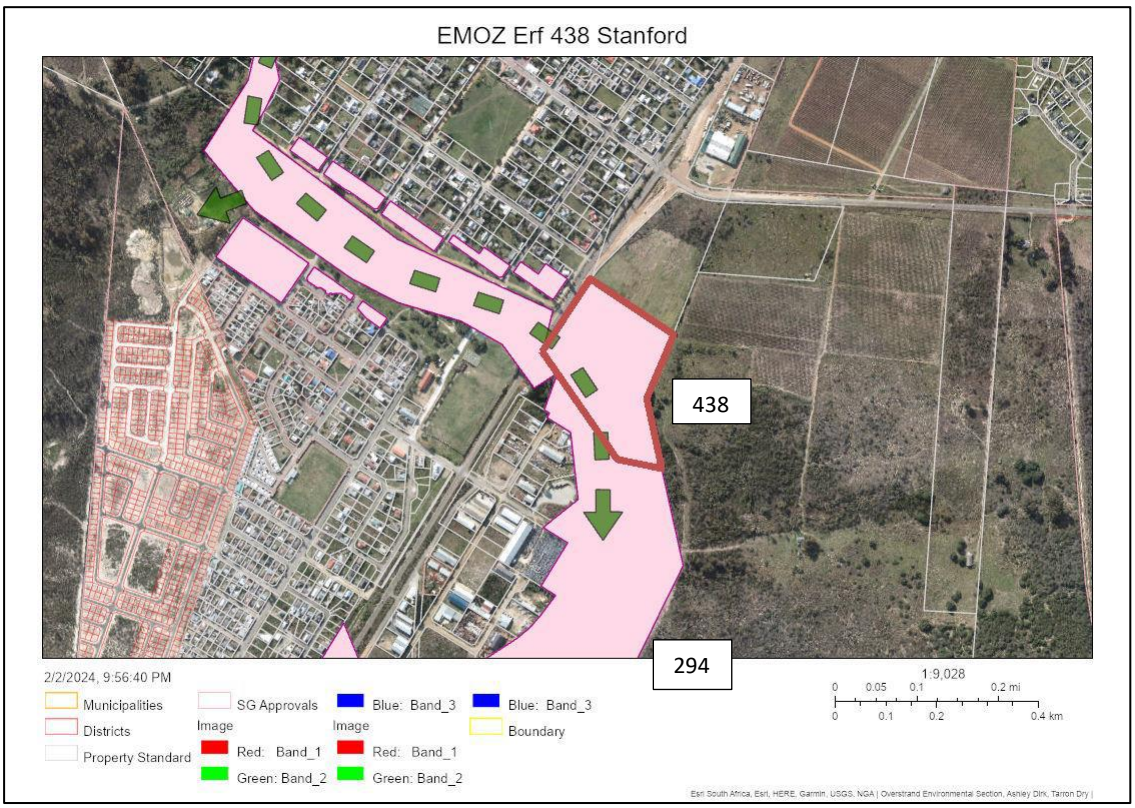


Figure 11. EMOZ with Stanford Erf 438 highlighted

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

Comments from Authorities to be added after the first round of public participation.

The preferred layout alternatives have been informed by the wetland delineation and other specialist comments. All the proposed erven were located outside the wetland and there is a non-developable 32 m buffer as recommended in the Aquatic Biodiversity Impact Assessment.

The preferred layout was further informed by the planning indicators and landscape features, identified by B. Oberholzer. He identified a number of White Milkwood trees which form a small thicket. This layout reduces the number of erven in the development and includes a tourism node that takes advantage of the opportunities offered for construction within the canopy of the thicket with the mixture of specially protected, indigenous and exotic trees currently part of the garden of the existing homestead.

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.

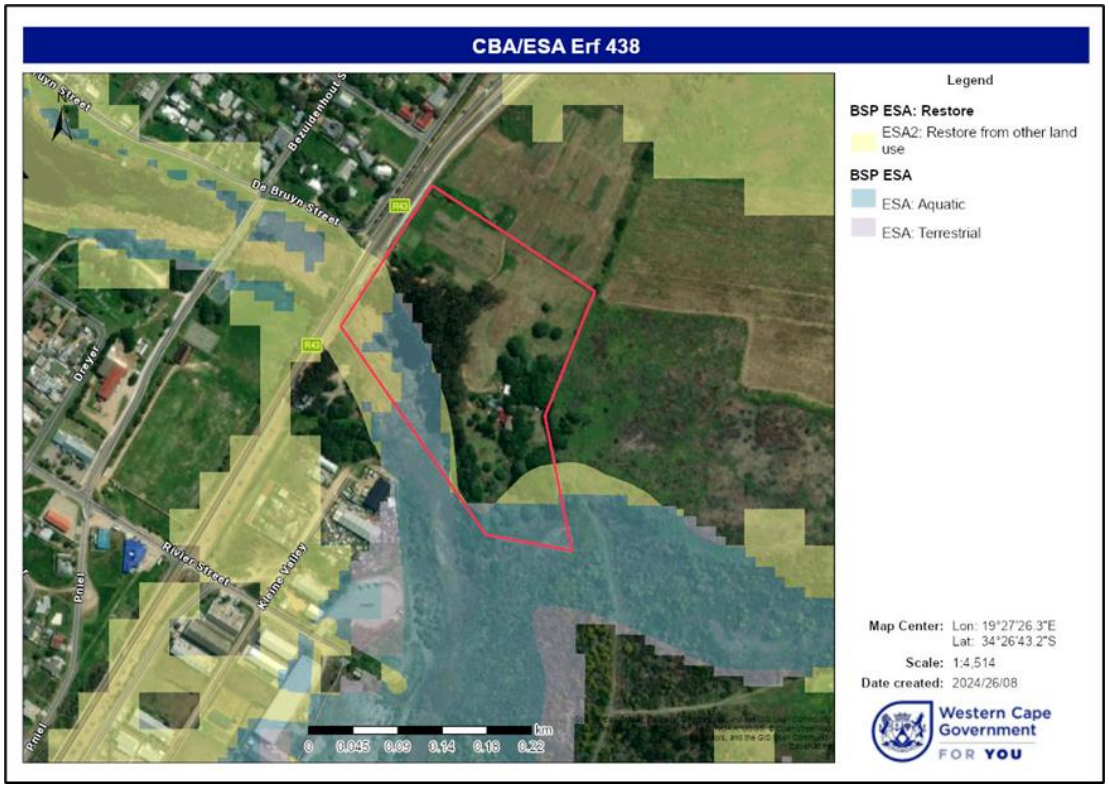


Figure 12: Southern and western portions of the site, have been designated as Ecological Support Areas (ESAs), mainly of the ESA1 (Aquatic) and ESA2 (Degraded) designation (van Zyl& Morton, 2024).

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.

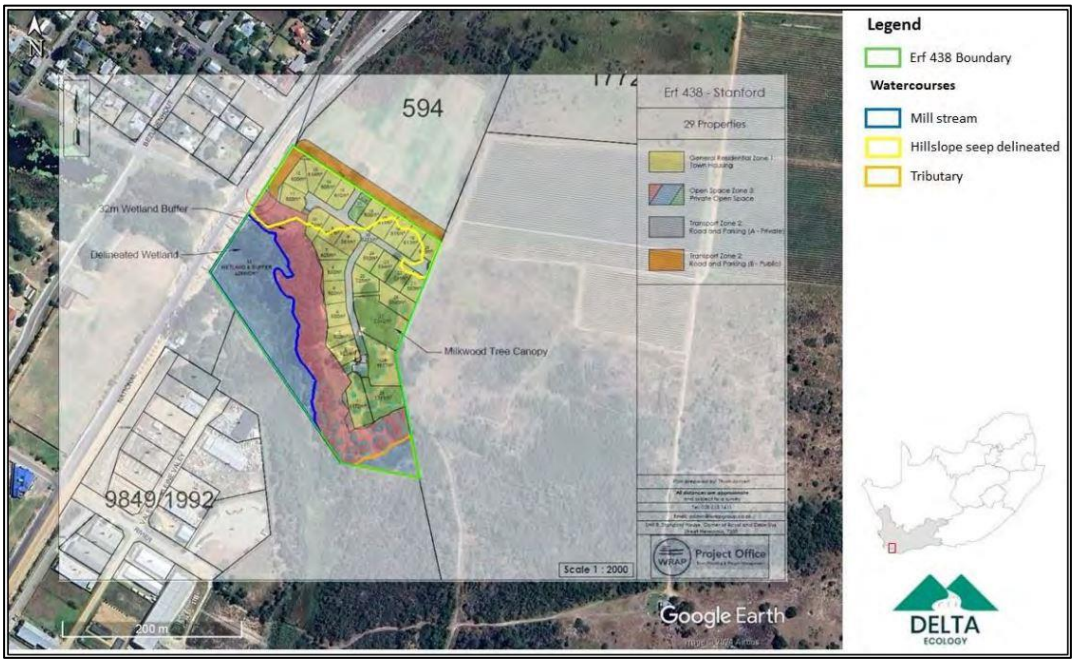


Figure 13: Preferred development plan for the site overlain with the delineated onsite watercourses.

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 proposed development is not vacant land. However, there is potential for densification within existing planning requirements of the local municipality.

The property is zoned Residential zone 1: Single Residential (SR1)

As the property will retain this zoning and be subdivided into 28 erven. The construction of 27 homes and a tourism enterprise will optimise the land use.

The number of homes available will increase beyond the existing single home on 5,2Ha to 27 homes, including a Guest House, a Lodge and Private Open Space on 5,2Ha. Thereby optimising the development potential of the land

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

Erf 438 Stanford is located on the R43. This is a Class 2 road and is designed to carry relatively high traffic volumes and heavy vehicles between Hermanus and Stanford and Gansbaai. This road is in the process of being upgraded.

The proposed development is connectable to the existing municipal water and sewage infrastructure. This infrastructure can easily up be sized for the proposed development with larger pipelines and a sewage pumpstation. This has been confirmed by the Overstrand Municipality and the engineer

The existing electricity supply will require a mini substation. Capacity to supply power to the development has been confirmed. Alternative energy supply options will be included in the development to supplement that supplied from the National Grid.

Tourism infrastructure will contribute to the high demand for holiday accommodation. This accommodation will increase the number of customers for existing restaurants, shops and activities (whale viewing, cycling etc) and a will contribute to their economic sustainability.

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.

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.

→ The impact of the proposed development on the ecological integrity of the site will likely be an improvement on the existing landuse in that the Ecological Support Area (ESA) will be managed according to an approved OEMP and the wetland and associated Mill Stream will be rehabilitated.

→ The Mill Stream Village Park and Greenway, Concept Master Plan (See attached APP F11) document addresses the need to link upstream from Stanford to 'Die Oog'. The proposed development goes someway towards allowing for integrated management of the stream with the onsite rehabilitation of long-term management of it.

→ The removal of the alien vegetation on site and within the stream area will also contribute to a vastly improved ecological environment.

→ The delineation of the wetland on site and their subsequent assessment to ascertain their ecological importance and sensitivity and present ecological state, services and support area constrained the extent of development on the site and formed the primary basis for the evolution of the preferred layout alternative.

→ The important stormwater attenuation and biodiversity services contributed by the Unchanneled Valley Bottom (UVB) Wetland and stream (Mill Stream) have been identified and the area has been buffered and excluded from development.

→ The exclusion of a large area of the property as Private Open Space, appropriate management, including the clearing of alien invasive trees and the utilisation of land, identified as a hillslope seep already degraded by agriculture will go some way to ensuring that both the aquatic and terrestrial support area (ESA) currently informally maintained on site will retain functionality.

→ Clearance of natural vegetation, specifically protected White Milkwood trees is minimised. The environmental services provided by the canopy area (Shade, wind break, sense of place) are taken advantage of to provide an 'eco-tourism' opportunity. The UVB wetland upslope from the seep has existing indigenous fynbos vegetation which will be managed to ensure that it is not transformed by encroachment of AIP.

→ The removal of invasive species, in this case Gums trees (*Eucalyptus sp*) will have a overall positive impacted.

→ The decommissioning of the existing roll on lawn business will have a positive ecological impact on the site and Mill Stream

→ The proposed development will optimise the residential landuse while also addressing the need to maintain and secure the future for existing biodiversity on the site.

→ The preferred development fulfils the objectives of the OSDF and IDP with respect to optimising tourism opportunities.

→ Good connectivity with adjacent municipal property which has been identified as an Ecological Process Corridor and for Urban Conservation area on Erf 294 are maintained and secured.

→ Densification of the property while still preserving the single residential unit ethos of the existing residential area.

→ Tourism opportunity will not only have positive economic benefits but will also minimise the amount of area to be cleared for development, while retaining the asset of established indigenous trees.

→ Although so close to Stanford there are no built Heritage features that have been flagged as important. The design of the homes is intended to reflect but not copy the Cape Farm style appropriate for the area.

→ The design of the houses incorporates passive energy saving measures by locating the buildings to reduce the need for air conditioning or heating, installing appropriate amounts of insulation and appropriately sized windows

→ Job creation, investment in the area

PRINCIPLES AND APPROACH

The following principles have been used to guide the proposed development plan and alternative:

→ Optimise the development of the site, without compromising sense of place or quality of lifestyle
→ Use existing cultivated land and transformed land, for development.
→ Maintain and improve functionality of the UVB Wetland and Mill Stream
→ Minimise impact on the White Milkwood (*Sideroxylon inerme*) and Wild Olive trees, (*Olea europaea subsp africana*) which form a canopy.
→ Connect to existing municipal infrastructure including roads, sewer and water supply.

Specialist Input
The preferred layout plan evolved as a result of input from the specialist team. These include:

→ Environmental Site Analysis and Planning Indicators (Bernard Oberholzer)
→ Aquatic Biodiversity Screening (Delta Ecology)
→ Aquatic Biodiversity Impact Assessment (Delta Ecology)
→ Landscape Development Plan (Bernard Oberholzer)
→ Faunal Amphibian Report (Whale Coast Conservation)
→ Heritage Impact Assessment (Jenna Lavin, CTS Heritage)
→ Archaeological Impact Assessment (Jenna Lavin, CTS Heritage)
→ Palaeontological Impact Assessment (Ryan Nel, CTS Heritage)
→ Amphibian Report (Western Cape Conservation (WCC))

SECTION E: 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. Proof of the public participation process will be added after the first round of public participation.

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.

To be added after the first round of PPP

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.		
Delta Ecology			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		

This document was used to inform the evolution of the alternative development layout plans and preferred alternative. A number of mitigation measures are included in the Aquatic Biodiversity Impact Assessment which apply to the Preferred Layout.
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. 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.

The Aquatic Impact Assessment was undertaken to assess the Present Ecological State (PES), the Ecosystem Services (ESA) and the Ecological Importance and Sensitivity (EIS) and Wetland Ecosystem Services (WES) of all the delineated wetlands by K. van Zyl and R. Morton.

This assessment established that the Hillslope Seep 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. The Combined Ecological Category for this 4000 m^2 area was assessed to be **E - Seriously Modified.** In its present state the ecosystem services of this Hillslope Seep are Low to Very Low. Only Toxicant Assimilation was marginally higher. This area was therefore included in the developable area of the property. It is therefore proposed that this area be included within the development footprint and that the 32 m buffer on the Mill Stream and UVB wetland that discharges into the stream, will offset the impact of development on the highly degraded and nonfunctional hillslope seep area.

The management of stormwater will require attenuation structures or swales and/or polishing ponds which must be located within the 32m buffer or possibly the wetland. The details of these are outlined in the Freshwater assessment, Construction and Operational Management Plans and Maintenance Management Plan (MMP) developed for the property and proposed post commencement activities into the long term.

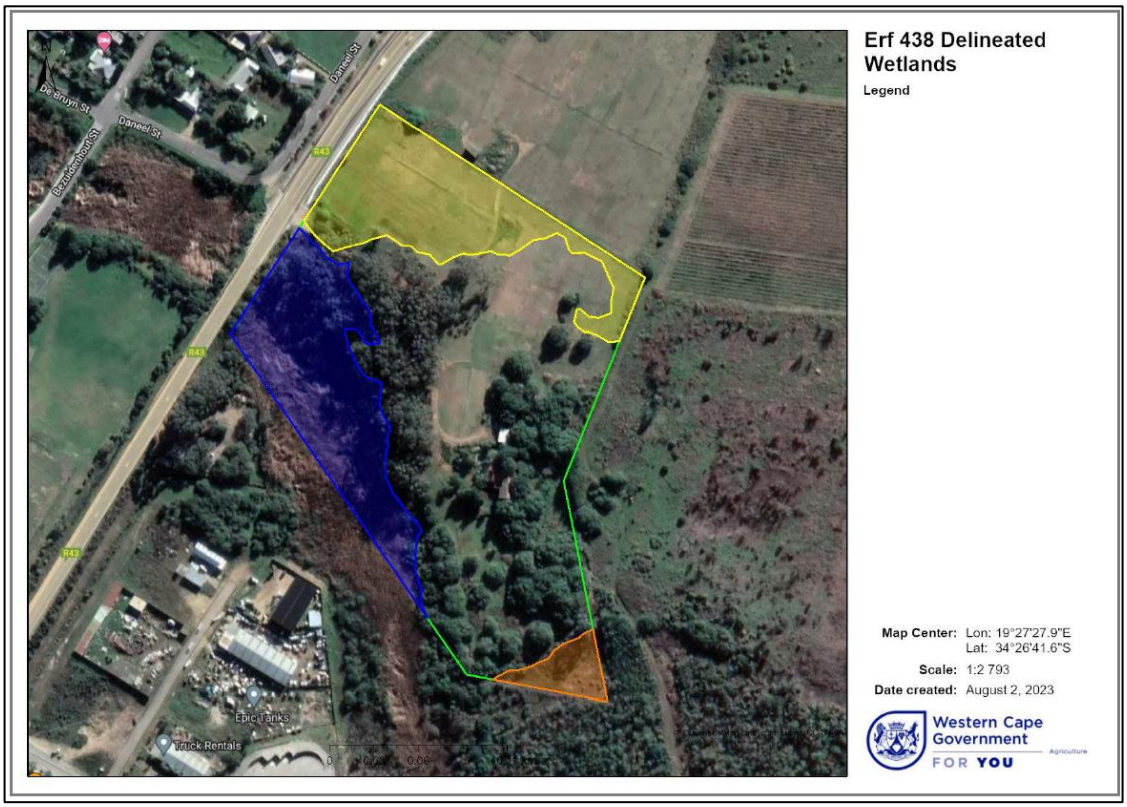


Figure 14. Wetland delineated within Erf 438 Stanford. (extracted from Aquatic Impact Assessment Report)

In addition to the delineation of the wetlands on site, the 1:50 year flood line water determined and this further information the preferred layout alternative. See below:

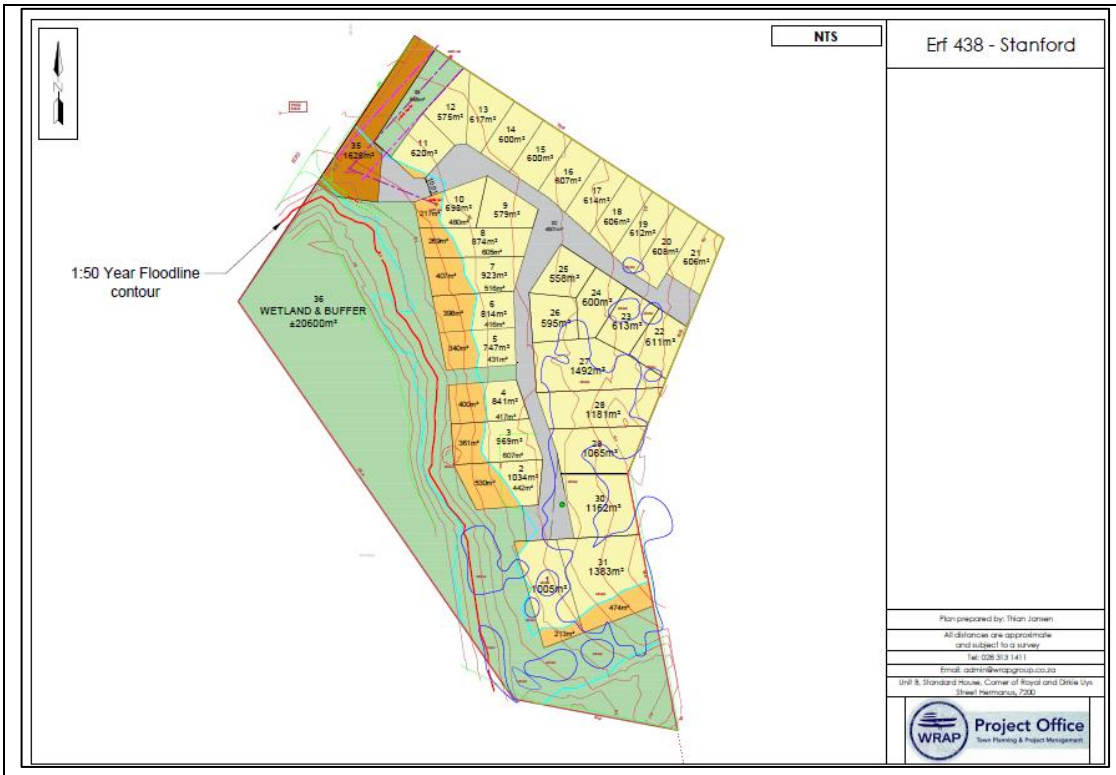


Figure 15. 1:50 year flood line and 32 m buffer indicated on a site development plan. Note that the 1:50 year flood line is significantly less than then 32 m buffer.

Note: Subsequent to the above plan it was proposed that 4 portions become 1 erf to be developed as a Lodge, due to the high density of Milkwood trees in this area. Subsequent to the delineation of wetlands and associated buffer the developer had the 1 in 50 year and 1 in 100-year flood line assessed for the property. This line is indicated on the plan above. The layout shown on this plan has been superseded by the Preferred Layout. The flood line is outside the development footprint.

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.		

4. Biodiversity

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

The "Landscape Development Plan" by B. Oberholzer, Landscape and Development Planner, includes all the plants identified on the site. This document advised the Preferred Layout as the significance of the large number of White Milkwood trees, and opportunity to celebrate and ensure their protection, was highlighted by Mr Oberholzer See Appendix F5). The Landscape Development Plan uses existing biodiversity traits on site and highlights them as part of the proposal working with the landscape opportunities.

Studies with respect to the endangered Western Leopard Toad are included in the Aquatic Biodiversity Impact Assessment by K. Van Zyl., & R. Morton of Delta Ecology. They have included information on design of roads, paving and fences to improve this small toads' chances of survival. The existing cultivated lands do not provide habitat for this toad or any other small creatures. (APP F2)

Not all species of conservation concern (SCC), both fauna and flora, were found in the Aquatic Biodiversity Impact Assessment.

Whale Coast Conservation completed a Faunal Amphibian Assessment (Appendix F8)

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.

According to Aquatic Biodiversity Impact Assessment the terrestrial vegetation within the site is predominantly Critically Endangered (CR), Poorly Protected (PP) Agulhas Limestone Fynbos, although the northern corner is indicated as Endangered (EN), Poorly Protected (PP) Elim Ferricrete Fynbos (Figure 4-1). Wetlands within these terrestrial vegetation types are associated with the South Coast Limestone Fynbos (LC – WP) and the Southwest Ferricrete Fynbos (CR – PP).

Table 7: General characteristics of the proposed site.

Site attribute	Description	Data source
Eco-region	Southern Coastal Belt	Department of Water Affairs Level 1 Ecoregions (Department of Water and Sanitation, 2011)
Terrestrial Vegetation Type(s)	1) Agulhas Limestone Fynbos (CR-PP) 2) Elim Ferricrete Fynbos (EN-PP)	National Vegetation Map of South Africa, 2018 (SANBI, 2018)
Dominant Geology and Soils	Mudstone, siltstone, shale and feldspathic sandstone of the Gydo Formation, Bokkeveld Group, partly covered by alluvial and colluvial sand.	Soil descriptions for the Western Cape. (ENPAT, 2021)
Soil depth and clay %	>= 450 mm and < 750 mm & <15%	Soil types and descriptions for the Western Cape, Department of Agriculture, Forestry and Fisheries (DAFF, 2021)
Soil Erodibility Factor (K)	0.63 (High Erodibility)	SA Atlas of Climatology and Agrohydrology (Schultz, 2009)
Mean Annual Precipitation (mm)	545 mm	SA Atlas of Climatology and Agrohydrology (Schultz, 2009)
Mean Annual Temperature (°C)	17°	
Rainfall Seasonality	Winter Rainfall	
Water Management Area	Breede - Olifants WMA	Water Management Areas (DWAF, 2011)
Quaternary Catchment	G40L	South African Quaternary Catchments Database (Schulze et al., 2007)
Wetland Vegetation Group (for wetlands within the applicable	1) South Coast Limestone Fynbos (LC – WP) 2) Southwest Ferricrete Fynbos (CR – PP)	NFEPA Wetland Vegetation Types (SANBI, 2011)

terrestrial vegetation type)		

The above table lists the Data Source maps that were used by the specialists to advise their reports.

The Site Sensitivity Verification Report (SSVR) was generated using the Department of Forestry, Fisheries and the Environment Online Screening Tool and the specialist input was used to verify the findings of the screening tool

Overstrand Public Viewer GIS data and Cape Farm Mapper, was used to locate areas of ecological or biodiversity on or near the property and the Protected Areas.

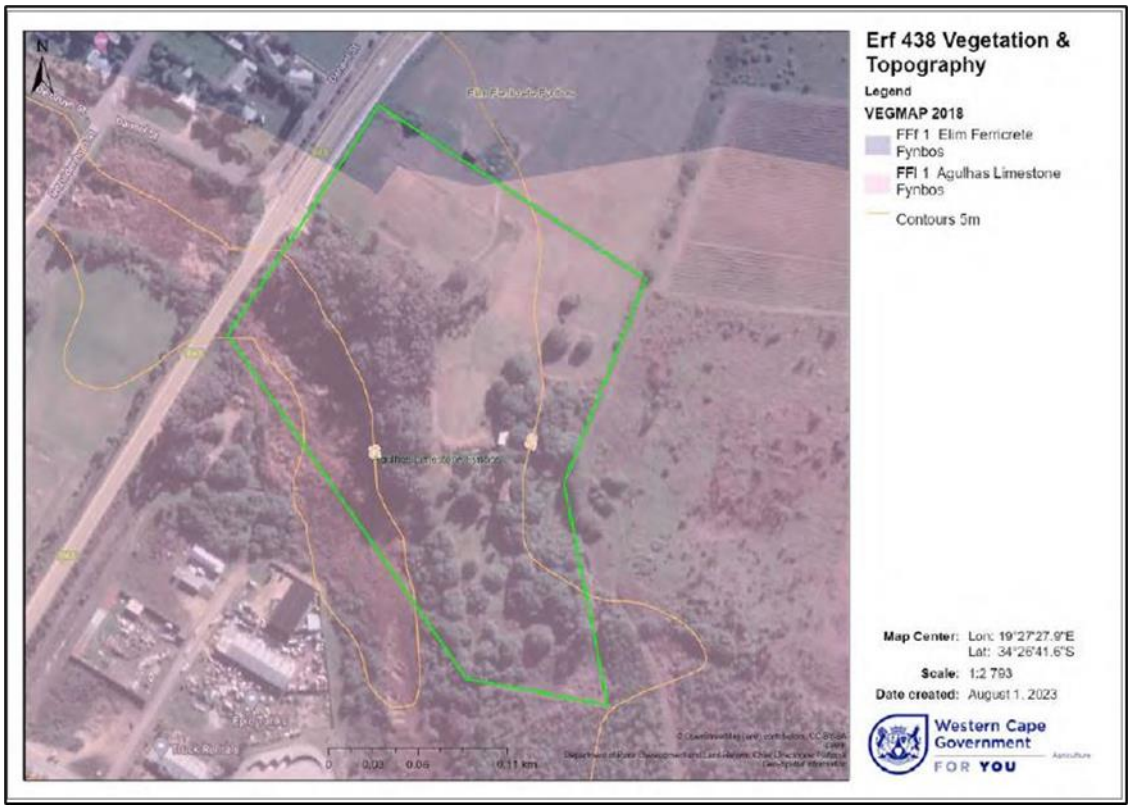


Figure 16: Vegetation and topography Map.

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 objective of the SANBI WCBSP is to advise on which land uses are compatible with maintaining the ecological biodiversity of the area, in order to achieve biodiversity targets.

A hillslope seep wetland, a tributary wetland (Mill Stream) and an Unchanneled Valley Bottom (UVB) Wetland have been identified on the property. This triggers the Freshwater Critical Biodiversity Area (CBA) Wetland specifically discussed in the BSP. For this reason, the stream and wetland have been excluded from the development area and appropriately buffered as recommended by the specialists. Investigation of the hillslope seep have concluded that the loss of this area will not have a significant biodiversity impact as the Present Ecological State (PES) and Wetland Ecosystem Services (WES) are low. All recommendations fall within the "Specific Guidelines" in the handbook.

A forest must be in a "largely natural and functional condition" in order to meet biodiversity target. There are a number of White Milkwood (*Sideroxylon inerme*) trees on the property, surrounding the existing residential buildings. These trees have been mapped and located on the site plan and future development has taken into account their importance, even though this is a relatively small forested area. This area is considered an Ecological Support Area as these trees do provide habitat for a number of birds and other small species. Application will need to be made to DAFF to Cut or Remove any specially protected trees in terms of legislation.

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 BSP map would have been used by the municipality to demarcate the Urban Edge in the SDF. This property falls within this Urban Edge and has a residential zoning.

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.

Comment on specific fauna present on or adjacent to the site have been included in the Aquatic Biodiversity Assessment as well as the Faunal Assessment conducted by Whale Coast Conservation.

The transformative impact of the current cultivation of roll-on grass as an agricultural crop has been emphasised by the Specialists. The Hillslope seep functionality has been lost with resulting loss of habitat to fauna and , as a mono crop, no flora biodiversity.

WCC did extend the research area into the adjacent property, which is also cultivated, and had similar results with no amphibians found.

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.		

In the Heritage study it was confirmed that the property falls within the Stanford Heritage Management Overlay zone (HMOZ) but is not included in the designated Stanford Heritage area, which is on the northwestern side of the R43. There are no heritage resources that have influenced the proposed development.

Ms Jenna Lavin, the Archaeological Specialist, found Middle Stone Age, (MSA) artifacts scattered at a low density in the area where grass is cultivated on the property. Due to many years of cultivation of the site and use as a residential property these artefacts are no longer in situ.

"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."

The Palaeontological study was undertaken by Mr Ryan Nel. There are areas in the Western Cape that do have fossils. These fossils are located in certain rocks which may be closer to the surface. On this site the Bredarsdorp Group: Strandveld and Waenhuiskrans Formations, which are near the surface, have *low likelihood* of locating fossils.

The Bokkeveld Group, Ceres subgroup which underlies the Strandveld and Waenhuiskrans Formations does have a much higher Palaeontological Sensitivity because there are a number of fossils. This layer is very deep under the soil of the property and excavation for housing and services will not impact this rock.

No recommendations have been made that have influenced the proposed development.

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.

No 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:

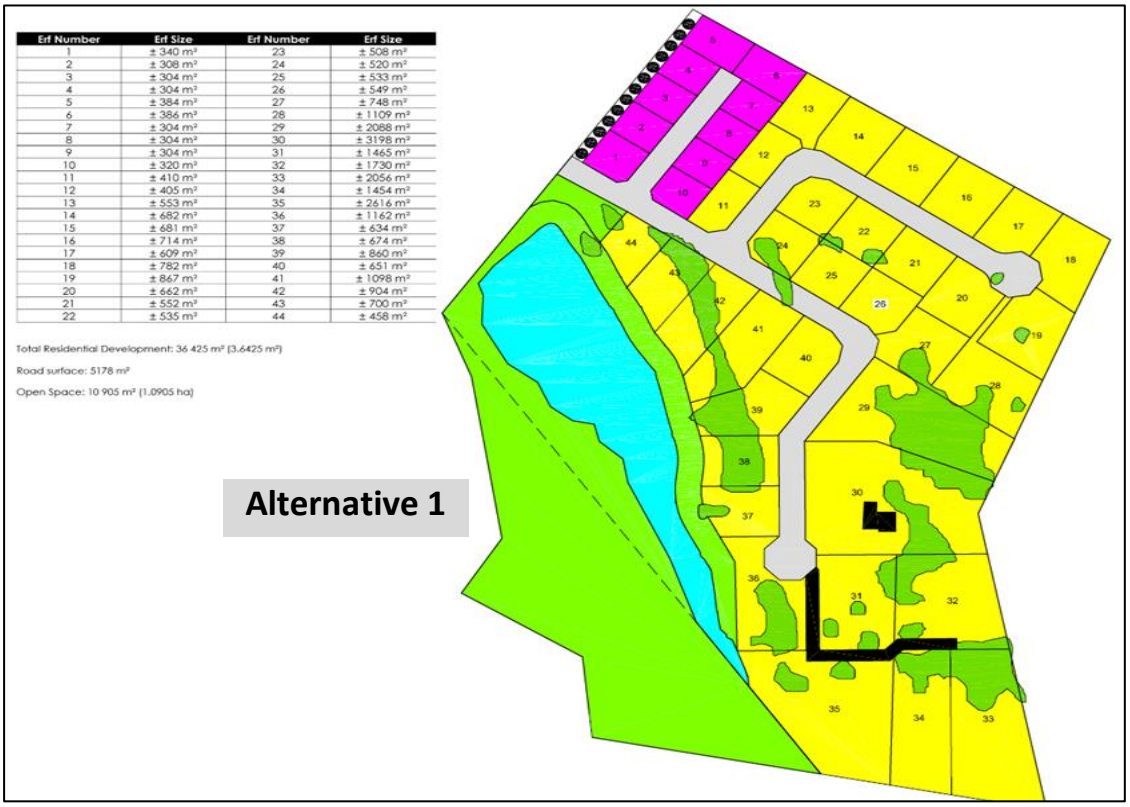
- → 44 Single residential erven (Residential Zone 1: Single Residential (RZ1:SR)
- → Internal roads and services
- → Total residential development – 36 425 m^2
- → Open space – 10 905 m^2

Table 8-1: 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

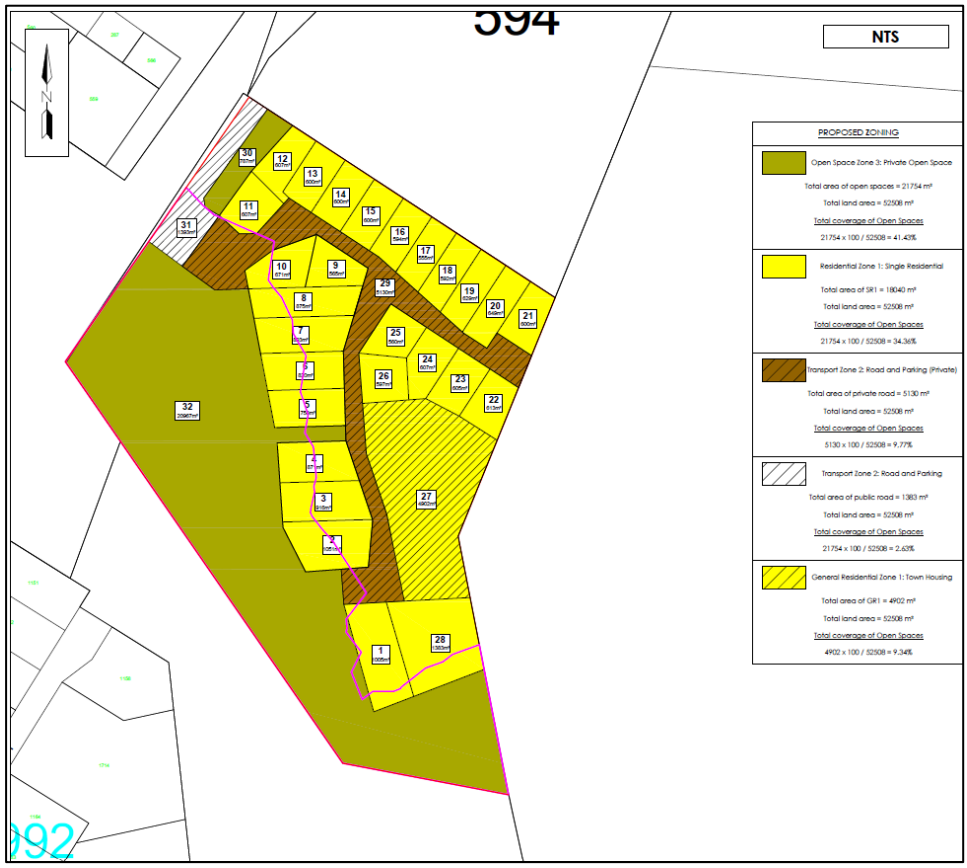
The proposed development will consist of the following:

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

Table 8-2: Proposed development sizes and zoning

Erf no.	Erf Size (m²)	Non-Developable Area m²	Zoning
1	1 005	213	Residential Zone 1: Single Residential
2	1 051	569	Residential Zone 1: Single Residential
3	916	343	Residential Zone 1: Single Residential
4	871	397	Residential Zone 1: Single Residential
5	758	347	Residential Zone 1: Single Residential
6	820	407	Residential Zone 1: Single Residential
7	893	378	Residential Zone 1: Single Residential
8	875	265	Residential Zone 1: Single Residential

9	565	-	Residential Zone 1: Single Residential
10	671	156	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	4 902	-	General Res. Zone 1: Town Housing
28	1 383	474	Residential Zone 1: Single Residential
	5 130	-	Transport Zone 2: Road and Parking (A) (Private)
	1 299	-	Transport Zone 2: Road and Parking (B) (Public)
	21 588	-	Open Space Zone 3: Private Open Space
TOTAL	**52 342**	**3 549**	



Erf 27 Land use - General Residential: Town Housing (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.

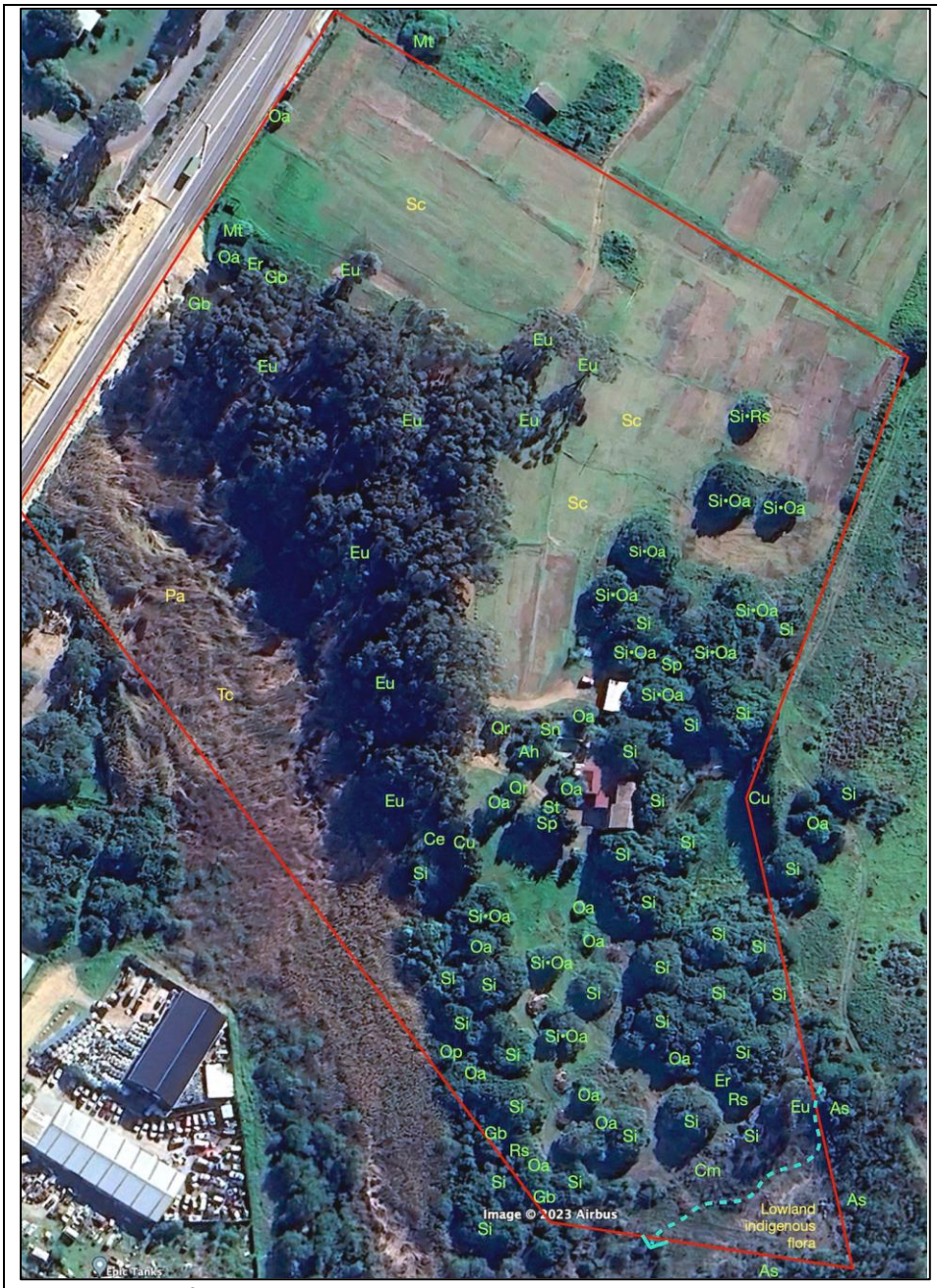


Photo 1: Image from B. Oberholzer, Landscape Development Plan.
Erf 438 Stanford showing existing buildings, cultivation and trees on site – Including exotic species to be removed
(Key: Si - White Milkwood Oa – Wild Olive trees Eu – Gum trees)

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 wit 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.

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: No-Go Option Alternative 3 – Status quote remains

- 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: No-Go Option Alternative 3

- 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:

- → 27 x Residential Zone 1: Single Residential (Erf 1 to 26, 28)
- → 1 x General Residential Zone 1: Town Housing – Erf 27 consent use for tourist accommodation (The Lodge)

Private Open Spaces; and
Private and Public Roads

Erf 27 Landuse - General Residential: Town Housing (The Lodge)

- → Property Size: 4902 m²
- → Building Size:
  - Front of House (FOH) 250 m^2
  - Back of House (BOH) 150m²
  - Accommodation Units
    - 2 x Single Room – 25m² (5mx5m)
    - 12 x Double Suites – 50m² (5m x 10m)
    - 2 x Family – 60m² (5mx 12m)
    - Total 16 units - Total 650 m² 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 474m²

Table 8-3: Proposed development sizes and zoning

Erf no.	Erf Size (m²)	Non-Developable Area m²	Zoning
1	1005	213	Residential Zone 1: Single Residential
2	1051	569	Residential Zone 1: Single Residential
3	916	343	Residential Zone 1: Single Residential
4	871	397	Residential Zone 1: Single Residential
5	758	347	Residential Zone 1: Single Residential
6	820	407	Residential Zone 1: Single Residential
7	893	378	Residential Zone 1: Single Residential
8	875	265	Residential Zone 1: Single Residential
9	565	-	Residential Zone 1: Single Residential
10	671	156	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	-	General Res. Zone 1: Town Housing
28	1383	474	Residential Zone 1: Single Residential
	5130	-	Transport Zone 2: Road and Parking (A) (Private)

	1299	-	Transport Zone 2: Road and Parking (B) (Public)
	21588	-	Open Space Zone 3: Private Open Space
TOTAL	**52352**	**3549**	

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 2.15 Ha 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 3549m², 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 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 inclusion of two different tourism businesses (the Lodge and the Guest House) will increase the appeal to tourists from couple to families.

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.

Photo 2: 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
→ 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.

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 General Residential Zone 1: Town Housing 4902m² 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.

Three alternatives have been assessed herein. These include:

→ Alternative 1
→ Alternative 2 (Preferred)
→ Alternative 3 (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. 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 Green 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 Green 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 buffered 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 GR1, town Housing. 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.

Alternative 3 (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 was developed through an iterative process involving consultation with a number of professionals including;

- → Town Planners
- → Architects
- → Engineers
- → Environmental specialists
    - Wetland scientists
    - Landscape designers
    - Architects
    - Faunal specialists
    - Palaeontologist
    - Heritage specialist

- Agricultural specialist
- Environmental Assessment Practitioner
- Town Planners

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, this plan proposes no removal of these protected trees. Instead, the Milkwoods are incorporated into the design of the Stanford Green 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 Green 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 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 ensures 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 night time 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.

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.

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

Negative Impact

No negative impacts have been identified in the design phase. The existing agricultural land use does not contribute to food security and is not appropriate for the zoning of the site.

No alternative designs have been considered. The proposed design has been carefully considered and is advised by the specialists.

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 inline 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.

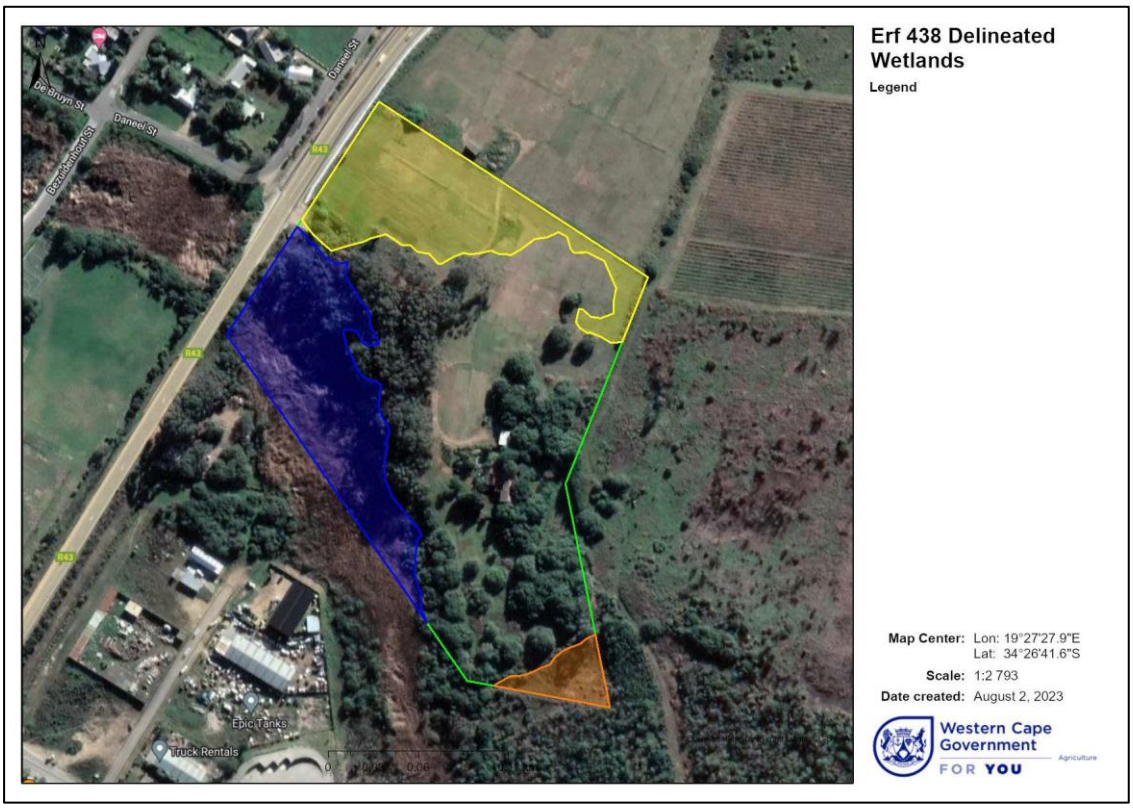
More than 2 Ha of the site will be retained and managed as Private Open Space (POS), which includes the Mill Stream and UVB wetland and 32 m buffer. This allows for improved health and connectivity for the rest of the Mill Stream in Stanford and the proposed development is substantially in line with 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

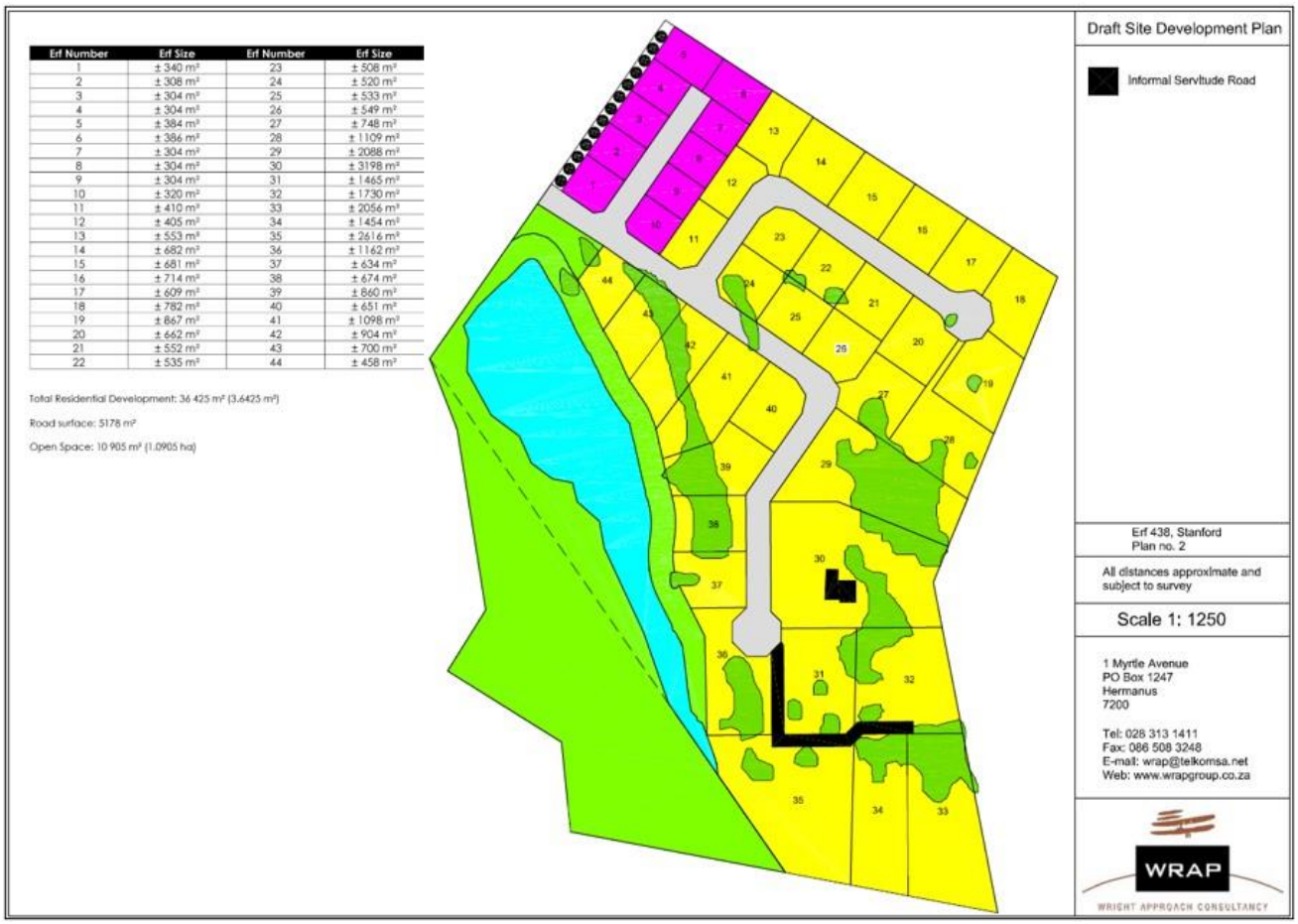
Impact rating colour scale:

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



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

Total Residential Development: 36 425 m² (3.6425 ha)

Road surface: 5178 m²

Open Space: 10 905 m² (1.0905 ha)

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
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
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
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
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:	Easily
Degree to which the impact can be managed:	Easily
Degree to which the impact can be mitigated:	Easily
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
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
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
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:	• Block prevailing wind • Buffer road noise • Filter traffic pollutants
Cumulative impact post mitigation:	Positive for the development and passing traffic
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High -ve
Potential impact and risk:	**Amphibians**
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
ALTERNATIVE 1	
OPERATIONAL PHASE / POST COMMENCEMENT ACTIVITIES	
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
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
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
Potential Impact and risk	**Private Open Space**
Nature of impact:	Small area of the property retained and managed as Private Open Space
Extent and duration of impact:	< 1 Ha permanently managed as Private Open Space.
Consequence of impact or risk	Positive
Probability of occurrence:	Highly likely

Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	None
Indirect impacts:	Positive connectivity to Public Open Space in Stanford
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:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
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)	Medium +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
Potential impact and risk:	**Milkwood tree forest**
Nature of impact:	Alternative 2 has been designed around the Milkwood forest with no removal of trees required
Extent and duration of impact:	Local / Permanent
Consequence of impact or risk	Risk of disturbance of Milkwood forest
Probability of occurrence:	Low
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Impact cannot be reversed
Indirect impacts:	Limit to loss of biodiversity and protected species
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:	The preferred alternative allows for carefully locating lodge buildings and tourism pods to work with the Milkwood forest as a feature in a 'touch the earth lightly'' approach
Degree to which the impact can be managed:	Impact can be managed by erecting barriers around tress during construction
Degree to which the impact can be mitigated:	Possible with strict management during construction
Proposed mitigation:	Strict management and education of employees during construction
Residual impacts:	None
Cumulative impact post mitigation:	As many mature trees as possible retained on site.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
Potential impact and risk:	**Wetland loss in the Hillslope Seep Wetland**
Nature of impact:	Hillslope seep area included in development footprint
Extent and duration of impact:	Limited to this site, Permanent
Consequence of impact or risk	Loss of hillslope seep wetland – however it has been rated by the specialist as highly degraded
Probability of occurrence:	Permanent / Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low due to the highly transformed nature of this wetland on site – currently under intensive agriculture for roll on lawn
Degree to which the impact can be reversed:	N/a – wetland completely degraded
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)	**Low due to degraded state**

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:	Possible through management of remaing aquatic features on site
Proposed mitigation:	• Onsite UVBWs should be 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:	-
Cumulative impact post mitigation:	Medium- Encroachment of the buildings on the wetlands will be avoided.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
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
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
Potential impact and risk:	**Faunal impacts (amphibians)**
Nature of impact:	Amphibians, including the endangered, Western Leopard Toad (*Sclerophyrys pantherinus*) are not confined to streams. They move away from water to forage for most of the year and spawn in streams and ponds
Extent and duration of impact:	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:	High +ve
Indirect impacts:	Agricultural activities on surrounding properties
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:	Easily mitigated
Degree to which the impact can be mitigated:	Easily mitigated
Proposed mitigation:	Impact can be managed by various design feature – • Erecting fences and gates that do not restrict toad movement and ensure there is room for amphibians to move between the houses

	• Ensuring that curb stones are not steep sides. Must be u shaped • Drains must be designed so that frogs and toads are be able to climb out of water channelled into drains. • Lawned grass areas must be limited and ground covers used instead. • No pesticides may be used. • No fertilizer may be used on fynbos. • Garden ponds should be discouraged • No chlorinated water in swimming pools within the development. • Reeds must be cut and stream must be managed according to MMP • Swales and attenuation structures should be planted with arums. • Manage the wetland and stream area in consultation with down stream Stanford village initiative. • Wood piles, compost heaps and leaf litter provide hiding places for frogs. • Try to increase the diversity of amphibians on site. Especially the more sensitive species.
Residual impacts:	None
Cumulative impact post mitigation:	High positive
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
Potential Impact and Risk	**Demolition of existing house and outbuildings**
Nature of impact:	Buildings removed to allow for proposed development
Extent and duration of impact:	Local / Permanent
Consequence of impact or risk	Building rubble
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Impact cannot be reversed but can be managed
Indirect impacts:	Rubble resulting from demolition
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 can be manged
Degree to which the impact can be mitigated:	Easily
Proposed mitigation:	• Where possible use rubble as fill on site • Alternatively make rubble available for use off site. • Dispose of rubble at approved dump or make available to be crushed for fill off site.
Residual impacts:	None if appropriately managed
Cumulative impact post mitigation:	None

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
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 stream.
Extent and duration of impact:	Limited to site / Permanent
Consequence of impact or risk	Increased volume and velocity of runoff
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Very low
Degree to which the impact can be reversed:	Low-cost rehabilitation / Moderately high likelihood of success
Indirect impacts:	Moderative
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very high
Degree to which the impact can be avoided:	Not completely
Degree to which the impact can be mitigated:	Easily with low-cost rehabilitation
Proposed mitigation:	• Establish 32m buffer around wetland and stream • Appropriately attenuate run off with vegetated swales and/or attenuation structures. • Ensure that runoff / SW generated onsite flows into the wetland areas through an appropriately designed broad, vegetated earth swale. • Remove alien invasive plants. • Comply with approved MMP • Undertake construction during the dry season as much as possible. • The site manager must monitor the wetland, stream and buffer for erosion damage after heavy rain and weekly and take corrective measures. • 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.
Residual impacts:	Rehabilitation of the wetlands will take place which will be a positive impact on site, as well as the clearance of alien vegetation.
Cumulative impact post mitigation:	Low- Rehabilitation of the wetlands will take place which will be a positive impact on site, as well as the clearance of alien vegetation.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
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. Stormwater washing contaminants into the stream , wetland and buffer area. Construction of swales, attenuation structures. Visitor facilities (floating deck, bird hide)
Extent and duration of impact:	Limited to site / Temporary 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)	Low
Degree to which the impact can be avoided:	Possible
Degree to which the impact can be managed:	Possible
Degree to which the impact can be mitigated:	Possible
Proposed mitigation:	• UVB wetland and stream and 32m buffer should be a No Go areas during construction. Where construction is required in this area the contractor must comply with an approved method statement. • A method statement must be included in the EMP regarding the handling of contaminants to minimise contamination of the stream and wetland. • Suitably sized bunded impervious area must be established for construction activities (Pouring / mixing concrete, paint chemicals), parking vehicles and temporary toilets. Drip trays or shutter boards • Ready-mix concrete from a local supplier is preferable to mixing concrete on site. • Surplus or waste concrete must not be dumped on site. • Fuel and other hazardous chemical must be stored as far away as possible from the stream and wetland. • Vehicles should be cleaned off site • Pollutants must not be allowed to infiltrate into the stream and or UVB wetland. • Remove contaminated soil or material from site to approved dump. • Incorporate measures into the stormwater design to trap solid waste, debris and sediment, including curb inlet drain grates and debris baskets that remain in place and are monitored and maintained for the life of the development. • Stormwater from contaminated areas such as parking and roads should be polished in sand filter traps or oil /water separators, that must be monitored and maintained. • Construction / infill material must be clean and preferably sourced on site to reduce the risk of leachate

	• Waste water, contaminated with oil, wash water from cement and other pollutants must be disposed of at a licensed landfill site. • All conditions of the EMP must be complies with and the ECO must inspect the construction footprint weekly. Especially with respect to those activities close to the stream (Sewage system, entrance building, roads, planted berm)
Residual impacts:	None
Cumulative impact post mitigation:	Very Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low to very low -ve
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)	Medium -ve
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
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

OPERATIONAL 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
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
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 10 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 provided that the recommended 32m buffer, swales and attenuation structures are maintained
Degree to which the impact can be mitigated:	Possible
Proposed mitigation:	- UVB wetland and stream and buffer must be maintained as Private Open Space - Attenuation structures and /or swales prevent pollutants from infiltrating into the stream and or UVB wetland. - Sewage pipes and pump station must be properly maintained and regularly monitored for leaks.

	- Comply with EMP with respect to monitoring and maintaining all structures in respect of stormwater and sewage system.
Residual impacts:	Rehabilitation and clearance of the alien vegetation will be positive impact.
Cumulative impact post mitigation:	Rehabilitation and clearance of the alien vegetation will be positive impact.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low -ve
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:	Appropriate maintenance of 32m buffer and vegetated swales and / or attenuation structures
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 -ve

Decommissioning not applicable

ALTERNATIVE 3 - 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 l*and 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 R32 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:


TO HERMANUS
R43 ROAD
TO GANSBAAI
MILL STREAM WETLAND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Site
1 : 500
STANFORD GREEN
CSA
COETZEE SADIE ARCHITECTURE
SITE PLAN
PROPOSAL
A1
1 : 500
24-02
A100

3. Detailed design development proceeding largely in accordance with the Landscape Development Plan and Stanford Green 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 ha been extracted from the Aquatic Boisvert 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 Municpality
- → 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.


TO R27
MILL STREAM WETLAND
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1 Site
1 : 500
STANFORD GREEN
CSA
DOETZEE SADIE ARCHITECTURE
SITE PLAN
PROPOSAL
A1
1 : 500
24-02
A100

The preferred layout of the development was informed by this report.


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
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Oa
Er
Rs
Oa
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As
Si
Oa
Si
Si
Gb
Si
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Gb
As
Image © 2023 Airbus
Lowland indigenous flora
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.

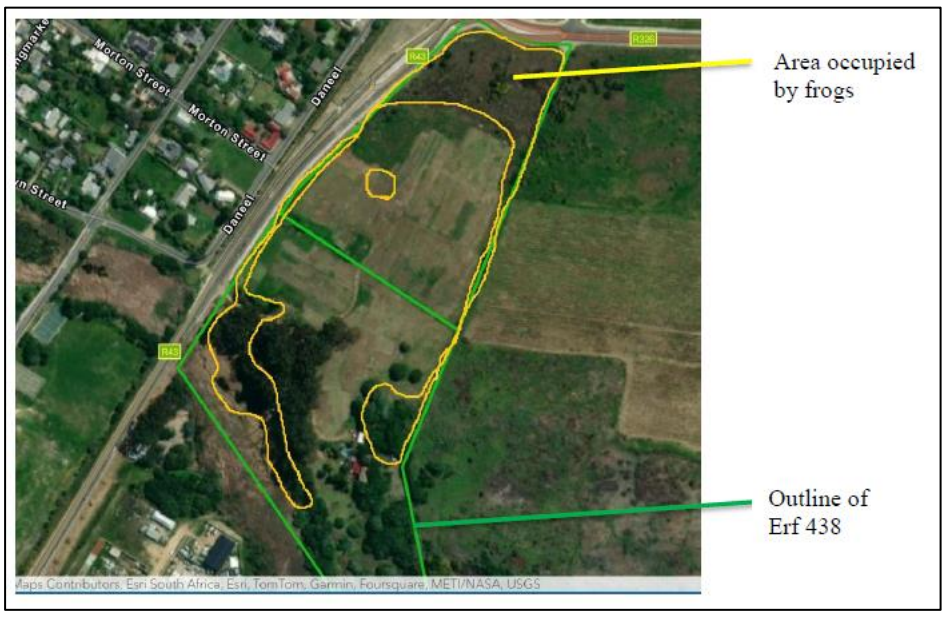
FAUNAL ASSESSMENT

Report by Whale Coast Conservation (Sheraine van Wyk)
See Appendix F8
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 likehood 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 I detected Common Caco and Clicking Stream Frogs 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 Green. 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.

STANFORD GREEN ECO LIFESTYLE ESTATE – ARCHITECTURAL GUIDELINE FOR HOMEOWNERS

The sense of place Stanford Green 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 Green 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.

STANFORD GREEN
eco lifestyle estate

CSA COETZEE SADIE ARCHITECTURE
CARL COETZEE - 082 458 3202 JOHAN SADIE - 082 960 1618

No.	Description	Date

Omni King Investments (Pty) Ltd

STANFORD GREEN - ECO ESTATE - Erf 438
STANFORD

3D VIEWS

Project number	24.00	A401
Date	Issue Date	
Drawn by	Author	
Checked by	Checker	Scale

STANFORD GREEN
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CARL COETZEE - 082 458 3202 JOHAN SADIE - 082 960 1618

No.	Description	Date

Omni King Investments (Pty) Ltd

STANFORD GREEN - ECO ESTATE - Erf 438
STANFORD

3D VIEWS

Project number	24.00	A402
Date	Issue Date	
Drawn by	Author	
Checked by	Checker	Scale

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.

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:
    - 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.
    - 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 Green 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 Green. 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.

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 following principles have been applied to achieve the best practicable environmental options.

Reduce

- → The impact on the stream of the existing agricultural cultivation of roll-on lawn.

Avoid

- → Unchanneled Valley Bottom Wetland (UVB) / Mill Stream excluded from the development area.
- → Residential development, complying with the SR1 zoning excluded from area with highest number and density of White Milkwood trees.

Minimise

- → Limited size and number of units in the Lodge property to minimise impact on White Milkwood canopy.

→ The visibility of the development from the R43 with the construction of vegetated berms on the R43.
→ Ensure that the homes are built to Town Planning specifications and the finished height is as approved by both Heritage and the municipality.

Manage

→ Increased stormwater flow as a result of hardening of surface with roads and buildings managed by construction of attenuation structures and/or vegetated swales.
→ Impaired water quality flowing into wetland and stream managed by creating bunded impervious area during construction.
→ Visibility of the development on a Scenic Routes reduced by setting back entrance gate by 25m and vegetated berms.
→ Creating vegetated berms between the R43 and the buildings will buffer wind, noise and air pollutants from R43 and reduce visibility of the development from the road.

Restoration

→ Removal of Alien Invasive Plants (Gum trees, Port Jackson Willow) and replanting with appropriate indigenous plants to restore wetland functionality and reduce fire risk.
→ Manage the Mill stream to remove reed and other invasive species according to a MMP and restore the downstream links with Stanford.

Rehabilitation

→ Creation of safe, accessible spaces in non-developable area and gardens for all small fauna, but especially the endangered Western Leopard Toad and other fauna.
→ The gardens of homes on existing cultivated areas will be planted to locally indigenous plants, increasing the development biodiversity.
→ Long term rehabilitation and management plan for wetlands on site to be drafted as a condition of EA

SECTION J: GENERAL

1. Environmental Impact Statement

1.1.	Provide a summary of the key findings of the EIA.

The process of developing a layout for this 5,23 Ha property commenced prior to the appointment of any environmental specialists. The **Alternative Layout 1** on Erf 438 Stanford was for the subdivision of the property into 44 erven for residential use to comply with the Residential Zoning of the property. This plan did not take into account the various constraints on the site including the Mill stream and wetland, heritage and visual impact and indigenous fauna and flora, that would be negatively impacted by the extent of the development.

Through an iterative process, subsequent to the delineation of the wetland and stream, and the recommendation that a 32m buffer be implemented, further development plans were considered. This alternative layout plan then formed a basis for commissioning a Landscape Development Plan. This specialist identified a number of specially protected White Milkwood trees on a portion of the site proposed for development and recommended a much-reduced footprint in this area. This, together with other specialist studies informed further changes to the layout plan.

The negative impact of the existing agricultural land use, the cultivation of roll-on lawn, that does not contribute to food security, extends beyond the property boundaries and downstream to Stanford. This is inappropriate given the Residential zoning of the property

The **Preferred Alternative Layout 2,** in which it was proposed that that a tourism venture, a 16-room lodge, accommodating 34 people, designed specifically to take advantage of the sense of place, shade, wind break provided by the canopy and Milkwood Trees, would be more appropriate and have socio-economic advantages beyond those provided by SR1 zoned residential development. This development type allows for eco centred approach with low impact pod type, raised development which is nestled into the forest, eliminating the need to remove Milkwood trees.

Application for a Water Use Licence (WUL) will be required for the inclusion of the Hillslope Seep Wetland in the development footprint as this loss of this wetland has been assessed to have a Moderate risk – this will be undertaken by the Freshwater Specialist as part of the EA process.

Application will be required for a permit to cut, trim or remove Specially Protected White Milkwood (*Sideroxylon inerme*) trees from DWAF.

Other considerations

→ The proposed development will optimise the residential landuse while also addressing the need to maintain and secure the future for existing biodiversity on the site.
→ The preferred development fulfils the objectives of the OSDF and IDP with respect to optimising tourism opportunities.
→ Good connectivity with adjacent municipal property which has been identified as an Ecological Process Corridor and for Urban Conservation area on Erf 294 are maintained and secured.
→ Densification of the property while still preserving the single residential unit ethos of the existing residential area.
→ Tourism opportunities that will not only have positive economic benefits but will also minimise the amount of area to be cleared for development, while retaining the asset of established indigenous trees.
→ The removal of very large exotic Gum trees will increase the visibility of the development on the property. This can be mitigated by installing vegetated earth berms.
→ The development of the Hillslope Seep wetland, currently cultivated with Buffalo grass for roll on lawn, will be offset by the 32m buffer area adjacent to the UVB wetland and stream.
→ Although so close to Stanford there are no built Heritage features that have been flagged as important. The design of the homes is intended to reflect but not copy the Cape Farm style appropriate for the area.
→ The Milkwood forested area is Grade IIIA listed Heritage feature and has been used as a feature in the preferred alternatives, eliminating the need to remove these trees. This also provides long term security to this forest.

→ The design of the houses incorporates passive energy saving measures by locating the buildings to reduce the need for air conditioning or heating, installing appropriate amounts of insulation and appropriately sized windows
→ Renewable energy though solar systems and LPG gas to reduce demand for electricity from the national grid
→ Water conservation measures with latest technology for toilet flushing, and other household use
→ Installing rainwater tanks to attenuate runoff and reduce the amount of potable water used in swimming pools and gardens.
→ The agricultural land use has a negative impact on site and downstream as fertilizer contributes to eutrophication of the stream and pesticides and herbicides impact negatively on fauna.

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)

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:

→ Increased traffic
→ Increased demand/ load on services (Water, electricity, sewer and garbage).

Positive Impacts:

→ Permanent exclusion of Millstream and UVB wetland and 32m buffer area from development and zoned as Private Open Space
→ Maintenance and management of the Private Open Space according to a management plan.
→ White Milkwoods in the Lodge area will be retained and protected in perpetuity
→ The Western Leopard Toad and other small fauna and flora will have a permanent habitat and improved natural habitats
→ Good ecological linkage with the Millstream Greenway to Stanford
→ The Preferred Alternative provides more long-term quality employment opportunities in the tourism industry than would be available if this was only a residential development.
→ Stormwater runoff is attenuated.
→ The water quality of stormwater in the stream is monitored and managed.
→ Enhance the aesthetics and sense of place at the entrance and edges of Stanford
→ Provides an example of a well-conceived proposal which responds to environmental, social and economic factors.

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

- → Alternative 2 (Preferred), addresses biodiversity concerns not addressed by Layout 1 and therefore should be approved.
- → Mitigation and management measures recommended by the specialists, which are also included in the EMPs, must be conditional of the approval.

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.

This Basic Assessment Report contains the appropriate level of information for the Department to decide and issue the Environmental Authorisation in terms of the EIA Regulations promulgated under the National Environmental Management Act (Act 107 of 1998, as amended).

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.

SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT PENDING

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

I……., ID number ……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:

Name of company (if applicable):

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;

mncaylor

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):