LORNAY
ENVIRONMENTAL CONSULTING

PRE-APPLICATION BASIC ASSESSMENT REPORT

PROPOSED RESIDENTIAL DEVELOPMENT ON ERF 4439, SIMON'S TOWN, CAPE RD

COMPILED BY:

LORNAY ENVIRONMENTAL CONSULTING
Unit 5/1 F, Hemel & Aarde Wine Village, Hermanus

CLIENT:

HENQUE 3030 CC

17 October 2024

Western Cape Government

Department of Environmental Affairs and Development Planning

BASIC ASSESSMENT REPORT

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

APRIL 2024

DETAILS OF THE AUTHOR(S)

EAP ORGANISATION:	Lornay Environmental Consulting (Pty) Ltd
AUTHOR (S):	Michelle Naylor *Pr.Sci.Nat. 400327/13* *EAPASA. 2019/698* Njabulo Magoswana *Cand. EAP. 2021/3178*

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APRIL 2024

(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 on Erf 4439, Simon's Town, Cape RD

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

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

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

3. *Submission of documentation, reports and other correspondence:*

   The Department has adopted a digital format for corresponding with proponents/applicants or the general public. If there is a conflict between this approach and any provision in the legislation, then the provisions in the legislation prevail. If there is any uncertainty about the requirements or arrangements, the relevant Competent Authority must be consulted.

   The Directorate: Development Management has created generic e-mail addresses for the respective Regions, to centralise their administration. Please make use of the relevant general administration e-mail address below when submitting documents:

   DEADPEIAAdmin@westerncape.gov.za
   Directorate: Development Management (Region 1):
   City of Cape Town; West Coast District Municipal area;
   Cape Winelands District Municipal area and Overberg District Municipal area.

   DEADPEIAAdmin.George@westerncape.gov.za
   Directorate: Development Management (Region 3):
   Garden Route District Municipal area and Central Karoo District Municipal area

   General queries must be submitted via the general administration e-mail for EIA related queries. Where a case-officer of DEA&DP has been assigned, correspondence may be directed to such official and copied to the relevant general administration e-mail for record purposes.

   All correspondence, comments, requests and decisions in terms of applications, will be issued to either the applicant/requester in a digital format via email, with digital signatures, and copied to the Environmental Assessment Practitioner ("EAP") (where applicable).

4. 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.

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

6. 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.

7. This BAR is current as of **April 2024**. 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 to check for the latest version of this BAR.

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.

15. 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: **DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 1)** (City of Cape Town, West Coast District, Cape Winelands District & Overberg District)	**GEORGE REGIONAL OFFICE:** **DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 3)** (Central Karoo District & Garden Route District)
The completed Form must be sent via electronic mail to: DEADPEIAAdmin@westerncape.gov.za Queries should be directed to the Directorate: Development Management (Region 1) at: E-mail: DEADPEIAAdmin@westerncape.gov.za Tel: (021) 483-5829 Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000	The completed Form must be sent via electronic mail to: DEADPEIAAdmin.George@westerncape.gov.za Queries should be directed to the Directorate: Development Management (Region 3) at: E-mail: DEADPEIAAdmin.George@westerncape.gov.za Tel: (044) 814-2006 Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530

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);

	○ Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): ○ Ridges; ○ Cultural and historical features/landscapes; ○ 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 A2:	**Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning**	
	Appendix A3:	**Map with the GPS co-ordinates for linear activities**	
Appendix B:	**Appendix B1:**	**Site development plan(s)**	✓
	Appendix B2	**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;**	
Appendix C:	**Photographs**		✓
Appendix D:	**Biodiversity overlay map**		✓
Appendix E:	**Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality.**		
	Appendix E1:	**Final comment/ROD from HWC**	✓
	Appendix E2:	**Copy of comment from Cape Nature**	
	Appendix E3:	**Final Comment from the DWS**	
	Appendix E4:	**Comment from the DEA: Oceans and Coast**	
	Appendix E5:	**Comment from the DAFF**	
	Appendix E6:	**Comment from WCG: Transport and Public Works**	
	Appendix E7:	**Comment from WCG: DoA**	
	Appendix E8:	**Comment from WCG: DHS**	
	Appendix E9:	**Comment from WCG: DoH**	

	Appendix E10:	**Comment from DEA&DP: Pollution Management**	
	Appendix E11:	**Comment from DEA&DP: Waste Management**	
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	
	Appendix E13:	**Comment from DEA&DP: Air Quality**	
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	
	Appendix E15:	**Comment from the local authority**	
	Appendix E16:	**Confirmation of all services (water, electricity, sewage, solid waste management)**	
	Appendix E17:	**Comment from the District Municipality**	
	Appendix E18:	**Copy of an exemption notice**	
	Appendix E19	**Pre-approval for the reclamation of land**	
	Appendix E20:	**Proof of agreement/TOR of the specialist studies conducted.**	
	Appendix E21:	**Proof of land use rights**	
	Appendix E22:	**Proof of public participation agreement for linear activities**	
Appendix F:	**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 G:	**Specialist Report(s)** **APP G1 Aquatic Biodiversity Assessment** **APP G2 Terrestrial Biodiversity Assessment/Plants Species/Animal Species.**		✓
Appendix H:	**EMPr**		✓
Appendix I:	**APP I1 Screening tool report** **APP I2 SSVR**		✓
Appendix J:	**The impact and risk assessment for each alternative**		
Appendix K:	**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**		
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: REGION 1		GEORGE OFFICE: REGION 3
	(City of Cape Town, West Coast District	(Cape Winelands District & Overberg District)	(Central Karoo District & Garden Route District)

Duplicate this section where there is more than one Proponent Name of Applicant/Proponent:	HENQUE 3030 CC	
Name of contact person for Applicant/Proponent (if other):	Huw Jones	
Company/ Trading name/State Department/Organ of State:		
Company Registration Number:	CK 2000/025626	
Postal address:	Suite 56, Private Bag X15,	
	Hermanus	Postal code: 7200
Telephone:	( )	Cell: 082 414 9611
E-mail:	hbojones@hermanus.co.za	Fax: ( )
Company of EAP:	Lornay Environmental Consulting	
EAP name:	Michelle Naylor	
Postal address:	2019/698	
	PO BOX 1990, HERMANUS	Postal code: 7200
Telephone:	( )	Cell: 083 245 6556
E-mail:	michelle@lornay.co.za	Fax: ( )
Qualifications:	Master of Science (Rhodes University)	
EAP registration no:	EAPASA.2019/698,., SACNASP., IAIASA	
Duplicate this section where there is more than one landowner Name of landowner:	As above	
Name of contact person for landowner (if other):		
Postal address:		
		Postal code:
Telephone:	( )	Cell:
E-mail:		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:	City of Cape Town	
Contact person:	Joy German	
Postal address:	Private Bag X5	
	Plumstead	Postal code: 7800
Telephone	(0) 21 444 2606	Cell: 083 983 2578
E-mail:	Joy.gorman@capetown.gov.za	Fax: ( )

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

1.	Is the proposed development (please tick):	New	x	Expansion	

2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.

The proposed site can be classified as a greenfield site, as it is undeveloped, although it is currently in a degraded state. The primary cause of this degradation is the extensive presence of dense alien vegetation across the property. Despite the site not being in a pristine condition due to the alien species, the remaining indigenous vegetation supports its classification as a greenfield site. The site is located within both the urban edge and built-up urban area, as well as partially falling outside the urban area. Only the section within the built-up urban edge is proposed for development.

~~3.~~	**~~For Linear activities or developments~~**	
~~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.~~	
~~3.5.~~	~~SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives~~	
~~3.6.~~	**~~Starting point co-ordinates for all alternatives~~**	
	~~Latitude (S)~~	~~º~~ ~~'~~ ~~"~~
	~~Longitude (E)~~	~~º~~ ~~'~~ ~~"~~
	~~Middle point co-ordinates for all alternatives~~	
	~~Latitude (S)~~	~~º~~ ~~'~~ ~~"~~
	~~Longitude (E)~~	~~º~~ ~~'~~ ~~"~~
	~~End point co-ordinates for all alternatives~~	
	~~Latitude (S)~~	~~º~~ ~~'~~ ~~"~~
	~~Longitude (E)~~	~~º~~ ~~'~~ ~~"~~

~~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):	**4191 m²**
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):	**0 m²**
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives: The proposed residential development will allow the construction of these associated infrastructure:	**1700 m²**

Figure 1: Proposed development footprint

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).

The proposed development involves the construction of a three-story apartment building, comprising 19 residential units, with parking facilities on Erf 4439 in Simon's Town. The property spans an area of 4010 m², extending from the demarcated urban edge into a rural area. The area within the urban edge, measuring 2000 m², situated on the southern portion of the property is designated for the proposal. The construction is planned to transform 1700 m² of this area for the apartment building and driveways, as illustrated in **Figure 2**. The apartment building will occupy a footprint of approximately 800 m² and will be arranged as follows:

- → The **ground floor** will encompass:
  - 2 flats x 2 bedrooms each
  - Parking will be situated on ground floor under the building and 1.5 flats per flat will be provided.
- → The **first floor** will encompass:
  - 4 flats x 1 bedroom each
  - 6 flats x 2 bedrooms each
- → The **second floor** will encompass:
  - 3 flats x 1 bedroom each
  - 2 flats x 2 bedrooms each
  - and 2 flats x 3 bedrooms each

Figure 2: Ground floor layout: 2 flats with 2 bedroom each, along with the parking area situated on the ground floor.

Figure 3: First floor layout

Figure 4: Second floor layout

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

Access to the property is already existing via Bay View Heights Road.

4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	C	0	1	6	0	0	5	4	0	0	0	0	4	4	3	9	0	0	0	0	0

4.7.	Coordinates of the proposed site(s) for all alternatives:			
	Latitude (S)	34°	10‘	47.91“
	Longitude (E)	18°	25‘	16.36“

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. **A Notice of Intent was submitted to Heritage Western Cape and it was confirmed that no further assessment was required.**	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. **A Freshwater delineation and assessment was undertaken. The specialist confirmed that a General Authorisations will be required for the proposed development of the site.**	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

3. Other legislation

List any other legislation that is applicable to the proposed activity or development.
-

4. Policies

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.
Metropolitan Spatial Development Framework, 2018 **3.1 Consolidated spatial concept plan** The subject property is designated as a consolidation area (refer to **Figure 4**).

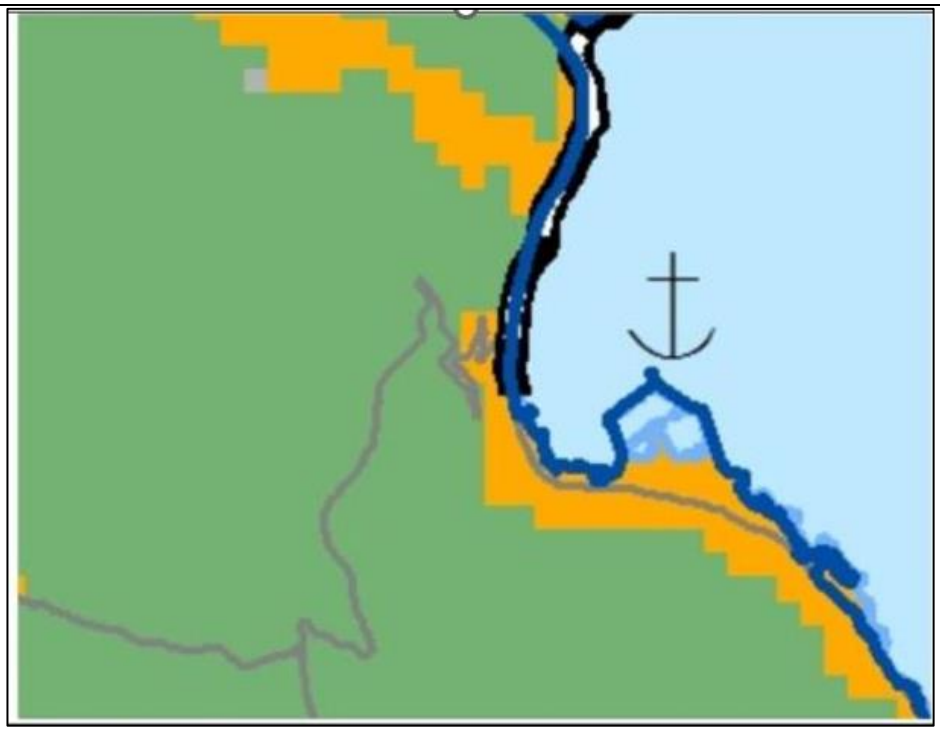

Figure 5: Consolidation area.

New urban development in the consolidation area is generally encouraged subject to the availability of services capacity.

3.2 Southern District Plan, 2012

Spatial proposal plan

Half of the subject property is located within the urban edge while the other half is located outside thereof.

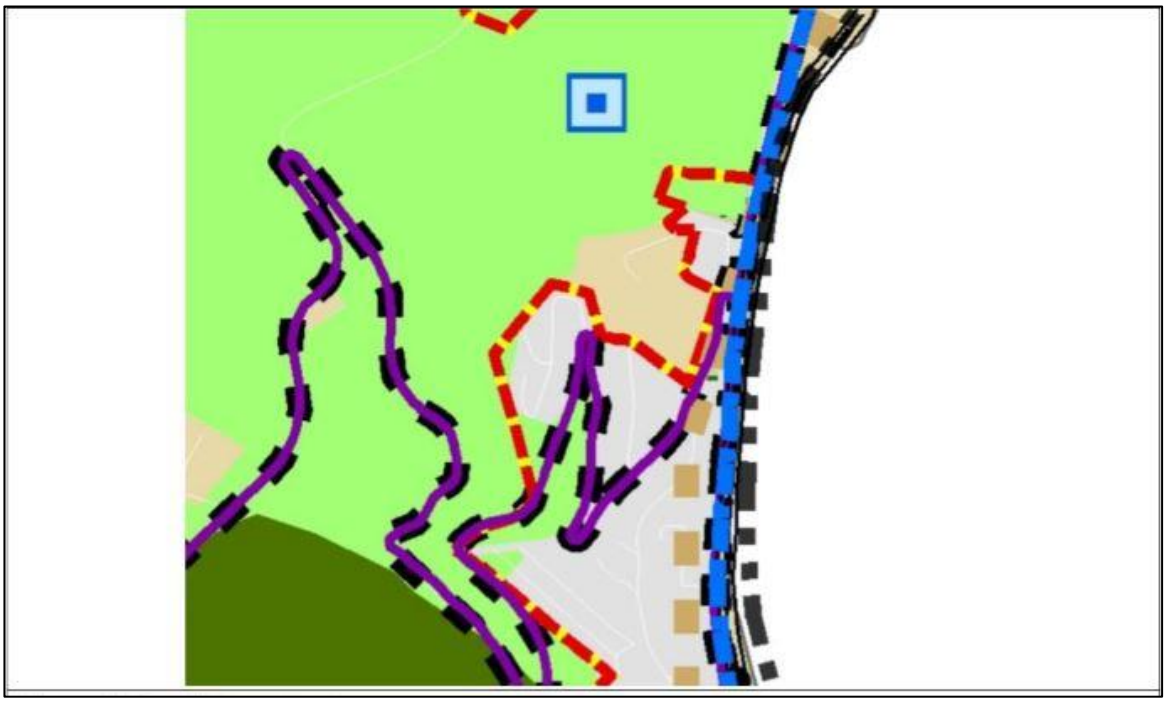

Figure 6: Spatial proposal

The area within the urban edge is designated for urban development which is defined as follow.

"Buildings and infrastructure with a residential purpose as well as offices, shops, community facilities and other associated buildings, infrastructure and public open space necessary to provide for proper functioning of urban areas and amenity and recreation. The term 'urban development' includes golf estates, vineyard estates with a residential component, equestrian estates with a residential component, rural living estates, eco-estates, gated communities and regional shopping centres, However, for the purposes of this report 'urban development' excludes noxious industry, land for industrial purposes and mixed-use intensification areas, as they are designated separately in the spatial plan. But service trades that generate a low impact on surrounding urban are deemed to form an integral part of an area demarcated for urban development purposes."

Biodiversity significant areas

Half of the subject property is located within the biodiversity significant area while the other half is located outside thereof.

Figure 7: The area highlighted in red is a CBA.

Urban development outside of the biodiversity significant areas is encouraged.

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.

National Environmental Management Act 107 of 1998, As Amended (NEMA) & the EIA Regulations (2014) as amended.	The application is undertaken according to the NEMA EIA Regulations, 2014 (as amended).
DEA&DP EIA Guideline and information document series	Applied to various components in the Basic Assessment process. The following guidelines are considered throughout this Basic Assessment process: • Guidelines for EIA Requirements • Guidelines for Public Participation • Guideline on Need and Desirability

	• Guideline for Involving Biodiversity Specialists in EIA Processes • Guideline for Environmental Management Plans.
National Heritage Resources Act (25 of 1999)	Notice of intent to Develop was submitted to Heritage Western Cape. A Heritage Impact Assessment with input from Archaeological impact assessments will be included.
GN No. 326- Appendices 1 and 4 relating to the information requirements in the BAR and EMPr.	Provincial Department of Environmental Affairs and Development Planning

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

Agricultural Theme – Low Sensitivity –– the property is not viable agricultural land and is located in a Limited Use Zone subject to rezoning to General Residential Subzone GR2. No further assessment is required.

Animal Species Theme – Medium Sensitivity – The highly transformed vegetation on the site is considered unsuitable habitat for two bird species of conservation concern (SoCC) due to its current state. The site is located partially within the built-up urban area and partially outside the urban area. The area outside the urban edge will not be developed and the area located within the urban edge proposed for development has been highly impacted and transformed by urban activities. From a faunal perspective, the development area is regarded as having low sensitivity. See specialist report attached under **Appendix G.**

Aquatic Biodiversity Theme – Very High Sensitivity – A single non-perennial drainage line was confirmed and delineated during fieldwork undertaken on the 21st of June 2024 by the Freshwater / Aquatic specialist. This drainage line was identified within a steep valley which is located to the north of the proposed development footprint and traverses the property in a west to east direction. The non-perennial drainage line was found to be moderately to largely degraded, achieving a PES Score within the C/D category. The degradation and general nature of the drainage line also resulted in a Low/Marginal EIS score indicating that the non-perennial drainage line is not important from an ecological or biodiversity planning perspective. ES scores indicated that the non-perennial drainage line provides a negligible to moderately low contribution to ecosystem services. Mitigation measures are incorporated in the EMPr. See specialist report attached under **Appendix G.**

Archaeological and Cultural Heritage Theme – Very high sensitivity – A site visit by Agency for Cultural Resource Management (ACRM) confirmed the absence of archaeological resources, and no further archaeological mitigation is required. This has been agreed to by Heritage Western Cape.

Civil Aviation Theme – Medium sensitivity – the proposed development is in line with the existing development in the area. Therefore, no additional impacts are expected to this theme. No further assessment required.

Defence Theme – Very High. The proposed development is in line with the existing development in the area and No impacts are envisaged under this theme. No further assessment required.

Palaeontology – Medium- The development is not expected to significantly impact palaeontological resources. No further assessment required. A Notice of Intent to Develop was submitted to Heritage Western Cape and it was confirmed that no further assessment is required.

Plant Species Theme – Medium – The site has been heavily disturbed, with only small patches of natural vegetation remaining. The area to be developed is considered of low sensitivity, with no plant species of conservation concern identified. Specialist assessment conducted. See specialist report attached under **Appendix G.**

Terrestrial Biodiversity Theme – Very high – The assessment confirmed that the natural vegetation of Cape Flats Dune Strandveld, and potentially some pockets of Peninsula Sandstone Fynbos (Critically Endangered), has been essentially lost across Erf 4439 through disturbance and alien invasive plants. Therefore, the area to be developed is considered as Low sensitivity. See specialist report attached under **Appendix G.**

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— (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; — excluding dd) where such development occurs within an urban area; [or] (ee) where such development occurs within existing roads, [or] road reserves or railway line reserves;	Southern section of the property earmarked for the development proposal falls within the demarcated urban edge, while the northern section, which is excluded from the development, is outside of the urban edge. The proposed development falls within 32m.
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.
12	The clearance of an area of 300 square metres or more of indigenous vegetation i. Western Cappe I, within the 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 identifies as critically endangered in the National Spatial Biodiversity Assessment 2004.	Removal of vegetation on site for the proposed development will occur. The site is mapped as predominantly Cape Flats Strandveld (En), however was found to be in a highly degraded state
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.~~
~~N/A~~		

~~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.~~
~~N/A~~		

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.

The preferred alternative proposes the construction of a multi-storey apartment building on the subject property. This development will consist of approximately 19 residential units, offering a mix of 1, 2, and 3-bedroom apartments, with unit sizes ranging from 50 to 100 m². Parking facilities will be integrated into the design, with provisions made for 1.5 parking spaces per apartment, in addition to 0.25 parking spaces allocated for visitors per apartment. This parking will be conveniently located on the ground floor, ensuring accessibility for residents and guests alike.

The total area of the property is 4191 m², with 2000 m² falling within the urban boundary designated for this development. The development footprint is planned to occupy approximately 1700 m² of the urbanized section, facilitating a balance between built-up areas and open space. The building itself will cover a footprint of 800 m² and will stand at a maximum height of 15 m. Setback requirements will be adhered to, with the structure positioned approximately 8 m from the centreline of the road and 4.5 m from the side and rear boundary lines.

This proposal aligns with the character of surrounding developments and is designed to enhance the urban landscape.

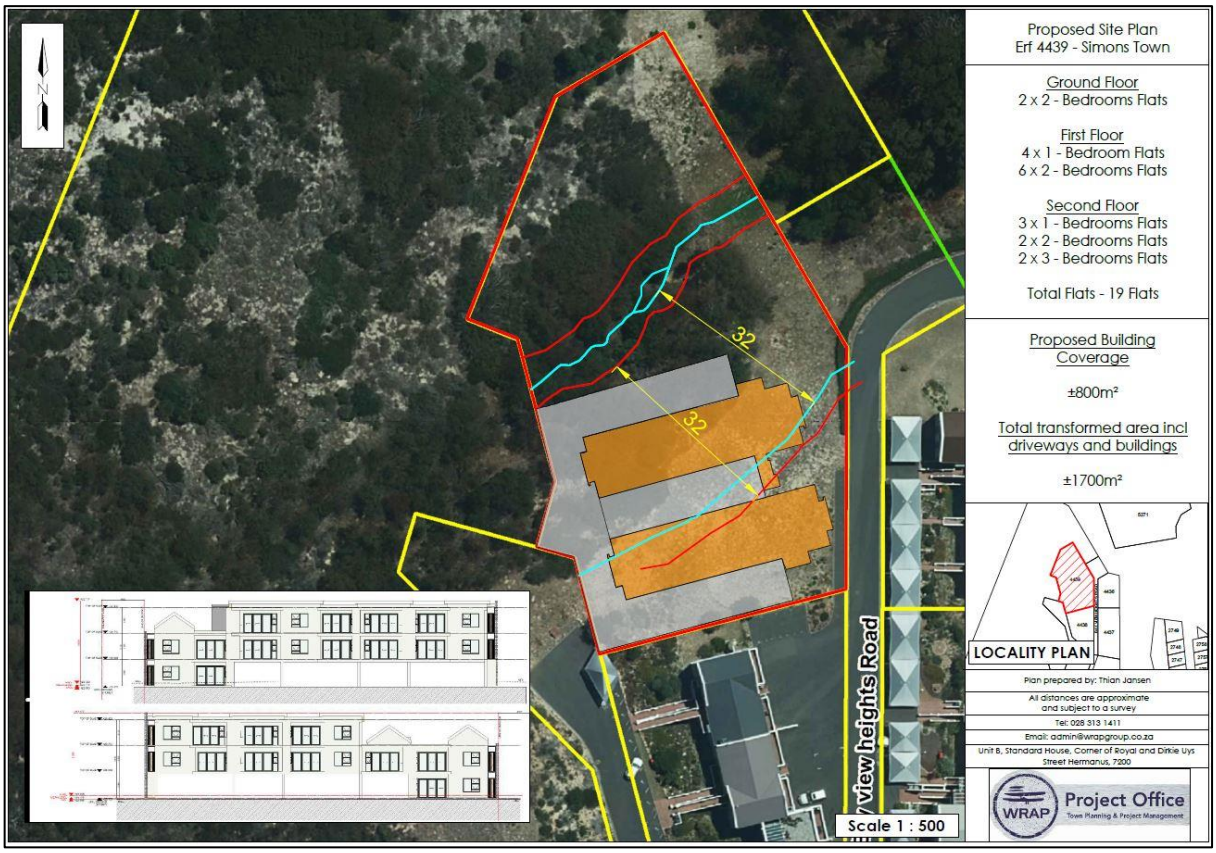

Figure 8-1: Preferred site alternative (Alternative one)

Figure 8-2: Illustration of the proposed apartment block elevation

Table 1: The summary of the components for the proposed development.

Components		**Size (m²)**
Development Footprint		**1700**
Building Footprint		800
Individual Unit Sizes		50 - 100
Parking Spaces per Apartment	1.5	
Visitor Parking Spaces per Apartment	0.25	

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 property is currently designated as a Limited Use Zone, which likely restricts the types of land uses or developments permitted on the property. However, the proposed rezoning seeks to change this designation to General Residential Subzone 2.

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.

To address any potential conflicts arising from existing approvals for the proposed site, it is important to note that there were prior approvals for development on the subject property. However, these approvals have since lapsed and were not pursued further. Therefore, the current development proposal represents a new initiative which is distinct from the previous approvals, and thus does not conflict with any prior decisions or permissions.

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

Extract from the Western Cape Spatial Development Framework:
"4.1.3.2 Provincial Policy Context

PSDF Implementation must also support, guide, and be guided by the implementation of various policies which impact on Western Cape living environment (natural and built) since 2014. Of note are: Western Cape Infrastructure Framework (WCIF) 2013 (under review); Western Cape Human Settlement Framework – Living Cape Framework, 2019; Provincial Land Transport Framework (PLTF) 2014 (under review); and Western Cape Ecological Infrastructure Investment Framework (EIFF) 2019.

The Living Cape Framework 2019 emphasizes the following objectives which are central to spatial planning implementation, specifically human settlements delivery in the Western Cape: (i) shift to human settlements as holistic spaces which bring together housing (and land), social and economic services, networked infrastructure, and communities (and social fabric); (ii) shift from low value housing production to production which leverage urban dividend; (iii) shift from the state as provider of housing to the state as enabler of housing; (iv) improving the alignment of provincial and municipal built environment investments and spatial planning instruments; (v) promoting brownfield/infill projects through a portfolio approach; (vi) activating under-utilized public infrastructure; (vii) area-based approach to human settlements interventions; and (viii) Integrated assessment and shared accountability metrics with other role players in the human settlement space.

The proposed development aligns with the Provincial Spatial Development Framework (PSDF) in several ways:

The development is described as residential, specifically within the urban area. This corresponds with the PSDF's emphasis on guiding development to appropriate zones and ensuring compatibility with existing land uses. The development supports the PSDF's goal of directing development towards urbanized zones to optimize infrastructure use and support sustainable urban growth. This is the case with this proposed development. PSDF provides a spatial vision for the province, emphasizing sustainable and coordinated development. The proposed residential development, being within established urban boundaries, is consistent with the principles of concentrated and well-planned spatial growth outlined in the PSDF.

4.2	The Integrated Development Plan of the local municipality.

The proposed three-storey building on Erf 4439 aligns with the objectives and strategic focus areas outlined in the City of Cape Town's Integrated Development Plan (IDP), which serves as a guiding framework for sustainable urban growth and development. One of the key goals of the IDP is to promote compact, efficient, and resource-conscious urban areas. By concentrating development within already established urban zones, such as the one where Erf 4439 is located, the project contributes to reducing urban sprawl and supports a more efficient use of land and infrastructure. This development approach is in line with the city's vision of promoting higher-density residential and commercial spaces, thereby optimizing land use in well-serviced areas and fostering urban vitality.

Additionally, the proposed building supports the City of Cape Town's economic development objectives, as outlined in the IDP. The three-storey structure is expected to stimulate local economic activity by potentially offering new

commercial or residential spaces, which will attract investment and create employment opportunities. This aligns with the city's goal of fostering economic resilience and enhancing the quality of life for its residents through job creation and infrastructure improvements. The project's location and design also promote walkability and easy access to public transportation, aligning with the city's mobility and accessibility strategies that seek to reduce traffic congestion and promote sustainable modes of transport.

From an environmental perspective, the project's design will incorporate sustainability principles, in line with the IDP's focus on promoting green building practices and enhancing urban resilience to climate change. The inclusion of energy-efficient systems and environmentally responsible construction materials demonstrates a commitment to minimizing the building's carbon footprint, which is consistent with the city's environmental sustainability goals. The building's proposed features contribute to reducing resource consumption and ensuring the longevity and adaptability of urban infrastructure, which is a critical component of the IDP's overarching strategy for sustainable development in Cape Town.

4.3.	The Spatial Development Framework of the local municipality.

The City of Cape Town Spatial Development Framework (SDF) outlines strategies for sustainable land use and orderly urban growth, placing a strong emphasis on development within existing urban boundaries. The proposed three-storey apartment building on Erf 4439, Simon's Town, aligns with the SDF as it ensures that development remains within the urban edge. The site's unique spatial characteristics, with half of the property falling within the urban boundary and the other half beyond it, have been carefully considered in the development plan. The proposed building strictly adheres to the urban edge, avoiding any encroachment into areas outside the urban boundary.

To further align the development with the SDF, the proposal includes a rezoning application to change the property's designation from "limited use" to "general residential use 2." This rezoning is intended to optimize the use of the urbanized portion of the property and improve the management of open spaces within the urban boundary. It is also important to note that a previous application for alternative development activities on the property has lapsed, clearing the way for this current proposal, which is designed in line with the local municipality's spatial planning objectives.

This development proposal supports the municipality's goals for orderly growth and effective land utilization, while respecting the integrity of the urban edge as defined by the SDF.

4.4.	The Environmental Management Framework applicable to the area.

N/A

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

To be added.

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

The desktop study found that half of the property falls within Critical Biodiversity Areas (CBA), specifically Terrestrial, category. According to Cape Farm Mapper the original natural vegetation in the study area is categorized as Cape Flats Dunes Strandveld which is classified as Critically Endangered. From a Terrestrial Biodiversity perspective, the area to be developed is considered as Low sensitivity.

The site visit confirmed that the natural vegetation of Cape Flats Dune Strandveld, and potentially some pockets of Peninsula Sandstone Fynbos (Critically Endangered), has been essentially lost across Erf 4439 through disturbance and alien invasive plants.

The northern parts of the project site that are classed as a CBA (1b), mostly related to the high threat status of the vegetation type. In addition, this area is also considered to form part of a large buffer area for conservation and protected areas. However, the area to be developed is focused within the southern parts of the project site and falls outside of these biodiversity features (see SDP in Appendix 1). Sufficient space also appears to have been factored into the SDP to form an adequate buffer between the proposed development and these features, including the stream that

occurs at the project site. Keeping the northern area as natural vegetation would ensure that the small area of Erf 4439 classed as a CBA is potentially retained.

Of high concern is the high density of established alien invasive trees at the site. All alien plants need to be removed from Erf 4439, and the northern areas, including the riparian zone of the stream, need to be cleared and rehabilitated.

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.

The screening report has not changed.

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

The proposed development optimizes the available vacant land within the urban area by constructing a multistorey apartment complex, allowing for greater residential density on the same footprint. Building vertically enables the efficient use of space, accommodating more housing units without expanding the development horizontally. This approach is crucial in urban settings where land is a limited resource, and maximizing its potential is essential for meeting the growing demand for housing.

In addition to addressing housing shortages, the development helps to preserve surrounding green spaces by focusing development within an already established urban area, thus mitigating urban sprawl. Concentrating residential units within a smaller footprint ensures that natural and open areas are left undisturbed, contributing to environmental sustainability. Moreover, the development aligns with urban planning strategies that prioritize compact development, ultimately promoting a more efficient use of municipal infrastructure and services.

The project will also stimulate local economic growth by attracting new residents to the area. An increase in population density can provide a boost to nearby businesses and services, creating a vibrant local economy. The presence of more residents can generate demand for retail, dining, and service industries, enhancing the overall quality of life in the community while supporting local enterprises.

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

The proposed development will optimize the use of existing resources and infrastructure in several ways:

- The development will be connected to the existing road network eliminating the need for new road infrastructure development, thereby reducing costs and minimizing disruption to the surrounding area.
- The development will allow extension of sewer and water networks from the existing pipelines, this reduces the need for additional utility infrastructure, such as water and sewage systems.
- The site is located within existing urban edge, this eliminates the need for development outside the urban boundary.

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 Town Planning Team is in consultation with the City of Cape Town regarding the confirmation of services. This confirmation has been provided in principle, final proof will be added to the final BAR.

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 proposed development addresses a growing local demand for residential housing and infrastructure in Simon's Town, a region experiencing increased tourism and residential expansion. Simon's Town is a popular destination, with a consistent influx of tourists and new residents. The development of Erf 4439 will provide significant socio-economic benefits, including job creation during the construction phase and the promotion of long-term economic activity through an increase in both visitors and permanent residents.

→ The development is in line with the local Spatial Development Framework (SDF), which promotes responsible urban growth in a manner that aligns with environmental sustainability and urban infrastructure expansion. The property location near existing developments supports the idea of densification without sprawling into undeveloped areas, therefore, minimizing ecological footprints.

→ Although the site is classified as largely transformed due to the presence of dense alien vegetation, the proposed development has been carefully planned to minimize environmental impacts. The northern section of Erf 4439, which contains remaining natural features and is part of a Critical Biodiversity Area (CBA), has been excluded from the development footprint. This area will undergo rehabilitation, with alien vegetation being removed and riparian zones preserved. This approach will improve the ecological functionality of the site, enhancing its natural environment and its ability to support local biodiversity.

→ The project aligns with sustainable development principles, emphasizing the rehabilitation of disturbed areas and the protection of ecologically sensitive zones. The implementation of mitigation measures such as the removal of alien vegetation, the establishment of wetland buffers, and the restoration of natural habitats will ensure a net positive impact on the environment in the long term. This commitment to sustainability is in line with the Department's guidelines, which stress that developments should not only meet immediate needs but also contribute to the long-term health and viability of the environment.

→ The development considers the needs of the local community and stakeholders. It addresses housing shortages, contributes to urban growth in a controlled and responsible manner, and ensures that environmental sensitivities are respected through the inclusion of specialist assessments and mitigation plans. This approach reflects the Department's call for developments that enhance the quality of life for local residents while minimizing environmental impacts.

→ The site is well-positioned in terms of available infrastructure, with established roads, sewer lines, and other municipal services in place. This reduces the need for extensive new service connections and ensures that the development integrates seamlessly with the existing infrastructure. The availability of key services such as water, electricity, and roads further enhance the desirability of the development, as it allows for efficient and sustainable urban expansion.

SECTION F: PUBLIC PARTICIPATION

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

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

N/A

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

Pending

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

DEA&DP: Land Use Cape Nature Department of Water and Sanitation City of Cape Town Municipality Simonstown Museum Simonstown Historical Society

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

To be added after PPP.

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

Pending

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 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 – no Groundwater Assessment is required for the proposed development.			
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.		
Kimberly van Zyl - Delta Ecology			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		

Aquatic Biodiversity Impact Assessment

According to the National Wetlands Map Version 5 (NWM5) and the National Freshwater Ecosystem Priority Areas (NFEPA) datasets, there are no wetlands indicated on the property. The only wetland indicated is a NWM5 seep wetland which is located within the 500 m regulated area. However, the NGI river line vector data (NGI, 2019) indicates the presence of a non-perennial river flowing through the site. Additionally, two non-perennial rivers are present within the 500 m regulated proximity of the site.

The proposed development area is situated in the southern portion of the site, where historical vegetation clearing has occurred, resulting in sparse natural vegetation coverage (**Photo 1**). Upon assessment of the site, a non-perennial

drainage line was identified within a steep valley located in the north of the proposed development footprint. This drainage line traverses the site in a west to east direction (**Photo 2 -Photo 5**).

The drainage line comprises a narrow active channel (approximately 0.5- 1m wide), with a relatively shallow bed dominated by sand (approximately 0.5 m deep). The drainage line is a non-perennial system which only contains natural surface water flow during the wet season and is fed by direct rainfall and interflow. The riparian area of the drainage line is dominated by alien *Eucalyptus spp* (**Photo 6**), interspersed with *Acacia saligna* (Port Jackson) and *Cenchrus clandestinus* (Kikuyu Grass).

Photo 1: View of the development area

Photo 2: The valley within which the non-perennial drainage flow ***(source**: Aquatic Biodiversity Assessment*)

Photo 3: The riparian area dominated by Eucalyptus sp. ***(source:** Aquatic Biodiversity Assessment)*

Photo 4: Overview of the narrow active channel of the non-perennial drainage line.

Photo 5: Overview of the narrow active channel of the non-perennial drainage line.

Photo 6: Eucalyptus trees dominating the steep valley and riparian area of the non-perennial drainage line (***source****: Aquatic Biodiversity Assessment*) '

Figure 8: Delineation of the non-perennial drainage line, i.e. the active channel and the riparian area ***(source:*** *Aquatic Impact Assessment*)

Present Ecological state (PES):

According to the Aquatic Impact Assessment there is a drainage line intersecting the property which then necessitated assessment of its PES.

The assessment resulted in scores of 68 and 52 for the instream and riparian components respectively. The scores fall within the PES category of C (Moderately Modified) for the instream component and D (Largely Modified) for the riparian component. According to assessment findings, the key factors that influenced the scoring are summarised below.

Instream Habitat Integrity:

- → There is no direct abstraction from the watercourse for domestic use. However, *Eucalyptus* trees within the riparian area would use a significantly greater volume of water when compared to natural vegetation.
- → Garden waste, logs and rubble have been dumped in the drainage line. This dumping has resulted in inundation during storm conditions (when there is significant flow). This has resulted in a broadening of the watercourse and riparian zone and a loss of the central channel in these areas due to sediment deposition.
- → Water quality impacts are limited to runoff from the few houses' upslope, and from the roads in the catchment that drain into the watercourse. Moderate nutrient loading and input of toxicants such as oils, petrochemicals and compounds from tar, concrete and tyre rubber are likely. The instream habitat is however not highly sensitive to water quality impairment given the non-perennial nature and the lack of sensitive species present.
- → Catchment hardening and direct supply of stormwater from roads via a culvert outlet has increased both storm peak flow and total runoff, which in turn increases the likelihood and severity of erosion. Seasonality remains largely unaffected.
- → Some substrate changes have occurred as a result of dumped garden waste and rubble, along with the dense infestation of *Eucalyptus* trees.
- → Minimal channel erosion was observed.
- → Exotic instream fauna were not noted on the site and is not likely to be present given the non-perennial nature of the drainage line.

Riparian Habitat Integrity

- → There is no direct abstraction from the watercourse for domestic use. However, Eucalyptus trees within the riparian area would use a significantly greater volume of water when compared to natural vegetation.
- → Water quality impairment, including nutrient loading and toxicant supply, tend to favour dense growth of alien invasive species, as observed throughout the watercourse.
- → The increase in storm peak flows has increased the frequency and extent of overtopping into riparian areas but has reduced the duration of saturation. This favours opportunistic cosmopolitan species such as the alien invasive species observed within the drainage line, rather than true riparian species.
- → Historical disturbance during development of the adjacent houses and associated infrastructure has resulted in an almost complete loss of indigenous riparian vegetation. The majority of the drainage line is dominated by exotic, large tree species that are not analogous to any indigenous elements in the natural instream vegetation community.

Ecological Importance and Sensitivity (EIS):

The EIS method described in the "Resource Directed Measures for Protection of Water Resources" (Duthie et al. 1999) was used to assess the onsite non-perennial drainage line. This resulted in an overall "Low/marginal" EIS rating category for the drainage line. The key aspects considered during the EIS assessment are summarised below:

- → No rare or endangered species were noted during fieldwork and the disturbed/transformed nature of the site makes their presence in the seed bank highly unlikely.
- → No significant populations of unique species were noted on site.
- → Indigenous species/taxon richness was low, given that the site is dominated by invasive species.
- → The non-perennial drainage line offered a moderate amount of aquatic habitat, such as instream boulders, sand and a small amount of gravel.

- → The watercourse flows for approximately 120 m downslope, after which it is diverted due to the Simons Town Water Treatment Plant. The watercourse is therefore a moderately important link or migration corridor to other natural features largely upslope of the development area.
- → The non-perennial drainage line has no base flow and species sensitive to dry conditions are not present. The primary sensitivity to changes in flow in this case is to increased flood peak flows and resulting erosion. The score for sensitivity to changes in flow is in keeping with the high soil erodibility and steep slopes.
- → Non-perennial systems are by nature not sensitive to water quality changes as the species present are exposed to poor water quality during dry periods under natural conditions, and long periods (most of the time in this case) without water at all.
- → The watercourse is small, has a surface roughness that varies from moderate to low across the site and is not able to store significant volumes of sediment.
- → The site is privately owned and earmarked for residential development. The watercourse holds no protection status.
- → The score for the degree of change in state from the reference state is in keeping with the PES category of C-D.

Table 2: Score sheet for determining the EIS of the relevant section of the non-perennial drainage line.

Determinant	Score (0-4)	Confidence (1-4)
PRIMARY DETERMINANTS		
Rare and endangered Species	0	3
Populations of unique Species	0	3
Species/taxon richness*	1	3
Diversity of habitat types or features*	2	4
Migration route/breeding and feeding site for riverine species: Importance in terms of the link it provides for biological functioning.	2	3
Sensitivity to changes in the natural hydrological regime*: Determined by the size of the feature, available habitat types and frequency of flood events.	2	3
Sensitivity to water quality changes*: Determined by the size of the feature, available habitat types and frequency of flood events.	1	3

Energy dissipation and particulate/element removal: Roughness coefficient/Storage capacity and size.	1	3
MODIFYING DETERMINANTS		
Protected status: Ramsar Site, National Park, Wilderness area and Nature Reserve.	1	4
Ecological integrity: Degree of change of the flood regime, water quality and habitat from reference conditions.	2	4
TOTAL	12	33
MEDIAN	1	3
OVERALL EIS	**Marginal/Low**	**High**

Ecosystem Services

The non-perennial drainage line's contribution to ecosystem services was assessed using the WET-EcoServices Version 2 methodology. All importance scores were within the 'Very Low' – 'Low' categories, apart from biodiversity maintenance and harvestable resources which scored 'Moderately Low' due to the threatened status of the vegetation type which could potentially be rehabilitated, and the presence of harvestable firewood from the invasive tree species. The score categories and their descriptions are provided in the table below.

Table 3: The outcome of the ecosystem services assessment for the non-perennial drainage line.

		Present State			
ECOSYSTEM SERVICE		**Supply**	**Demand**	**Importance Score**	**Importance**
REGULATING AND SUPPORTING SERVICES	Flood attenuation	1.0	0.1	0.0	Very Low
	Stream flow regulation	-	-	-	-
	Sediment trapping	0.1	0.1	0.0	Very Low
	Erosion control	1.6	0.8	0.5	Very Low
	Phosphate assimilation	1.1	0.0	0.0	Very Low
	Nitrate assimilation	1.1	0.1	0.0	Very Low
	Toxicant assimilation				

		1.1	0.3	0.0	Very Low
	Carbon Storage	0.8	0.0	0.0	Very Low
	Biodiversity Maintenance	2.2	2.0	1.7	Moderately Low
PROVISIONING SERVICES	Water for human use	1.5	0.3	0.2	Very Low
	Harvestable resources	2.5	1.3	1.7	Moderately Low
	Food for Livestock	1.0	0.0	0.0	Very Low
	Cultivated foods	2.5	0.0	1.0	Low
Cultivated Services	Tourism and Recreation	0.5	0.7	0.0	Very Low
	Education and Research	0.3	0.0	0.0	Very Low
	Cultural and Spiritual	2.0	0.0	0.5	Very Low

Recommended Ecological Category:

According to the Rountree et al. (2013) method for determining REC, the management objective for any watercourse within the EIS "Low marginal" category with a PES score within category D to B must be to maintain the watercourse's ecological state within the pre-construction category. In this case, the non-perennial drainage line has a PES of C/D respectively, and the management objective is to maintain the watercourse's ecological state within the pre-construction category.

Buffer Determination

An appropriate buffer of 16 m for the drainage line, that needs to be maintained during construction and operational phases of the proposed development, has been determined using the method described in the Buffer Zone Guidelines for Rivers, Wetlands and Estuaries (Macfarlane and Bredin, 2016). The recommended buffer is shown in Figure 9 below. It is noted that the complete avoidance of the buffer area will not be possible, as the proposed apartment building encroaches into the buffer zone. It is recommended that all non-essential construction and operational related activities must be strictly prohibited within the 16 m buffer (e.g. construction camps, laydown areas, mixing of cement, stockpiling of soils, ablution facilities etc).

Figure 9: Buffer area of the proposed.

The proposed development consists of 19 flats covering a total footprint of 1700m^2 within the southern portion of Erf 4439. The proposed development will not be located directly within the non-perennial drainage line, however the north to north-western portion of the development falls within the recommended 16 m buffer. The potential impacts of the proposed project on aquatic biodiversity are summarised below:

Construction Phase

1. Riparian vegetation disturbance where the proposed development is located directly adjacent to the non-perennial drainage line.
2. Increased runoff, erosion and sedimentation within the non-perennial drainage line due to clearing and compaction.
3. Water quality impairment due to potential spillage and release of potentially contaminated stormwater runoff into the non-perennial drainage line.

Operational Phase

4. Alteration of the flow regime, and associated erosion of the non-perennial drainage line due to catchment hardening.
5. Water quality impairment due to stormwater runoff into the non-perennial drainage line and potential sewage leaks and spills.

Impact Assessment

The five potential aquatic impacts identified in Section 7 were assessed first without and then with application of mitigation measures. All of the post mitigation impact scores fell within the "Low" or "Very Low" impact categories. The 'no go' scenario was assessed and found to also be of "Low" impact significance as this scenario would still result in gradual decline of PES due to continuing erosion, channel incision and growth of alien invasive vegetation. No indirect impacts were noted.

Risk Assessment

The Risk Assessment Matrix prescribed by GN 4167 of 2023 was applied to the proposed project assuming full application of the essential mitigation measures. The result was an overall "Low Risk" rating for the proposed development which will require a General Authorisation. A summary of the reasoning behind the risk scores is provided below:

1. The proposed development will not impede flow or encroach on the watercourse.
2. The potential for erosion due to catchment hardening as a result of the proposed development can be effectively mitigated by means of the proposed mitigation measures.
3. The drainage line is non-perennial, which limits sensitivity and therefore risk for most impact classes.
4. No wetlands are associated with the drainage line.
5. There is limited indigenous vegetation communities within the proposed site.
6. No aquatic fauna is reliant on the drainage line.

The completed risk assessment matrix is attached as Annexure 1 of the Aquatic Biodiversity Impact Assessment.

Conclusion and Recommendations

A single non-perennial drainage line was confirmed and delineated during fieldwork undertaken on the 21st of June 2024. This drainage line was identified within a steep valley which is located to the north of the proposed development footprint and traverses the site in a west to east direction.
The non-perennial drainage line was assessed using current best practice assessment methodologies to determine the IHI, PES, EIS, ES, and REC metrics. The results of these assessments are as follows:

Table 4: Results of the watercourse status quo assessment:

	IHI	EIS	ES (Highest)	REC
Non-perennial drainage line	C/D	Low/ Marginal	Moderately Low	C/D

The non-perennial drainage line was found to be moderately to largely degraded, achieving a PES Score within the C/D category. The degradation and general nature of the drainage line also resulted in a Low/Marginal EIS score indicating that the non-perennial drainage line is not important from an ecological or biodiversity planning perspective. ES scores indicated that the non-perennial drainage line provides a negligible to moderately low contribution to 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 RAM prescribed by GN 4167 of 2023.
The five potential aquatic impacts identified were assessed first without and then with application of mitigation measures. Construction and operational phase impacts prior to the implementation of mitigation measures ranged from "Low" to "Medium" impact categories. However, with the successful implementation of mitigation measures, all impacts may be reduced to "Low" and "Very Low" impact categories.

The "No Go" Alternative would likely result in the site remaining as is and would therefore result in "Low" negative significance impact score to the onsite drainage line due to the continuation of current disturbances (alien invasive spread and water quality impairment).

The result of the RAM was an overall "Low Risk" rating for the proposed development, assuming that all mitigation measures will be implemented. 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. It is furthermore the opinion of the specialist that the project should be registered under the GN509 (2016) General Authorisation.

6. 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. The proposed development is situated at about more than 100 m from the High-Water Mark of the sea.			
3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.		
N/A			
3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.		
N/A. The development will not affect the coastal zone and it is not situated on the coastal protection zone and is in within the existing urban edge.			

7. Biodiversity

4.1.	Were specialist studies conducted?	YES x	NO
4.2.	Provide the name and/or company who conducted the specialist studies.		
Jonathan Colville and Collan Cohen - Terrestrial Ecologist and Faunal Surveys			
4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.		

Terrestrial Biodiversity/ Plant Species/ Animal Species

The desktop study utilized several key conservation and biodiversity informants, including Cape Farm Mapper, the Vegetation Map of South Africa, Landcover-based habitat modification data, and Google Earth.

The assessment reveals that the site is primarily within the Cape Flats Dune Strandveld vegetation type, which is classified as an endangered ecosystem (**Figure 10**). However, the specialist noted that the site might also contain elements of Peninsula Sandstone Fynbos, a critically endangered ecosystem. Despite these sensitive classifications, much of the natural vegetation has been overtaken by dense alien species.

The 2014 landcover models indicated a significant loss of natural vegetation on the site, with only the northern parts still retaining the original habitat type. The South African Red List of Ecosystems further classifies these remaining vegetation types as endangered (SANBI & Department of Forestry, 2021). However, the site visit confirmed that the area designated for development has lost all-natural vegetation, while the northern region is heavily infested with alien vegetation. This biodiversity assessment has influenced the development by confirming that no pristine natural vegetation will be impacted by the construction, and it emphasizes the need for alien vegetation management and possible restoration efforts to protect the remaining endangered ecosystems.

To address conservation concerns and mitigate impacts on Critical Biodiversity Areas (CBAs), the specialist consulted the Cape Town Biodiversity Network Spatial Plan to highlight the significance of biodiversity conservation and the preservation of ecosystem functions in CBA-designated areas. Although the proposed development site is situated outside any designated CBA, the northern portion of the erf, which is not included in the development plan, falls within a CBA where the remaining vegetation is considered highly threatened. This distinction is essential as it facilitates the

protection and potential rehabilitation of the northern areas while ensuring that the development does not encroach upon ecologically sensitive and significant regions.

Figure 10: The vegetation types found at, and bordering, the project site.

Figure 11: Land cover derived terrestrial habitat change layer showing that the southern parts of Erf 4439 have lost almost their natural vegetation

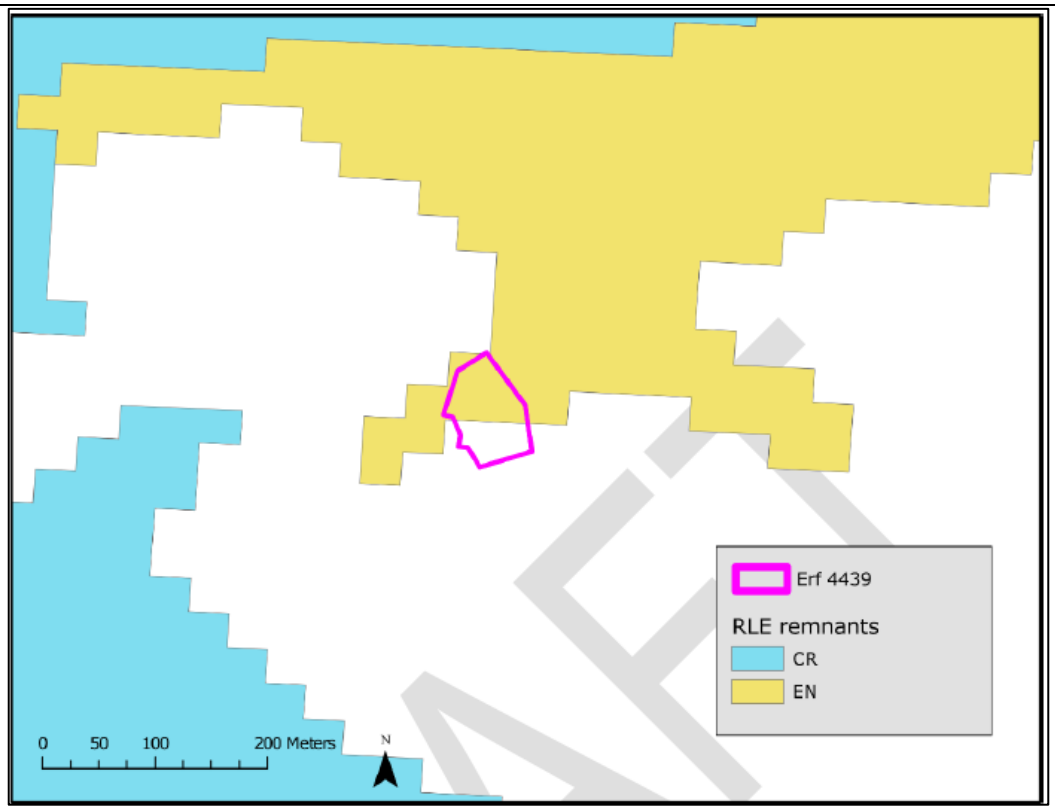

Figure 12: The northern area of Erf 4439 falls over an area that is considered as natural remnants of a Endangered (En) Red Listed Ecosystem type (South African National Biodiversity Institute and Department of Forestry, 2021).

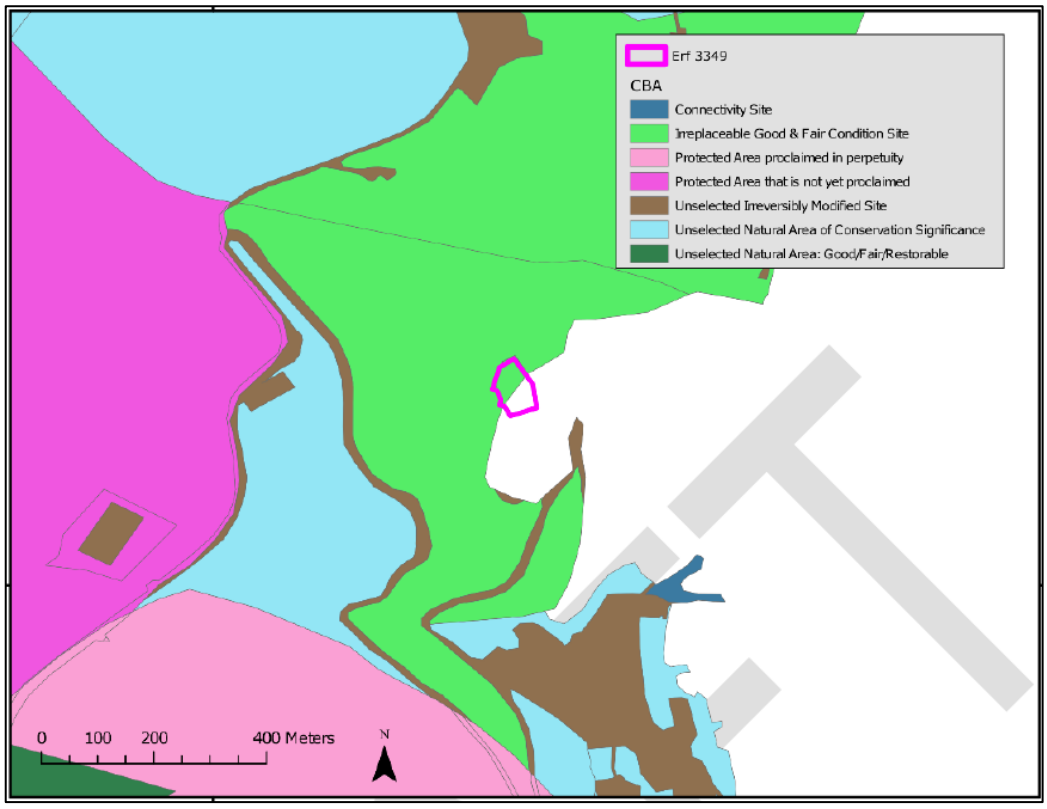

Figure 13: Critical Biodiversity Areas (CBA1b) of the City of Cape Town Biodiversity Network Plan in relation to Erf 4439.

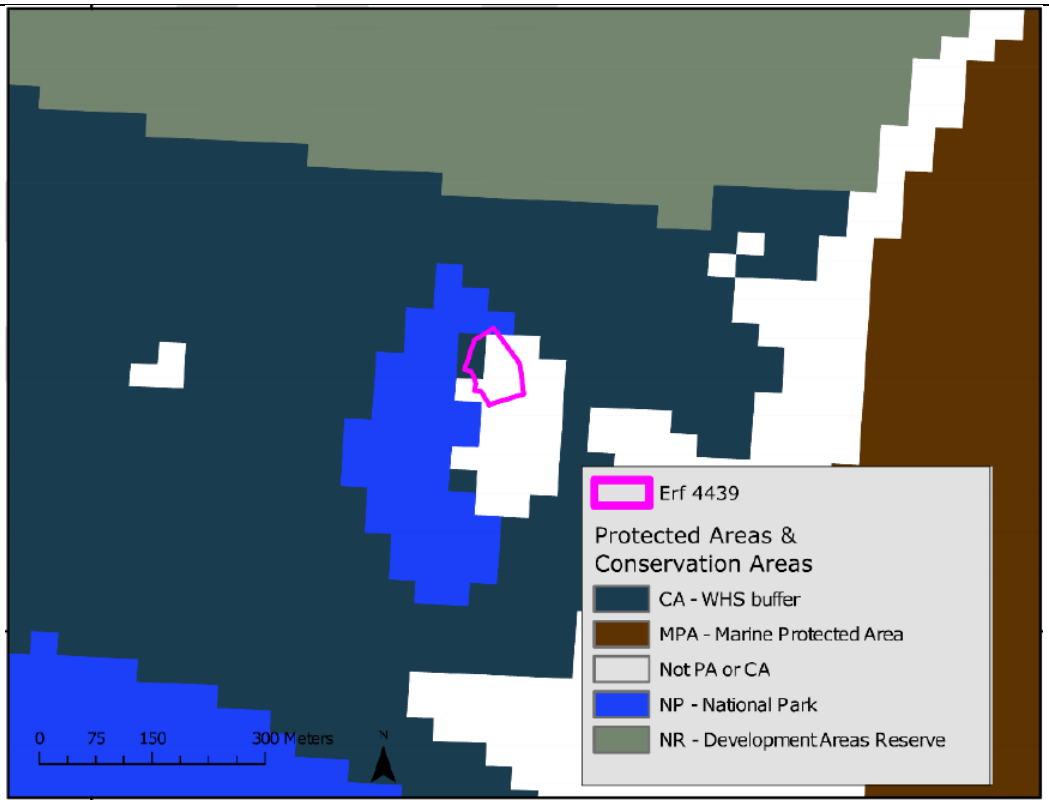

Figure 14: The north-western parts of the development area are considered as a buffer area for protected and conservation areas (Department of Forestry Fisheries and the Environment, 2023).

Photo 7: The development area lies adjacent to a residential estate and tarred road (Colville & Cohen, 2024)

Photo 8: The soils of the southern part adjacent to the development area are extremely disturbed and all-natural vegetation has been removed. Note the dense alien trees on the right of the photo.

Photo 9: Most of the central part of the project area lies in a steep gully, choked with dense alien vegetation; all alien vegetation will need to be removed from the development area.

The specialist assessment highlighted that the northern parts of the property form part of buffer area for protected and conservation area. It is important to note that the area earmarked for development does not fall within this buffer, see

The specialist also indicated that the property is within the Strategic Water Source Area (SWSA), which is of high significance to the water supply of South Africa.

Bird Species of Conservation Concern

The specialist investigation involves the identification of bird species which may be associated with the site. Two birds species were investigated which are said to be associated with the site. *Circus maurus* (Temminck 1828) Black Harrier and *Sarothrura affinis* (Smith 1828) Striped Flufftail are birds' species of Conservation Concern which can be found in the Western Cape and the rest of South Africa. The specialist referenced Taylor, 2015 to highlight that the *Circus maurus* (Temminck 1828) Black Harrier species breeds on the ground in low, shrubby vegetation in spring, mainly in the Western Cape, before undertaking complex and variable post breeding movements that can take birds to the Drakensberg. However, the overgrown nature of the site and steep slope makes the site unsuitable for this species.

Sarothrura affinis (Smith 1828) Striped Flufftail was not detected during the site visit, and based on the specialist knowledge the lack of dense montane vegetation on site makes it an unsuitable habitat for this species.

Site visit

The specialist highlighted that the area earmarked for development is not a suitable habitat for the animal species of Conservation Concern being listed above since it has evidence of disturbance and transformation.

There are no plans species of Conservation Concern found during the site visit, the plant habitat of the development area is highly disturbed and transformed.

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.

According to the Terrestrial Biodiversity Assessment, the area earmarked for development falls outside a CBA, however, the northern section of the property falls within the CBA but excluded from the development proposal. The northern section is also considered as a large buffer area for conservation and protected areas. However, the area to be developed is focussed within the southern parts of the project site and falls outside of these biodiversity features. The specialist also highlights that a sufficient space also appears to have been factored into the SDP to form an adequate buffer between the proposed development and these features, including the stream that occurs adjacent to the project site. The northern section of the property will remain as a No-go area during the construction phase and therefore will not be developed.

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

The proposed development on Erf 4439 in Simons Town has been carefully assessed in relation to the site-specific features and functions of the Biodiversity Spatial Plan category. Notably, the area designated for the development falls outside of the Critical Biodiversity Area (CBA), which means that the project will not directly impact any areas identified as crucial for biodiversity conservation. This strategic placement ensures that sensitive ecological zones, which are vital for maintaining species diversity and ecosystem function, are preserved.

Additionally, the proposed development will not encroach on the perennial river that has been delineated on the property. The development layout has been planned to ensure that the watercourse and its surrounding riparian zone remain unaffected by construction activities. This is a key consideration for maintaining the ecological integrity of the river system and protecting its role in supporting local biodiversity, including plant and animal species that rely on this water source.

In terms of vegetation clearance, it has been confirmed that the site is in a degraded state, primarily due to the widespread presence of alien invasive plant species, and urban day to day disturbance, which has taken over the majority of the property which falls within the urban area. Given the degraded condition of the site, the vegetation is not pristine and therefore its clearance will not result in the loss of indigenous plant species or pristine habitats.

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. The proposed development is not located within a protected area.	
4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.

Based on available species-level information regarding two bird species of conservation concern (SCC) and their habitat preferences, the highly transformed condition of the urban site of the site has resulted in its classification as having low sensitivity from a faunal perspective. Consequently, no suitable habitat for the aforementioned animal SCC was identified within the development area, as the faunal habitat is predominantly disturbed, transformed completely lost on the urban section of the property where the development is proposed

However, it is noteworthy that Rose's Rain Frog (*Breviceps rosei*), classified as Least Concern, was observed calling at the project site during the winter survey conducted in June. This presence highlights the possible ecological significance of the remaining areas of the site and drainage line located outside the urban area and development footprint and underscores the need for careful management practices for these zones. To promote the continued existence of this Western Cape endemic frog species, the development plan includes measures for the rehabilitation of areas impacted by alien invasive plants along the drainage line. Additionally, the northern portions of the site will be retained as natural vegetation. These actions are intended to create a more favourable habitat for the Rose's Rain Frog, thereby ensuring its conservation alongside the development activities.

8. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.
N/A

9. 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.		
Agency for Cultural Resource Management (ACRM) – Jonathan Kaplan			
6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.		

The archaeologist conducted a detailed assessment of the northern portion of Erf 4439, Simonstown, on the 23rd of August. The site is said to consists of a steep sandy slope descending toward a non-perennial stream, which is largely covered in Kikuyu grass, building rubble, and concrete debris, likely from the construction of nearby residential flats. The slope has been partially landscaped, further altering its original state.

On the opposite side of the stream, a stabilized remnant sand dune, covered in invasive alien vegetation, was observed. The upper slopes of the dune showed widespread activity of dune mole rats, indicating the presence of soft, loose sand. However, due to the dense invasive vegetation and thick Kikuyu grass, archaeological visibility across much of the slope was significantly hindered.

During the assessment, various domestic refuse items, such as glass, condiment jars, broken bottles, ceramic plates, late 19th/early 20th-century Blue and White porcelain, and other materials, were found scattered across the mid and upper slopes of the dune. These items are believed to have been dumped by former residents of Luyolo Village before its demolition in 1965. However, no structural ruins related to Luyolo Village or pre-colonial Stone Age artifacts were discovered.

The assessment concluded that the cultural remains identified were not of conservation significance and graded them as "Not Conservation Worthy" (NCW). Given that no development is planned for the steep northern portion of the site,

the archaeologist recommended that no further archaeological mitigation is required. Heritage Western Cape has agreed with this finding and confirmed that no further Heritage related assessment is required.

10. 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.
As per Section 6.3 above – no further Heritage Assessment required.

11. Socio/Economic Aspects

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.
The community in the vicinity of Erf 4439 is predominantly characterized by a low-density residential setting with high-value properties. The area is zoned for General Residential Subzone 2, which allows for a variety of primary land uses, including dwelling houses, second dwellings, group housing, boarding houses, flats, private roads, and open spaces. A significant portion of the properties are utilized as guesthouses, contributing to the local economy by supporting tourism-related activities. The residential character of the area, combined with the presence of guesthouses, reflects both a stable residential community and a thriving tourism sector, emphasizing the area's appeal for short-term accommodation and leisure. These factors contribute to the economic vitality of the community, while maintaining a relatively low-density development pattern.		
8.2.	Explain the socio-economic value/contribution of the proposed development.
→ The construction of rental apartments will attract investors looking for income-generating properties. This influx of investment will stimulate economic growth, providing a boost to local businesses and creating a more vibrant economy. → During the construction phase, the project will generate employment opportunities, benefiting local labor. Once completed, the ongoing management and maintenance of the flats will also create additional jobs in property management, maintenance, and related services. → The municipality will benefit from increased revenue through water and electricity bills collected from the new residents. This additional income can be reinvested in community services and infrastructure improvements, enhancing overall community welfare. → the project will help address the housing shortage for individuals relocating to the area for work opportunities. This can enhance the quality of life for new residents and support the local workforce. → The presence of new residents can lead to the growth of community networks and services, fostering a sense of community and collaboration.		
8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.
The development will prioritize partnerships with local suppliers and contractors during the construction phase. This approach will inject funds into the local economy and foster relationships with local entrepreneurs.		
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.
The development will be in line with the existing housing infrastructure in the area and therefore will not cause any harm to people's health and wellbeing, but rather positive impacts such as housing for the individuals that need rental housings.		

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

SUMMARY OF THE EVOLUTION OF ALTERNATIVES FOR THE PROPOSED DEVELOPMENT AND MOTIVATION FOR ALTERNATIVES ASSESSMENT:

Erf 4439 Simonstown is located within the built-up urban edge of Simonstown and surrounded by similar residential type developments. The property itself is located partially within and partially outside the demarcated urban edge. Only the southern portion of the site, which falls within the urban edge, is proposed for development.

Given the limitations of the site in terms of location, urban edge demarcation and watercourse delineation, the is only a small section of the property which could be considered suitable for development.

In addition to this, the findings of the Terrestrial Biodiversity Report concluded that the site has been heavily disturbed and transformed with a low botanical sensitivity and low Terrestrial Biodiversity. The Freshwater / Aquatic specialist delineated the drainage line and riparian zone on site and confirmed that is largely degraded with negligible to moderately low ecosystem service opportunities.

The northern parts of the project site, which are located outside the urban area and outside the development zone, fall within a CBA (1b), and this is mostly related to the high threat status of the vegetation type. In addition, this area is also considered to form part of a large buffer area for conservation and protected areas. However, the area to be developed is focussed within the southern parts of the project site and falls outside of these biodiversity features. Sufficient space also appears to have been factored into the SDP to form an adequate buffer between the proposed development and these features, including the stream that occurs at the project site. Keeping the northern area as natural vegetation would ensure that the small area of Erf 4439 classed as a CBA is potentially retained.

Due to the facts listed above, the options for development of the site are extremely limited. for this reason, the EAP has taken the decision to only assess to reasonable and feasible options for this site. These are:

→ **Alternative 1 (Preferred)** - development of the southern portion of the site to accommodate the proposed development of apartments. Even though the development will fall within the 32m zone, the impacts of this remain negligible due to the state of the site and drainage line. However, development of this zone could facilitate alien clearing and management of the northern section of the property and riparian zone on the northern end of the property.

→ **Alternative 2 (No Go)** - where the status quo remains and the site is not developed, although this allows the site to remain undeveloped, it offers limited, to no opportunity for improvement of the natural state of the northern section.

The figure above shows the subject erf relative to existing residential development in the areas. The logical and expected place for development in this erf would be as proposed herein and indicated in yellow on the above.

1. Details of the alternatives identified and considered

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred property and site alternative.	
The preferred property identified for the proposed development is Erf 4439 which is owned by the applicant and located in Simon's Town within the jurisdiction of the City of Cape Town Municipality. This site is one of the few remaining development options for this area. This site offers a strategic advantage as half of the property designated for this proposed development falls within the urban edge. The other half of the subject property is located outside of the urban residential area and would benefit from rehabilitation and long-term alien vegetation management. The current zoning of the property is Limited Use Zone. A Rezoning application will be required to General Residential Use.	

The proposal aims to construct three-storey apartment building on this property that will 19 flats as well as parking on ground floor under the building. This development aims to meet the growing demand for residential housing in the area. The property spans approximately 4190.6 m², with the development footprint for the proposed three-storey building covering approximately 1700 m², which is nearly a quarter of the total property size.

Provide a description of any other property and site alternatives investigated.

There is no other site alternative pertaining to this development that has been investigated.

Provide a motivation for the preferred property and site alternative including the outcome of the site selectin matrix.

The selection of Erf 4439 as the preferred property for the proposed development is based on a comprehensive evaluation of various factors such as:

→ Meeting the needs of the primary objectives of the development, which include providing affordable rental housing and supporting local economic growth.
→ The site benefits from access to established road networks and utility services (water, electricity, and sewage). This connectivity reduces the need for extensive new infrastructure development, lowering costs and minimizing disruption to the surrounding area.
→ The site is not in a sensitive ecological area, making it suitable for development without significant ecological disruption.

Only two alternatives are assessed herein in line with the motivation and summary outlined above.

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

There is no other site alternative pertaining to this development that has been investigated.

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

The proposed development on Erf 4439 does not include any other property or site alternatives that have been investigated. This decision stems from a thorough evaluation of the site's unique characteristics and its specific suitability for the intended use. Erf 4439 is strategically located within a zoning classification that supports the proposed development, ensuring compliance with local regulations and facilitating a smooth approval process.

Access to existing infrastructure is another critical factor that influenced the decision. Erf 4439 benefits from established road networks, utility connections, and proximity to essential services such as schools, healthcare facilities, and public transport. This connectivity not only enhances the feasibility of the development but also minimizes the need for additional infrastructure investments, which can be both costly and disruptive to the surrounding area.

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

Positive

→ The presence of an existing access road leading to the site reduces the need for new road construction, minimizing disruption to the surrounding environment and preserving natural landscapes.
→ Availability of local service infrastructure
→ The development is expected to contribute to the economic growth of the area by providing housing and attracting new residents. This can lead to increased local business activity and job creation, fostering a more vibrant community.
→ By adding new residential units, the development will help address housing shortages in the area, promoting sustainable urban growth and community development.
→ The construction and development of the southern portion will enable site management, rehabilitation and clearance of alien vegetation on the norther section of the property which forms a buffer to the larger conservation zones in the area.

Negative

→ The introduction of a three-storey apartment building may lead to increased density in the area, potentially affecting local ecosystems and wildlife habitats due to further urbanization.
→ The development could lead to increased impervious surfaces, which may exacerbate stormwater runoff and increase the risk of flooding or erosion if not properly managed.
→ The construction and operation of the building will require resources such as water and energy, which could place additional strain on local supplies and infrastructure.
→ Risk to delineated drainage line on site, however this has been rated as negligible by the specialist

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

Provide a description of the preferred activity alternative.

No alternative activities have been explored – the use of the property is limited via town planning parameters and municipal zoning schemes, as well as existing development in the area.

Provide a description of any other activity alternatives investigated.

No additional activity alternatives were considered beyond the preferred development option

Provide a motivation for the preferred activity alternative.

The proposed apartment building complements the established residential and tourism-oriented developments in the area, enhancing the overall aesthetic and functionality of the neighbourhood. The development will create additional housing options for residents and visitors, addressing the growing demand for accommodation in Simons Town. The site benefits from existing road infrastructure, which facilitates access and connectivity. This reduces the need for extensive new infrastructure development, minimizing additional environmental disruption and promoting efficient use of resources.

Photo 10. Showing the development area on site and adjacent existing activities

Photo 11. Proposed development area

Provide a detailed motivation if no activity alternatives exist.

See summary above.

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

Positive

→ The presence of an existing access road leading to the site reduces the need for new road construction, minimizing disruption to the surrounding environment and preserving natural landscapes.

→ The development is expected to contribute to the economic growth of the area by providing housing and attracting new residents. This can lead to increased local business activity and job creation, fostering a more vibrant community.

→ By adding new residential units, the development will help address housing shortages in the area, promoting sustainable urban growth and community development.

→ The construction of the building will enable clearance of alien vegetation on the property, this will contribute to restoration of indigenous vegetation.

Negative

→ The introduction of a three-storey apartment building may lead to increased density in the area, potentially affecting local ecosystems and wildlife habitats due to urbanization.

→ Construction activities may disrupt local fauna, especially during breeding seasons. There may also be concerns about habitat fragmentation as the area becomes more developed.

→ The development could lead to increased impervious surfaces, which may exacerbate stormwater runoff and increase the risk of flooding or erosion if not properly managed.

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.

ALTERNATIVE ONE (PREFERRED)

The preferred design alternative proposes the construction of a three-storey building consisting of a ground floor with 2 apartments and parking, first floor, and second floor, with a total footprint of 1700 m². The building will be located on the southern part of the property, within the designated urban edge.

A critical consideration in the design process was the presence of a non-perennial stream that crosses the property. To avoid encroachment and protect the watercourse, the watercourses was delineated and avoided as far as possible, however there is encroachment within the 32m zone on the southern zone.

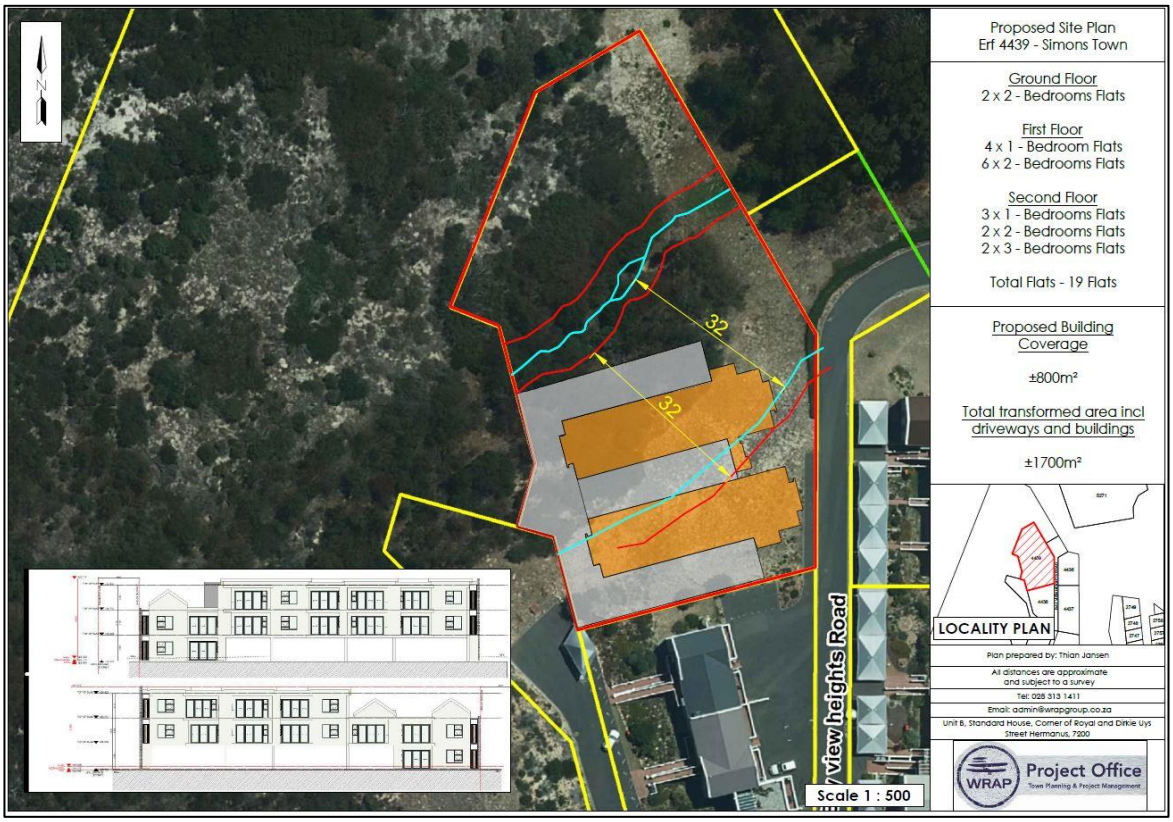

Figure 15: Preferred layout alternative

Provide a description of any other design or layout alternatives investigated.

No other alternatives have been investigated.

Provide a motivation for the preferred design or layout alternative.

See summary above.

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.

Positive

→ The presence of an existing access road leading to the site reduces the need for new road construction, minimizing disruption to the surrounding environment and preserving natural landscapes.
→ The development is expected to contribute to the economic growth of the area by providing housing and attracting new residents. This can lead to increased local business activity and job creation, fostering a more vibrant community.
→ By adding new residential units, the development will help address housing shortages in the area, promoting sustainable urban growth and community development.
→ The construction of the building will enable clearance of alien vegetation on the property, this will contribute to restoration of indigenous vegetation.

Negative

→ The introduction of a three-storey apartment building may lead to increased density in the area
→ The development could lead to increased impervious surfaces, which may exacerbate stormwater runoff and increase the risk of flooding or erosion if not properly managed.
→ The construction and operation of the building will require resources such as water and energy, which could place additional strain on local supplies and infrastructure.

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:

N/A

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.

There are no preferred operational activities.

Provide a description of any other operational alternatives investigated.

N/A

Provide a motivation for the preferred operational alternative.

N/A

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.
N/A

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 property offers one of the last remaining developable areas in the urban area and has been flagged for development.	

1.7.	Provide and 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.
No other alternatives are available on site, the preferred site plan is deemed suitable for the proposed development, is situated within the designated urban edge, thereby aligning with the infrastructural development initiatives in the area. This strategic location minimizes the potential for adverse impacts on surrounding environments and community structures and offers opportunity for rehabilitation of the remaining erf which falls outside the urban edge. Furthermore, the development area on the erf has low ecological significance and is highly transformed. A non-perennial drainiage traverses the property along the urban edge line. The boundaries have been delineated by a qualified aquatic specialist and the stream was found to be in a highly degraded state. However, no development will take place within this delineated riparian zone and proposed development has been designed to respect and avoid this delineated boundary, further mitigating potential ecological impacts. The presence of an existing access road facilitates efficient transit to the site, thereby reducing the need for additional infrastructure development and minimizing further disturbance to the natural landscape.	

1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.
In conclusion, Alternative Layout Two is identified as the most viable option for the proposed development on-site. This alternative considers the non-perennial river traversing the property and ensures no encroachment on its boundary. Furthermore, this alternative was comprehensively assessed for its potential impacts and informed by the specialist team. The development on the southern section of the property allows for the opportunity to rehabilitate the northern portion, which forms a buffer to the nearby Table Mountain National Park.	

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).
The delineated riparian zone should be marked as a no-go area and only actions for management and rehabilitation should be permitted in the delineated riparian zone.

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. Impact is described according to their nature or type, as follows: Nature/ Type

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
	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.
Intensity	**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 the most conditions.
Definite	The impact will occur

Once an assessment is made of the magnitude and the likelihood, the impact significance is rated through a matrix process:

Significance				
Magnitude		Unlikely	Likely	Definite
	Negligence	Negligible	Negligible	Minor
	Low	Negligible	Minor	Minor
	Medium	Minor	Moderate	Moderate
	High	Moderate	Major	Major

Definition 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 ONE (PREFERRED)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**1. Socioeconomic impacts**
Potential impact	Job creation during the planning, design and construction phase
Nature of impact:	Positive
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Improved livelihood for the community, investments in the area, influx of people in the area
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:	N/A
Cumulative impact prior to mitigation:	Access to employment opportunities for the local contractors'

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
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:	N/A
Proposed mitigation:	- Ensure labour force is sourced locally as far as possible - A gender balance to be considered during employment
Residual impacts:	- Improvement of the local economy, skill transfer and investment in the area.
Cumulative impact post mitigation:	Job creation and skill transfer for the local community
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High Positive**
Potential impact and risk:	**2. Dust**
Potential impact	Dust generated from the site clearing and site preparation phase is expected
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Visual impacts and nuisance for the residents adjacent to the site
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	High

Indirect impacts:	Potential for reduced visibility, temporary visual impacts to the area
Cumulative impact prior to mitigation:	Dust may be generated as a result of earthmoving activities, vegetation removal and mixing required for construction and development.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	- Maintain ground cover for as long as possible to reduce the total surface area exposed to wind. Do not clear the entire property, rather clear the building site only, as far as possible. - Ensure vehicle speeds limits on site are kept to a minimum. - Delivery vehicles to keep loads covered. - Cover fine materials stockpiles - Wet dry and dusty surfaces using non-portable water. Staff to wear correct PPE if dust is generated for long periods. - Road surfaces to be swept and kept clean of sand and fine materials.
Residual impacts:	None
Cumulative impact post mitigation:	Dust generated during construction; mitigation successful
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-Low Negative
Potential impact and risk:	**3. Noise**
Potential impact	Noise generated from the vehicles and machinery moving during the construction phase.

Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Noise disturbance to the transient receptors, i.e motorists, pedestrians and residents.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	No resources will be impacted.
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Medium negative
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	Medium- High
Degree to which the impact can be managed:	Medium- High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	- Limit noise levels (e.g install and maintain silencers on machinery) - Provide protective wear for workers i.e ear plugs - Ensure that construction vehicles and machinery are maintained to reduce noise generation. - Restrict construction to normal working hours in line with municipal bylaws
Residual impacts:	None
Cumulative impact post mitigation:	Typical noise impacts associated with construction site

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low negative**
Potential impact and risk:	**4. Visual**
Potential impact	Visual impacts of construction site and construction activities
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Reduce aesthetic values of the site and surroundings
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:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Short term visual impacts associated with construction
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:	Medium
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	High
Proposed mitigation:	- Good housekeeping of construction site and working areas. - Screen the visual elements of the site camp with netting. - Locate the site camps in a transformed area.

	- Site officer to walk the site on a daily basis to check for visual impacts and general site aesthetics, particularly prior the weekends and holidays - Office to ensure that waste and batching areas are correctly screened and secured to prevent spread by wind, rain and animals.
Residual impacts:	None
Cumulative impact post mitigation:	Typical visual impacts associated with a construction site.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very-Low Negative**
Potential impact and risk:	**5. Vegetation clearance**
Potential impact	Clearance of sensitive indigenous vegetation during site preparation
Nature of impact:	Negative
Extent and duration of impact:	Local: Long-term
Consequence of impact or risk:	Possible loss of ecological connectivity and endangered species of Cape Flats Dune Strandveld.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Low
Indirect impacts:	Loss of ecosystem connectivity
Cumulative impact prior to mitigation:	Medium- Loss of ecosystem connectivity

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:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	N/A
Residual impacts:	Positive- clearance of alien vegetation on the property.
Cumulative impact post mitigation:	Positive- clearance of alien vegetation on the property.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low negative**
Potential impact and risk:	**6. Disturbance of Riparian Habitat**
Potential impact	The movement of construction vehicles and setting up of the construction camp alongside or extending to within, the delineated riparian zone
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Development footprint is therefore likely to result in the disturbance of the non-perennial drainage line
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:	Low cost / Moderately high likelihood of success

Indirect impacts:	Loss of vegetation which may encourage the proliferation of AIPS, disturbance of soil may lead to erosion, leaks from construction machinery may impact the drainage line
Cumulative impact prior to mitigation:	General construction impacts associated with the construction phase in close proximity to the riparian zone.
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:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Locate site camps, laydown areas, stockpile areas, construction material, equipment storage areas, vehicle parking areas, bunded vehicle servicing areas and re-fuelling areas in designated areas of already hardened surface or disturbed areas located outside of the delineated riparian zone and at least 16m from this line. These areas should preferably be located on level ground in a previously disturbed area of vegetation approved by the Environmental Control Officer (ECO). Cut and fill must be avoided where possible during the set-up of the construction site camp. → Clearly demarcate the construction footprint (including construction camp, access roads, stockpile areas and working servitudes) with orange hazard tape, fencing or similar prior to the commencement of any activity, and strictly prohibit the movement of construction vehicles and personnel outside of the demarcated areas. Portions of the non-perennial drainage line and its associated buffer area that are located outside of the demarcated construction footprint must be designated as no-go area. → Demarcation of the construction footprint/working servitude must be signed off by an ECO (or similar). Demarcation should not be removed until construction is complete, and rehabilitation has taken place. → Limit access into the construction footprint to existing access roads. → Prohibit the dumping of excavated material, building materials or removed vegetation within the non-perennial drainage line and its associated buffer area. Building material must be stored at the designated storage area located outside of the no-go area. Spoil material must be

	appropriately disposed of at a registered waste disposal facility. → Topsoils and subsoils removed from the construction footprint must be stored separately at the designated stockpile area for future rehabilitation. → Vegetation clearance should be restricted to the relevant development components and indigenous vegetation cover should be maintained as far as practically possible. → Vegetation which is considered suitable for rehabilitation activities after construction (such as indigenous grasses and other herbaceous species) should be carefully removed from the construction footprint and stored at an appropriate facility for use in later rehabilitation activities. → Clear and remove any rubble or litter that may have been accidentally deposited into the no-go area as a result of construction activities and dispose of at an appropriate registered facility. → An ECO must inspect the construction footprint on a regular basis and must take immediate measures to address unforeseen disturbances to the non-perennial drainage line and its associated buffer area. Any disturbed / compacted areas falling outside of the demarcated construction footprint must be immediately rehabilitated. Depending on the extent of damage the method of rehabilitation may require input from an aquatic specialist / suitably qualified contractor. → Once construction has been completed, orange hazard fences as well as all construction waste, rubble, and equipment must be removed from the construction footprint. → In line with the NEMBA, all AIPS listed under the amended AIPS Lists (DEFF: GN1003, 2020) must either be removed or controlled on land under the management of the proponent. An AIPS control plan must therefore be compiled which includes measures to control and prevent the proliferation of AIPS during the construction phase. → A Rehabilitation, Maintenance and Management Plan (RMMP) must be drafted by a suitably qualified specialist to address the rehabilitation of any disturbed / bare areas which fall outside of the direct construction footprint. Rehabilitation must take place as soon as possible after construction is completed, and monitoring of rehabilitated areas must be undertaken. A suitably qualified professional must supervise the rehabilitation and monitoring activities.
Residual impacts:	Loss of vegetation, will encourage the proliferation of AIPS, destabilisation of soils during construction may exacerbate erosion impacts, runoff and litter from construction site

Cumulative impact post mitigation:	Continued loss of vegetation, will encourage the proliferation of AIPS, risk of erosion through disturbance during construction
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very-Low negative**
Potential impact and risk:	**7. Erosion and Sedimentation of the Non-perennial Drainage Line**
Potential impact	The removal of vegetation and stripping of soils from the construction footprint will result in the exposure of soils to erosive elements. An increase in stormwater runoff and velocities from exposed and compacted areas, particularly during peak rainfall periods, may result in the formation of erosion gullies and rills in the downslope non-perennial drainage line.
Nature of impact:	Negative
Extent and duration of impact:	Local; beyond 20 years/ Permanent
Consequence of impact or risk:	Increase in the runoff of sediment laden stormwater into the downslope non-perennial drainage line from the construction footprint, particularly during the rainy season.
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Moderate cost / Moderate likelihood of success
Indirect impacts:	Risks of increasing flood events
Cumulative impact prior to mitigation:	Risks of flooding flood event
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:	Low

Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Undertake initial clearing in the early dry season (November to January) if possible. → Locate soil stockpile areas in designated areas of already hardened surface or disturbed areas on site. These areas should preferably be located on level ground in a previously disturbed area of vegetation approved by the ECO. Stockpile areas must not be located within the no-go area (i.e. the non-perennial drainage line and 16 m buffer area). → Design a Stormwater Management Plan (SWMP) prior to the commencement of construction related activities which details how stormwater runoff from cleared and compacted surfaces will be controlled to prevent the erosion and sedimentation of the downslope non-perennial drainage line. No stormwater runoff should flow directly into the downslope aquatic environment. Flow dissipaters should be constructed to reduce the velocity of flow which should be released as diffuse as opposed to channelled flow. → Implement erosion control measures where required. Examples of erosion control measures include: o Covering steep/unstable/erosion prone areas with geotextiles. o Covering areas prone to erosion with brush packing, straw bales, mulch. o Stabilizing cleared/disturbed areas susceptible to erosion with sandbags. o Constructing silt fences / traps in areas prone to erosion, to retain sediment-laden runoff. Silt fences must be adequately maintained. Furthermore, the ECO / site manager must monitor sediment fences / traps after every heavy rainfall event and any sediment that has accumulated must be removed by hand. → The site manager / ECO must check the downslope non-perennial drainage line as well as the recommended buffer area for erosion damage and sedimentation weekly and after every heavy rainfall event. Should erosion or sedimentation be noted, immediate corrective measures must be undertaken. → Stormwater/erosion/sediment control measures are to remain in place until construction has been completed and operational storm water management infrastructure is in place and operating correctly.

	→ Implement rehabilitation and monitoring measures as recommended by an RMMP to stabilise soils and prevent erosion and sedimentation during the operational phase.
Residual impacts:	Widening of the channel and more sediment deposit downstream.
Cumulative impact post mitigation:	Widening of the channel and more sediment deposit downstream.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very-Low negative**
Potential impact and risk:	**8. Water quality impairment**
Potential impact	The movement of construction vehicles and the use of machinery during construction increases the possibility of the contamination of the non-perennial drainage line by hydrocarbons, oils and grease which may leak from the vehicles / machinery or spill during poor dispensing practices and enter the non-perennial drainage line directly, or indirectly with stormwater runoff. There is also a possibility that the non-perennial drainage line will be contaminated by the runoff/spillage of cement and other construction related materials from the construction footprint.
Nature of impact:	Negative
Extent and duration of impact:	Limited to project site; short-term
Consequence of impact or risk:	Contamination of the non-perennial drainage line by sewage may occur as a result of leakages from portable chemical toilet facilities, or the informal use of surrounding areas by workers. Additional impacts to the non-perennial drainage line as a result of the disposal of solid waste (including litter and building material) may also occur
Probability of occurrence:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	Low

Degree to which the impact can be reversed:	Moderate cost / Moderate likelihood of success
Indirect impacts:	Contamination of the freshwater can often lead to water shortages
Cumulative impact prior to mitigation:	Contamination on waterbodies and the impact will accumulate and spread downstream and contaminate other waterbodies.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Locate topsoil stockpiles, construction material, equipment storage areas, bunded concrete batching areas as well as vehicle parking areas, bunded vehicle servicing and re-fuelling areas in designated areas outside of the no-go area. These areas should preferably be located on level ground in a previously disturbed area of vegetation. → Fuel, chemicals, and other hazardous substances should preferably be stored offsite, or as far away as possible from the no-go area. These substances must be stored in suitable secure weather-proof containers with impermeable and bunded floors to limit pilferage, spillage into the environment, flooding, or storm damage. → Inspect all storage facilities, vehicles, and machinery daily for the early detection of deterioration or leaks, and strictly prohibit the use of any vehicles or machinery from which leakage has been detected. → Mixing and transferring of chemicals or hazardous substances must take place outside of the non-perennial drainage line and its associated buffer area, and must take place on drip trays, shutter boards or other impermeable surfaces. → Drip trays must be utilised at all fuel dispensing areas. → Vehicles and machinery should preferably be cleaned off site. Should cleaning be required on site it must only take place within designated areas outside of the non-perennial drainage line and its associated buffer area and should only occur on bunded areas with a water/oil/grease separator. → Dispose of used oils, wash water from cement and other pollutants at an appropriate licensed landfill site.

	→ Avoid the use of infill material or construction material with pollution / leaching potential. Where possible, in situ earthen materials must be used during construction in order to reduce the risk of leachate from imported materials contaminating the non-perennial drainage line areas. → Concrete should preferably be imported as "ready-mix" concrete from a local supplier. Should onsite concrete mixing be required it must not be done on exposed soils. Concrete must be mixed on an impermeable surface in an area of low environmental sensitivity identified by the ECO outside of the no-go area. Surplus or waste concrete must be sent back to the supplier who will dispose of it. → Construct temporary bunds around areas where cement is to be cast in situ. → Dispose of concrete and cement-related mortars in an environmental sensitive manner (can be toxic to aquatic life). Disposal of any of these waste materials into the stormwater system or the non-perennial drainage line is strictly prohibited. → Washout must not be discharged into the no-go area or the stormwater system. A washout area should be designated, and wash water should be treated on-site. → Clean up any spillages immediately with the use of a chemical spill kit and dispose of contaminated material at an appropriately registered facility. → Provide portable toilets where work is being undertaken (1 toilet per 10 workers). These toilets must be located within an area designated by the ECO outside of the no-go area and should preferably be located on level ground. Portable toilets must be regularly serviced and maintained. → Provide an adequate number of bins on site and encourage construction personnel to dispose of their waste responsibly. → Waste generated by construction personnel must be removed from the site and disposed of at a registered waste disposal facility on a weekly basis.
Residual impacts:	Water pollution as a result of litter and spillage to the watercourses.
Cumulative impact post mitigation:	Water pollution as a result of litter and spillage to the watercourses.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low negative**

OPERATIONAL PHASE

Potential impact and risk:	**1. Socioeconomic impacts**
Nature of impact:	Access to employment opportunities for the community during the operational phase, job creation, provision of housing for new residents moving into the area and investment opportunities, additional housing provided in response to need and demand
Extent and duration of impact:	Local; Long term
Consequence of impact or risk:	Improved livelihood, beneficiaries
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:	N/A
Cumulative impact prior to mitigation:	Access to employment for the community during the operational phase, job creation, provision of residential erven in response to provincial demand, investment in the area.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
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:	→
Residual impacts:	Investment in the area and attraction to the area.
Cumulative impact post mitigation:	- Investment in the area, attraction to the area. - Access to employment opportunities for the community during the operational phase, job creation, provision of

	housing in response to the provincial demand and investment in the area.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High Positive**
Potential impact and risk:	**2. Visual impacts**
Potential impact	Typical visual impacts associated with the operational phase of a residential dwelling that may lead to changes in sense of place of the individual from what was there and to what has now changed.
Nature of impact:	Negative- changes in the visual aesthetics of the area during the operational phase. Positive- infill development within an urban area as opposed to the alienation of new land, contributing to more suitable land use.
Extent and duration of impact:	Long term; local
Consequence of impact or risk:	Visual impact of operation within landscape
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:	High
Indirect impacts:	Loss of sense of place due to the removal of natural vegetation that is appealing to nature lovers.
Cumulative impact prior to mitigation:	Short term impacts associated with changes of the built infrastructure
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:	Low

Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	High
Proposed mitigation:	- Implement landscaping strategies to minimise the visual impact of operational activities. - Incorporate green design principles into the development to enhance aesthetics and mitigation negative visual effects. - Communicate with the community to ensure understanding and acceptance of the changes in the visual character. - Consider the use of native vegetation in landscaping to maintain a natural feel and reduce visual disruptions. - Ensure that the operator / HOA has strict guidelines regarding how the apartment block operates (washing lines, parking, gardens etc)
Residual impacts:	None
Cumulative impact post mitigation:	Typical visual impacts associated with operational phase.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low Negative**
Potential impact and risk:	**3. Altered flow regime and erosion of non-perennial drainage line**
Potential impact	An increase in stormwater runoff volumes and velocities from the bare / hardened surfaces associated with the proposed development, or from areas left bare as a result of construction related activities may result in channel and headcut erosion as well as sedimentation of the downslope non-perennial drainage line.
Nature of impact:	Negative
Extent and duration of impact:	Local catchment; Long-term
Consequence of impact or risk:	Channel and headcut erosion as well as sedimentation of the downslope non-perennial drainage line.

Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Moderate cost / Moderate likelihood of success
Indirect impacts:	Loss of hydrological connectivity for some areas, leading to unregular water yield.
Cumulative impact prior to mitigation:	Loss of hydrological connectivity for some areas, leading to unregular water yield.
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:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Design a SWMP in order to control stormwater runoff from hardened surfaces and prevent the erosion and sedimentation of the non-perennial drainage line. Runoff from the proposed development must not increase from the pre-development to the post-development scenario. Clean and dirty water must be separated and controlled via systems that do not result in erosion features developing. → Discharge stormwater from rooftops into rain harvesting tanks. This will limit the volumes of stormwater runoff that will reach the non-perennial drainage line. Where possible, water collected in rain harvesting tanks can be utilized for flushing of toilets, washing etc. → Implement rehabilitation and monitoring measures as recommended by an RMMP to reduce runoff from bare compacted soils and prevent erosion and sedimentation during the operational phase. → Stormwater runoff should preferably be discharged as diffuse flow into well vegetated areas outside of the non-perennial drainage line and its associated buffer area. → Energy dissipaters / erosion protection measures (such as lining with stones, grass, reno-mattresses, or gabions) must be constructed where stormwater is released in order to reduce the runoff velocity and therefore erosion.

	→ Sheet runoff from hardened surfaces must be intercepted and the treatment and infiltration of runoff must be promoted. → Sediment traps should be incorporated into stormwater drains / swales upstream of discharge points. → Monitor the proposed development and adjacent non-perennial drainage line for erosion and sedimentation after heavy rainfall events. Any erosion noted must be immediately addressed. Rehabilitation measures may include the removal of accumulated sediment by hand, filling of erosion gullies and rills, the stabilisation of gullies with silt fences, riprap, and the revegetation of stabilised areas. → Stormwater systems will require ongoing maintenance. Any build-up of silt or debris within stormwater drains or swales will need to be cleared to ensure the continued functioning of the systems. → Any damage to stormwater infrastructure, and any flaws identified in the functionality of stormwater infrastructure, must be rectified immediately.
Residual impacts:	Channel and headcut erosion as well as sedimentation of the downslope non-perennial drainage line
Cumulative impact post mitigation:	Channel and headcut erosion as well as sedimentation of the downslope non-perennial drainage line
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Potential impact and risk:	**4. Water quality impairment**
Potential impact	With a housing development there is also a long-term risk that the non-perennial drainage line may be impacted on as a result of sewage surcharge or as a result of the leakage of sewage from poorly maintained pipes, manholes or sewage pumps.
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	The water quality of the non-perennial drainage line may be impacted as a result of the runoff of contaminated stormwater from the urban surface of the proposed development.

	Contaminants may include hydrocarbons, detergents, fertilizers and heavy minerals.
Probability of occurrence:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Moderate cost / Moderate likelihood of success
Indirect impacts:	Water quality impairment affecting aquatic ecosystem downstream
Cumulative impact prior to mitigation:	Low
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:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Design a SWMP which will allow for the infiltration and treatment of stormwater. All stormwater must receive basic filtering and treatment prior to its release. → Incorporate measures into the stormwater design to trap solid waste, debris and sediment carried by stormwater. Measures may include the use of curb inlet drain grates and debris baskets/bags. → Stormwater generated from areas with a higher risk of contamination such as parking areas and roads must receive basic filtering and treatment prior to its release into surrounding areas. Treatment methods may include sand filter traps and oil-water separators which will require maintenance. → Stormwater systems must be monitored and maintained into perpetuity and collections of debris and solid waste removed from grates and baskets. The developer must confirm who will be responsible for this monitoring and maintenance as well as their roles.

	→ Operational phase mitigation implemented during the design/construction phase: o Construct sewage pipelines in accordance with the relevant SANS / SABS specifications. o Design the pipelines to accommodate the operating and surge pressures. o Provide surge protection e.g air valves. o Allow for scour valves along pipelines in order to ensure sewage pipelines can be emptied in a controlled manner if required. o Allow for surcharge containment and emergency storage of 2 hours of peak flow at manholes located within areas upslope of the non-perennial drainage line. Containment/emergency storage may include a concrete box or earthen bund surrounding the manholes. The backup storage capacity of manholes may also be improved by raising the manholes by one meter. → The sewage system must be monitored and maintained into perpetuity. The developer must confirm who will be responsible for this monitoring and maintenance as well as their roles. → The non-perennial drainage line and its associated buffer area must be regularly inspected for waste. Any waste or litter noted must be immediately removed and disposed of at a registered waste disposal facility. The developer must confirm who will be responsible for this monitoring of the non-perennial drainage line. This recommendation should be included in the MMP for the project.
Residual impacts:	Low- provided that effective stormwater management plant
Cumulative impact post mitigation:	Very-Low Negative
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very-Low Negative**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	N/A
Nature of impact:	-
Extent and duration of impact:	-

Consequence of impact or risk:	-
Probability of occurrence:	-
Degree to which the impact may cause irreplaceable loss of resources:	-
Degree to which the impact can be reversed:	-
Indirect impacts:	-
Cumulative impact prior to mitigation:	-
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:	-
Degree to which the impact can be managed:	-
Degree to which the impact can be mitigated:	-
Proposed mitigation:	-
Residual impacts:	-
Cumulative impact post mitigation:	-
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	-

ALTERNATIVE TWO (NO-GO)
Status Quo remains

This is where the status quo remains and the site is not developed, although this allows the site to remain undeveloped, it offers limited, to no opportunity for improvement of the natural state of the northern section, or alien vegetation management or rehabilitation of the drainage line and associated riparian zone.

No job creation opportunities or investment in the area.

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.

Aquatic Biodiversity Assessment

Based on the National Wetlands Map Version 5 (NWM5) and the National Freshwater Ecosystem Priority Areas (NFEPA) datasets, no wetlands were identified on the property. However, the presence of a non-perennial river traversing the site was confirmed. This drainage line, situated within a steep valley, has been classified as moderately to largely modified, with a Present Ecological State (PES) score of C (Moderately Modified) for the instream habitat and D (Largely Modified) for the riparian area. The drainage line is heavily impacted by alien invasive vegetation, such as *Eucalyptus spp.* and *Acacia saligna*, and has been subject to disturbances from dumped waste and runoff from nearby roads.

Ecological Importance and Sensitivity (EIS):

The drainage line was rated as "Low/marginal" in terms of its ecological importance, due to the absence of rare or endangered species, low species richness, and dominance of invasive alien vegetation. The system is not particularly sensitive to water quality changes or hydrological alterations, largely due to its non-perennial nature and lack of sensitive species.

Ecological Importance and Sensitivity (EIS):

→ The EIS score was determined as “Low/Marginal” due to the absence of rare or endangered species and low indigenous species richness. The drainage line's primary sensitivity lies in erosion risks from increased storm peak flows.

Ecosystem Services:

→ The drainage line’s contribution to ecosystem services is limited, with most services rated as "Very Low" or "Low." Exceptions include biodiversity maintenance and harvestable resources, which scored "Moderately Low," attributed to the potential rehabilitation of the vegetation and the presence of firewood from invasive species.

Impact Assessment: The following potential impacts of the development were identified:

1. **Construction Phase:**
    - Riparian vegetation disturbance.
    - Increased runoff, erosion, and sedimentation.
    - Water quality impairment due to stormwater runoff and potential spills.
2. **Operational Phase:**
    - Alteration of the flow regime and associated erosion.
    - Ongoing water quality impairment from stormwater and potential sewage leaks.

Post-mitigation, all impacts were reduced to "Low" or "Very Low" significance. The 'no-go' scenario was also assessed and deemed to pose "Low" impact, with gradual environmental degradation expected.

Recommendations:

→ The development should be approved with mitigation measures in place, and it qualifies for registration under General Authorisation GN509 (2016).

Terrestrial Biodiversity/Plant Species and Faunal Assessment

The site is within the Cape Flats Dune Strandveld vegetation type, an endangered ecosystem, with potential elements of Peninsula Sandstone Fynbos, a critically endangered ecosystem. However, dense alien vegetation has largely overtaken the natural vegetation.

2014 landcover models indicated significant loss of natural vegetation, with only the northern parts retaining some original habitat, which is classified as endangered. Site visits confirmed the development area has no remaining natural vegetation, with the northern region heavily infested by alien species.

The proposed development will not impact pristine natural vegetation. This finding supports the need for alien vegetation management and restoration efforts to protect remaining endangered ecosystems.

The development area is outside Critical Biodiversity Areas (CBAs), though the northern section of the property falls within a CBA where vegetation is highly threatened. This allows for the protection and rehabilitation of the northern region, ensuring development does not encroach upon sensitive areas. The property is also within a Strategic Water Source Area, underscoring its significance for water supply in South Africa.

In terms of fauna, two bird species of conservation concern were identified as potentially associated with the site: the Black Harrier and Striped Flufftail. However, the site's overgrown and disturbed nature, along with steep slopes, make it unsuitable for these species. Additionally, no plant species of conservation concern were found, as the habitat is highly disturbed and transformed.

2.	List the impact management measures that were identified by all Specialist that will be included in the EMPr

Aquatic Biodiversity Assessment

- → Locate site camps, laydown areas, stockpile areas, construction material, equipment storage areas, vehicle parking areas, bunded vehicle servicing areas and re-fuelling areas in designated areas of already hardened surface or disturbed areas located outside of the non-perennial drainage line and associated 16 m buffer area. These areas should preferably be located on level ground in a previously disturbed area of vegetation approved by the Environmental Control Officer (ECO). Cut and fill must be avoided where possible during the set-up of the construction site camp.
- → Clearly demarcate the construction footprint (including construction camp, access roads, stockpile areas and working servitudes) with orange hazard tape, fencing or similar prior to the commencement of any activity, and strictly prohibit the movement of construction vehicles and personnel outside of the demarcated areas. Portions of the non-perennial drainage line and its associated buffer area that are located outside of the demarcated construction footprint must be designated as no-go area.
- → Demarcation of the construction footprint/working servitude must be signed off by an ECO (or similar). Demarcation should not be removed until construction is complete, and rehabilitation has taken place.
- → Limit access into the construction footprint to existing access roads.
- → Prohibit the dumping of excavated material, building materials or removed vegetation within the non-perennial drainage line and its associated buffer area. Building material must be stored at the designated storage area located outside of the no-go area. Spoil material must be appropriately disposed of at a registered waste disposal facility.
- → Topsoils and subsoils removed from the construction footprint must be stored separately at the designated stockpile area for future rehabilitation.
- → Vegetation clearance should be restricted to the relevant development components and indigenous vegetation cover should be maintained as far as practically possible.
- → Vegetation which is considered suitable for rehabilitation activities after construction (such as indigenous grasses and other herbaceous species) should be carefully removed from the construction footprint and stored at an appropriate facility for use in later rehabilitation activities.

- → Clear and remove any rubble or litter that may have been accidentally deposited into the no-go area as a result of construction activities and dispose of at an appropriate registered facility.
- → An ECO must inspect the construction footprint on a weekly basis (*or as required*) and must take immediate measures to address unforeseen disturbances to the non-perennial drainage line and its associated buffer area. Any disturbed / compacted areas falling outside of the demarcated construction footprint must be immediately rehabilitated. Depending on the extent of damage the method of rehabilitation may require input from an aquatic specialist / suitably qualified contractor.
- → Once construction has been completed, orange hazard fences as well as all construction waste, rubble, and equipment must be removed from the construction footprint.
- → In line with the NEMBA, all AIPS listed under the amended AIPS Lists (DEFF: GN1003, 2020) must either be removed or controlled on land under the management of the proponent. An AIPS control plan must therefore be compiled which includes measures to control and prevent the proliferation of AIPS during the construction phase.
- → A Rehabilitation, Maintenance and Management Plan (RMMP) must be drafted by a suitably qualified specialist to address the rehabilitation of any disturbed / bare areas which fall outside of the direct construction footprint. Rehabilitation must take place as soon as possible after construction is completed, and monitoring of rehabilitated areas must be undertaken. A suitably qualified professional must supervise the rehabilitation and monitoring activities. To be undertaken prior to commencement / as condition of *Environmental Authorisation*.
- → Undertake initial clearing in the early dry season (November to January) if possible.
- → Locate soil stockpile areas in designated areas of already hardened surface or disturbed areas on site. These areas should preferably be located on level ground in a previously disturbed area of vegetation approved by the ECO. Stockpile areas must not be located within the no-go area (i.e. the non-perennial drainage line and 16 m buffer area).
- → Design a Stormwater Management Plan (SWMP) *prior to the commencement* of construction related activities which details how stormwater runoff from cleared and compacted surfaces will be controlled to prevent the erosion and sedimentation of the downslope non-perennial drainage line. No stormwater runoff should flow directly into the downslope aquatic environment. Flow dissipaters should be constructed to reduce the velocity of flow which should be released as diffuse as opposed to channelled flow.
- → Implement erosion control measures where required. Examples of erosion control measures include:
    - Covering steep/unstable/erosion prone areas with geotextiles.
    - Covering areas prone to erosion with brush packing, straw bales, mulch.
    - Stabilizing cleared/disturbed areas susceptible to erosion with sandbags.
    - Constructing silt fences / traps in areas prone to erosion, to retain sediment-laden runoff. Silt fences must be adequately maintained. Furthermore, the ECO / site manager must monitor sediment fences / traps after every heavy rainfall event and any sediment that has accumulated must be removed by hand.
- → The site manager / ECO must check the downslope non-perennial drainage line as well as the recommended buffer area for erosion damage and sedimentation weekly and after every heavy rainfall event. Should erosion or sedimentation be noted, immediate corrective measures must be undertaken.
- → Stormwater/erosion/sediment control measures are to remain in place until construction has been completed and operational storm water management infrastructure is in place and operating correctly.
- → Implement rehabilitation and monitoring measures as recommended by an RMMP to stabilise soils and prevent erosion and sedimentation during the operational phase.
- → Locate topsoil stockpiles, construction material, equipment storage areas, bunded concrete batching areas as well as vehicle parking areas, bunded vehicle servicing and re-fuelling areas in designated areas outside of the no-go area. These areas should preferably be located on level ground in a previously disturbed area of vegetation.
- → Fuel, chemicals, and other hazardous substances should preferably be stored offsite, or as far away as possible from the no-go area. These substances must be stored in suitable secure weather-proof containers with impermeable and bunded floors to limit pilferage, spillage into the environment, flooding, or storm damage.
- → Inspect all storage facilities, vehicles, and machinery daily for the early detection of deterioration or leaks, and strictly prohibit the use of any vehicles or machinery from which leakage has been detected.

- → Mixing and transferring of chemicals or hazardous substances must take place outside of the non-perennial drainage line and its associated buffer area, and must take place on drip trays, shutter boards or other impermeable surfaces.
- → Drip trays must be utilised at all fuel dispensing areas.
- → Vehicles and machinery should preferably be cleaned off site. Should cleaning be required on site it must only take place within designated areas outside of the non-perennial drainage line and its associated buffer area and should only occur on bunded areas with a water/oil/grease separator.
- → Dispose of used oils, wash water from cement and other pollutants at an appropriate licensed landfill site.
- → Avoid the use of infill material or construction material with pollution / leaching potential. Where possible, in situ earthen materials must be used during construction in order to reduce the risk of leachate from imported materials contaminating the non-perennial drainage line areas.
- → Concrete should preferably be imported as "ready-mix" concrete from a local supplier. Should onsite concrete mixing be required it must not be done on exposed soils. Concrete must be mixed on an impermeable surface in an area of low environmental sensitivity identified by the ECO outside of the no-go area. Surplus or waste concrete must be sent back to the supplier who will dispose of it.
- → Construct temporary bunds around areas where cement is to be cast in situ.
- → Dispose of concrete and cement-related mortars in an environmental sensitive manner (can be toxic to aquatic life). Disposal of any of these waste materials into the stormwater system or the non-perennial drainage line is strictly prohibited.
- → Washout must not be discharged into the no-go area or the stormwater system. A washout area should be designated, and wash water should be treated on-site.
- → Clean up any spillages immediately with the use of a chemical spill kit and dispose of contaminated material at an appropriately registered facility.
- → Provide portable toilets where work is being undertaken (1 toilet per 10 workers). These toilets must be located within an area designated by the ECO outside of the no-go area and should preferably be located on level ground. Portable toilets must be regularly serviced and maintained.
- → Provide an adequate number of bins on site and encourage construction personnel to dispose of their waste responsibly.
- → Waste generated by construction personnel must be removed from the site and disposed of at a registered waste disposal facility on a weekly basis.
- → Design a SWMP in order to control stormwater runoff from hardened surfaces and prevent the erosion and sedimentation of the non-perennial drainage line. Runoff from the proposed development must not increase from the pre-development to the post-development scenario. Clean and dirty water must be separated and controlled via systems that do not result in erosion features developing.
- → Discharge stormwater from rooftops into rain harvesting tanks. This will limit the volumes of stormwater runoff that will reach the non-perennial drainage line. Where possible, water collected in rain harvesting tanks can be utilized for flushing of toilets, washing etc.
- → Implement rehabilitation and monitoring measures as recommended by an RMMP to reduce runoff from bare compacted soils and prevent erosion and sedimentation during the operational phase.
- → Stormwater runoff should preferably be discharged as diffuse flow into well vegetated areas outside of the non-perennial drainage line and its associated buffer area.
- → Energy dissipaters / erosion protection measures (such as lining with stones, grass, reno-mattresses, or gabions) must be constructed where stormwater is released in order to reduce the runoff velocity and therefore erosion.
- → Sheet runoff from hardened surfaces must be intercepted and the treatment and infiltration of runoff must be promoted.
- → Sediment traps should be incorporated into stormwater drains / swales upstream of discharge points.
- → Monitor the proposed development and adjacent non-perennial drainage line for erosion and sedimentation after heavy rainfall events. Any erosion noted must be immediately addressed. Rehabilitation measures may include the removal of accumulated sediment by hand, filling of erosion gullies and rills, the stabilisation of gullies with silt fences, riprap, and the revegetation of stabilised areas.

→ Stormwater systems will require ongoing maintenance. Any build-up of silt or debris within stormwater drains or swales will need to be cleared to ensure the continued functioning of the systems.

→ Any damage to stormwater infrastructure, and any flaws identified in the functionality of stormwater infrastructure, must be rectified immediately.

Terrestrial Biodiversity Assessment

→ All alien plants need to be removed from Erf 4439, and the northern areas, including the riparian zone of the stream, need to be cleared and rehabilitated.

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.

N/A

4.	Explain how the proposed development will impact the surrounding communities.

→ The construction of apartment building will address the growing housing demand in the area. This increase in housing availability can help alleviate pressure on the current housing market and provide more affordable rental options for residents, particularly for those who seek proximity to work opportunities in the region.

→ Economically, the development will foster growth by creating job opportunities during both the construction and post-construction phases. Local businesses and services may benefit from increased activity, as new residents move into the area and support the local economy. Additionally, the municipality will generate revenue through property taxes, as well as water and electricity bills, further contributing to the area's financial health.

→ However, the development may also pose some challenges. Increased population density could lead to more traffic in the vicinity, potentially affecting road congestion and increasing the demand for public services such as schools, healthcare, and waste management. The visual and aesthetic impact of a three-storey apartment building might alter the character of the neighbourhood, which is something the community will need to adjust to.

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.

N/A

6.	Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.

N/A

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 findings and recommendations from both the Aquatic Biodiversity Assessment and Terrestrial Biodiversity Assessment have been critical in shaping the most appropriate mitigation measures for the proposed development on Erf 4439, Simons Town. The integration of these studies highlights key environmental concerns and provides clear guidance on how to manage potential impacts effectively.

The most significant concern identified in the assessments is the delineated drainage line present on the property. Both studies emphasize the importance of protecting this feature to avoid further degradation of the site's natural ecosystems. The Aquatic Biodiversity Assessment specifically highlights that no development should take place within this sensitive area, and that a *General Authorisation must be obtained to comply with National Water Act legislation*. This authorisation, as recommended, should be a key condition of the development's approval, ensuring that all water-related impacts are properly managed.

To mitigate impacts related to the drainage line, several measures have been integrated. These include buffer zones around the drainage line to protect it from construction activities and runoff, and stormwater management systems designed to reduce erosion and prevent contamination of the watercourse. Additionally, the construction plan will

incorporate measures to avoid direct interference with the drainage line, such as diverting machinery and construction materials away from the area.

8.	Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.

This hierarchy includes the steps of avoidance**,** minimization**,** rehabilitation, and offsetting, which have guided the decision-making process related with the proposed development.

Avoidance

The first step in the mitigation hierarchy is to avoid impacts where possible. In this case, the development has been planned to steer clear of the delineated drainage line on the property, as identified in both the Aquatic and Terrestrial Biodiversity Assessments. Avoiding this sensitive area ensures that no direct impact will occur on this critical ecological feature. By selecting a layout that avoids the drainage line, the development minimizes disruption to natural water flow and reduces the risk of habitat degradation.

Minimization

Where impacts cannot be entirely avoided, they have been minimized through careful design and planning. For example, buffer zones have been established around the drainage line to protect it from indirect impacts such as stormwater runoff and erosion during construction. Additionally, the footprint of the development has been designed to limit disturbance to indigenous vegetation, which has already been degraded by alien species. The management of alien vegetation and promoting the recovery of native species are key minimization strategies integrated into the development plan.

Rehabilitation

In areas where some level of environmental impact is inevitable, rehabilitation measures will be implemented to restore the site post-construction. This includes replanting indigenous vegetation and removing any temporary construction infrastructure. Rehabilitation efforts will focus on restoring ecological function to the affected areas, particularly along the boundaries of the development, ensuring the long-term sustainability of the site.

Offsetting

Since most impacts have been avoided or minimized, the need for offsetting is reduced. However, should any residual impacts remain, they may be addressed through compensatory measures such as contributing to the management of natural areas nearby or funding conservation projects aimed at protecting similar ecosystems to those impacted by the development. These are not recommended for this proposal.

SECTION J: GENERAL

1. Environmental Impact Statement

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

Terrestrial Biodiversity Assessment

The Environmental Impact Assessment (EIA) for the proposed development on Erf 4439, Simonstown, has highlighted key ecological findings. The site primarily falls within the Cape Flats Dune Strandveld, an endangered vegetation type, with elements of the critically endangered Peninsula Sandstone Fynbos also present. However, much of the natural vegetation has been overtaken by dense alien species, leading to a significant loss of original habitat, as confirmed by both landcover models and site visits.

The site visits further confirmed that the area designated for development has already lost all-natural vegetation, and the northern part of the erf is heavily infested with alien vegetation. Therefore, the proposed development is not expected to impact any pristine natural habitats. Additionally, the development footprint is located outside of any Critical Biodiversity Areas (CBAs), though the northern section of the property, which is not part of the development footprint, does fall within a CBA containing high-threat vegetation.

The site is located within a Strategic Water Source Area, signifying its importance for regional water supply. Despite these ecological concerns, the EIA suggests that with proper management measures, such as alien vegetation control and habitat rehabilitation, the development can proceed while minimizing environmental impacts. Specialist assessments have also indicated that the site is unsuitable for certain bird species of conservation concern, such as the Black Harrier and Striped Flufftail, as these species were not found during the assessment due to the disturbed nature of the site.

Aquatic Biodiversity Assessment

Using the NWM5 and NFEPA datasets, the aquatic specialist identified that while no wetlands are present on the property, a seep wetland is located within the regulated 500-meter area. The aquatic assessment confirmed the presence and delineation of a non-perennial stream running through the northern section of the property. A site sensitivity verification conducted before the assessment classified the site as falling within a "Very High" Aquatic Biodiversity Theme, primarily because it is within a Strategic Water Source Area (SWSA) for surface water, specifically the Table Mountain Group.

The riparian zone of the drainage line is currently dominated by alien species, including Eucalyptus, Acacia saligna (Port Jackson), and Cenchrus clandestinus (Kikuyu grass).

Present Ecological State (PES)

The Present Ecological State (PES) of the drainage line was assessed using the Kleynhans et al. (2008) Index of Habitat Integrity (IHI) method. The instream habitat scored 68 (Moderately Modified - PES category C), while the riparian habitat scored 52 (Largely Modified - PES category D). Key factors influencing the scoring include:

Instream Habitat Integrity:

- → No direct water abstraction for domestic use was noted, although Eucalyptus trees in the riparian zone consume more water than native vegetation.
- → The presence of dumped garden waste, logs, and rubble in the drainage line has led to periodic inundation during storm events, causing broadening of the watercourse and sediment deposition.
- → Water quality impacts are limited to runoff from nearby houses and roads, with moderate nutrient loading and potential contaminants such as petrochemicals. However, the non-perennial nature of the drainage line reduces the sensitivity to water quality impairment.
- → Increased stormwater runoff from hardened surfaces has raised peak flow levels, intensifying erosion risks.
- → Some substrate changes were observed due to garden waste dumping and the dense Eucalyptus infestation.

→ No exotic instream fauna were noted, and none are expected due to the non-perennial nature of the stream.

Riparian Habitat Integrity:

→ Eucalyptus trees in the riparian zone contribute to significant water use, while nutrient loading from stormwater runoff promotes alien invasive species growth.
→ Increased storm peak flows have led to overtopping into riparian areas, reducing saturation periods and favouring invasive species over native riparian vegetation.
→ Historical disturbances from nearby developments have caused the near-total loss of indigenous riparian vegetation, with alien species now dominating the riparian zone.

Ecological Importance and Sensitivity (EIS)

The "Resource Directed Measures for Protection of Water Resources" (Duthie et al., 1999) method was used to assess the non-perennial drainage line, resulting in a "Low/marginal" EIS rating. Factors contributing to this assessment include:

→ No rare or endangered species were observed, and their presence in the seed bank is unlikely due to site disturbance.
→ Low indigenous species richness, with invasive species dominating the site.
→ The watercourse functions as a moderate migration corridor for species upslope but is otherwise of limited ecological value.
→ The non-perennial nature of the watercourse means it is less sensitive to water quality changes, and it lacks base flow or significant sediment storage capacity.

Buffer Determination

A buffer zone of 16 meters for the drainage line has been recommended during construction and operational phases, as per the Buffer Zone Guidelines for Rivers, Wetlands, and Estuaries (Macfarlane and Bredin, 2016). While full avoidance of this buffer is not possible due to encroachment by the proposed apartment building, non-essential activities such as stockpiling, construction camps, and ablution facilities must be prohibited within the buffer zone.

Potential Impacts

Construction Phase:

→ Disturbance of riparian vegetation adjacent to the drainage line.
→ Increased runoff, erosion, and sedimentation.
→ Potential water quality impairment due to stormwater contamination.

Operational Phase:

→ Altered flow regime and associated erosion.
→ Continued water quality risks from stormwater runoff and potential sewage leaks.

Risk Assessment

A Risk Assessment Matrix, as per GN 4167 of 2023, resulted in an overall "Low Risk" rating for the project, provided that essential mitigation measures are applied. Key considerations include:

→ The development will not impede water flow or encroach on the watercourse.
→ Erosion risks can be mitigated effectively.
→ The non-perennial nature of the drainage line reduces overall sensitivity.
→ There are no wetlands associated with the watercourse.
→ Limited indigenous vegetation exists within the site.
→ No aquatic fauna relies on the drainage line.

The assessment concludes that the proposed development should be approved, subject to the application of the recommended mitigation measures and registered under GN509 (2016) General Authorisation.	
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)
-	
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.

Positive impacts

- → The proposed development will provide significant economic benefits, particularly through job creation during both the construction and operational phases. This will support the local economy, with the influx of workers and visitors to the area contributing to nearby businesses.
- → The development provides an opportunity to remove invasive alien plant species, which currently dominate much of the site. This will allow for rehabilitation efforts, including the restoration of indigenous vegetation
- → As part of the mitigation measures, effective stormwater management systems and rehabilitation of the non-perennial drainage line will help restore ecological functioning, reduce soil erosion, and enhance water quality in the region.
- → The site has already experienced significant degradation due to the dominance of alien species and the loss of natural vegetation. The proposed development will occur in areas that are not pristine, thereby minimizing direct impacts on any remaining biodiversity. Additionally, no sensitive or rare species are expected to be affected due to the transformed state of the habitat.
- → Rehabilitation of the northern portion and delineated drainage line over time

Negative impacts

- → Despite much of the site being degraded, there will still be further loss of vegetation and habitat in the development footprint. The limited remaining elements of the endangered Cape Flats Dune Strandveld and critically endangered Peninsula Sandstone Fynbos will be affected.
- → The proposed development may lead to increased erosion and runoff, particularly during the construction phase. Catchment hardening due to the development could alter stormwater flow, potentially affecting the non-perennial drainage line and leading to erosion, sedimentation, and further habitat degradation in riparian areas.
- → There is a risk of water quality deterioration from stormwater runoff and possible spills during construction, including potential contamination from building materials and sewage leaks during the operational phase. This could negatively impact the already vulnerable drainage line, exacerbating the moderate nutrient loading and contamination risks identified during the EIA.
- → The encroachment of the proposed apartment building into the 16-meter buffer zone around the drainage line may lead to habitat disturbance and limit the ecological functionality of the buffer area.

While the proposed development presents both positive economic opportunities and ecological restoration potential, it also carries environmental risks that need to be carefully managed. With the recommended mitigation measures, the development's negative impacts can be minimized, allowing for the sustainable use of the site.

2. 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

Aquatic Assessment Specialist

Construction phase

Impact 1 : Disturbance of Riparian Habitat

- → Locate site camps, laydown areas, stockpile areas, construction material, equipment storage areas, vehicle parking areas, bunded vehicle servicing areas and re-fuelling areas in designated areas of already hardened surface or disturbed areas located outside of the non-perennial drainage line and associated 16 m buffer area. These areas should preferably be located on level ground in a previously disturbed area of vegetation approved by the Environmental Control Officer (ECO). Cut and fill must be avoided where possible during the set-up of the construction site camp.
- → Clearly demarcate the construction footprint (including construction camp, access roads, stockpile areas and working servitudes) with orange hazard tape, fencing or similar prior to the commencement of any activity, and strictly prohibit the movement of construction vehicles and personnel outside of the demarcated areas.
- → Portions of the non-perennial drainage line and its associated buffer area that are located outside of the demarcated construction footprint must be designated as no-go area.
- → Demarcation of the construction footprint/working servitude must be signed off by an ECO (or similar). Demarcation should not be removed until construction is complete, and rehabilitation has taken place.
- → Limit access into the construction footprint to existing access roads
- → Prohibit the dumping of excavated material, building materials or removed vegetation within the non-perennial drainage line and its associated buffer area. Building material must be stored at the designated storage area located outside of the no-go area. Spoil material must be appropriately disposed of at a registered waste disposal facility.
- → Topsoils and subsoils removed from the construction footprint must be stored separately at the designated stockpile area for future rehabilitation.
- → Vegetation clearance should be restricted to the relevant development components and indigenous vegetation cover should be maintained as far as practically possible.
- → Vegetation which is considered suitable for rehabilitation activities after construction (such as indigenous grasses and other herbaceous species) should be carefully removed from the construction footprint and stored at an appropriate facility for use in later rehabilitation activities.
- → Clear and remove any rubble or litter that may have been accidentally deposited into the no-go area as a result of construction activities and dispose of at an appropriate registered facility.
- → An ECO must inspect the construction footprint on a weekly basis and must take immediate measures to address unforeseen disturbances to the non-perennial drainage line and its associated buffer area. Any disturbed / compacted areas falling outside of the demarcated construction footprint must be immediately rehabilitated. Depending on the extent of damage the method of rehabilitation may require input from an aquatic specialist / suitably qualified contractor.
- → Once construction has been completed, orange hazard fences as well as all construction waste, rubble, and equipment must be removed from the construction footprint.
- → In line with the NEMBA, all AIPS listed under the amended AIPS Lists (DEFF: GN1003, 2020) must either be removed or controlled on land under the management of the proponent. An AIPS control plan must therefore be compiled which includes measures to control and prevent the proliferation of AIPS during the construction phase.
- → A Rehabilitation, Maintenance and Management Plan (RMMP) must be drafted by a suitably qualified specialist to address the rehabilitation of any disturbed / bare areas which fall outside of the direct construction footprint. Rehabilitation must take place as soon as possible after construction is completed, and monitoring of rehabilitated areas must be undertaken. A suitably qualified professional must supervise the rehabilitation and monitoring activities.

Impact 2: Erosion and Sedimentation of the non-perennial drainage line

- → Undertake initial clearing in the early dry season (November to January) if possible.
- → Locate soil stockpile areas in designated areas of already hardened surface or disturbed areas on site. These areas should preferably be located on level ground in a previously disturbed area of vegetation approved by the ECO. Stockpile areas must not be located within the no-go area (i.e. the non-perennial drainage line and 16 m buffer area).

- → Design a Stormwater Management Plan (SWMP) prior to the commencement of construction related activities which details how stormwater runoff from cleared and compacted surfaces will be controlled to prevent the erosion and sedimentation of the downslope non-perennial drainage line. No stormwater runoff should flow directly into the downslope aquatic environment. Flow dissipaters should be constructed to reduce the velocity of flow which should be released as diffuse as opposed to channelled flow.
- → Implement erosion control measures where required. Examples of erosion control measures include:
    - o Covering steep/unstable/erosion prone areas with geotextiles.
    - o Covering areas prone to erosion with brush packing, straw bales, mulch.
    - o Stabilizing cleared/disturbed areas susceptible to erosion with sandbags.
    - o Constructing silt fences / traps in areas prone to erosion, to retain sedimentladen runoff. Silt fences must be adequately maintained. Furthermore, the ECO / site manager must monitor sediment fences / traps after every heavy rainfall event and any sediment that has accumulated must be removed by hand.
- → The site manager / ECO must check the downslope non-perennial drainage line as well as the recommended buffer area for erosion damage and sedimentation weekly and after every heavy rainfall event. Should erosion or sedimentation be noted, immediate corrective measures must be undertaken.
- → Stormwater/erosion/sediment control measures are to remain in place until construction has been completed and operational storm water management infrastructure is in place and operating correctly.
- → Implement rehabilitation and monitoring measures as recommended by an RMMP to stabilise soils and prevent erosion and sedimentation during the operational phase

Impact 3: Water quality impairment

- → Locate topsoil stockpiles, construction material, equipment storage areas, bunded concrete batching areas as well as vehicle parking areas, bunded vehicle servicing and re-fuelling areas in designated areas outside of the no-go area. These areas should preferably be located on level ground in a previously disturbed area of vegetation.
- → Fuel, chemicals, and other hazardous substances should preferably be stored offsite, or as far away as possible from the no-go area. These substances must be stored in suitable secure weather-proof containers with impermeable and bunded floors to limit pilferage, spillage into the environment, flooding, or storm damage.
- → Inspect all storage facilities, vehicles, and machinery daily for the early detection of deterioration or leaks, and strictly prohibit the use of any vehicles or machinery from which leakage has been detected.
- → Mixing and transferring of chemicals or hazardous substances must take place outside of the non-perennial drainage line and its associated buffer area, and must take place on drip trays, shutter boards or other impermeable surfaces.
- → Drip trays must be utilised at all fuel dispensing areas.
- → Vehicles and machinery should preferably be cleaned off site. Should cleaning be required on site it must only take place within designated areas outside of the nonperennial drainage line and its associated buffer area and should only occur on bunded areas with a water/oil/grease separator.
- → Dispose of used oils, wash water from cement and other pollutants at an appropriate licensed landfill site.
- → Avoid the use of infill material or construction material with pollution / leaching potential. Where possible, in situ earthen materials must be used during construction in order to reduce the risk of leachate from imported materials contaminating the non-perennial drainage line areas. Concrete should preferably be imported as "ready-mix" concrete from a local supplier. Should onsite concrete mixing be required it must not be done on exposed soils.
- → Concrete must be mixed on an impermeable surface in an area of low environmental sensitivity identified by the ECO outside of the no-go area. Surplus or waste concrete must be sent back to the supplier who will dispose of it.
- → Construct temporary bunds around areas where cement is to be cast in situ.
- → Dispose of concrete and cement-related mortars in an environmental sensitive manner (can be toxic to aquatic life). Disposal of any of these waste materials into the stormwater system or the non-perennial drainage line is strictly prohibited.

- → Washout must not be discharged into the no-go area or the stormwater system. A washout area should be designated, and wash water should be treated on-site.
- → Clean up any spillages immediately with the use of a chemical spill kit and dispose of contaminated material at an appropriately registered facility.
- → Provide portable toilets where work is being undertaken (1 toilet per 10 workers). These toilets must be located within an area designated by the ECO outside of the no-go area and should preferably be located on level ground. Portable toilets must be regularly serviced and maintained.
- → Provide an adequate number of bins on site and encourage construction personnel to dispose of their waste responsibly.
- → Waste generated by construction personnel must be removed from the site and disposed of at a registered waste disposal facility on a weekly basis.

Operational Phase

Impact 4: Altered flow regime and erosion of non-perennial drainage line

- → Design a SWMP in order to control stormwater runoff from hardened surfaces and prevent the erosion and sedimentation of the non-perennial drainage line. Runoff from the proposed development must not increase from the pre-development to the post-development scenario. Clean and dirty water must be separated and controlled via systems that do not result in erosion features developing.
- → Discharge stormwater from rooftops into rain harvesting tanks. This will limit the volumes of stormwater runoff that will reach the non-perennial drainage line. Where possible, water collected in rain harvesting tanks can be utilized for flushing of toilets, washing etc.
- → Implement rehabilitation and monitoring measures as recommended by an RMMP to reduce runoff from bare compacted soils and prevent erosion and sedimentation during the operational phase.
- → Stormwater runoff should preferably be discharged as diffuse flow into well vegetated areas outside of the non-perennial drainage line and its associated buffer area.
- → Energy dissipaters / erosion protection measures (such as lining with stones, grass, reno-mattresses, or gabions) must be constructed where stormwater is released in order to reduce the runoff velocity and therefore erosion.
- → Sheet runoff from hardened surfaces must be intercepted and the treatment and infiltration of runoff must be promoted.
- → Sediment traps should be incorporated into stormwater drains / swales upstream of discharge points.
- → Monitor the proposed development and adjacent non-perennial drainage line for erosion and sedimentation after heavy rainfall events. Any erosion noted must be immediately addressed. Rehabilitation measures may include the removal of accumulated sediment by hand, filling of erosion gullies and rills, the stabilisation of gullies with silt fences, riprap, and the revegetation of stabilised areas.
- → Stormwater systems will require ongoing maintenance. Any build-up of silt or debris within stormwater drains or swales will need to be cleared to ensure the continued functioning of the systems.
- → Any damage to stormwater infrastructure, and any flaws identified in the functionality of stormwater infrastructure, must be rectified immediately.

Impact 6: Water quality impairment

- → Design a SWMP which will allow for the infiltration and treatment of stormwater. All stormwater must receive basic filtering and treatment prior to its release.
- → Incorporate measures into the stormwater design to trap solid waste, debris and sediment carried by stormwater. Measures may include the use of curb inlet drain grates and debris baskets/bags.
- → Stormwater generated from areas with a higher risk of contamination such as parking areas and roads must receive basic filtering and treatment prior to its release into surrounding areas. Treatment methods may include sand filter traps and oil-water separators which will require maintenance.

→ Stormwater systems must be monitored and maintained into perpetuity and collections of debris and solid waste removed from grates and baskets. The developer must confirm who will be responsible for this monitoring and maintenance as well as their roles.

→ Operational phase mitigation implemented during the design/construction phase:
  - Construct sewage pipelines in accordance with the relevant SANS / SABS specifications.
  - Design the pipelines to accommodate the operating and surge pressures.
  - Provide surge protection e.g air valves.
  - Allow for scour valves along pipelines in order to ensure sewage pipelines can be emptied in a controlled manner if required.
  - Allow for surcharge containment and emergency storage of 2 hours of peak flow at manholes located within areas upslope of the non-perennial drainage line. Containment/emergency storage may include a concrete box or earthen bund surrounding the manholes. The backup storage capacity of manholes may also be improved by raising the manholes by one meter.

→ The sewage system must be monitored and maintained into perpetuity. The developer must confirm who will be responsible for this monitoring and maintenance as well as their roles.

→ The non-perennial drainage line and its associated buffer area must be regularly inspected for waste. Any waste or litter noted must be immediately removed and disposed of at a registered waste disposal facility. The developer must confirm who will be responsible for this monitoring of the non-perennial drainage line. This recommendation should be included in the MMP for the project.

Terrestrial Biodiversity Assessment

→ All alien plants need to be removed from Erf 4439, and the northern areas, including the riparian zone of the stream, need to be cleared and rehabilitated.

Archaeological Impact Assessment

No further archaeological mitigation is required, as no development is envisaged on the steep, northern portion of Erf 4399 Simonstown

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.

- General mitigation measures outlined by the specialist team must be implemented.
- RMMP, alien clearing, and Stormwater Management Plan required as condition of authorisation
- A General Authorisation required in terms of the NWA, completed upon EA
- No works within the demarcated riparian zone

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.

The findings of the EIA indicate that while there are several risks and impacts associated with the development, these can be effectively managed through the implementation of targeted impact management measures recommended by the specialists. Based on the environmental impact assessment (EIA), specialist studies, and key findings from the assessments, it is my reasoned opinion that the proposed activity should be authorised. However, this authorisation must be subject to strict conditions to mitigate potential environmental risks and ensure that the development proceeds in a sustainable and environmentally responsible manner.

Conditions of Authorisation:

→ It is an opinion of the Freshwater specialist that the project should be registered under GN509 (2016) General Authorisation.

→ A Rehabilitation, Maintenance and Management Plan (RMMP) must be drafted by a suitably qualified specialist to address the rehabilitation of any disturbed / bare areas which fall outside of the direct construction footprint. Rehabilitation must take place as soon as possible after construction is completed, and monitoring of

rehabilitated areas must be undertaken. A suitably qualified professional must supervise the rehabilitation and monitoring activities.

→ Design a Stormwater Management Plan (SWMP) prior to the commencement of construction related activities which details how stormwater runoff from cleared and compacted surfaces will be controlled to prevent the erosion and sedimentation of the downslope non-perennial drainage line. No stormwater runoff should flow directly into the downslope aquatic environment. Flow dissipaters should be constructed to reduce the velocity of flow which should be released as diffuse as opposed to channelled flow.

→ All alien plants need to be removed from Erf 4439, and the northern areas, including the riparian zone of the stream, need to be cleared and rehabilitated. In line with the NEMBA, all AIPS listed under the amended AIPS Lists (DEFF: GN1003, 2020) must either be removed or controlled on land under the management of the proponent. An AIPS control plan must therefore be compiled which includes measures to control and prevent the proliferation of AIPS during the construction phase.

2.4.	Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

N/A

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.

Five years should be the EA period. While no further information can be provided at the time of the Draft BAR, the applicant would aim to commence with construction as soon as possible once the EA is granted.

3. 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.

→ Construction practices will prioritize water-efficient processes, reducing the use of potable water where possible.

4. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.

The proposed development on Erf 4439 incorporates several measures aimed at minimizing waste generation and promoting sustainable waste management practices throughout the construction and operational phases. Efforts will be made to identify opportunities for reusing materials on-site or through local community initiatives.

5. Energy Efficiency

8.1.	Explain what design measures have been taken to ensure that the development proposal will be energy efficient.

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SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT - *TO BE INCLUDED IN FINAL BAR*

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**, EAP 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;

14-10-2024

Signature of the EAP: Date:

LORNAY ENVIRONMENTAL CONSULTING PTY LTD

Name of company (if applicable):

DECLARATION OF THE REVIEW EAP

I ……, EAP 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

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):