GEORGE
TEL: +27 (0) 44 873 4923 **FAX:** +27 (0) 44 874 5953
EMAIL: info@sescc.net **WEBSITE:** www.sescc.net
ADDRESS: Unit 17 Cathedral Square, Cathedral Street, George, 6530
PO BOX: 9087, George, 6530

CAPE TOWN
TEL: +27 (0) 21 554 5195 **FAX:** +27 (0) 86 575 2869
EMAIL: betsy@sescc.net **WEBSITE:** www.sescc.net
ADDRESS: Tableview, Cape Town, 7441
PO BOX: 443, Milnerton, 7435

POST-APPLICATION DRAFT BASIC ASSESSMENT REPORT

DISTRIBUTED IN TERMS OF REGULATION 19(1) OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS OF 2014, AS AMENDED (GNR 326 OF 2017)

in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998)

THE PROPOSED DEVELOPMENT OF A SCHOOL AND HOSPITAL ON A PORTION OF THE REMAINDER OF THE FARM VAALEVALLEY NO 219, HARTENBOS, MOSSEL BAY LOCAL MUNICIPALITY, GARDEN ROUTE DISTRICT MUNICIPALITY

APPLICANT:	Hartland Lifestyle Estate (Pty) Ltd
ENVIRONMENTAL CONSULTANT:	Sharples Environmental Services cc Responsible EAP: Madeleine Knoetze (EAPASA Reg: 2021/3230) Overseeing EAP: Betsy Ditcham (EAPASA Reg: 2020/1480)
DEA & DP NOI PROJECT REFERENCE:	16/3/3/6/7/1/D6/29/0273/25
SES REFERENCE NUMBER:	CT04/HBD/Post-DBAR/06/25
DATE:	12 June 2026

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

BASIC ASSESSMENT REPORT

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

APRIL 2024

(For official use only)	
Pre-application Reference Number (if applicable):	16/3/3/6/7/1/D6/29/0273/25
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)

DEADP NOI REFERENCE: 16/3/3/6/7/1/D6/29/0273/25: THE DEVELOPMENT OF A SCHOOL AND HOSPITAL ON A PORTION OF THE REMAINDER OF THE FARM VAALEVALLEY NO. 219, HARTENBOS, MOSSEL BAY LOCAL MUNICIPALITY, GARDEN ROUTE DISTRICT MUNICIPALITY, WESTERN CAPE.

Hartland Lifestyle Estate (Pty) Ltd proposes the development of a school and hospital on a portion of the Remainder of the Farm Vaalevalley 219, Hartenbos, Mossel Bay Local Municipality, Garden Route District Municipality, Western Cape.

The description of the proposed development will be divided into three portions:

- The school:
- The school yard will be divided into two main areas:
  1. The first will be the Secondary School inclusive of a School hostel, an Admin building and Main Hall. This portion of the development will also house the Clubhouse and the Rugby fields/Athletics Track.
  2. The second will be the Tertiary Education Centre and Student Accommodation, which will also house the Action Sports Fields, and -Courts.
- The hospital:
  - The third section of the proposed development constitutes the proposed hospital and associated infrastructure. This will include the Future Staff Accommodation and the helicopter landing pad.
- Internal and external auxiliary infrastructure:
  - The proposed development will see to the construction of a network of internal roads and parking bays .
  - It is proposed to install a new sewer pump station on site.
  - The access roads will have a width of between 5.2 m and 7.4 m with the widest reserve being 20 m.

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); o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): o Ridges; o Cultural and historical features/landscapes;

	○ 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**	To be provided once received
	Appendix E3:	**Final Comment from the DWS**	To be provided once received
	Appendix E4:	**Comment from the DEA: Oceans and Coast**	N/A
	Appendix E5:	**Comment from the DAFF**	To be provided once received
	Appendix E6:	**Comment from WCG: Transport and Public Works**	To be provided once received
	Appendix E7:	**Comment from WCG: DoA**	To be provided once received
	Appendix E8:	**Comment from WCG: DHS**	To be provided

			once received
	Appendix E9:	**Comment from WCG: DoH**	N/A
	Appendix E10:	**Comment from DEA&DP: Pollution Management**	To be provided once received
	Appendix E11:	**Comment from DEA&DP: Waste Management**	To be provided once received
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	To be provided once received
	Appendix E13:	**Comment from DEA&DP: Air Quality**	To be provided once received
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	N/A
	Appendix E15:	**Comment from the local authority**	✓
	Appendix E16:	**Confirmation of all services (water, electricity, sewage, solid waste management)**	To be provided In the Final BAR
	Appendix E17:	**Comment from the District Municipality**	To be provided once received
	Appendix E18:	**Copy of an exemption notice**	N/A
	Appendix E19	**Pre-approval for the reclamation of land**	N/A
	Appendix E20:	**Proof of agreement/TOR of the specialist studies conducted.**	✓
	Appendix E21:	**Proof of land use rights**	✓
	Appendix E22:	**Proof of public participation agreement for linear activities**	N/A
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)** **Appendix G1: Agricultural Assessment** **Appendix G2: Animal Species Compliance Statement** **Appendix G3: Heritage Impact Assessment** **Appendix G4: Palaeontology Impact Assessment** **Appendix G5: Visual Impact Assessment** **Appendix G6: Terrestrial Biodiversity Assessment** **Appendix G7: School Market Feasibility Study**		✓

	Appendix G8: Hospital Market Feasibility Study **Appendix G9: Aquatic Biodiversity Assessment** **Appendix G10: Noise Impact Assessment**	
Appendix H:	**EMPr**	✓
Appendix I:	**Screening tool report**	✓
Appendix J:	**The impact and risk assessment for each alternative**	Included in the report
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**	Included in the report
Appendix L:	**Competent Authority Correspondence**	✓
Appendix M:	**Additional information** **Appendix M1: Engineering Information** **Appendix M2: Traffic Impact Assessment** **Appendix M3: Townplanning Motivation Report**	✓

SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	CAPE TOWN OFFICE: REGION 1		**GEORGE OFFICE: BEGION 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:	Hartland Lifestyle Estate (Pty) Ltd	
Name of contact person for Applicant/Proponent (if other):	Andre Le Roux	
Company/ Trading name/State Department/Organ of State:	Hartland Lifestyle Estate (Pty) Ltd	
Company Registration Number:	2013/197756/07	
Postal address:	Unit 1 K109 Business Park, 1 Tinus de Jongh Street, van Eck Park, Extension 2	
	Brakpan	Postal code: 1541
Telephone:	021 001 0679	Cell: 082 499 2777
E-mail:	andre@dalmar.co.za	Fax: ( )
Company of EAP:	Sharples Environmental Services cc	
EAP name:	Madeleine Knoetze	
Postal address:	P.O. Box 443	
	Milnerton	Postal code: 7435
Telephone:	021 554 5195	Cell:079 028 1218
E-mail:	madeleine@sescc.net	
Qualifications:	BSc (Environmental Sciences)	
EAP registration no:	2021/3230	
Duplicate this section where there is more than one landowner Name of landowner:	Vaale Vallei Eiendomme (Pty) Ltd	
Name of contact person for landowner (if other):	Conrad Swart	
Postal address:	Unit 1 K109 Business Park, 1 Tinus de Jongh Street, Van Eck Park, Extension 2	
	Brakpan	Postal code: 1541
Telephone:	011 915 0891	Cell: 082 579 1231
E-mail:	conrad@dalmar.co.za	Fax: ( )
Name of Person in control of the land:	Vaale Vallei Eiendomme (Pty) Ltd	
Name of contact person for person in control of the land:	Herculaal Philippus Lategan	
Postal address:	N120 Hartenbos Landgoed	
	Hartenbos	Postal code: 6520
Telephone:		Cell: 082 441 7198
E-mail:	klasie@urhwebo.co.za	Fax: ( )

Duplicate this section where there is more than one Municipal Jurisdiction Municipality in whose area of jurisdiction the proposed activity will fall:	Mossel Bay Local Municipality	
Contact person:	Mr. S Naidoo (Municipal Manager)	
Postal address:	101 Marsh Street, Mossel Bay	
	Private Bag C29, Mossel Bay	Postal code: 6500
Telephone	044 606 5082	Cell:
E-mail:	Dnaidoo@mosselbay.gov.za	Fax: ( )

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

1.	Is the proposed development (please tick):	New	✓	Expansion	
2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.				
Greenfield, The proposed development is located on a portion of land which has not been transformed by hardened surfaces. The predominant land use on this property is Agriculture.					
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)	°	'	"	
	Longitude (E)	°	'	"	
	Middle point co-ordinates for all alternatives				
	Latitude (S)	°	'	"	
	Longitude (E)	°	'	"	
	End point co-ordinates for all alternatives				
	Latitude (S)	°	'	"	
	Longitude (E)	°	'	"	
Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.					
4.	**Other developments**				
4.1.	Property size(s) of all proposed site(s):				3 602 892m² (360 ha)
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):				
	Please note there is no existing infrastructure associated with the proposed development. The area within which the proposed development has been allocated, has no existing infrastructure. The majority of the project footprint has been historically used for agriculture.				
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:				285 200 m² (28.5 ha)
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).				

Hartland Lifestyle Estate (Pty) Ltd proposes the development of a school and hospital on a portion of the Remainder of the Farm Vaalevalley No. 219, Hartenbos, Mossel Bay Local Municipality, Garden Route District Municipality, Western Cape.

The description of the proposed development will be divided into three portions:

- The school:
    - The school yard will be divided into two main areas:
        - The first will be the Secondary School inclusive of a School hostel, an Admin building and Main Hall. This portion of the development will also house the Clubhouse and the Rugby fields/Athletics Track. A total number of three rugby fields will be established within the proposed development site. The secondary school will be large enough to accommodate approximately 2600 students.
        - The second will be the Tertiary Education Centre (that will be able to accommodate approximately 450 students) and Student Accommodation (that will accommodate approximately 136 students), which will also house the Action Sports Fields, and -Courts.

- The hospital:
    - The third section of the proposed development constitutes the proposed hospital and associated infrastructure. This will include the Future Staff Accommodation and the helicopter landing pad.
- Internal and external auxiliary infrastructure:
    - The proposed development will see to the construction of a network of internal roads and parking bays catered specifically toward the portion of the proposed development to be serviced. The number of parking bays allocated to the proposed development aligns with the requirements of the Mossel Bay Municipal Zoning Scheme;
    - It is proposed to install a new sewer pump station on site.
    - The access roads will have a width of between 5.2 m and 7.4 m with the widest reserve being 20 m.

All services (water, sewer, electricity, and solid waste) will be serviced by the Mossel Bay Local Municipality. No additional bulk water infrastructure will be required, as there is a Ø500 mm bulk supply line leading from the 7Mℓ Jakkalskop Reservoir along the southern boundary of the proposed development site which the project will tie into.

The image below provides the development footprint of the proposed development.

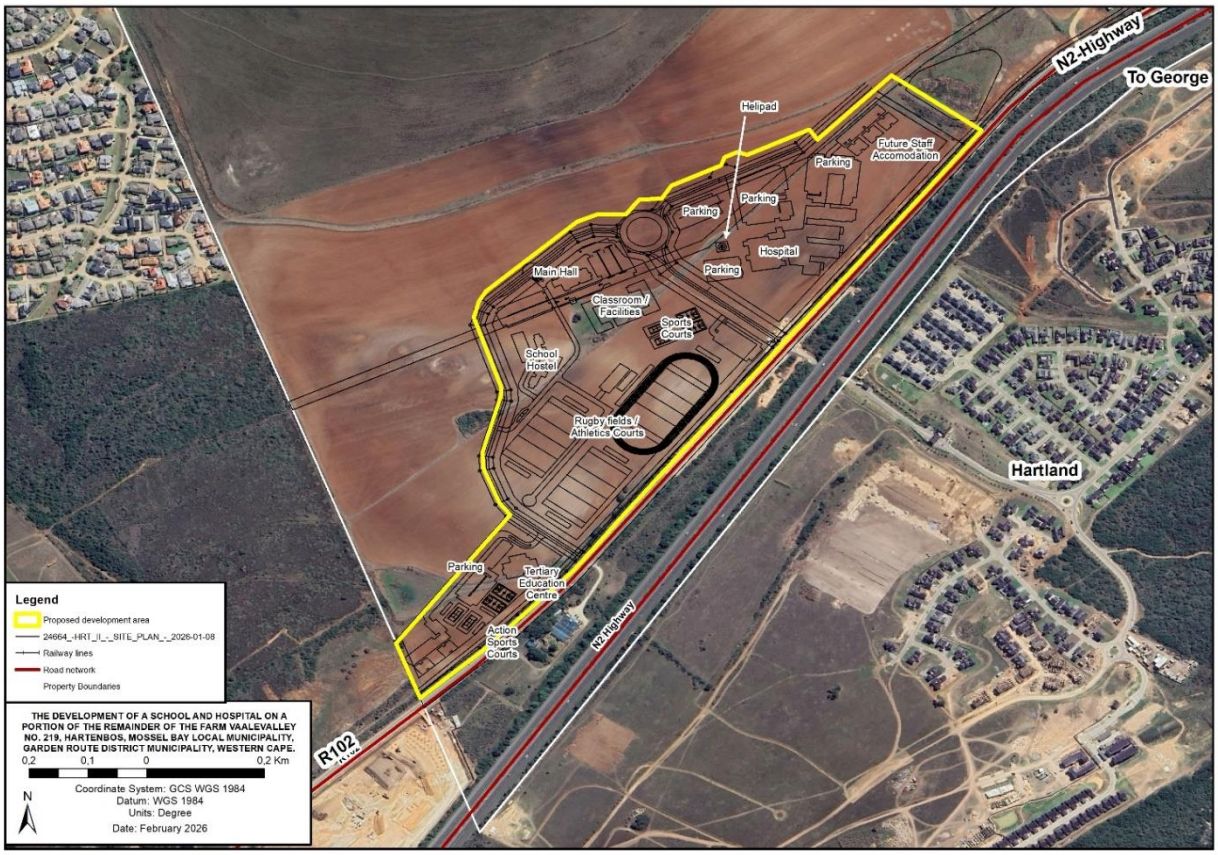


Figure 1. Proposed development layout.

4.5.	Indicate how access to the proposed site(s) will be obtained for all alternatives.																					
Access to the proposed development site will be obtained via the R102 leading adjacent to the proposed development site.																						
4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	C	0	5	1	0	0	0	0	0	0	0	0	0	2	1	9	0	0	0	0	0

4.7.	Coordinates of the proposed site(s) for all alternatives:			
	Latitude (S)	34°	5'	59.29"
	Longitude (E)	22°	6'	55.99"

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**

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**
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.	**YES**	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.	**YES**	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**
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	YES	**NO**
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	**YES**	NO
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	YES	**NO**
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

3. Other legislation

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

Other legislation which holds relevancy over this project includes:

- **The Constitution of the Republic of South Africa, 1998 (Act 108 of 1996) (The Constitution):**
  In 1996, the South African Government promulgated the constitution of the Republic of South Africa (Act No. 108 of 1996) (The Constitution). Section 24 of the Constitution describes the following:
  24. Everyone has the right-
  (a) To and environment that is not harmful to their health or wellbeing; and
  (b) To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that
  i. Prevent pollution and ecological degradation;
  ii. Promote conservation; and
  iii. Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

- **National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA);**
  In 1998, the South African Government promulgated the National Environmental Management Act (Act No. 107 of 1998) (NEMA) aimed towards providing means of governing of the environment and the latent impacts of activities on the different spheres of the environment (social, biophysical, cultural and economic), thereby promoting sustainable development. The Section 24 of the NEMA also provided the Government with the opportunity to promulgate regulations in terms of specific activities which would require approval authorisation prior to commencement. Through this, the following regulations were promulgated:
  - Environmental Impact Assessment (EIA) Regulations of 2014, as amended (GNR 326 of 2017) – Providing clear instruction as to the methodology to be followed for the purpose of obtaining Environmental Authorisation for a proposed project.
  - Listing Notice 1 of 2014, as amended (GNR 327 of 2017) – Infrastructure specific listed activities of moderate magnitude;
  - Listing Notice 2 of 2014, as amended (GNR 325 of 2017) – infrastructure specific listed activities of great magnitude;
  - Listing Notice 3 of 2014, as amended (GNR 324 of 2017) – infrastructure specific listed activities of small magnitude, based on the biographical sensitivity of the development site.

The listed activities applicable to the proposed project has been indicated in Section D of this report.

- **The Conservation of Agricultural Resources Act (Act 43 of 1983) (CARA);**
  The Conservation of Agricultural Resources Act (Act 43 of 1983) (CARA) was promulgated in order to provide a means for the Department of Agriculture to control the utilisation of the natural agricultural resources of the country, which in turn would promote the conservation of soil, water resources and vegetation. In addition, the CARA provides a means of combating weeds and invader plants. In 2013, the CARA promulgated a list of alien and

invasive species including, equipped with similar categories (1, 2 and 3) pertaining to the species. A list of these species has been provided in the Specialist Report Summary in Section G.

Other legislation (outside of the One Environmental System) applicable to the proposed project:

- National Environmental Management: Legislation Amendment Act, 2022 (Act 2 of 2022);
- Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) (SPLUMA);
- Deeds Registries Act, 1937 as amended (Act No. 47 of 1937);
- Local Government: Municipal Systems Act (Act 32 of 2000);
- Occupational Health and Safety Act, 1993 (Act 85 of 1993):
- National Health Act, 2003 (Act No. 61 of 2003); and
- National Petroleum Products Act, 1977 (Act No. 120 of 1977).

4. Policies

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

The following Municipal By-Laws will hold relevance to the infrastructural components proposed development:

- Water Services By-Law (2016): The Services By-Law requires a landowner to get written permission to tie into the Municipal Water and Sewer services infrastructure. The management and altering of the infrastructure is to be done in alignment with the Building Regulations. The By-law also provides minimum standards for sanitation services for drainage installations. All standards provided in terms of this by-law will be complied with.
- Stormwater By-Law (2010): The Stormwater By-Law of the Municipality requires all landowners proposing to tie into the municipal system to get written permission to do as such, as this would lead to altering the existing infrastructure. The by-law also provides specific measures toward safeguarding the water entering these networks, specifically, under the by-law, no contaminated water is to be released into the stormwater network.
- Street By-Law (2010): This by-law requires the developer/landowner obtain written permission by the municipality to supply the site with an access-way (in terms of subsection 3 (a) of the bylaw), as the access way will require the altering of a Municipal Street and/or sidewalk. Additionally, written permission will be required from the Municipality in terms of this By-Law, as well as the Municipality's Outdoor Advertising Bylaw for the placement of any signage which may be visible from the street.
- Zoning Scheme By-Law (2021): In terms of the Municipal Land Use By-Law, the proposed development site has been zoned as Agricultural 1 Zone and the transformation of land will see to a transformation of this zoning to Education Zoning.
- By-Law Relating to Community Fire Safety (2009): In accordance with this By-law all building plans must be submitted to the Controlling Authority and must comply with the National Building Regulations. This includes the fire protection measures to be available at the site, including, but not limited to, adequate access to the property for emergency vehicles, fire doors, assembly points and escape routes. The buildings must also be equipped with firefighting equipment as required by the SABS and the OHSA (Act No. 85 of 1993).
- Air Quality By-Laws (2013): This by-law indicates a number of activities that could potentially be cause for concern. These activities require monitoring and need to be mitigated through design as much as possible.

5. Guidelines

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

The following Guidelines were used to inform the contents of this Basic Assessment Report (BAR):

- Guideline on Need and Desirability (DEA, 2017) - Guideline considered during the assessment of the Need and Desirability of the proposed development project;
- Guideline on Need and Desirability (DEA&DP, 2013) - Guideline considered during the assessment of the Need and Desirability of the proposed development project;
- EIA Guideline and Information Document Series: Generic Terms of Reference for EAPs and Project Schedules (DEA&DP, 2013) – Guideline considered for the compilation of the project schedule compiled for the proposed development.
- EIA Guideline and Information Document Series: Guideline of Public Participation (DEA&DP, 2013) - Guideline considered in undertaking of the public participation for the proposed development. All relevant provisions contained in the guideline were adhered to in the basic assessment process as appropriate;
- EIA Guideline and Information Document Series: Guideline on Alternatives (DEA&DP, 2013);
- EIA Guideline and Information Document Series (DEA&DP, 2013) – Consulted to ensure compliance with the requirements of the EIA Process as required by DEA&DP.
- Guideline for the Review of Specialist Input in EIA Processes (DEA&DP, 2005) - Guideline considered during the review and integration of specialist input into this Basic Assessment Report.
- Guideline for determining the scope of specialist involvement in EIA processes (DEA&DP, 2005);

- Guideline for involving biodiversity specialists in EIA processes (DEA&DP, 2005) - Guideline considered when determining the scope of specialist involvement for this assessment.
- Guideline for Environmental Management Plans (DEA&DP, 2005) - Guideline considered in the compilation of the EMPr attached to this Basic Assessment Report;
- EADP: 0028/2014: "One Environmental Management System" and the 2014 Environmental Impact Assessment (EIA) Regulations (DEA&DP, 2014) - Guideline regulating multiple environmental activities under NEMA, including mining related activities;
- Integrated Environmental Management Information Series 5: Impact Significance (DEA, 2002) – Guideline considered during the identification and evaluation of potential impacts associated with the proposed development, and the reporting thereof in this Basic Assessment Report;
- Integrated Environmental Management Information Series 7: Cumulative effects Assessment (DEA, 2004) - Guideline considering during the assessment of the cumulative effect of the identified impacts;
- Integrated Environmental Management Information Series 11: Criteria for determining alternatives (DEA, 2004) – Guidelines considered during the evaluation of the Alternatives presented for the proposed development;
- Integrated Environmental Management Information Series 15: Environmental Impact Reporting (DEA, 2004) – Considered during the compilation of the BAR in order to provide a comprehensive description of the environmental impacts identified for the proposed development.
- National Biodiversity Offset Guidelines (DFFE, 2023) – The proposed development was evaluated against these Guidelines.

6. Protocols

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

- Agricultural Theme: Protocols for the specialist assessment and minimum report content requirements for Environmental Impacts on Agricultural Resources (GN 320 of March 2020);
- Animal Species Theme: Protocols for the specialist assessment and minimum report content requirements for Environmental Impacts on Terrestrial Animal Species (GN 1150 of October 2020) – The relevant specialist has been appointed to conduct a study for the proposed development site, this study has been included in Appendix G of this BAR..
- Aquatic Biodiversity Theme: Protocols for the specialist assessment and minimum report content requirements for Environmental Impacts on Aquatic Biodiversity (GN 320 of March 2020 – The relevant specialist has been appointed to conduct a study for the proposed development site, this study has been included in Appendix G of this BAR.).
- Archaeological and Cultural Heritage Theme: Guidance of the preparation of a Heritage Impact Assessment – The relevant specialist has been appointed to conduct a study for the proposed development site, this study has been included in Appendix G of this BAR..
- Palaeontology Theme: Guidance of the preparation of a Palaeontological Impact Assessment – The relevant specialist has been appointed to conduct a study for the proposed development site, this study has been included in Appendix G of this BAR.
- Plant Species Theme: Protocols for the specialist assessment and minimum report content requirements for Environmental Impacts on Terrestrial Plant Species (GN 1150 of October 2020) – The relevant specialist has been appointed to conduct a study for the proposed development site, this study has been included in Appendix G of this BAR.
- Terrestrial Biodiversity Theme: Protocols for the specialist assessment and minimum report content requirements for Environmental Impacts on Terrestrial Biodiversity (GN 320 of March 2020) – The relevant specialist has been appointed to conduct a study for the proposed development site, this study has been included in Appendix G of this BAR.
- Civil Aviation Theme: Protocols for the specialist assessment and minimum report content requirements for Environmental Impacts on Civil Aviation Installations (GN 320 of March 2020) – The Civil Aviation Authority has been included as I&APs for the proposed development.
- Site sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed- - Site sensitivity verifications have been undertaken by the respective specialists, please see Appendix D for the Site Sensitivity Verification Report.

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Od	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.
9	The development of infrastructure exceeding 1 000 metres for the bulk transportation of water or stormwater – (i) with an internal diameter of 0.36 metres or more; or (ii) with a peak throughput of 120 litres per second or more.	The proposed development will see to the installation of a network of stormwater infrastructure that will have a cumulative length of more than 1000 m.
12	The development of – (i) dams or weirs where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) Infrastructure or structures with a physical footprint of 100 square metres or more; Where such development occurs- (a) Within a watercourse.	The proposed development will see to the construction of infrastructure within areas identified by the National Freshwater Ecosystem Priority Areas (NFEPA) mapping as wetlands/watercourses. The development within these areas exceeds the thresholds of this activity.
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.	The proposed development will see to the construction of infrastructure within areas identified by the National Freshwater Ecosystem Priority Areas (NFEPA) mapping as wetlands/watercourses. The development within these areas exceed the thresholds of this activity.
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.	Although the predominant land-use of the proposed development area is considered cultivated fields, isolated portions of indigenous vegetation is present. The combined extent of these patches exceeds the lower threshold of the listed activity. The upper threshold of the activity will not be exceeded.
28	Residential, mixed retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after April 1998 and where such development (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.	The proposed development will see to the transformation of approximately 25 ha of land currently used for agricultural purposes. The proposed development will see to the provision of institutional facilities.
Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 3**	Describe the portion of the proposed development to which the applicable listed activity relates.
4	The development of a road wider than 4 metres with a reserve less than 13.5 metres. i. Western Cape: ii. Areas outside urban areas: (aa) Areas containing indigenous vegetation.	The predominant land-use of the proposed development area is considered cultivated fields, isolated portions of indigenous vegetation are present. The combined extent of these patches is approximately 3.5 ha (the remaining extent following the consideration of cultivated lands). The internal roads will have a width of 5.2 m and will have a reserve of approximately 7 m
12	The clearance of an area of 300 square metres or more of indigenous vegetation. i. Western Cape: i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004. ii. Within critical biodiversity areas identified in bioregional plans.	The predominant land-use of the proposed development area is considered cultivated fields, isolated portions of indigenous vegetation are present. The combined extent of these patches is approximately 3.5 ha (the remaining extent following the consideration of cultivated lands). According to the National Biodiversity Assessment database, the proposed development is located within a Critically Endangered ecosystem type.
14	The development of (ii) infrastructure or structures with a physical footprint of 10 square metres or more where such development occurs- (a) within a watercourse; or (c) if no development setback has been adopted, within 32 metres of a watercourse measured from the edge of a watercourse. i. Western Cape: i. Outside urban areas:	According to the proposed development layout, it is proposed to construct road and parking infrastructure within a watercourse delineated as a Critical Biodiversity Area.

	(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.	

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.

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.

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.

Hartland Lifestyle Estate (Pty) Ltd proposes the development of a school and hospital on a portion of the Remainder of the Farm Vaalevalley No. 219, Hartenbos, Mossel Bay Local Municipality, Garden Route District Municipality, Western Cape.

The description of the proposed development will be divided into three portions:

- The school:
    - The school yard will be divided into two main areas:
        - The first will be the Secondary School inclusive of a School hostel, an Admin building and Main Hall. This portion of the development will also house the Clubhouse and the Rugby fields/Athletics Track. A total number of three rugby fields will be established within the proposed development site. The secondary school will be large enough to accommodate approximately 2600 students.
        - The second will be the Tertiary Education Centre (that will be able to accommodate approximately 450 students) and Student Accommodation (that will accommodate approximately 136 students), which will also house the Action Sports Fields, and -Courts.

- The hospital:
    - The third section of the proposed development constitutes the proposed hospital and associated infrastructure. This will include the Future Staff Accommodation and the helicopter landing pad.
- Internal and external auxiliary infrastructure:
    - The proposed development will see to the construction of a network of internal roads and parking bays catered specifically toward the portion of the proposed development to be serviced. The number of parking bays allocated to the proposed development aligns with the requirements of the Mossel Bay Municipal Zoning Scheme;
    - It is proposed to install a new sewer pump station on site; and
    - The access roads will have a width of between 5.2 m and 7.4 m with the widest reserve being 20 m.

All services (water, sewer, electricity, and solid waste) will be serviced by the Mossel Bay Local Municipality. No additional bulk water infrastructure will be required, as the there is a Ø500 mm bulk supply line leading from the 7Mℓ Jakkalskop Reservoir leading along the southern boundary of the proposed development site along which the project will tie into.

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 proposed development will likely see to the rezoning of the proposed development footprint from Agriculture Zone I (intensive Agriculture) to community zone i (place of education), with a consent use required for the establishment of an institution (in the Form of a hospital). Furthermore, as part of the proposed development, portions of the development footprint will be required to be rezoned as transport zoning. This will include the requirement to obtain consent use for the establishment of the helicopter Landing pad.

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.

No existing approvals for the portion of the property under consideration for the proposed development have been recorded.

4.	Explain how the proposed development will be in line with the following?
4.1	The Provincial Spatial Development Framework.
4.2	The Integrated Development Plan of the local municipality.

Mossel Bay Integrated Development Plan (IDP) (2023/24 Review; 5th Generation) The MBIDP (2025/26 Review) identifies five focus areas for the purpose of the implementation of the 5-year IDP. The focus areas aim to be in line with the crow strategy and aims to place focus on the growth of governance, economy, safety, social Regeneration and environmental health. The Mossel Bay Municipality is cognizant of the national and provincial policy development directives and has as such also aligned its development strategy to these while pursuing its constitutional mandates.

The Municipal Key Performance Areas (KPAs) and strategic objectives set the strategic tone and pave the direction for future developments, investments and public/private partnership interventions. These KPAs: include:

- KPA 1 - Basic services delivery and infrastructure development;
- KPA 2 - Spatial development and environment;
- KPA 3 - Community safety and security;
- KPA 4 - Community development and education;
- KPA 5 - Economic development and tourism;
- KPA 6 - Municipal administration governance communication;
- KPA 7 - Municipal transformation and institutional development; and
- KPA 8 – Financial viability and management

Through the development of the proposed development, the applicant aims to fulfil KPA 4 and 7. This is due to the construction of a private tertiary and secondary school, therefore, leading to community development and the promotion of high-quality Education to the residents in close proximity to the area. Furthermore, the proposed development will see to the construction of a hospital, therefore promoting kpa7, through the advancement of institutional development.

Although not clearly identified in the municipality strategic documents, the proposed development will align with the objectives of the municipality, without infringing on the future development plans for the area immediately surrounding the proposed development. Furthermore, the proposed development will see to the upliftment of the northern Hartenbos area. As per the town planning report (included as Appendix K3 of this BAR), the proposed development aims to align with the following Strategies identified by the municipality:

- Strategy 4: Manage urban growth and urban restructuring to establish an urban form able to serve current and future Mossel Bay community needs;
- Strategy 5: Provide a safe and secure environment for all residents and visitors;
- Strategy 6: Create a local economic base to provide sustainable employment opportunities

4.3.	The Spatial Development Framework of the local municipality.

According to the Mossel Bay Local Municipality's Spatial Development Framework (MSDF, 2022), the proposed development is located on the fringe of the urban edge of the municipality. Please see the image below extracted from the MSDF indicating the proposed development in relation to the Municipal SDF,

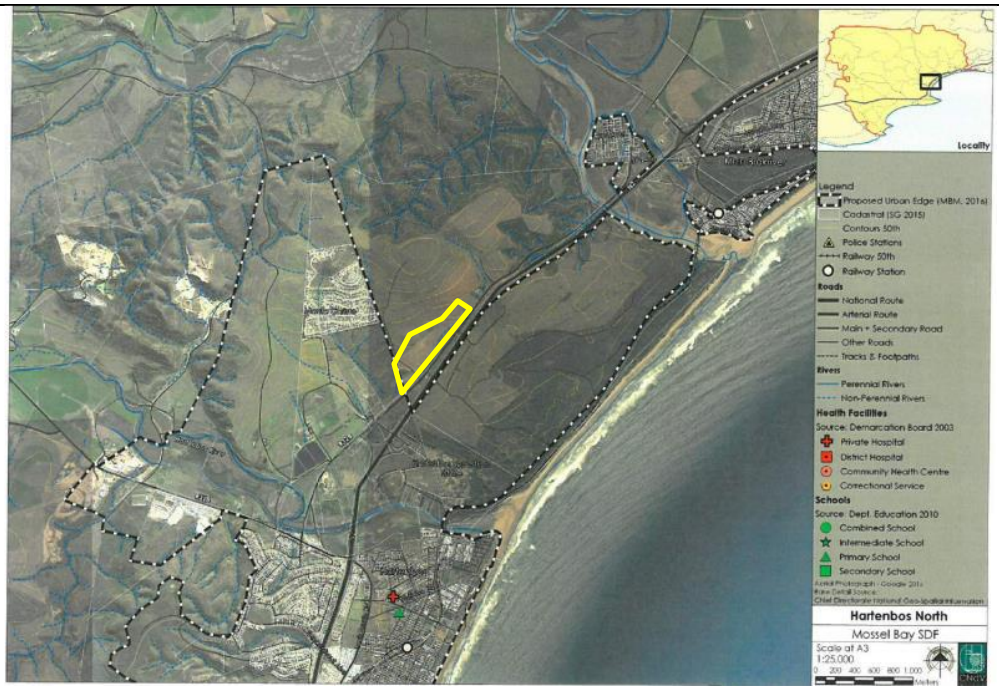


Figure 2. The locality of the proposed development in proximity to the Municipal Urban Edge.

As mentioned in Section 5.3.1 of the Town Planning Report (Appendix M3), the Spatial Development Framework for the Mossel Bay Municipality does in fact identify Remainder Farm 219 as a possible future scenario for the expansion of the urban edge. The development of a regional shopping centre, viz. The Garden Walk, approx. 80m due south of Remainder Farm 219, illustrates the strong emphasis placed by the free market on this area as a preferred direction for future urban growth. The pace and scale of recent private sector investment clearly indicate a high level of confidence in the long-term viability and desirability of this location.

Market-driven development trends typically follow demand patterns, signalling anticipated population growth, increased residential development and rising service needs. This underscores the importance of proactive planning to provide essential social infrastructure, including educational institutions, healthcare facilities and other community services to ensure that growth is both sustainable and aligned with the needs of the current and future residents. Therefore, the existing business and residential development in combination with the development of the proposed social facilities address a critical need for social and community facilities in a region experiencing rapid growth and transformation. The Mossel Bay Municipal area, and particularly the section earmarked for this development, has demonstrated consistent and accelerated urban expansion over the past decade. This trend is further reinforced by significant private sector investment, which highlights the market's strong confidence in this area as the preferred direction for future growth.

4.4.	The Environmental Management Framework applicable to the area.

The proposed development will not infringe on the Mossel Bay Local Municipality's Environmental Management Framework's earmarked Open Space Area. As the proposed development is strategically located on Agricultural land between a number of current and future expansion areas, without infringing on the allocated Open Space Areas, the proposed development aligns with the Mossel Bay Local Municipality's EMF. Please see the Image below for the location of the proposed development area in relation to the areas mentioned. The proposed development site has been indicated by a yellow border.

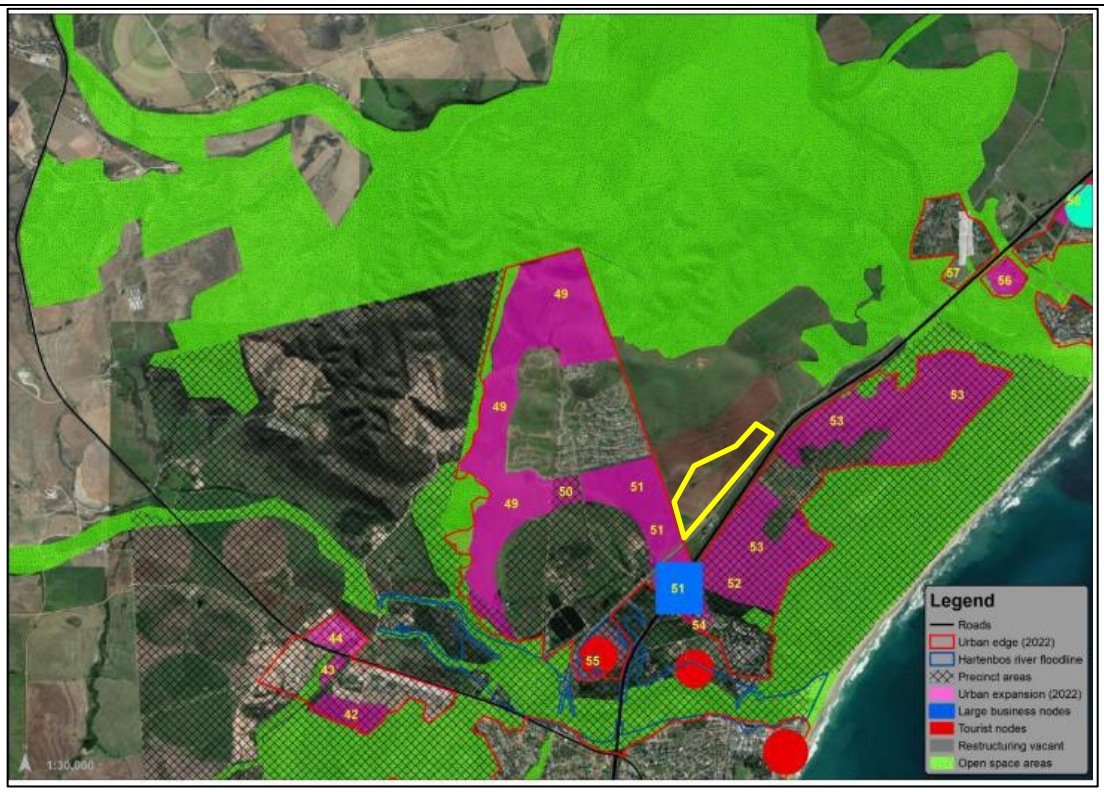


Figure 3. The locality of the proposed development in proximity to the Municipality's management framework areas.

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

No comments from the relevant authorities have yet been received on the proposed development. Once the Public Participation Process on the proposed development has concluded, these comments will be reviewed and will be incorporated into the Final Basic Assessment Report.

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

According to the Western Cape Biodiversity Spatial Plan (BSP, 2023) there are Terrestrial CBA's and degraded CBAs located within the proposed development footprint. The proposed development will be located within an area identified as a CBA 2 (Degraded): Terrestrial, CBA 1: Terrestrial and CBA1: Wetland area. According to the 2023 BSP adopted in December 2024, there are no ESA 2 areas within the proposed development site. Please see the image below for a representation of the BSP in relation to the proposed development site.

Figure 4. The proximity of the proposed development site to features identified in terms of the Western Cape Biodiversity Spatial Plan, 2023.

The primary purpose of mapping the CBAs and ESAs is to guide decision-making about where best to locate development. It should inform land-use planning, environmental assessment and authorisations, and natural resource management, by a range of sectors whose policies and decisions impact on biodiversity. It is the biodiversity sector's input into multi-sectoral planning and decision-making processes. The proposed project is located within such a CBA and ESA's. The description of the CBA located within the proposed project area is an area in a natural condition that is required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. The objective of this CBA is to maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate. The following features in terms of the BSP are present within the proposed development footprint:

- CBA1 – Regarding the impact on the CBA 1 area in the Northern portion of the site, it is anticipated that a small (65 m^2) portion of the Strategic area will be lost by the construction of the staffing accommodation.. With regard to the southern area, approximately 650 m^2 of the strategic area will be lost. It will also be advised as part of the Operational Management Programme that the landscaping for the property be done in a way so as to incorporate plant species indicative of the Mossel Bay Shale Renosterveld, where feasible.
- CBA2 - With regard to the southern area, approximately 730 m^2 of the strategic area will be lost. It will also be advised as part of the Operational Management Programme that the landscaping for the property be done in a way so as to incorporate plant species indicative of the Mossel Bay Shale Renosterveld.

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

The proposed development does not fall within the ambit of the ICMA, as the proposed development is more than 1 km away from the coastline (outside of the coastal protected area).

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.

No changes have been recorded to the Screening Tool report since the submission of the Notice of Intent to submit an Application for Environmental Authorisation.

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

Please note the proposed development is not located within an urban area. As indicated in the Municipal SDF, the proposed development is located outside of the Municipal Urban Edge. However, as part of the proposed development, all infrastructure placed within the proposed development footprint will be done so, so as to optimally place the infrastructure required for the successful implementation of the proposed development.

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

Please note there is no existing infrastructure located within the boundaries of the proposed development footprint.

As part of the proposed development, it should be noted that only the area of Agricultural land required for the successfully implementing the operational requirements of the proposed development, will be allocated to the project. All remaining agricultural land will remain intact as part of the various phases of the proposed development.

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 letter of confirmation of services (the Service Level Agreement) from the Municipality will be included as part of the submission of the Final BAR of the proposed development.

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 Need and Desirability Guideline of 2017 explains that the need and desirability is determined by considering the broader community's needs and interests as reflected in a credible IDP, SDF and EMF for the area, and as determined by the EIA. It is further also highlighted that society in general should improve the efficiency and responsibility with which we use resources, and improve on the level of integration of social, economic, ecological and governance systems. The need and desirability therefore need to illustrate how a development integrates the socioeconomic, ecological and political aspect in a beneficial manner.

As described in the Guidelines on Need and Desirability (DEA&DP, 2013; DEA, 2017), relates to the nature, scale and location of proposal where the need can be translated to time (in other words would the time of this proposal be considered the right time to commence with said proposal), and the desirability can be translated to the place (is the proposal located in the correct place for the proposed activities). Through these considerations, it can be determined whether a proposal would be considered to be in alignment with the sustainability principles as well as the National Development Plan 2030 (NDP 2030)'s principles toward the transitioning to an environmentally sustainable, low-carbon economy. This BAR strives to answer the questions on Need and Desirability as posed in the relevant guidelines for the purpose of due consideration of both the biophysical and the socioeconomic environments.

This section strives to answer the answers set out in the Needs and Desirability guideline (DEA, 2017; DEA&DP, 2013),

Toward "securing ecological sustainable development and use of natural resources"

The According to the respective specialist studies conducted for the proposed development site, the impact of the proposed development on the following resources are of low concern:

- Aquatic Biodiversity resources.
- Terrestrial biodiversity.
- Heritage resources.
- Palaeontological resources.
- Agricultural resources.
- Animal species resources.
- Sensitive noise receptors.
- Visual receptors.

During the investigations conducted by the various specialist, the only features of biophysical concern that was raised, was the presence of the plant Species of Conservation Concern (SCC), *Hermannia lavandulifolia* (VU), identified on site as well as Milkwoods. A permit from CapeNature for the impacting upon this species will be required and a permit from DAFF will be required for the removal of the Milkwood species. This must be followed by a search and rescue operation prior to the commencement of activities on site.

In order to follow the risk-averse approach, the appointed specialists determined the current gaps in their knowledge. These gaps have been described in the Section J2. The risk associated with these gaps in knowledge is the possibility of not identifying all of the sensitive receptors (specifically from a plant species perspective) that could be present on site. To mitigate this, it has been required that a search and rescue operation must be implemented prior to site establishment and the commencement of works. Additionally, an Environmental Management Programme (EMPr) has been compiled for the proposed development to ensure that all design, pre-construction, construction and operational phase impacts are mitigated throughout the establishment and day-to-day activities associated with the proposed development.

Toward "promoting justifiable economic and social development"

DEMACON's Demand Modelling results illustrate that the market can sustain a private school. In order to model the demand for a private high school that targets Christian and Afrikaans students, a baseline and optimistic scenario was modelled. The purpose of the scenarios is to consider differences in market attendance and market capture rates. Given the specific target market that the proposed private high school wishes to target, the model has been calibrated to account for the number of students that could potentially be Afrikaans speaking and Christian - approximately 86% of the population in the primary market area are Christian and Afrikaans speaking. Furthermore, the model has been calibrated to take into account the SEM profile of the primary market area (SEM 2 to 5 are considered) as well as the age groups applicable to high school attendance. The market feasibility study of the schooling facilities concluded the following:

- There is a demand for a private school, as previously eluded in the survey results (81% of the 70% of respondents that do have children in high school or have children going to high school in the near future would consider enrolling / transferring their child / children to a private school in Hartenbos, specifically Hartland).
- In the survey analysis, it is apparent that majority of respondents are willing to pay a monthly tuition fee of between R2 000 – R4 000 for a private school (excluding a boarding facility).
- It is suggested that reputable market operator is secured for the operation of the proposed private high school.

The following recommendations were made towards an associated Boarding Facility

- Once the proposed private school gains traction and is well established, a boarding facility could be considered.
- A boarding facility represents a fixed asset that, if maintained, will appreciate in value over time. The cost-effectiveness of a boarding facility, however, depends on the school reaching maturity and generating sufficient interest to fill the majority of boarding opportunities available.
- In the survey analysis it is apparent that approximately 43% of respondents would consider putting their child in a boarding facility if their child is in high school. Therefore, in terms of the survey, there is a moderate demand for a boarding facility to form part of the development of a private high school.
- Considering the preceding, the survey results indicate that 33% of respondents are willing to pay between R2 000 – R3 000 per month for a boarding facility. However, approximately 22% of respondents are willing to pay between R6 000 – R7 000 per month for a boarding facility, indicating a possible higher-income market that could be tapped into.

The following summary towards the provision of a hospital facility was reached:

- The proposed site is located along the R102 in Hartenbos and will form part of the larger Hartland Lifestyle Estate.
- The Mossel Bay Local Municipality economy contributed 1.32% of the total Western Cape Provincial GDP (R10 Million). The largest sector in the region is the Finance & Business Services sector.
- Mossel Bay acts as a central place within the area and because of this the proposed private hospital could also potentially attract support from the surrounding towns like Stillbaai and others west of Mossel Bay – high inflow is expected from surrounding towns.
- There were moderate to high traffic volumes observed passing past the site throughout the day, which will provide the site with excellent top-of-mind awareness.
- The proposed commercial node/retail shopping centre close by, will also add to the synergy for the site.
- Based on an as-is scenario the site rated as 86/100 - excellent site rating.
- Mossel Bay has 1 private acute hospital (Bay View Private Hospital) that has 147 beds.
- There was an average dwelling growth of ±1.17% between 2020 to 2024 within the catchment area, a growth rate used to project to the 2025 dwellings.
- The average household size, according to the 2022 Census is 3.18, which works out to a population of ±126,167 people by 2024 for the catchment area.
- Approximately 50% of the population is representative of the private healthcare target market group (Beneficiaries of both Open and restricted schemes).
- The underlying Demand for the catchments was determined from our most recent AfricaEye demographic database combined with other Stats SA secondary data. The medically insured population was calculated from the latest AfricaEye Demographic Income Segmentation.
- The target market / insured population is defined as 100% of C to A+ income dwellings, based on Fernridge's Benchmark Mod
- From the aforementioned demographic data sets, it was deduced that the catchment area consists of ±63,732 people who form the estimated private healthcare target market (beneficiaries) in 2025.
- The insured population was modelled based on admission of 212.2 per 1,000 people to calculate the demand for a private acute hospital.
- Based on the Private Bed Demand Model, there is demand for 130 private beds, which can be supported by the local market (±63,732) at an average length of stay of 3.4 days, for a private acute hospital in 2025. In addition to the 130 private acute beds, there is a demand for 71 dedicated

oncology beds as part of the proposed private hospital. This then brings the total bed demand to 201 beds in 2025.

- It was the professional opinion of the specialist that there is a strong believe that there is an urgent need for an additional private acute hospital in Mossel Bay, in order to help relieve the pressure and reduce outflow to George.

In order to ensure that a risk averse approach in terms of the socio-economic impact of the proposed development has been taken, the following has been determined:

- A traffic impact consultant has been approached to determine the impact of the proposed development on the adjacent road network. It was found that no significant impacts will be seen and no further upgrades to the existing infrastructure will be required.
- The proposed development aligns with the Municipal Land use Scheme, the objectives of the Provincial SDF, the Municipal SDF and the Municipal IDP.

Further to this, the Town Planning Motivation Report (Appendix M3 of this Report), further outlines the need for the establishment of the secondary school within the proposed development area as follows:

Presently there are 575 developed residential units of which 130 units are presently under construction at Hartland Lifestyle Estate. Phase A of this development provides for a private primary school which is bound to be constructed in 2025/2026. By virtue of the locality of this school, in relation to not only the entire development at Hartland Lifestyle Estate and the high order traffic routes in the immediate proximity thereof, but also the attractiveness and safety of Mossel Bay and environs as a popular destination for permanent residency, it is foreseen that a need will also arise for a secondary school to support it. This eventually became a reality when parents of primary school children who bought properties in Hartland Lifestyle Estate started putting pressure on the developer to also provide for a secondary school in the close proximity of Hartland to accommodate the children finishing Grade 7. The demand for a secondary school increased as also prospective new buyers at Hartland became adamant about the availability of such a facility in the close proximity of the primary school. This became a prerequisite for some resettling in Hartland in the process of semi-emigrating to the Southern Cape.

The developable portion of Remainder Farm 219/11 is fully taken up by approved existing and future residential related development. Inquiries were made to the Municipality regarding the availability of vacant public land for the purpose of developing a secondary school in this part of Mossel Bay. No suitably located vacant public owned land earmarked for schools was, however, available in the eastern part of Mossel Bay, while Hartland is approximately 13.5km away from Punt High School. The latter offers more or less the same educational exposure as the proposed school envisaged at Hartland, while the school at Outeniquasbosch caters for a niche market as a private English school. The distance between Punt High School and the subject of this application combined with the congested Louis Fourie Road as the main connection route to the school, pose a daunting challenge, especially during business and school peak hours which are at the same time. Furthermore, it should also be pointed out that Punt High School has a capacity for 1300 learners, but for all grades there is a long waiting list according to the secretary of the school. Outeniqua High School, some 40km away, is experiencing an even more challenging situation due to an even longer waiting list.

The rapid growth taking place in the Garden Route is mainly due to the influx of people who come to reside here permanently. It puts additional pressure on the availability of a wide range of social services, such as schools, which are normally supposed to be provided for by the central and provincial governments.

Furthermore, it is also foreseen that thanks to the much sought-after living conditions and moderate climate of Mossel Bay that this secondary school will also attract learners from all over the country. Consequently, the land proposed for the school will also provide for a school hostel. Due to financial constrains the authorities are, however, not in a position to fulfil these obligations. The establishment of a privately funded school in an area facing a severe shortage of educational facilities represents a valuable contribution that should be welcomed and supported.

The portion of Remainder Farm No. 219 required for the secondary school is situated right across the N2 and R102 from the proposed primary school in Hartland Lifestyle Estate, some 80m away, which will be the major catchment area for this school. The R102 as well as the N2 Route with off-ramps serving as major east/west traffic corridors in the Southern Cape are in the immediate proximity thereof. These two roads as well as the northbound R328 facilitate easy access to the proposed secondary school from Hartenbos in the west to all the seaside villages and farms up to Glentana in the east as well as the area north of Mossel Bay along the Brandwag road.

The aforementioned rationalization is based on a town planning perspective, but according to scientific research conducted by DEMACON MARKET STUDIES, a professional firm specialising in this field, it was also concluded that a secondary school with associated facilities are not only justified, but also indispensable for the Greater Mossel Bay area.

In summary, considering the individual role each of the social facilities play in serving the basic needs of a community, the collective contribution thereof when grouped together can be outlined as follows:

Benefits of grouping a hospital, school and university:
1. Educational and Training Advantages.
    - Hands-on experience: University students, especially these in Medicare, nursing, psychology or education, can gain desired supervised experience in real-world environments.
    - Internships and Placement: Easy access to hospitals and school facilities internships, practicums and student-teaching programs.
    - Inter disciplinary learning: Encourages collaboration across disciplines, such as healthcare students working with education or child development initiatives.

2. Research and Innovation:
    - Collaborative research: Universities and hospitals or schools can partner on clinical trials, public health studies or educational research improving innovation and outcomes.
    - Access to data and subjects: Proximity allows easier recruitment of participants and faster data collection.
    - Pilot programs: Schools and hospitals can serve as real-world labs for testing new teaching methods, therapies or healthcare technologies.

3. Community and social benefits:
    - Improved community access: Residents benefit from a central hub for health, education and advanced learning.
    - Stronger outreach programs: These institutions can jointly provide wellness programs, health education, literacy campaigns and youth development activities.
    - Shared infrastructure: Public transport, green spaces and utilities can be optimised for all institutions.

4. Economic Efficiency:
    - Shared resources: Facilities like libraries, cafeterias, sports centres or auditoriums can be shared, reducing redundancy and cost.
    - Attracting investment: Clusters of educational and healthcare institutions can attract financing, grants and philanthropic support.
    - Job Creation: A centralised hub can become a major employment centre in the region.

5. Health and well-being:
    - School based healthcare: Schools near hospitals may have better access to paediatric care, vaccination programs and emergency services.
    - Mental health support: University counselling departments and hospital psychologist can work together to support students and local school children.

6. Urban Planning and Sustainability:
    - Efficient land use: Consolidating major institutions within one area can reduce urban sprawl and support sustainable development.
    - Reduce commute times: Facility staff, students and hospital staff can move easily not only between the different facilities, but also between the residential neighbourhood in the close proximity thereof which reduces traffic an urban footprint.

In order to obtain a clear indication of the socio-economic structure of the area and to obtain insight on the concerns from the public (regarding the proposed activities), a thorough Pre-Application Public Participation Process (PPP) was undertaken. This PPP was conducted in line with Regulation 41 of the EIA Regulations of 2014, as amended. All comments received have been incorporated into this Post-Application Draft Basic Assessment Report.

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.

This is not applicable to the proposed development as the proposed development is considered a local development. However, please see the following stipulations in line with the requirements of the Regulation 41 of the Environmental Impact Assessment Regulations (EIA Regulations of 2014, as amended (GNR 326 of 2017):

Public participation requirement based on the EIA Regulations of 2014, as amended (GNR 326 of 2017)		**Proposed implementation**
40 (1)	The public participation process (PPP) to which the (a) basic assessment report and EMPr was subjected to must give all potential or registered interested and affected parties, including the competent authority, a period of at least 30 days to submit comments on each of the basic assessment report, EMPr, scoping report and environmental impact assessment report.	The following Public Participation Timeframes are proposed for this proposal: • A 30-day Pre-Application PPP timeframe between 6 March 2026 to 8 April 2026 was provided to all potential I&APs, Stakeholders and Commenting Authorities which will provide all parties with time to lay comment/show interest on the Draft BAR. It was during this phase of the proposal that all the requirements of Sub-regulation 41 will be implemented. • Throughout this round of PPP, Regulations 42 and 43 will be adhered to and the necessary documents (proof of Public Participation) will be included as part of the submission of the Post-Application Draft BAR. Following the conclusion of the Pre-Application BAR, the documents will be updated and the Application form will be submitted to the Competent Authority (CA). Once acknowledgement of receipt of the Application form has been received from the CA, the Post-Application BAR will be released to the public for a 30-Day commenting period.
41 (1)	This regulation only applies in instances where adherence to the provisions of this regulation is specifically required.	As per Sub-Regulation 19(1)(a), a 30-day post-Application PPP period will be required prior to the submission of the Final BAR. The current BAR will aim to fulfil the requirements as per the legislation.
41(2)	The person conducting a public participation process must take into account any relevant guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of an application or proposed application which is subjected to public participation by -	
41(2)(a)	fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of— (i) the site where the activity to which the application or proposed application relates is or is to be undertaken; and (ii) any alternative site;	Two Notice boards (one in Afrikaans and another in English) in line with Sub-regulation 41(3) and 41(4) were erected on site. These will be erected along the boundary of the site bordering R102. As no alternative sites are being proposed for this proposal, no additional site posters were required.
41(2)(b)	giving written notice, in any of the manners provided for in section 47D of the Act, to— (i) the occupiers of the site and, if the proponent or applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken and to any alternative site where the activity is to be undertaken; (ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken and to any alternative site where the activity is to be undertaken; (iii) the municipal councillor of the ward in which the site and alternative site is situated and any organisation of ratepayers that represent the community in the area; (iv) the municipality which has jurisdiction in the area; (v) any organ of state having jurisdiction in respect of any aspect of the activity; and	All occupiers and landowners of the properties adjacent to the proposed development site were notified of the proposal and will continue to be notified as part of the post-Application process. This will be done in the form of emails and postal addresses (where no other contact details have been made available to the EAP). The I&AP register, including all surrounding landowners adjacent to the proposed project site, authorities, organs of state and other affected parties has been compiled and has been submitted as part of the appendices to the Basic Assessment Report.

	(vi) any other party as required by the competent authority;	
41(2)(c)	Placing an advertisement in- (i) one local newspaper; or (ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;	As only one local municipality will be affected by the proposed project, an English and Afrikaans advertisement was placed in the local newspaper, The Mossel Bay Advertiser, which was deemed accessible to the public was chosen by the EAP. The Advert was run on 6 March 2026.
41(2)(d)	placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official Gazette referred to in paragraph (c)(ii).	
41(2)(e)	using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desirous of but unable to participate in the process due to— (i) illiteracy; (ii) disability; or (iii) any other disadvantage.	All notifications and external communications (as stipulated above) will be available in Afrikaans and English, as appropriate, in order to reach the greatest audience possible. In addition to these measures, notifications will be placed on social media (LinkedIn and Facebook) to notify the broader public of the availability of the Pre-Application Draft BAR. Similarly, this will be done for the Post-Application DBAR as well.

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

The section above indicates the measures implemented on site. Similarly, these measures speaks directly to the contents of the EIA Regulations of 2014, as amended, as well as the Application form submitted for the proposed development.

The proof of PPP has been included as part of Appendix F of the Post -Application Draft BAR.

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

State Department/Organ of State	Contact Person	Contact Details
DEADP: Development Management Region 3	Admin	DEADPEIAAdmin.George@westerncape.gov.za
DEA&DP: Pollution Management	Mr. A McClelland	arabel.mcclelland@westerncape.gov.za
Breede-Gouritz CMA	Mr. C Abrahams	cabrahams@bgcma.co.za
CapeNature: Land use – Landscape Easte	Mr. C Fordham	cfordham@capenature.co.za
	Ms. M Simons	msimons@capenature.co.za
Heritage Western Cape	Ms. S Barnardt	Stephanie.Barnardt@westerncape.gov.za
WCG: Department of Forestry	Ms. M Koen	Mkoen@environment.gov.za
WCG: Department of Agriculture	Mr. C van der Walt	corvdw@elsenburg.com
	Mr. B Laymen	brandonl@elsenburg.com
WCG: Transport and Public Works	Mr. X Smuts	Xander.smuts@westerncape.gov.za
	Dr. H Wolff	Herman.wolff@westerncape.gov.za

State Department/Organ of State	Contact Person	Contact Details
South African Civil Aviation Authority	Ms. L Stroh	strohL@caa.co.za
	Ms. E Shogola	ShogoleE@caa.co.za
Garden Route District Municipality Executive Manager: Community Services	Ms. C Africa	cafrica@gardenroute.gov.za
Garden Route District Municipality: Health and Environmental Services	Mr. J Compion	jcompion@gardenroute.gov.za
Garden Route District Municipality Executive Manager: Planning and Economic Development	Mr. L Menze	info@gardenroute.gov.za
Garden Route District Municipality Executive Manager: Roads Services	Mr. J.G. Daniels	info@gardenroute.gov.za
Garden Route District Municipality: District Waste Management	Mr. M Hubbe	morton@edendm.co.za
Mossel Bay Municipality: Municipal Manager	Colin Puren	mmoffice@mosselbay.gov.za
Mossel Bay Municipalty: Director Infrastructure Services	Dick Naidoo	dnaidoo@mosselbay.gov.za
Mossel Bay Municipality: Director Planning & Economic Development	Carel Venter	cventer@mosselbay.gov.za
Mossel Bay Municipality: Waste Management & Pollution	Warren Manuel	Warren.manuel@mosselbay.gov.za

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

As part of the PPP, only the Department Western Cape Department of Oceans and Coasts will not be consulted, as the proposed development will lay outside of the regulatory zones as identified in the ICMA. Please see Appendix F2 for the full I&AP and Stakeholder register for the individuals contacted during the public participation process.

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

Following the conclusion of the Pre-Application Public Participation comments from only the Mossel Bay Local Municipality were received. No other Departments or Organs of State identified above provided comments to the proposed development.

This section will be further updated following the Post-Application PPP.

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.

As indicated above, the Mossel Bay Local Municipality were the only commenters on the Pre-Application PPP. The following key concerns were raised:

- It was advised that the Applicant investigate an alternative site for the proposed development within the urban edge. As per discussions on the alternatives considered provided in both the Pre-Application DBAR and the Post Application DBAR, the property, the Remainder of the Farm Vaale Vallei 219 was identified and purchased for the purpose of development. As indicated in Section E above, the Spatial Development Framework for Mossel Bay Municipality does in fact identify Remainder Farm 219 as a possible future scenario for the expansion of the urban edge. The development of a regional shopping centre, viz. the Garden Walk, approx. 80m due south of Remainder Farm 219, illustrates the strong emphasis placed by the free market on this area as a preferred direction for future urban growth.
- A concern was raised pertaining to the exclusion of the Kings College and the Punt Hoerskool in the Market feasibility assessments for the School. Please note that the Market feasibility is specifically aimed toward providing context to the impact on other Secondary Schools in the market study area. This has been described in the Needs and Desirability section of the Pre-Application and Post-Application DBAR compiled for the proposed development.

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**
1.2.	Provide the name and or company who conducted the specialist study.		
Not applicable			
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
According to the database made available on the CapeFarmMapper (CFM, as accessed in Marc 2026), the proposed development is located on a Minor Aquifer. This has not directly influenced the approach taken towards assessing the impacts of the proposed development, however, an aquatic biodiversity impact assessment has been undertaken to inform the impacts on the aquatic resources within the proposed development area.			
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.		
The depth of the groundwater (as obtained through CFM (March 2026), is 23.65 meters below ground level, therefore, the aquatic resources and processes within proximity to the proposed development site is predominantly driven by surface water flow. Therefore, the groundwater and aquifer influences have not influenced the proposed development.			

2. Surface water

2.1.	Was a specialist study conducted?	**YES**	NO
2.2.	Provide the name and/or company who conducted the specialist study.		
Confluent Environmental (Pty) Ltd: Dr. JM Dabrowski (Pr. Sci. Nat. (Water Resources) – 114084)			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		

The Project Area Of Influence (PAOI) was traversed by vehicle and by foot on the 7th of October 2024. The PAOI covers a gently sloping valley, through which the non-perennial watercourse is mapped to run. The site visit confirmed that the entire PAOI was cultivated with wheat and no obvious watercourse was observed. Historical Google Earth satellite imagery confirms that the entire PAOI has been cultivated since at least 2005. A dam is located to the north-west of the PAOI and receives water from a stormwater headwall outlet (presumably draining the R102) as well as from a gently sloping valley that drains the low hills to the north. The non-perennial drainage line is mapped to run through this valley, however there is no distinct channel upstream of the dam and the entire area has been transformed for cultivation and an ostrich camp. Flow paths indicating flow of water along the valley bottom downstream of the dam are only visible in historical aerial images taken during wetter periods (e.g. when the dam periodically overflow. These images also show excavated channels which are presumably dug to drain the fields during these wetter periods. Intermittent flows ultimately flow into a small dam on the western boundary of the property. Beyond the property boundaries, the watercourse drains along a very poorly defined channel and into a stormwater drainage network that presumably discharges into the Hartenbos Estuary. While the PAOI is regularly ploughed and planted, it is clear that the valley is a low point in the landscape and that permanent, non-perennial aquatic features are likely to re-establish should ploughing of the fields cease. The dam was not full at the time of the visit but did host dense reed beds (mainly Typha capensis) and a variety of wetland bird species were utilising the dam.

A smaller dam is located along the northern boundary and is fed by surface runoff from the hills to the north as well as from a scour valve that drains a Petro SA water line that runs through the property. The dam is densely vegetated (predominantly by kikuyu) and appears to be only temporarily inundated following scouring of the pipeline and serves more of an attenuation function as opposed to a storage function. The Present Ecological State of the watercourse is Seriously Modified, and the Ecological Importance of the watercourse is Low.

The Environmental Management Programme of the proposed development includes the mitigation measures identified by the appointed specialist.

3. Coastal Environment

3.1.	Was a specialist study conducted?	YES	**NO**
3.2.	Provide the name and/or company who conducted the specialist study.		
This section is not applicable to the proposed development as the project lies beyond the boundaries of the regulatory zones as identified in the ICMA.			
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.		
3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.		

3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.

4. Biodiversity

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

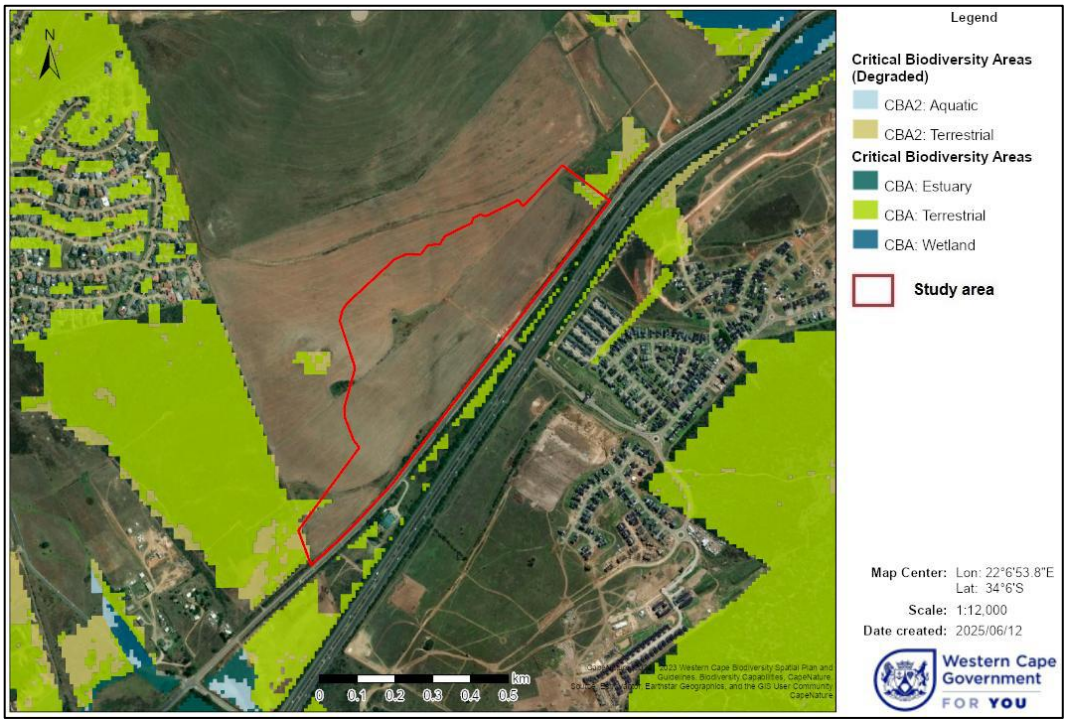
- Jacobus Visser (Blueskies Research)
- Mark Berry (Mark Berry Environmental Consultants)
- Johann Lanz (SoilZA)

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.

For the purpose of assessing the proposed impacts of the proposed development on the Terrestrial Biodiversity aspects within the proposed development site, the following desktop databases were used by the appointed specialist:

A brief review of online (e.g. Google Earth, iNaturalist.org, posa.sanbi.org & CapeFarmMapper) and desktop resources (available literature & reports) was undertaken to determine the nature of the site, the expected vegetation type(s), the presence of natural vegetation remnants and species of conservation concern (SCC), hydrological features, and the significance of the site in terms of biodiversity planning.

The site falls largely outside the Western Cape biodiversity network. There are only small encroachments on terrestrial critical biodiversity areas (CBA) and degraded critical biodiversity areas (CBA2) in the north-eastern and south-western corners of the site. These are associated with the farm dams/watercourses. Reasons for the importance of the mapped CBA's and CBA2's include the presence of a threatened vegetation type albeit the incorrect one (Groot Brak Dune Strandveld), threatened vertebrate habitat (bontebok) and water resource protection (Southern Coastal Belt). The closest protected area is the Diosma Reserve, a contract nature reserve located 10 km away to the south in Heiderand.



CBA's are defined as areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure (Pool-Stanvliet, 2017). These sites are selected for meeting national targets for species, habitats and ecological processes (Pool-Stanvliet, 2017). Many of these areas support known occurrences of threatened plant species, and/or may be essential elements of designated ecological corridors. Loss of designated CBA's is therefore not recommended. ESA's, on the other hand, are supporting zones required to prevent the degradation of CBA's and Protected Areas.

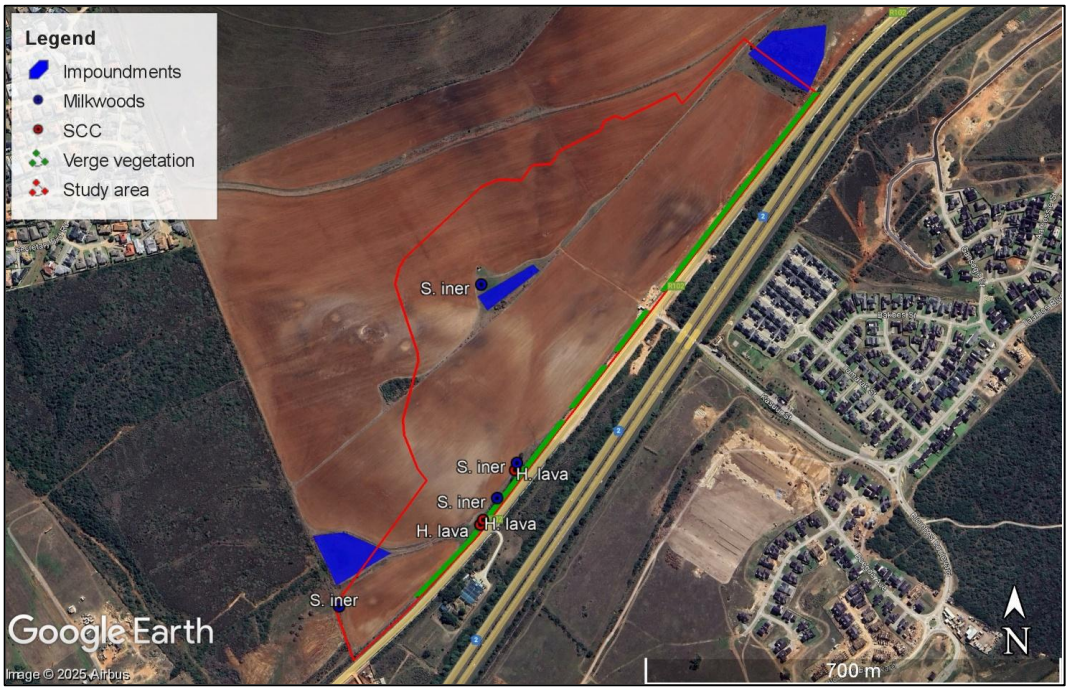
4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.

An appropriately qualified specialist was appointed to undertake the Terrestrial Biodiversity Assessment for the proposed development in order to confirm the site sensitivity of the identified features within the proposed development footprint. Following the conclusion of the assessment, several mitigation measures were provided for inclusion into the EMPr for the proposed development (Please refer to Appendix H of this Post-Application DBAR).

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.

Terrestrial Biodiversity

The botanical attributes of the site are presented in the figure below. As stated earlier, the site is covered by a wheatfield. However, narrow strips of vegetation remain along the south-eastern boundary of site (mainly outside the fence) and small patches of low-quality regrowth around the dams. The vegetation along the south-eastern boundary can be described as typical road verge vegetation, comprising a mixture of thicket and renosterveld species. Due to the modified state of substratum, it is difficult to classify it as a specific vegetation type, such as thicket or renosterveld. Common species recorded here include *Metalasia acuta, Dicerothamnus rhinocerotis, Gymnosporia buxifolia, Searsia pallens, Polygala myrtifolia and Diospyros dichrophylla*. Structurally, it can be classified as a mid-high closed shrubland following Campbell's classification (Campbell, 1981). Due to the severity of past agricultural activities on the site, it is highly unlikely that it will return to natural vegetation in the medium to long term. Other disturbances noted include farm tracks, alien infestation (mostly weeds) and recent construction activities (for a pipeline) along the south-eastern boundary.



The following indigenous shrub species were recorded (mainly along the south-eastern edge of site), namely *Metalasia acuta, Osteospermum moniliferum, Oedera genistifolia, Dicerothamnus rhinocerotis, Helichrysum patulum, Berkheya heterophylla, Chrysocoma ciliata, Nidorella ivifolia, Senecio rosmarinifolius, S. deltoideus, Vachellia karroo, Lauridia tetragona, Gymnosporia buxifolia, Scolopia zeyheri, Sideroxylon inerme, Euclea undulata, Olea europaea, Searsia pallens, S. lucida, Ficus sur, Lycium tenue, L. ferocissimum, Solanum tomentosum, Diospyros dichrophylla, Grewia occidentalis, Carissa bispinosa, Cynanchum obtusifolium, C. viminale, Euphorbia mauritanica, Aloe ferox, Ruschia tenella, Drosanthemum floribundum, Mesembryanthemum aitonis, Aizoon secunda, Gnidia squarrosa, Polygala myrtifolia, Hermannia lavandulifolia, Abutilon sonneratianum, Chironia baccifera, Asparagus suaveolens, A. multiflorus, A. aethiopicus, A. asparagoides, Rhoicissus digitata, Exomis microphylla, Chaenostoma caeruleum and Rumex hypogaeus*. Many of these species are pioneers that typically colonise road verges. Hemicryptophytes and bulbs recorded include Cynodon dactylon, Oxalis pes-caprae, *Bulbine lagopus, Albuca canadensis and Moraea polyanthos*. The dams are populated by *Cyperus textilis, Typha capensis* and grasses. The figure below shows a few of the recorded species.

Figure 5. A few indigenous species recorded on site, with *Euphorbia mauritanica* (top left), *Polygala myrtifolia* (top right), *Hermannia lavandulifolia* (bottom left) and a milkwood (bottom right).

Hermannia lavandulifolia (VU) was the only Species of Conservation Concern (SCC) recorded on site (inside the regrowth next to south-eastern boundary). The latter is very common in the Southern Cape region, especially around Mossel Bay. Its listing as a threatened species is therefore questionable. The other recorded species are also widespread and common in the region. Floristic association with Mossel Bay Shale Renosterveld is fairly strong with several important taxa recorded, namely *Dicerothamnus rhinocerotis, Oedera genistifolia, Aloe ferox, Diospyros dichrophylla* and *Carissa bispinosa*. A few *Sideroxylon* inerme (milkwood), a protected tree species in terms of the National Forests Act (Act 84 of 1998), were also recorded on site.

Alien species/weeds are abundant throughout the site, including *Acacia cyclops* (rooikrans, category 1b), *Helminthotheca echioides* (ox tongue), *Cirsium vulgare* (spear thistle, 1b), *Erigeron bonariensis* (flax-leaf fleabane), *Datura stramonium* (thorn apple, 1b), *Lantana camara* (lantana, 1b), *Opuntia cf cespitosa* (eastern prickly-pear), *Atriplex semibaccata* (Australian saltbush), *Plantago lanceolata* (buckhorn plantain), *Erodium moschatum* (musk heron's bill), *Malva parviflora* (cheese weed), *Coleus barbatus* (woolly plectranthus), *Lysimachia loeflingii* (blue pimpernel), *Fumaria muralis* (fumitory) and *Cenchrus clandestinus* (kikuyu, category 1b in protected areas). *Cenchrus clandestinus* is dominant in and around the dams.

Figure 6. A few alien species recorded on site, with Coleus barbatus (top left), Datura stramonium (top right), Cirsium vulgare (bottom left) and *Lantana camara* (bottom right).

As indicated above, several of these species are Category 1b invaders in the Western Cape. In terms of the National Environmental Management: Biodiversity Act (NEMBA) (Act 10 of 2004) Alien and Invasive Species List (2016), Category 1b invasive species require compulsory control as part of an invasive species control programme. The high presence of aliens on the site is indicative of past disturbances (agricultural & construction activities).

Due to the transformed state of the site, it was not deemed necessary to prepare a site ecological importance (SEI) map. Only a narrow strip of vegetation/regrowth on the south-eastern boundary and a few scattered milkwoods have some conservation value.

Agricultural Theme

Johann Lanz (SoilZA) was appointed to undertake the Agricultural Assessment for the proposed development. Through the assessment, it was found that the site is not within a Protected Agricultural Area (PAA) (DALRRD, 2020). A PAA is a demarcated area in which the climate, terrain, and soil are generally conducive for agricultural production and which, historically, or in a regional context, has made important contributions to the production of the various crops that are grown across South Africa. Within PAAs, the protection of viable, arable land is considered a priority for the protection of food security in South Africa.

The agricultural protocol requires the current productivity of the land based on detailed production figures and it requires the current employment figures. However, yield details are notoriously hard to get and are not considered necessary for this assessment of agricultural impact. What is relevant is simply that the site is suitable for small grain production, regardless of what yields have been, and the loss of the site is therefore a loss of future potential for small grain production.

There are no existing impacts on the site that are relevant to this assessment of agricultural impact.

The single, direct agricultural impact of this development is the total loss of agricultural production potential due to the permanent exclusion of agriculture from the development site. The significance of this loss is a direct function of the following factors:

1. the size of the footprint of land from which agriculture will be excluded
2. the baseline production potential (particularly cropping potential) of that land

The most significant loss of potential, for any development anywhere in the country, is on high yielding cropland, and the least significant possible, is on low carrying capacity grazing land. Cropping potential is highlighted in factor 2, above, because the threshold, above which it is a priority to conserve land for agricultural production, is determined by the scarcity of arable crop production land in South Africa (approximately only 13% of the country's surface area) and the relative abundance of the rest of agricultural land across the country that is only good enough to be used for grazing. If land can support viable and sustainable crop production, then it is considered to be above the threshold and is a priority for being conserved as agricultural production land. If land is unable to support viable and sustainable crop production, then it is considered to be below the threshold and of much lower priority for being conserved.

In this case, the entire development footprint is considered to be above the threshold of being worthy for conservation as agricultural production land because its agricultural potential makes it suitable as viable cropland. The proposed development will result in the permanent loss of this land to agriculture, which will result in a loss of future agricultural production potential in

terms of national food security. The overall negative agricultural impact of the development (loss of future agricultural production potential) is assessed here as being of medium significance.

The acceptability and ultimate approval of the development cannot be based purely on its agricultural impact but requires the weighing of many diverse factors, which include the high demand for development space within Mossel Bay and the fact that this area is designated for foreseeable future expansion in the Mossel Bay Spatial Development Framework. Such a weighing is far beyond the scope of an agricultural impact assessment, which cannot therefore conclude on the overall acceptability of the development.

The agricultural protocol requires an indication of the potential losses in production and employment from the change of the agricultural use of the land as a result of the proposed development. A total of 28.5 hectares of small grain cropland will be lost. The relatively small area of lost cropland is unlikely to affect agricultural employment within the farming enterprise.

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.

This is not applicable to the proposed development. The proposed development is not located within the any protected areas listed in terms of the National Environmental Management: Protected Areas Act (Act No. 57 of 2003).

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

The following conclusions were drawn from the findings of the animal species assessment compiled by Dr. Jacobus Visser.

In total, 30 bird species were recorded within the study area, all of which are currently classified as "Least concern" by the IUCN. Avifauna on the site constitutes relatively common insectivorous and granivorous species which are abundant within the broader landscape and are indicative of a disturbance-prone species profile. Avifaunal diversity clusters mostly towards vegetation around the artificial dam to the north-east and outside of the site, but also along the fringes and fence lines of the site where some pioneer grassland and / or shrubs and trees (mostly outside of the project footprint and along the road reserves of the R102 Road) are present. The agricultural areas themselves are largely devoid of avifaunal species given limited foraging and no perching opportunities.


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**Figure 7. Photographic evidence of different avifaunal species recorded in the study area. A) *Egyptian Goose (Alopochen aegyptiaca). B) Spur-winged Goose (Plectropterus gambensis). C) Speckled Mousebird (Colius striatus). D) Speckled Pigeon (Columba guinea). E) Cape Turtle Dove (Streptopelia capicola). F) Red-eyed Dove (Streptopelia semitorquata). G) Helmeted Guineafowl (Numida meleagris). H) Karoo Prinia (Prinia maculosa). I) Cape Canary (Serinus canicollis). J) Greater Striped Swallow (Cecropis cucullata). K) Pearl-breasted Swallow (Hirundo dimidiata). L) Barn Swallow (Hirundo rustica) M) Southern Fiscal (Lanius collaris). N) Cape Wagtail (Motacilla capensis). O) Southern Red Bishop (Euplectes orix). P) Cape Weaver (Ploceus capensis). Q) Cape Bulbul (Pycnonotus capensis). R) Common Starling (Sturnus vulgaris). S) Western Cattle Egret (Bubulcus ibis). T) Hadada Ibis (Bostrychia hagedash). U) African Sacred Ibis (Threskiornis aethiopicus). V) Common Ostrich (Struthio camelus*).

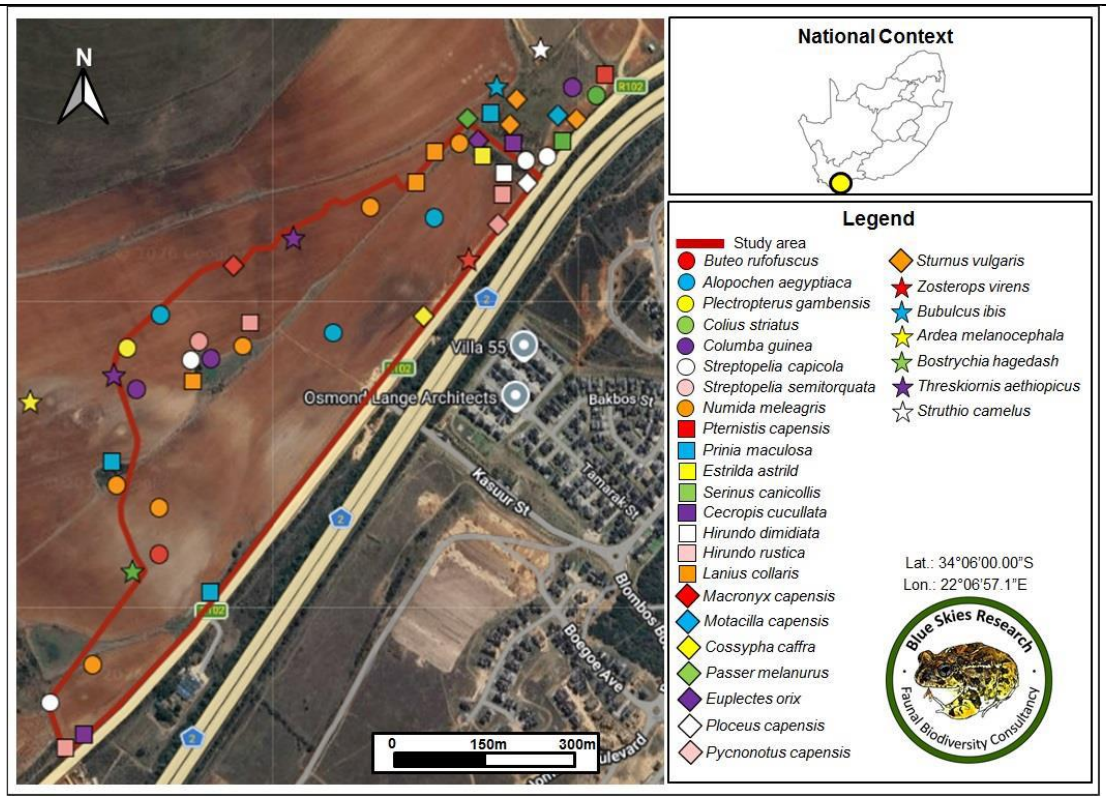


Figure 8. Spatial locations of the different avifaunal species recorded within the study area.

Only three butterfly species were recorded within the study area all of which are currently classified as "Least concern" by the IUCN The presence of the African Clouded Yellow (*Colias electo),* Green-eyed Vagrant (*Nepheronia buquetii*) and Southern Meadow White (*Pontia helice*) were noted along the fringes of the site where some vegetation remains (mostly outside of the project footprint and along the road reserves of the R102 Road and at the north-eastern artificial dam). This low butterfly diversity (and abundances) are indicative of a transformed landscape where limited flowering plants are available.

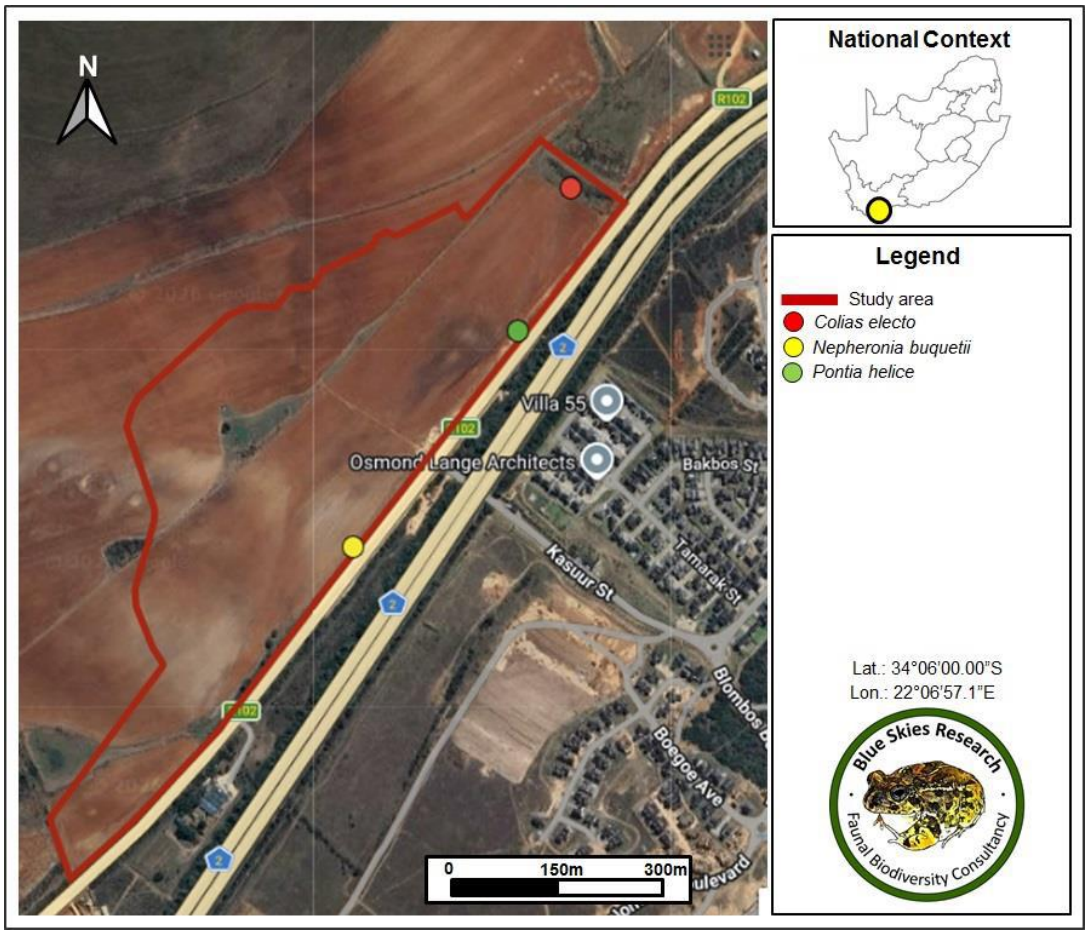


Figure 9. Spatial locations of the different butterfly species recorded within the study area.

Overall, the study area harbours a terrestrial fauna and avifauna profile comprising species of "Least Concern" which are common in transformed landscapes. The majority of faunal species (save for two rodent species) are non-resident and only ephemerally pass through this agricultural zone. To this end, this open and transformed area exists in an altered ecological condition and offers no notable suitable habitat for permanent faunal subpopulations.

Because of the transformed and open agricultural (farmland) nature of the site, the majority of SCC considered are highly unlikely to be present due to their strict and specialist habitat requirements. Only two species, the Lanner Falcon and Blue Crane have broader habitat specificities, with the Lanner Falcon being able to prey upon the avifaunal prey base over the site, and the Blue Crane being potentially able to utilise the site given its affinity for foraging over agricultural areas. Even so, the association of these two species are likely to be highly ephemeral and they are unlikely to be permanent residents. Similarly, although the site does represent farmland conditions which is sometimes utilised by the Grey Rhebok for foraging, the species is scarce in the surrounding agricultural and urban landscape and is not likely to occur on the site because of significant and regular disturbances.

SEI of habitats in the study area

Habitats on the site exist in a completely transformed and open agricultural (farmland) state with a limited potential to support any notable faunal diversity, or any permanent subpopulations of terrestrial faunal and avifaunal SCC. As such, the entire study area is retrieved as having a "Very low" SEI. Minimisation mitigation is acceptable for this area, allowing for development activities of medium to high impact without restoration activities being required.

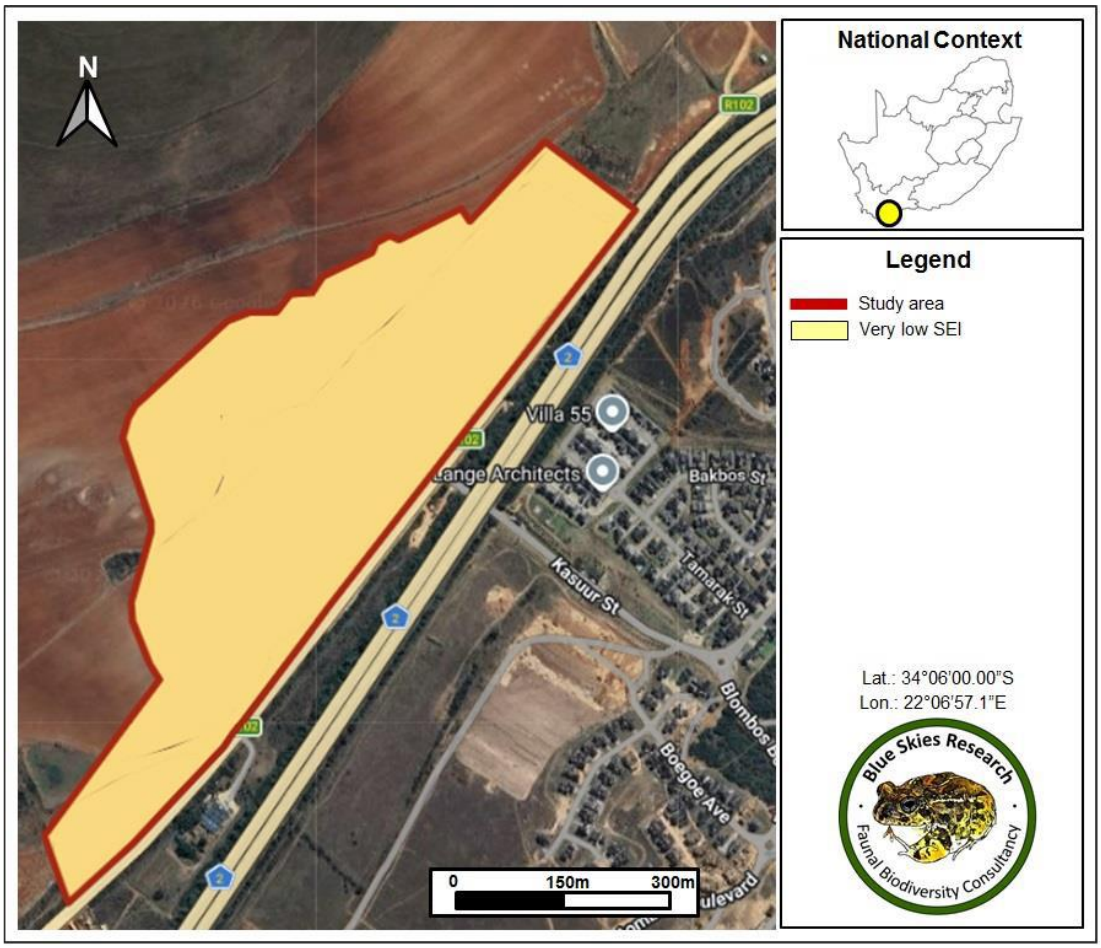


Figure 10. Spatial representation of the SEI of habitats within the study area.

5. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.
As the terrain is a levelled surface, no geographical aspects will be affected.

6. Heritage Resources

6.1.	Was a specialist study conducted?	**YES**	NO
6.2.	Provide the name and/or company who conducted the specialist study.		

- ACRM: Jonathan Kaplan (Heritage Impact Assessment)
- Marion Bamford (Palaeontology Assessment)

6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.

In accordance with Section 38 of National Heritage Resources Act, 1999 (Act No. 25 of 1999), the project needs to be valuated by an appropriate specialist and the relevant heritage department needs to be informed of the project. Subsequent to the site visits conducted by the Cultural and Landscape Heritage Consultant and the Palaeontological Consultant, respectively. Archaeological resources will be impacted by the proposed Hartland School and Hospital Development, but nearly 90 years of active agriculture has severely compromised the integrity
of the archaeological landscape.

Therefore there are no objections, on archaeological ground, to the development proceeding. Regarding palaeontological heritage, the geological structures suggest that the rocks are from mixed sources and have been transported, so do not contain recognisable or scientifically useful fossils (Bamford 2026). Furthermore, the material to be excavated is likely to be mostly sand and this does not preserve significant fossils.

7. Historical and Cultural Aspects

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

Despite the highly transformed landscape, large numbers of Stone Age resources were recorded during a field assessment conducted on the 30th of January 2026.

More than 95% of the resources identified comprised Early Stone Age (ESA) implements, while a small number of Middle Stone Age (MSA) lithics were also recorded. No Later Stone Age (LSA) tools or any organic remains such as pottery or ostrich eggshell were found. All of the stone artefacts are in locally available quartzite, struck from rounded, abraded, colluvial cortex cobbles. While a few isolated tools/lithics and a few ephemeral scatters of implements were recorded in the actively ploughed fields, several quite distinct, scatters of tools were also recorded, one of which was encountered outside the development footprint. These high-density scatters were recorded on elevated, ploughed/ripped, hill slopes which are covered in widely dispersed quartzite cobbles. Many ESA pieces were counted among these scatters of unworked stone, comprising mostly cortex chunks, broken and flaked chunks/minimal cores, a few unmodified and retouched flakes, and some round cores. A Large Cutting Tool (LCT), a cleaver, and six complete, incomplete and broken Acheleun handaxes were also recorded on the cobble, terraces. One handaxe blank was also found.

Indications are that these dispersed concentrations of unworked stone, brought to the surface by ploughing, were probably targeted by ESA hominins as a source of raw material for making stone tools. The majority of the remains comprised broken chunks, cortex pieces and flakes, suggesting that most of the pieces comprise flake debris, while complete tools such as handaxes, LCTS, choppers and cleavers for example were probably removed from the quarry/workshop site, by the tool makers. The presence of a handaxe blank further supports this argument. A small number of Middle Stone Age (MSA) flakes were also recorded on the cobble terrace, but no formal tools such as points, or scrapers were encountered.

Grading
The highly transformed context in which they were found means that the archaeological resources have been graded as having Low (Grade 3C) archaeological significance and are considered Not Conservation Worthy (NCW).

Palaeontology
According to consulting palaeontologist, Marion Bamford (2026) the proposed development site lies on the `potentially very highly' sensitive Enon Formation (Uitenhage Group) `according to SAHRIS only'. The Enon Formation contains a few disarticulated and abraded bone fragments of unknown vertebrates, and a few pieces of charred fossil wood. The latter, however, could be derived from re-worked Cape Supergroup sediments. The fragments are insufficient to date the Enon Formation and probably younger, indeterminate sediments are lumped in the Enon Formation in the geological maps.

Bamford (2026) has shown, that the Enon formation is often used as a catchall for Cretaceous and younger sediments that are not sufficiently distinct enough to assign to any other formation. The lithology includes cobbles, conglomerates, sandstones, and transported debris. `Hence it is unlikely that any fossils of scientific value would be recovered during the Construction Phase of the development'.

Built Environment
There are no farm buildings, dwellings, or structures within the proposed development area. Therefore, no direct impacts to the built environment will occur.

Cultural landscape
Historically, at least for the last 80 odd years, the Cultural Landscape was dominated by agriculture. However, while agriculture is still a characteristic feature of the surrounding landscape, a strong residential component has come to define the evolving Cultural Landscape, where several housing/estate developments have emerged in recent years (examples include the Hartlands Lifestyle Estate directly opposite the development site). A large shopping mall (Garden Walk Mall) is also currently being built less than a kilometer south of the proposed development. The rapidly expanding suburbs of Hartenbos and Tergniet are also visible in the changing rural agricultural landscape, where residential and commercial development will in the near future come to dominate the Cultural Landscape.

Graves
No graves or typical grave features were, encountered during the field assessment.

Conclusions
Indications are that the proposed Hartlands School and Hospital Development on Re Farm Vaalevalley 219 near Mossel Bay does not pose a significant threat to local archaeological heritage resources. Relatively large numbers of ESA lithics (mostly flake debris) were recorded among extensive scatters of abraded colluvial gravels, but nearly 90 years of active agriculture have compromised the context in which the remains were found. It is argued that the scatter of stone implements in the development area may be remnants of an ESA quarry or workshop site, where ESA hominins sourced raw materials (quartzite cobbles) for making stone tools, where most of the finished implements such as handaxes, LCTs and cleavers were removed to a home base further away. The above resources all occur in a severely transformed context and have been graded as having Low (Grade 3C) archaeological significance and are considered to be Not Conservation Worthy (NCW).

Since there is a small chance that fossils from the Enon Formation may be disturbed a Fossil Chance Find Protocol has been added to this report. However, taking account of the defined criteria, `the potential impact to fossil heritage resources is low' (Bamford 2026).

8. Socio/Economic Aspects

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

According to the 2023 Socio-Economic Profile (WCG, 2023): Mossel Bay Municipality has the second largest population in the Garden Route District Municipality with a population size of 96 114 (in 2023).

According to the 2023 Socio-Economic Profile (WCG, 2023) for the Mossel Bay Local Municipality, the Municipality's population gender breakdown will be relatively evenly split between male (45 654, 47.5 per cent) and female (50 460, 52.5 per cent). With an estimated population growth rate of 0.5% in 2022 and 0.3% in 2023, the estimated population site of the Municipality is 96 885. For 2023, the split is anticipated to be 46 078 (47.56 per cent) and 50 807 (52.44 per cent) for males and females respectively.

According to the 2022-2027 5th Generation Integrated Development Plan (MLM, 2023) (At the time of the compilation of this BAR), the majority of Mossel Bay's population is concentrated between the ages of 20 to 39, which is possibly reflective of an influx of young working professionals into the region (increased employment opportunities as a result of positive economic growth in the region). It is also noticeable that the population numbers in the older age categories remain relatively high in comparison to other districts. This trend can be attributed to the fact that Mossel Bay and its surrounding areas remain a popular retirement destination.

It is estimated that the Municipal Area had approximately 30 015 households in 2023 and the population density in the same year was 48 people per square kilometre. This is the third most populated municipal area (in terms of population density) in the district (surpassed only by Bitou and Knysna.

According to the 2023 revision of the IDP (Fifth generation Municipal IDP 2022-2027), approximately 52.8% of the households within the Municipality falls in the Low-income bracket, 17.4% of which have no income. Less than 50% of households fall within the middle to higher income categories, split between 39,2% in middle income group (R38 201 – R307 600) and 8.1% in the higher income group (R307 601 – R2 457 601+). The intensity of poverty, i.e., the proportion of poor people that are below the poverty line decreased from 43,5% in 2011 to 43% in 2016.

The IDP also indicates that the dependency ration of Mossel Bay Municipality is expected to see an increase in the dependency ratio from 55.4 in 2021 to 56.6 in 2025. According to the 2023 Socio-Economic Profile (WCG, 2023) of the Municipality, the dependency ratio for 2023 was predicted to be 56.6%.

The following summary is further provided from the market feasibility studies undertaken for the proposed development:

- Approximately 969 577 people / 374 440 households reside in the primary market area.
- The average annual growth rate of population is 2.66% per annum, while the average annual growth rate of households is 4.30% per annum.
- The profile shows a proportionally large contribution of the population aged 0-19 years (31.5%) indicating a large portion of children of the appropriate age to go to school. Further to this, approximately 7.7% of the population are of high-school age (ages 15-19).
- The racial profile of the primary market area shows that the largest proportion of the population are Black African (76.2%), followed by the White (22.1%) racial group.
- Approximately 70.1% of the population of the primary market area are economically active. Of the economically active population, 75.1% are employed and 24.9% are unemployed. The primary market area is characterised by fairly low unemployment levels, reflecting low dependency ratios.
- The primary dwelling type for households in the primary market area is formal dwellings (76.2%). The largest segment of formal dwellings is free standing houses on single erven (57.8%).
- Of households in the primary market area, 29.9% own the dwelling/property in which they reside and have fully paid the bond registered to the property with a further 18.5% of households in the process of paying off their bond.
- A large segment of households (31.6%) rent their current dwelling, whilst 19.9% occupy their current dwelling rent-free.
- The weighted average annual household income for the resident population for 2023 amounts to R218 091 per annum which amounts to R18 174 per month for all SEM groups.
- For SEM groups 2 and higher, the average income is R514 071 per annum, which amounts to R42 839 per month.

- Approximately 53.3% of the primary market area's households are classified within the SEM Super group 1, being the largest portion of the population. Approximately 46.7% of the households in the primary market area are classified within the SEM 2+ Super groups".

The following summarise the findings of the education supply as per the Market Feasibility Study of the Secondary School (Appendix G7):

- The primary market area comprises 1 private combined school, 1 private intermediate school, 1 private primary school and no private secondary school.
- The primary market area comprises 1 public combined school, no public intermediate school, 13 public primary schools, and 3 public secondary schools."

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

During the construction phase of the proposed development, a number of temporary labour opportunities will be made available to facilitate the building of the proposed facilities. The employment opportunities to be created will include the requirement of unskilled, semi-skilled and professional labourers. It will be the aim of the Developer to promote transferable skills in order to ensure that the labourers acquired skills that can be used for future employment opportunities.

During the operational phase of the proposed development, permanent employment opportunities will be created. These opportunities will include predominantly the provision of employment opportunities in the following fields: administrative opportunities, educational professionals, medical professionals and security guards.

As part of the socio-economic contribution of the proposed development, the project strives to provide educational facilities and medical care facilities to the people living along the outskirts of the Hartenbos area.

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

Where possible, local labour and Small Micro and Medium Enterprises (SMMEs) will be utilised for the purpose of fulfilling the requirements of the construction phase activities.

Furthermore, as described in point 8.2, during the operational phase of the proposed development, a number of permanent employment opportunities will be created.

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

Visual Impact Assessment findings

The receiving environment comprises open, cultivated dryland fields on gently undulating terrain, with limited tall vegetation and therefore limited natural screening. Important natural corridors occur within the wider landscape, including the Klein Brak River to the north and the Hartenbos River to the south, as well as mapped wetland features in and around the development footprint. These elements contribute to the scenic setting of the Garden Route and support tourism and recreation associated with the nearby coastal settlements.

A VIA was undertaken to evaluate how the proposed hospital and educational precinct may change landscape character and views experienced by key receptor groups. Primary receptors include road users on the N2 and R102, residents and visitors in Hartenbos, Bayview and Diazstrand to the south, and Riverside, Klein Brak River and Reebok to the north/north-east, as well as scattered rural dwellings and agricultural users in the hinterland.

The viewshed analysis indicates that the Potential visibility within the proposed development area is mostly medium, with high visibility in the south-western portion and low visibility in the north-eastern portion. The most visible areas are in the immediate vicinity of the site and from adjacent elevated slopes, with high to very high potential visibility along sections of the N2/R102 corridor and from elevated parts of the Hartenbos/Bayview settlement. Beyond these areas, intervening landforms and distance reduce visual exposure, with much of the wider inland landscape falling within low to very low visibility classes.

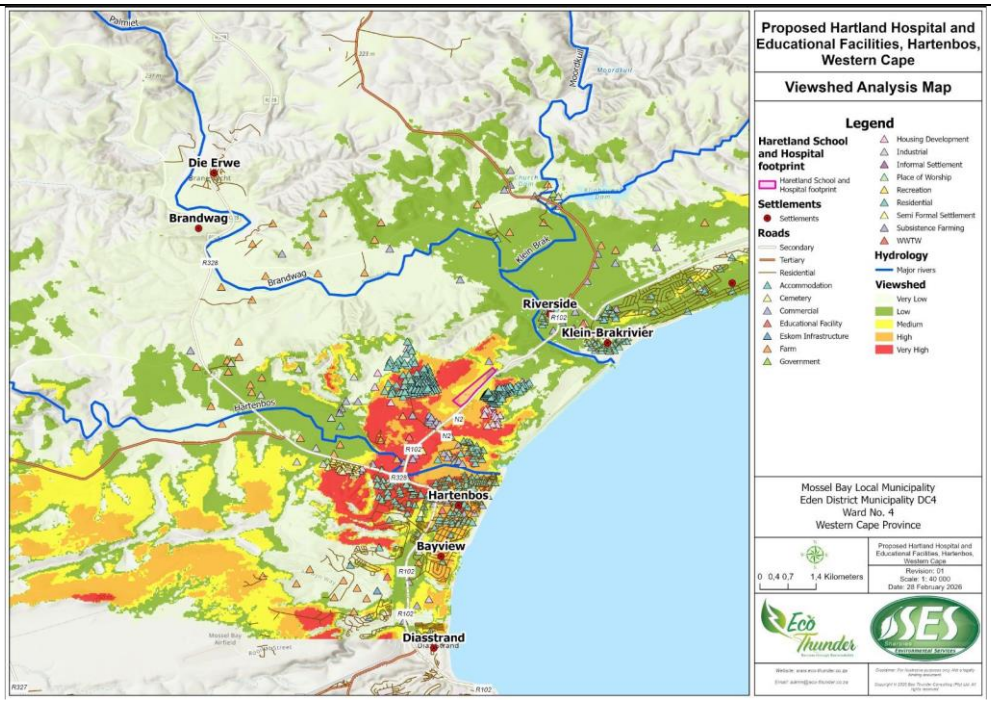


Figure 11. Viewshed Analysis for the Proposed Hartland Hospital and Educational Facilities

The impact assessment indicates that construction-phase visual impacts from earthworks, construction plant, dust and temporary night lighting, could be of medium significance before mitigation but can be reduced to medium and low significance through good construction management, dust suppression, temporary screening and progressive rehabilitation. During operation, the introduction of permanent building massing, parking areas, boundary treatments, and associated infrastructure will result in a long-term change in landscape character and may remain of medium significance after mitigation, given the openness of the receiving environment and the site's proximity to key receptor routes. Operational lighting impacts can be reduced from medium to low significance through lighting design, careful control of helipad/security/sports lighting, and ongoing monitoring and adjustment.

Cumulative visual impacts associated with continued development along the N2/R102 corridor are assessed as medium, reflecting the progressive shift from a rural agricultural landscape to a more urban/peri-urban character. Managing these cumulative effects will require consistent application of contextual design, retention/establishment of landscape buffers and disciplined lighting and signage controls across developments.

From a visual specialist's perspective, there are no fatal flaws and no reason that the Hartland Hospital and Educational Facilities project cannot be authorised, provided that the recommended design responses and mitigation measures are implemented and carried into the detailed design and operational management of the facilities.

Traffic Impact Assessment

The following intersections were taken into consideration as part of the Traffic Impact Assessment (as compiled by Element Consulting Engineers) for the proposed development:

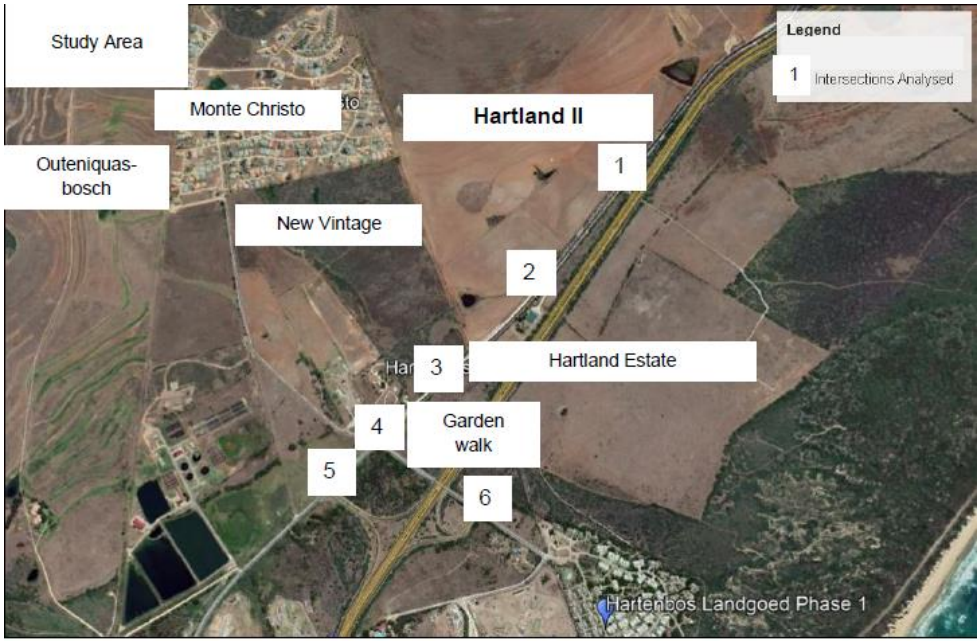
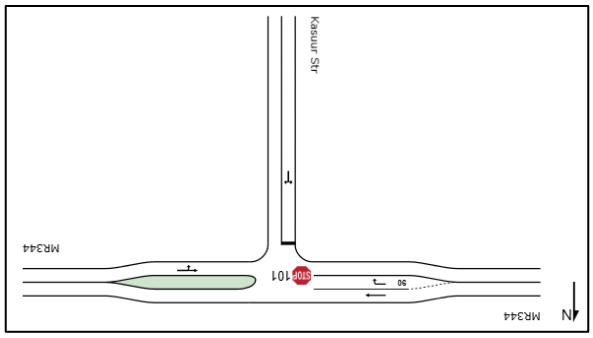
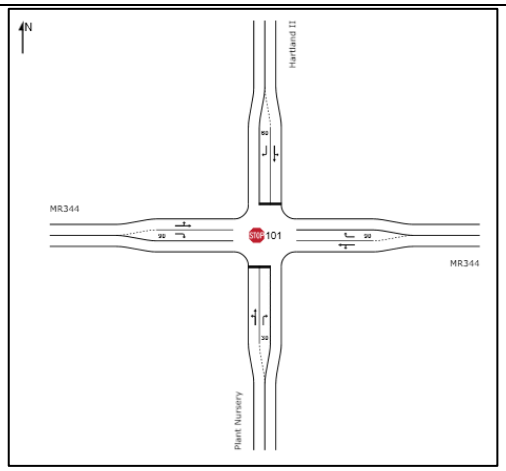


Figure 12. Intersection observation points within the Traffic Impact Assessment.

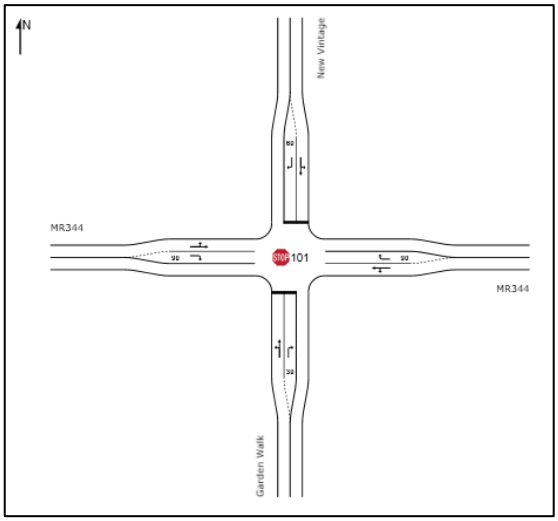
1. MR344 and Kasuur Street:
    a. The existing intersection geometry has a dedicated right turn lane and dedicated through lane in the western approach, a shared through and left lane in the eastern approach, and a shared right and left lane in the southern approach. The intersection is stop controlled from the south. This geometry is shown in the figure below and was used to analyse the existing 2025 and background 2030 scenarios for the intersection.



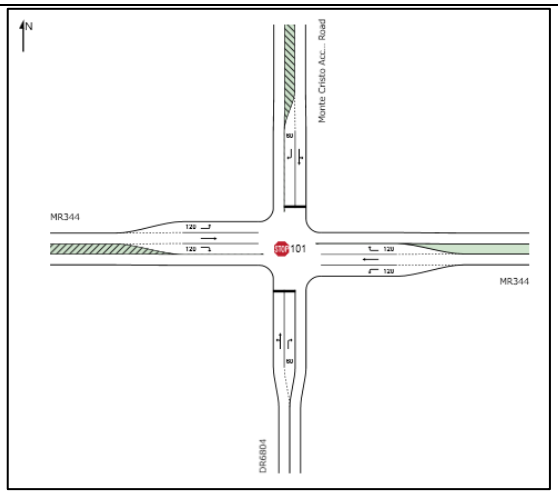
2. MR344 and Hartland II Access / Plant Nursery
    a. The existing geometry provides for a gravel access to the Plant Nursery in the south with a shared lane in both the western and eastern approaches of the MR344. The intersection is stop controlled from the south. The current intersection with the gravel nursery access has not been analysed as it essentially provides for freeflow conditions on the MR344 and hence a LOS A.
    b. The development of Hartland II provides for a new northern leg to the intersection as well as the formalisation of the existing southern leg. The proposed geometry of this new intersection has a dedicated right turn lane and shared through and left turn lane in the western approach, a dedicated right turn lane and shared through and left turn lane in the eastern approach, a dedicated right turn lane and shared through and left turn lane in the southern approach, and a dedicated right turn lane and shared through and left turn lane in the northern approach. The intersection is stop controlled from the sides (north and south). This geometry is shown in the figure below and was used to analyse the total 2030 and total 2035 scenarios for the intersection.



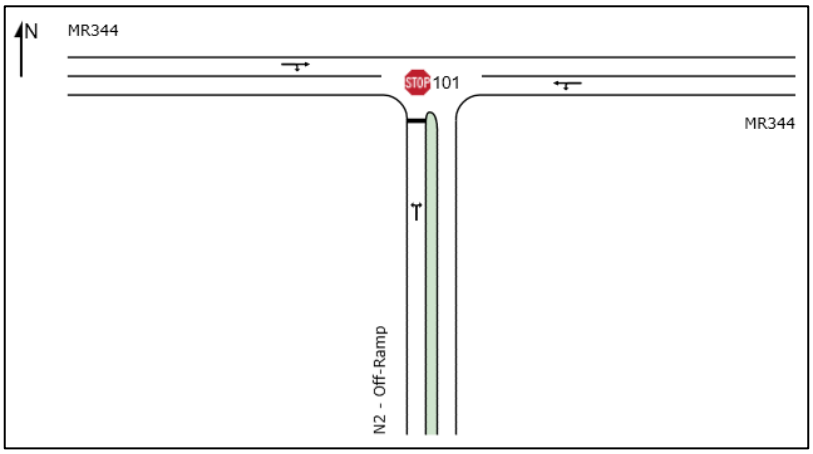
3. MR344 and Garden Walk / New Vintage
    a. The existing geometry provides for a gravel access to the farms on both the southern and northern side. This current intersection has not been analysed as it essentially provides for freeflow conditions on the MR344 and hence a LOS A. The development currently taking place at this intersection (Garden Walk) is included and analysed in the next scenario.
    b. For the 2030 total scenario, the Garden Walk shopping centre on the southern leg of this intersection will be in operation. It is also anticipated, as discussed earlier in the report, that for the 2030 total scenario, the development of New Vintage Residential Estate will be ongoing. This will provide for a northern leg to the intersection. The geometry of this intersection has a dedicated right turn lane and shared through and left turn lane in the western approach, a dedicated right turn lane and shared through and left turn lane in the eastern approach, a dedicated right turn lane and shared through and left turn lane in the southern approach, and a dedicated right turn lane and shared through and left turn lane in the northern approach. The intersection is stop controlled from the side roads (north and south). This geometry is shown in the figure below and was used to analyse the total 2030 and total 2035 scenarios for the intersection.



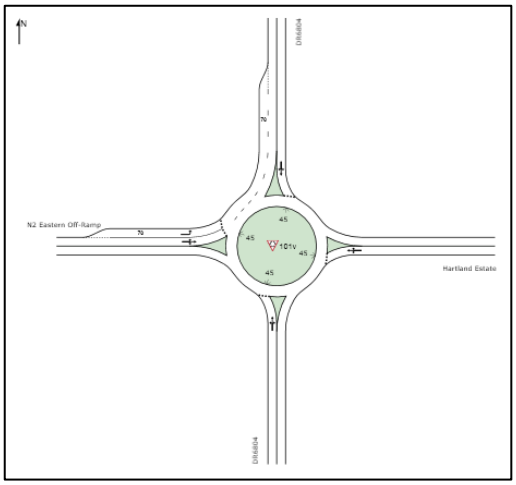
4. MR344 and Monte Cristo Road
    a. The existing intersection geometry has dedicated left, through and right lanes from both the eastern and western approaches. The northern and southern approaches have shared left and through lanes with dedicated right turn lanes. The intersection is side road stop controlled from the south and north. This geometry is shown in the figure below and was used to analyse the existing 2025, total 2030 and total 2035 scenarios for the intersection.



5. N2 Western offramp and MR344
    a. The existing intersection geometry has a shared through and right lane in the western approach, a shared through and left lane in the eastern approach, and a shared left and right in the southern approach. The intersection is stop controlled from the south only. This geometry is shown in the figure below and was used to analyse the existing 2025, total 2030 and total 2035 scenarios for the intersection:



6. N2 Eastern offramp and DR6804
    a. This existing large diameter traffic circle geometry has single approach and departure lanes in all directions except for the western approach and the northern departure which has a dedicated left turn lane for the large movement of traffic from the freeway. This geometry is shown in the figure below and was used to analyse the existing 2025, total 2030 and total 2035 scenarios for the intersection:



The following conclusions and recommendations specific to the proposed development itself was made by the traffic engineers:

- Public transport: Off-street public transport stops (bus stops) to be provided for both directions at both accesses onto the MR344. It is also proposed that minibus-taxi turn-around facilities be provided at both access gates.

- Emergency vehicle facilities: The necessary attention shall be provided to the design of emergency vehicle access, parking and other facilities at the medical development.
- Non-motorised transport: Sufficient pedestrian walkways shall be provided on the SDP of the development, also linking to the public transport facilities on the MR344
- Parking: Sufficient parking, in line with all guidelines, shall be provided on the SDP of the development. Parking shall be provided for disabled persons at all public and/or commercial facilities
- School drop-off zones: Detailed attention shall be provided on the SDP to the peak hour drop-off circulation surrounding the school. The school shall be situated independently from other facilities in order for peak hour traffic to be handled as efficiently as possible. This is in order to attain the highest possible level of service in the surrounds of the school from a traffic engineering perspective. Drop off parking shall be specially designed to function as efficiently as possible in line with best practice guidelines and shall be designed by a competent traffic and transportation engineer.
- Refuse removal: Refuse removal shall be performed by the Mossel Bay Municipality in accordance with a signed services agreement. Access for municipal refuse removal vehicles shall be properly designed into the SDP to the satisfaction and approval of the municipality
- Contractor's Access: Contractor's access shall be separate from the main access facilities
- Cost apportionment for intersection upgrades: The Hartenbos-North Traffic Modelling Report (SMEC, 2024) was commissioned by the Mossel Bay Municipality to a.o. develop a cost apportionment model for the various intersection upgrades required in the Hartenbos-North study area. This Traffic Modelling Report was approved by council in May 2024. As such, the cost apportionment model and the role-out of the 30-year master-plan contained therein shall be implemented.

Recommendations

- That the proposed development of Hartland II Estate development be approved from a traffic engineering perspective.
- That all conclusions contained in the report be implemented in accordance with the relevant design standards and legislation and all designs be performed by a competent traffic and transportation engineer;
- That all conclusions contained in the report be implemented in accordance with a phased programme, in line with the growth of the development (and adjacent developments), to be negotiated with the relevant authorities.

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. Details of the alternatives identified and considered

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred property and site alternative.	
The preferred property alternative for the proposed development is the remainder of the Farm Vaalevalley 219, Hartenbos, Mossel Bay Local Municipality.	

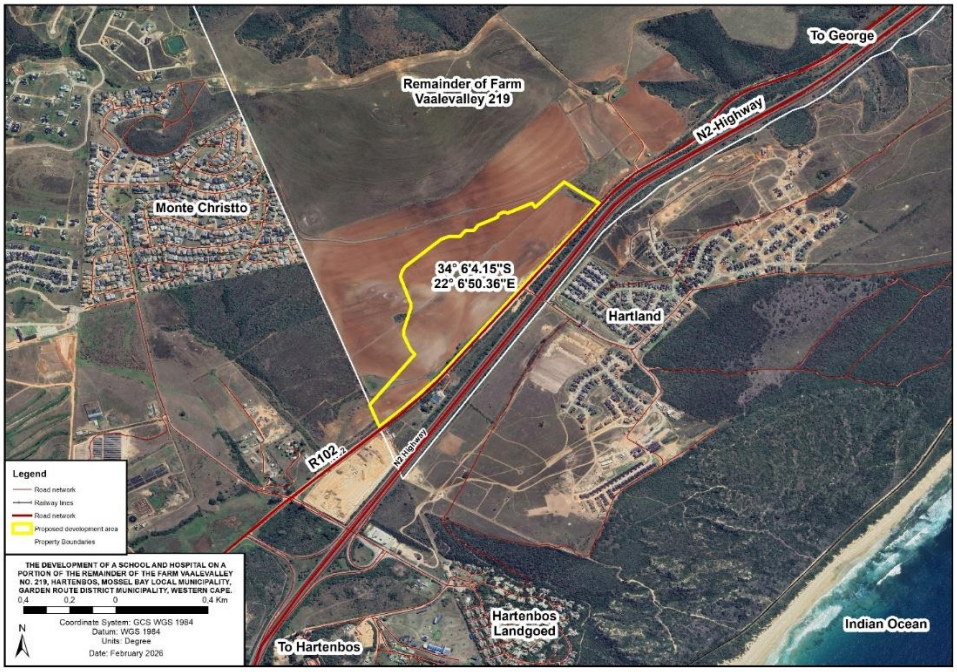


Figure 13. Preferred property and locality of the proposed development.

Provide a description of any other property and site alternatives investigated.
No property/location alternatives were explored for the purpose of establishing these facilities.
Provide a motivation for the preferred property and site alternative including the outcome of the site selectin matrix.
The site selection matrix was not used for this project, as only one location was proposed for the proposed development. The proposed development property was obtained for the purpose of the proposed development. As indicated in Appendix M3 of this DBAR (Town Planning Motivation Report), the Spatial Development Framework for Mossel Bay Municipality further identifies Remainder Farm 219 as a possible future scenario for the expansion of the urban edge. The development of a regional shopping centre, viz. the Garden Walk, approx. 80m due south of Remainder Farm 219, illustrates the strong emphasis placed by the free market on this area as a preferred direction for future urban growth.
Provide a full description of the process followed to reach the preferred alternative within the site.
The preferred development footprint was ascertained through the determination of the minimum area required within the affected property so as to design the most feasible, practically implementable facility infrastructure for the project.
Provide a detailed motivation if no property and site alternatives were considered.
The preferred development footprint was ascertained through the determination of the minimum area required within the affected property so as to design the most feasible, practically implementable facility infrastructure for the project.
List the positive and negative impacts that the property and site alternatives will have on the environment.
<u>Positive</u> • Control of alien invasive species on site (and during construction the alien invasive species within the development footprint. • Uplifting vacant land within the Hartenbos area • Providing an economic boost to not only the Hartenbos area, but also the Mossel Bay area, as the project aims to deliver a service to the schooling and medical sectors. • Upliftment of local labour <u>Negative</u> • Temporary impact associated with the construction phase activities (i.e. noise, visual impacts of construction, dust); • Potential habitat fragmentation due to the transformation of an undeveloped area to a developed area. • Potential loss of species of concern

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 activity alternatives were considered. The property was acquired by the proponent for the purpose of developing the proposed educational and medical alternatives.	
Provide a description of any other activity alternatives investigated.	
No activity alternatives were considered. The properties were acquired with the intent to develop a hospital and schooling facility on the property.	

Provide a motivation for the preferred activity alternative.

No activity alternatives were considered. The properties were acquired with the intent to develop a hospital and schooling facility on the property.

Provide a detailed motivation if no activity alternatives exist.

No activity alternatives were considered. The properties were acquired with the intent to develop a hospital and schooling facility on the property.

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

Positive

- Provision of additional schooling and medical facilities to the outlying areas of the Hartenbos local area.
- Providing an economic boost to not only the Hartenbos area, but also the Mossel Bay Municipal area, as the project aims to deliver a service to the educational and medical sectors.
- Upliftment of local labour through the provision of temporary and permanent employment opportunities during the construction and operational phases respectively.

Negative

• Increase in potential nuisances

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.

The following description of the proposed development has been provided:

- The school:
    - The school yard will be divided into two main areas:
        - The first will be the Secondary School inclusive of a School hostel, an Admin building and Main Hall. This portion of the development will also house the Clubhouse and the Rugby fields/Athletics Track. A total number of three rugby fields will be established within the proposed development site. The secondary school will be large enough to accommodate approximately 2600 students.
        - The second will be the Tertiary Education Centre (that will be able to accommodate approximately 450 students) and Student Accommodation (that will accommodate approximately 136 students), which will also house the Action Sports Fields, and -Courts.

- The hospital:
    - The third section of the proposed development constitutes the proposed hospital and associated infrastructure. This will include the Future Staff Accommodation and the helicopter landing pad.
- Internal and external auxiliary infrastructure:
    - The proposed development will see to the construction of a network of internal roads and parking bays catered specifically toward the portion of the proposed development to be serviced. The number of parking bays allocated to the proposed development aligns with the requirements of the Mossel Bay Municipal Zoning Scheme;
    - It is proposed to install a new sewer pump station on site as well.
    - The access roads will have a width of between 5.2 m and 7.4 m with the widest reserve being 20 m.

All services (water, sewer, electricity, and solid waste) will be serviced by the Mossel Bay Local Municipality. No additional bulk water infrastructure will be required, as the there is a Ø500 mm bulk supply line leading from the 7Mℓ Jakkalskop Reservoir leading along the southern boundary of the proposed development site along which the project will tie into.

The image below provides the development footprint of the proposed development.

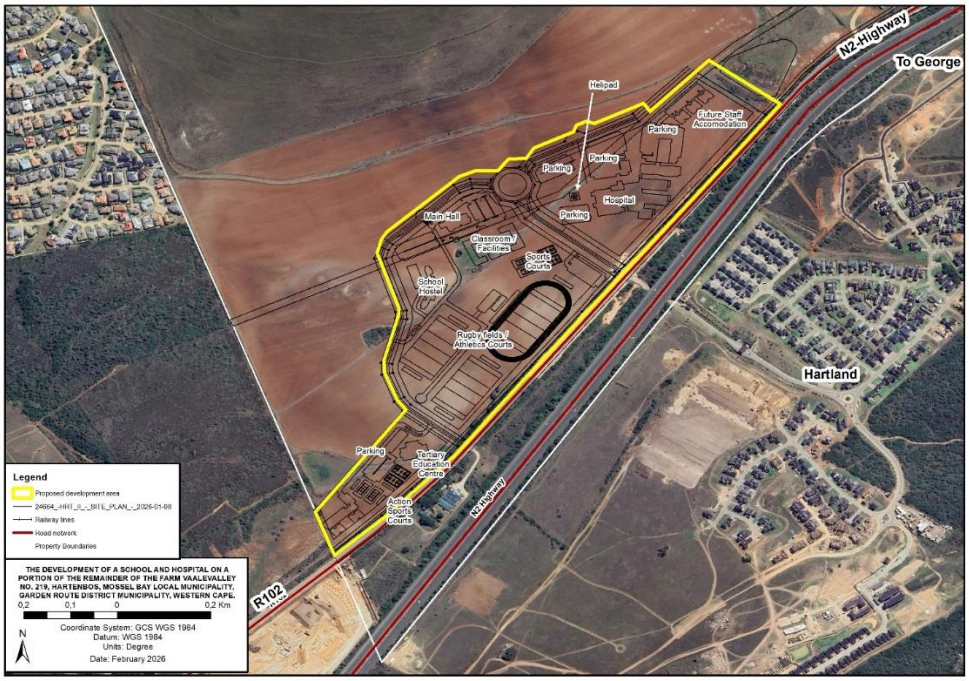


Figure 14. Preferred site development layout plan.

Provide a description of any other design or layout alternatives investigated.	
Provide a motivation for the preferred design or layout alternative.	
Provide a detailed motivation if no design or layout alternatives exist.	
List the positive and negative impacts that the design alternatives will have on the environment.	
1.4.	Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred technology alternative:	
No technology alternatives are applicable to the proposed project. All construction materials, designs and methodologies to be adopted on site are considered to be the best practicable measures to promote the integrity of the proposed works.	
Provide a description of any other technology alternatives investigated.	
Provide a motivation for the preferred technology alternative.	
Provide a detailed motivation if no alternatives exist.	
List the positive and negative impacts that the technology alternatives will have on the environment.	
1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred operational alternative.	
No technology alternatives are applicable to the proposed project. All construction materials, designs and methodologies to be adopted on site are considered to be the best practicable measures to promote the integrity of the proposed works.	
Provide a description of any other operational alternatives investigated.	
Provide a motivation for the preferred operational alternative.	
Provide a detailed motivation if no alternatives exist.	
List the positive and negative impacts that the operational alternatives will have on the environment.	
1.6.	The option of not implementing the activity (the 'No-Go' Option).

Provide an explanation as to why the 'No-Go' Option is not preferred.

The No-Go option sees that the proposed development is not constructed, therefore the positive socio-economic benefits of the proposed development is not observed. The status quo of the proposed development area remains as is (with the site remaining to be used as agriculture. The developer acquired the portion of land with the intent of developing a school and hospital facility on this portion of land so as to provide auxiliary services to the existing Hartland Life Style Estate. These facilities will however be available to the public as well. During both the construction and operational phases, the proposed development will see to the provisions of multiple employment opportunities across various fields of expertise and multiple skill set requirements.

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.

For the proposed development, a minimum impact approach was adopted in order to achieve the best practicable outcome from a feasibility perspective as well as a services infrastructure provision perspective. As such, the anticipated impacts on the various biophysical, infrastructural and socio-economic aspects have been greatly minimised. The most significant impact would be seen on the impact on the agricultural resources. However, the following statement was provided by the Agricultural specialist as it pertains to the impact of the proposed development on these resources:

the entire development footprint is considered to be above the threshold of being worthy for conservation as agricultural production land because its agricultural potential makes it suitable as viable cropland. The proposed development will result in the permanent loss of this land to agriculture, which will result in a loss of future agricultural production potential in terms of national food security. The overall negative agricultural impact of the development (loss of future agricultural production potential) is assessed here as being of medium significance.

The acceptability and ultimate approval of the development cannot be based purely on its agricultural impact but requires the weighing of many diverse factors, which include the high demand for development space within Mossel Bay and the fact that this area is designated for foreseeable future expansion in the Mossel Bay Spatial Development Framework. Such a weighing is far beyond the scope of an agricultural impact assessment, which cannot therefore conclude on the overall acceptability of the development.

The agricultural protocol requires an indication of the potential losses in production and employment from the change of the agricultural use of the land as a result of the proposed development. A total of 28.5 hectares of small grain cropland will be lost. The relatively small area of lost cropland is unlikely to affect agricultural employment within the farming enterprise.

1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.

The preferred property alternative for the proposed development is the remainder of the Farm Vaalevalley 219, Hartenbos, Mossel Bay Local Municipality. The following description of the proposed development has been provided:

- The school:
    - The school yard will be divided into two main areas:
        - The first will be the Secondary School inclusive of a School hostel, an Admin building and Main Hall. This portion of the development will also house the Clubhouse and the Rugby fields/Athletics Track. A total number of three rugby fields will be established within the proposed development site. The secondary school will be large enough to accommodate approximately 2600 students.
        - The second will be the Tertiary Education Centre (that will be able to accommodate approximately 450 students) and Student Accommodation (that will accommodate approximately 136 students), which will also house the Action Sports Fields, and -Courts.

- The hospital:
    - The third section of the proposed development constitutes the proposed hospital and associated infrastructure. This will include the Future Staff Accommodation and the helicopter landing pad.
- Internal and external auxiliary infrastructure:
    - The proposed development will see to the construction of a network of internal roads and parking bays catered specifically toward the portion of the proposed development to be serviced. The number of parking bays allocated to the proposed development aligns with the requirements of the Mossel Bay Municipal Zoning Scheme;
    - It is proposed to install a new sewer pump station on site as well as a new pressure line, leading from the proposed development site to the Hartenbos Regional WWTW.
    - The access roads will have a width of between 5.2 m and 7.4 m with the widest reserve being 20 m.

All services (water, sewer, electricity, and solid waste) will be serviced by the Mossel Bay Local Municipality. No additional bulk water infrastructure will be required, as the there is a Ø500 mm bulk supply line leading from the 7Mℓ Jakkalskop Reservoir leading along the southern boundary of the proposed development site along which the project will tie into.

The image below provides the development footprint of the proposed development.

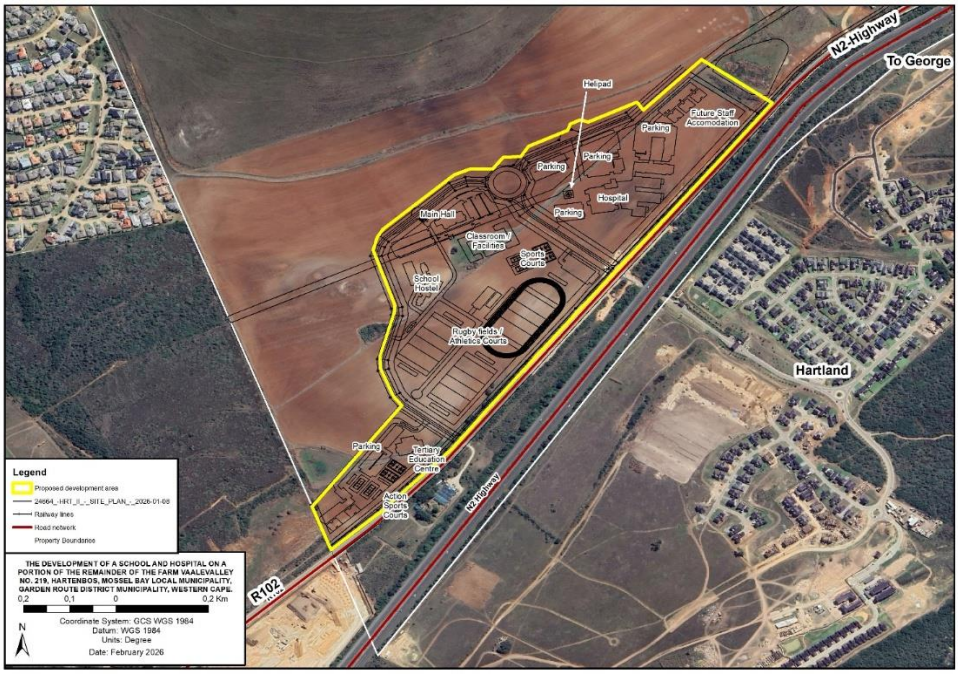


Figure 15. Preferred site development layout plan and locality.

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).
As part of the proposed development, the aquatic specialist has indicated that a diversion channel will be required to be constructed to manage the impacts on the watercourses within the proposed development site, this newly constructed diversion channel along with its 15 m buffer area, should be considered no-go areas.

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.
The assessment criteria utilised in this environmental impact assessment is based on, and adapted from, the Guideline on Impact Significance, Integrated Environmental Management Information Series 5 (Department of Environmental Affairs and Tourism (DEAT), 2002) and the Guideline 5: Assessment of Alternatives and Impacts in Support of the Environmental Impact Assessment Regulations (DEAT, 2006). The impacts have henceforth been determined through the following parameters: • The **extent** of the anticipated impact. • The **duration** for which the impact will be exercised. • The **probability** of occurrence of the anticipated impact. • The **significance** of the anticipated impact. • How **reversible** the anticipated impact would be. • How **mitigable** the anticipated impact would be. • The **degree of loss** of the resources. • The **cumulative impact** of the anticipated aspect. • The significance of the **consequence** of the aspect.

Determination of the Extent (Scale)	
Site specific	On site or within 100m of the site boundary, but not beyond the property boundary
Local	The impacted area includes the whole or a measurable portion of the site and property, but could affect the area surrounding the development, including the neighbouring properties and wider municipal area.
Regional	The impact would affect the broader region (e.g. neighbouring towns) beyond the boundaries of the adjacent properties.
National	The impact would affect the whole country (if applicable)

Determination of Duration	
Temporary	The impact will be limited to the construction phase
Short term	The impact will either disappear with mitigation or will be mitigated through a natural process in a period shorter than 8 months after the completion of the construction phase.
Medium term	The impact will last up to the end of the construction phase, where after it will be entirely negated in a period shorter than 3 years after the completion of construction activities.
Long term	The impact will continue for the entire operational lifetime of the development, but will be mitigated by direct human action or by natural processes thereafter.
Permanent	This is the only class of impact that will be non-transitory. Such impacts are regarded to be irreversible, irrespective of what mitigation is applied.

Determination of Probability	
Improbable	The possibility of the impact occurring is very low, due either to the circumstances, design or experience.
Probable	There is a possibility that the impact will occur to the extent that provisions must therefore be made.
Highly probable	It is most likely that the impact will occur at some stage of the development. Plans must be drawn up to mitigate the activity before the activity commences.
Definite	The impact will take place regardless of any prevention plans

Determination of Significance (without mitigation)	
No significance	The impact is not substantial and does not require any mitigation action.
Low	The impact is of little importance but may require limited mitigation.
Medium	The impact is of sufficient importance and is therefore considered to have a negative impact. Mitigation is required to reduce the negative impact to acceptable levels.
Medium-High	The impact is of high importance and is therefore considered to have a negative impact. Mitigation is required to manage the negative impacts to acceptable levels.
High	The impact is of great importance. Failure to mitigate with the objective of reducing the impact to acceptable levels could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.
Very High	The impact is critical. Mitigation measures cannot reduce the impact to acceptable levels. As such the impact renders the proposal unacceptable.

Determination of Significance (with mitigation)	
No significance	The impact will be mitigated to the point where it is regarded to be insubstantial
Low	The impact will be mitigated to the point where it is of limited importance.
Medium	Notwithstanding the successful implementation of the mitigation measures, the impact will remain of significance. However, taken within the overall context of the project, such a persistent impact does not constitute a fatal flaw.
High	Mitigation of the impact is not possible on a cost-effective basis. The impact continues to be of great importance and taken with the overall context of the project, is considered to be a fatal flow in the project proposal.

Determi9nation of Reversibility	
Completely Reversible	The impact is reversible with implementation of minor mitigation measures
Partly Reversible	The impact is partly reversible but more intensive mitigation measures
Barely Reversible	The impact is unlikely to be reversed even with intense mitigation measures
Irreversible	The impact is irreversible, and no mitigation measures exist.

Determination of Degree to which an impact can be Mitigated	
Can be mitigated	The impact is reversible with implementation of minor mitigation measures
Can be partly mitigated	The impact is partly reversible but more intense mitigation measures
Can be barely mitigated	The impact is unlikely to be reversed even with intense mitigation measures
Not able to mitigate	The impact is irreversible, and no mitigation measures exist.

Determination of Loss of Resources	
No loss of resource	The impact will not result in the loss of any resources.
Marginal loss of resource	The impact will result in marginal loss of resources.
Significant loss of resources	The impact will result in significant loss of resources.
Complete loss of resources	The impact will result in a complete loss of all resources.

Determination of Cumulative Impact	
Negligible	The impact would result in negligible to no cumulative effects.
Low	The impact would result in insignificant cumulative effects.
Medium	The impact would result in minor cumulative effects.

High	The impact would result in significant cumulative effects.

Determination of Consequence significance	
Negligible	The impact would result in negligible to no consequences.
Low	The impact would result in insignificant consequences.
Medium	The impact would result in minor consequences.
High	The impact would result in significant consequences.

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:	**Preferred alternative**	**No-Go Alternative**
PLANNING, DESIGN AND DEVELOPMENT PHASE		
Potential impact and risk:	**Compliance with legislative requirements** The proposed works are subject to a number of approvals and permits from various spheres of the environment. Commencement of activities without all relevant permits/permissions/approvals including registered servitudes, permits to remove specific vegetation, etc. as well as commencing without implementation of specialist recommendations, including search and rescue, and compliance with EMPr pre-construction activities, can result in penalties, time delays and excessive costs. All stemming from poor planning. Climate change considerations need to be addressed at this stage, and where possible, adaption/mitigation measures found to be feasible must be integrated into the final design/planning during construction, and financial provision must be made where necessary.	No change in the status quo
Nature of impact:	Negative	
Extent and duration of impact:	Regional / Medium term	
Consequence of impact or risk:	• Non-compliance with the relevant approvals • Penalties or fines to be issued	
Probability of occurrence:	Low (Improbably)	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	Increased traffic impacts as a result of the status quo of the existing infrastructure.	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	
Degree to which the impact can be avoided:	High	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Low	

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**No significance**	No impact

General mitigation:

- Ensure programme of works is planned accordingly and includes recommended measures where necessary, such as implementing search and rescue activities.
- Ensure financial allowances are made for the recommended measures, such as search and rescue plans, rehabilitation, etc.
- Ensure all relevant permits/licenses/approvals are in place and are valid prior to commencing with works.
- Ensure that the Contractor has accepted the approved EMPr and Environmental Authorization (and any other relevant permits/licenses, etc), as a part of their Tender Document, to ensure that they are fully aware of their responsibilities in terms of the implementation of these documents.
- Ensure that the Contractor provides method statements for activities intended to be undertaken, and these are checked and approved by the ECO as well as the Engineer.
- Inform ECO of planned works ahead, so as to ensure inductions are undertaken timeously.
- Involve ECO in selection of site camp location.

Climate Change Considerations including adaption, must be integrated into the final design, and mitigation must be integrated into the construction scope of works, where necessary, all financial provision must be made:

- Daily assessment of weather conditions should be completed during construction stage, to ensure conditions are viable for labourers to be working outside (ie: temperatures are not excessive).
- Potable water should be available for consumption during construction, to keep labourers hydrated.
- Implement rainwater capturing system for temporary storage of water to be utilized for washing tools, etc.
- Utilize hand sanitizer for washing hands.
- Request that labour use their own water bottles, to be filled up, rather than drinking from taps.
- Increase fire risk:
    - During development fires should be strictly prohibited, smoking must be discouraged on site. (If the Contractor allows this activity there must be a designated area within the site camp, with an appropriate bin to contain discarded cigarettes, with an appropriately heavy cover, only permitted within the site camp where it can be controlled) No smoking is permitted within the working corridor.
    - If security is positioned on site, at night, they must be briefed on fire hazard risks.
    - During construction and operational activities no uncontrolled fires are allowed.
    - Ensure emergency numbers are readily available with a working cell-phone on site, the foreman responsible the team is to ensure that he has these emergency numbers, and can contact emergency services immediately.

Potential impact and risk:	**Site establishment and Pre-construction activities** Poor site establishment can lead to long-term issues on site. Failure to appropriately designate working corridors can result in works exceeding the approved assessed footprint, resulting in non-compliance and potentially penalties and delays.	
Nature of impact:	Negative	No change to the status quo of the site
Extent and duration of impact:	Local / Short-medium term	
Consequence of impact or risk:	• Site camp location may create issues and can lead to additional listed activities. • Non-compliance with approved documentation.	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	Penalties, fines and time delays	
Cumulative impact prior to mitigation:	Medium	

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium-High**	
Degree to which the impact can be avoided:	High	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	No impact

General:

- This section must be read in conjunction with Section 7 of the EMPr (Included as Appendix H of this DBAR). The following is included as part of the management measures:
    - Inform ECO of planned works ahead, so as to ensure inductions are undertaken timeously.
    - Involve ECO in selection of site camp location.
    - The site camp must be managed in line with the EMPr and the Contractor's Corresponding Method Statement.
    - Ensure all relevant method statements as identified in the EMPr are compiled by the Contractor. This Method Statements must be approved by the ECO and the Resident Engineer (RE).
    - Ensure flora permits are in place timeously – allow at least 1 or 2 months before commencement.
    - Environmental Awareness and training (EAT) – Ensure all labour are informed and plant operators are aware of risks, issues, dos and don'ts and no-go areas.

Landowners;

- Notify surrounding landowners/business owners and tenants of the construction programme prior to the commencement of the construction phase to ensure that they are aware that construction activity may bring about delays/obstructions as well as ensuring that they are aware of any risks.
- Ensure clear signage is erected on the access roads.

Waste Management:

- Designate areas for temporary waste storage, this area should be:
    - Protected from wind/rain displacement.
    - Should be on a levelled surface.
    - An appropriate number of skips/bins must be made available on site, to accommodate the various types of waste generated.
- Ensure weighted covers are positioned on skips/bins, to ensure that animals cannot get into the bins as well as to avoid waste dispersion.
- Label bins appropriately.
- Ensure that the nearest appropriate waste disposal facility is identified and ensure that disposal is undertaken when waste has reached 75% capacity of the bin/skip.
- No waste/excavated soil/ etc. intended to be removed from site may remain on site for more than 90-days.
- Ensure waste receptacles are available where works are being undertaken, this can take the form of black bin bags, etc. however it must:
- Be sufficient hold the waste without tearing/spilling.

Traffic Design considerations

- Public transport: Off-street public transport stops (bus stops) to be provided for both directions at both accesses onto the MR344. It is also proposed that minibus-taxi turn-around facilities be provided at both access gates.
- Emergency vehicle facilities: The necessary attention shall be provided to the design of emergency vehicle access, parking and other facilities at the medical development.
- Non-motorised transport: Sufficient pedestrian walkways shall be provided on the SDP of the development, also linking to the public transport facilities on the MR344

- Parking: Sufficient parking, in line with all guidelines, shall be provided on the SDP of the development. Parking shall be provided for disabled persons at all public and/or commercial facilities
- School drop-off zones: Detailed attention shall be provided on the SDP to the peak hour drop-off circulation surrounding the school. The school shall be situated independently from other facilities in order for peak hour traffic to be handled as efficiently as possible. This is in order to attain the highest possible level of service in the surrounds of the school from a traffic engineering perspective. Drop off parking shall be specially esigned to function as efficiently as possible in line with best practice guidelines and shall be designed by a competent traffic and transportation engineer.
- Refuse removal: Refuse removal shall be performed by the Mossel Bay Municipality in accordance with a signed services agreement. Access for municipal refuse removal vehicles shall be properly designed into the SDP to the satisfaction and approval of the municipality
- Contractor's Access: Contractor's access shall be separate from the main access facilities.
- Cost apportionment for intersection upgrades: The Hartenbos-North Traffic Modelling Report (SMEC, 2024) was commissioned by the Mossel Bay Municipality to a.o. develop a cost apportionment model for the various intersection upgrades required in the Hartenbos-North study area. This Traffic Modelling Report was approved by council in May 2024. As such, the cost apportionment model and the role-out of the 30-year master-plan contained therein shall be implemented.

Noise Assessment Design related recommendations pertaining to the Hospital design aspects:

- The hospital facade orientation and location of sensitive spaces relative to the helipad, notwithstanding operational requirements, should be the primary control mechanism pursued in concept and schematic design of the hospital and wards. Particular care must be paid to the NICU/PICU wards; and
- An LAmax of 65dB is to be achieved in the wards and sensitive spaces within the hospital to prevent
- sleep disturbances of convalescing patients. Hospital designs are to allow for the achievement of this the maximum noise limit; and
- Once more details on the helipad and helipad operations is available, the aviation noise modelling must be re-undertaken to confirm the level of impact on the nearby sensitive receptors prior to construction and operation of the helipad.

CONSTRUCTION PHASE		
Potential impact and risk:	**Impact on Agricultural Resources** Based on the compliance statement provided by the Agricultural Specialist, erosion to surrounding farmland does not pose a threat or require specific mitigation because a sophisticated, engineered system for managing water runoff will be inherent in the engineering of such a development.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Site specific / short term	
Consequence of impact or risk:	Negligible Loss of agricultural resources	
Probability of occurrence:	Improbable	
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resource	
Degree to which the impact can be reversed:	Completely reversible	
Indirect impacts:	None	
Cumulative impact prior to mitigation:	No significance	
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:	Avoidable	
Degree to which the impact can be managed:	No management required (high)	
Degree to which the impact can be mitigated:	Can be mitigated (high)	
Proposed mitigation:	Agricultural Specialist recommendation: No mitigation measures proposed. General mitigation: • A minimum footprint approach must be followed for the purpose of the works associated with the proposal.	

Residual impacts:	None	
Cumulative impact post mitigation:	Negligible	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**	No impact
Potential impact and risk:	**Archaeological, Cultural and Palaeontological impact:** Indications are that the proposed Hartlands School and Hospital Development on Re Farm Vaalevalley 219 near Mossel Bay does not pose a significant threat to local archaeological heritage resources. Relatively large numbers of ESA lithics (mostly flake debris) were recorded among extensive scatters of abraded colluvial gravels, but nearly 90 years of active agriculture have compromised the context in which the remains were found. It is argued that the scatter of stone implements in the development area may be remnants of an ESA quarry or workshop site, where ESA hominins sourced raw materials (quartzite cobbles) for making stone tools, where most of the finished implements such as handaxes, LCTs and cleavers were removed to a home base further away. The above resources all occur in a severely transformed context and have been graded as having Low (Grade 3C) archaeological significance and are considered to be Not Conservation Worthy (NCW). Since there is a small chance that fossils from the Enon Formation may be disturbed a Fossil Chance Find Protocol has been added to this report. However, taking account of the defined criteria, `the potential impact to fossil heritage resources is low' (Bamford 2026)	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Site Specific / permanent	
Consequence of impact or risk:	Loss of palaeontological resources of significance	
Probability of occurrence:	Probable	
Degree to which the impact may cause irreplaceable loss of resources:	Marginal loss of resource	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None identified	
Cumulative impact prior to mitigation:	Medium	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	
Degree to which the impact can be avoided:	High (Avoidable)	
Degree to which the impact can be managed:	Medium (Can be partially managed)	
Degree to which the impact can be mitigated:	High (Can be mitigated)	
Proposed mitigation:	Please see below.	
Residual impacts:	None	
Cumulative impact post mitigation:	No Significance	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	

General:

- Should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately, and Heritage Western Cape must be notified without delay.

No further mitigation measures proposed.

Potential impact and risk:	**Aquatic impact: Impact of diversion of watercourse on instream habitat and aquatic biota** The development footprint will require that seasonal, intermittent flows through the watercourse are diverted around the development footprint area. This will require the establishment of a new diversion channel. Given the highly transformed nature of the watercourse and the very low importance of the watercourse for hosting aquatic biodiversity, the diversion of the watercourse through an artificial channel is not considered as a high intensity impact. The main purpose would be to ensure that intermittent flows continue to be conveyed to downstream habitats. A diversion channel would achieve this purpose and would have negligible impacts on aquatic biodiversity.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Degradation of the aquatic resources within proximity of the proposed development	
Probability of occurrence:	Unlikely	
Degree to which the impact may cause irreplaceable loss of resources:	Neligible	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:		
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**No Significance**	
Degree to which the impact can be avoided:	High (Avoidable)	
Degree to which the impact can be managed:	Medium (Can be managed)	
Degree to which the impact can be mitigated:	High (Can be mitigated)	
Proposed mitigation:	•	
Residual impacts:	None	
Cumulative impact post mitigation:	Negligible	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Negligible**	No impact

Aquatic specialist:

- Creation of a diversion channel/swale must be prioritised during the early phase of the project so that intermittent flows do not flow through an active construction site.

General

- All construction vehicles are to remain within road reserves when delivering materials.
- Materials and equipment are to be kept in a designated area as determined by the ECO, Contractor and the Consulting Engineer.
- No maintenance of vehicles is to be undertaken on-site during the construction phase of the proposed development.
- A spill kit is required on site at all times.
- All spills and incidents are to be reported to both the Site Manager and the appointed ECO immediately. Furthermore, an incident report must be filled out and kept on site for record keeping purposes.

Potential impact and risk:	**Aquatic impact: Impact of diversion channel on erosion and sedimentation** A new diversion channel would receive intermittent flows as well as increased stormwater flows from the development. The diversion channel must be designed to accommodate these flows and to prevent erosion of the diversion channel and sedimentation of downstream habitat.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Degradation of the aquatic resources within proximity of the proposed development	

Probability of occurrence:	Unlikely	
Degree to which the impact may cause irreplaceable loss of resources:	Negligible	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:		
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	
Degree to which the impact can be avoided:	High (Avoidable)	
Degree to which the impact can be managed:	Medium (Can be managed)	
Degree to which the impact can be mitigated:	High (Can be mitigated)	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Negligible	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Negligible**	No impact

Aquatic specialist:

- Permeable check dams (e.g. rock-filled gabions) can be incorporated into the design of the diversion channel/swale to slow surface flows and attenuate stormwater runoff that is likely to originate from the development area;
- The banks must be sloped (1:4 vertical to horizontal) and must be vegetated with an indigenous grass mix to avoid erosion of the bed and banks and sedimentation of downstream habitats;
- Culverts beneath road crossings must be appropriately sized (i.e. must be sized according to the natural width of the channel) and must not result in concentrated, high energy flow downstream of the crossing. Stormwater flows must not be channelled to a narrower section of the channel. In this respect box culverts are recommended.
- Stream bed and bank protection must be incorporated below road crossings. The diversion channel should be buffered by a 15 m buffer which must be vegetated with and indigenous grass mix.

Potential impact and risk:	**Aquatic impact: Clearing of vegetation causing erosion and sedimentation of aquatic habitat** The newly established channel while unnatural – will convey surface runoff from the development footprint to areas downstream of the development footprint. Mitigation must therefore focus on preventing eroded soil and sediment from the construction site washing into the diversion channel.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Degradation of the aquatic resources within proximity of the proposed development	
Probability of occurrence:	Unlikely	
Degree to which the impact may cause irreplaceable loss of resources:	Negligible	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:		
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	

Degree to which the impact can be avoided:	High (Avoidable)	
Degree to which the impact can be managed:	Medium (Can be managed)	
Degree to which the impact can be mitigated:	High (Can be mitigated)	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Negligible	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Negligible**	No impact

Aquatic specialist:

- The 15 m buffer must be demarcated from the newly created diversion channel, and, apart from access to the construction site over the diversion channel, must be considered as a no-go area;
- Silt fencing must be installed along the length of the outside of the buffer (i.e. 15 m away from the edge of the channel); Ensure that vegetation clearing is conducted in parallel with the construction progress to minimise erosion and runoff;
- Revegetate exposed areas once construction has been completed'
- Ensure that stormwater and runoff generated by hardened surfaces is discharged into retention areas (i.e. swales or retention ponds), to avoid concentrated runoff and associated erosion; and
- Stockpiling must take place outside of the designated buffer. All stockpiles must be protected from erosion, surrounded by bunds and stored on flat areas where run-off will be minimised.

Potential impact and risk:	**Aquatic impact: Pollution of diversion channel caused by construction activities.** The newly established channel while unnatural – will convey surface runoff from the development footprint to areas downstream of the development footprint. Mitigation must therefore focus on preventing contamination of the diversion channel with pollutants originating from the construction site.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Degradation of the aquatic resources within proximity of the proposed development	
Probability of occurrence:	Unlikely	
Degree to which the impact may cause irreplaceable loss of resources:	Negligible	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:		
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	
Degree to which the impact can be avoided:	High (Avoidable)	
Degree to which the impact can be managed:	Medium (Can be managed)	
Degree to which the impact can be mitigated:	High (Can be mitigated)	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Negligible	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Negligible**	No impact

Aquatic specialist:

- The 15 m buffer must be demarcated, and, apart from access to the construction site over the diversion channel, must be considered as a no-go area;
- Restrict vehicle access to single points that are clearly demarcated.
- Working areas must be clearly demarcated and no vehicle access or disturbance must take place outside of demarcated areas;
- Excavators and all other machinery and vehicles must be checked for oil and fuel leaks daily. No machinery or vehicles with leaks are permitted to work in any natural or artificial watercourse;
- No fuel storage, refuelling, vehicle maintenance or vehicle depots to be allowed within the buffer of the watercourse;
- Refuelling and fuel storage areas, and areas used for the servicing or parking of vehicles and machinery, must be located on impervious bases and should have bunds around them (sized to contain 110 % of the tank capacity) to contain any possible spills;
- Contractors used for the project should have spill kits available to ensure that any fuel or oil spills are clean-up and discarded correctly;
- Adequate sanitary facilities and ablutions on the servitude must be provided for all personnel throughout the project area. Use of these facilities must be enforced (these facilities must be kept clean so that they are a desired alternative to the surrounding vegetation) and must be routinely serviced; and
- No dumping of construction material on-site may take place.

Potential impact and risk:	**Botanical Resources impact:** Impact on terrestrial Biodiversity	
Nature of impact:	Negative	Status Quo of the site remains as is – No impact.
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	• Clearing of ±0.2 ha of modified (secondary) vegetation or regrowth. • Slight impact on the functionality of biodiversity network. • Increased opportunity for alien infestation.	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	Complete Loss of Resource	
Degree to which the impact can be reversed:	Low	
Indirect impacts:	None identified	
Cumulative impact prior to mitigation:	Medium-Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-low	
Degree to which the impact can be avoided:	Medium	
Degree to which the impact can be managed:	Medium	
Degree to which the impact can be mitigated:	Medium	
Proposed mitigation:		
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)	No impact
Potential impact and risk:	**Botanical impact:** Impact of construction on SCC and protected tree species	
Nature of impact:	Negative	No impact – Status quo remains as is
Extent and duration of impact:	Site specific / Medium term	

Consequence of impact or risk:	• Loss of indigenous flora, SCC & protected tree species	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	Marginal loss of resource	
Degree to which the impact can be reversed:	Medium	
Indirect impacts:	Muedium	
Cumulative impact prior to mitigation:	Medium	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-Low	
Degree to which the impact can be avoided:	High (Avoidable)	
Degree to which the impact can be managed:	Medium (Can be partially managed)	
Degree to which the impact can be mitigated:	High (Can be mitigated)	
Proposed mitigation:	Please see below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)	No impact

Specialist mitigation measures:

- Where possible, retain the strip of vegetation/regrowth along the south-eastern boundary of the site. Fence off the construction area where it borders on the latter. The vegetation outside the construction area must not be disturbed in any way.
- To mitigate the impact of vegetation clearing/disturbance outside the development footprint, topsoil and seedbearing plant material from the disturbed area(s) must be protected and replaced after disturbance as part of the rehabilitation process. As a duty of care measure, consideration should also be given to S&R of suitable species (e.g. bulbs & succulents). Bulbs should be removed along with some soil, placed in gel, bagged and then taken to a nursery for temporary storage or transplanted directly in the receiving area. S&R should be done at an appropriate time of the year, preferably when the soil is wet during the raining season. Please note that a CapeNature permit is needed for the relocation of indigenous plant species.
- Allow at least 24 months for the monitoring of rehabilitation success and alien infestation post construction. Keep the rehabilitation area(s) clear of invasive aliens.
- Monitor the development area and all areas disturbed during construction for rehabilitation success and alien infestation. Where needed, rehabilitate/revegetate disturbed surfaces expediently. Erosion prevention measures may be needed on steeper slopes, such as silt fences, logs or netting, to slow down runoff and potential erosion. Mulching and seeding with indigenous thicket/renosterveld seed may also be needed.
- As a long-term maintenance requirement, continue with alien clearing on and around the development footprint, focussing on invasive species such as rooikrans, spear thistle, thorn apple, lantana and eastern prickly-pear. These species are category 1b invaders that require compulsory control as part of an invasive species control programme. Please note that it is a legal requirement for landowners to clear alien vegetation on their land.

Potential impact and risk:	**Animal Species Theme**: Destruction and loss of habitats The proposed development footprint of 28.6 hectares intersects already transformed agricultural (farm) land with no remaining faunal habitats and a transient terrestrial faunal and avifaunal profile. This area is therefore also retrieved as "Low" SEI.	
Nature of impact:	Negative	No impact – Status quo remains as is
Extent and duration of impact:	Site Specific / Temporary	
Consequence of impact or risk:	Loss of species of concern due to the disturbance of their preferred habitat	

Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	No loss to Resource	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	Loss of biodiversity	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	
Degree to which the impact can be avoided:	Can be avoided	
Degree to which the impact can be managed:	Can be managed	
Degree to which the impact can be mitigated:	Can be partly mitigated	
Proposed mitigation:	Please see below	
Residual impacts:	Loss of habitat for potential SCCs	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Negligible (-)	No impact
Potential impact and risk:	**Animal Species Theme**: Direct mortality of, or displacement of fauna The terrestrial faunal and avifaunal profile of the site is currently comprised of transient species which infrequently pass over the area. The only resident faunal species pertains to a low number of Cape Short-eared Gerbil (*Desmodillus auricularis*) classified as "Least Concern", and having a wide distribution, both in South Africa and in the broader landscape. Loss of the few resident individuals is therefore of little significance to its conservation statuses and genetic diversity patterns at local, regional or national scales.	
Nature of impact:	Negative	No impact – Status quo remains as is
Extent and duration of impact:	Site Specific / Temporary	
Consequence of impact or risk:	Loss of species of concern due to the disturbance of their preferred habitat	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	No loss to Resource	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	Loss of biodiversity	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	
Degree to which the impact can be avoided:	Can be avoided	
Degree to which the impact can be managed:	Can be managed	
Degree to which the impact can be mitigated:	Can be partly mitigated	
Proposed mitigation:	Please see below	
Residual impacts:	Loss of habitat for potential SCCs	
Cumulative impact post mitigation:	Low	

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Negligible (-)	No impact

Mitigation measures:
No specific mitigation measures were proposed, apart from minimisation mitigation.

Potential impact and risk:	**Visual Impact Assessment: Altered Landscape and Sense of Place during Construction** The introduction of site clearance, earthworks, construction plant, cranes, temporary laydown areas, stockpiles and partially completed structures will temporarily alter the visual character of the site and its immediate surroundings. The current agricultural/peri-urban landscape will appear as a construction environment, which may be perceived by nearby receptors (including residents and road users) as a landscape in transition.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Medium	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	Medium	
Degree to which the impact can be reversed:	Partly Reversible	
Indirect impacts:		
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:	Medium	
Degree to which the impact can be managed:	Medium	
Degree to which the impact can be mitigated:	Medium	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Medium	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**	No impact

Visual specialist:

- Minimise land disturbance: Limit the construction footprint to the minimum required for the hospital and educational facilities, including laydown areas and access routes.
- Progressive rehabilitation: Re-contour and stabilise disturbed areas as soon as practicable and implement progressive landscaping/planting.
- Retain and protect existing vegetation: Maintain and supplement existing vegetation buffers where practicable.
- Temporary screening: Use site hoarding/shade-cloth or temporary screens along sensitive boundaries where required.
- Site housekeeping: Keep the site tidy to reduce perceived visual clutter.
- Limit night-time construction activities: Where night works are unavoidable, use low-glare, down-directed lighting.

Potential impact and risk:	**Visual Impact Assessment: Visual Intrusion and Disturbance to Nearby Receptors during Construction** Construction activities associated with the hospital and educational facilities (including cranes, plant movement, temporary structures, construction traffic and partially completed buildings) will be visible from surrounding properties and from road corridors such as the N2

	and R102. This may result in temporary visual intrusion, perceived disruption and a reduction in visual amenity for receptors.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Medium	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	Medium	
Degree to which the impact can be reversed:	Partly Reversible	
Indirect impacts:		
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:	Medium	
Degree to which the impact can be managed:	Medium	
Degree to which the impact can be mitigated:	Medium	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Medium	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**	No impact

Visual specialist:

- Construction layout planning: Locate temporary site offices, storage areas and laydown zones away from sensitive boundaries where practicable.
- Maintain orderly stockpiles: Keep stockpiles low and compact and avoid placing them on visually prominent edges.
- Boundary treatment: Install and maintain appropriate construction hoarding/screens on sensitive edges and at access points.
- Manage construction plant: Where practicable, limit the duration of crane use and avoid leaving large plant stationed on prominent edges.
- Construction traffic management: Control delivery times, routes and on-site circulation to reduce congestion and visual clutter at entrances.
- Complaints management: Implement a communication channel for neighbouring receptors and respond to visual-related complaints timeously

Potential impact and risk:	**Visual Impact Assessment: Dust and Construction Impact during Construction** Earthworks, vehicle movement on unpaved surfaces, stockpiles and material handling may generate dust and track-out/mud onto adjacent roads. Dust deposition on vegetation, boundary fencing, nearby structures and road surfaces can reduce visual amenity and contribute to a perception of poor site management, particularly for sensitive receptors and road users.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Medium	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	Medium	

Degree to which the impact can be reversed:	Partly Reversible	
Indirect impacts:		
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:	Medium	
Degree to which the impact can be managed:	Medium	
Degree to which the impact can be mitigated:	Medium	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Medium	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**	No impact

Visual specialist:

- Dust suppression: Implement active dust control on exposed surfaces, haul routes and stockpiles.
- Surface stabilisation: Stabilise or cover stockpiles and disturbed areas; re-vegetate or gravel exposed areas where practicable.
- Vehicle controls: Enforce speed limits on site and along unpaved access routes to reduce dust generation.
- Housekeeping: Regularly sweep/clean access points and maintain a neat site appearance.
- Monitoring: Monitor dust conditions during dry/windy periods and escalate suppression measures when required.

Potential impact and risk:	**Pollution management:** Pollution of hydrocarbons due to spills and leaks	
Nature of impact:	Negative (-)	No impact – Status quo remains as is
Extent and duration of impact:	Site Specific / Short term	
Consequence of impact or risk:	Should hydrocarbon spills occur on site, there is a potential that such spills can contaminate the ground water table, although of poor quality.	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Low	
Indirect impacts:	Groundwater contamination (downstream from the proposed development site).	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	
Degree to which the impact can be avoided:	Avoidable	
Degree to which the impact can be managed:	Can be managed	
Degree to which the impact can be mitigated:	Can be partially mitigated	
Proposed mitigation:	Please see below.	
Residual impacts:	None identified	
Cumulative impact post mitigation:	Low	

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)	No impact

General:

- No maintenance of vehicles is to be undertaken on-site during the construction phase of the proposed development.
- A spill kit is required on site at all times.
- All spills and incidents are to be reported to both the Site Manager and the appointed ECO immediately. Furthermore, an incident report must be filled out and kept on site for record keeping purposes.
- All waste products resulting from the proposed construction activities must be kept in a designated, bunded area in the site camp.
- All refuelling activities must be located on an impermeable surface.
- Drip-trays must be placed underneath all stationary vehicles within the development footprint.

Potential impact and risk:	**General nuisances:** Dust, noise and general housekeeping during construction	
Nature of impact	Negative	No impact – Status quo remains as is
Extent and duration of impact:	Site specific / Medium-long term	
Consequence of impact or risk:	• Based on the dry nature of the receiving environment, there is an increased risk of dust pollution impairing the visibility of the area directly within vicinity to the proposed development site. • General pollution will occur as a result of a mal-managed site.	
Probability of occurrence:	Improbable	
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely	
Degree to which the impact can be reversed:	Completely reversible	
Indirect impacts:	Poor visibility due to the dispersal of dust Complaints received from surrounding land occupiers due to excessive construction noises.	
Cumulative impact prior to mitigation:	Medium	
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:	Can be avoided	
Degree to which the impact can be managed:	Can be completely managed	
Degree to which the impact can be mitigated:	Can be completely mitigated	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Low-Medium	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)	

Dust:

- Dust suppression methods, such as non-potable water spraying must be used during the construction phase of the proposed refurbishment project.
- Vehicular speed must be controlled at all times, with no indiscriminatory driving permitted by any construction or other vehicles on site.

- Should excessive dust be recorded by the appointed ECO, corrective measures must be taken by the construction team.
- Where practically possible, the proposed dust suppression measures proposed for dust management (by means of compaction of the in situ soil layer followed by stabilisation) must be done as part of the dust management measures, once the foundations of the buildings on site have been lain.

General housekeeping:

- A clean site policy must be adopted at all times during the construction phase.
- Where possible, storage and disposal of waste must take place in a sustainable manner, where clearly marked recycle bins must be provided to workers at the site camp.
- Where possible, waste bins must be placed in strategic areas on site so as to limit the amount of waste scattered (due to wind dispersal) on site.
- Regular toolbox talks must be held with the construction crew in order to reiterate the importance of maintaining a clean site.
- Construction rubble (such as cement bags) must be discarded promptly.
- An adequate amount of waste skips must be placed on site.
- Waste skips must not be allowed to overflow.
- Waste skips must be closed.
- Waste skips must be cleared on a weekly bases or as necessary and the waste slips must be provided to the ECO for record keeping purposes.
- All construction vehicles must be equipped with muffled reverse sirens (which are to the standard of the Occupational Health & Safety Act (Act 85 of 1993)).
- No construction activities are permitted between 17:00 and 7:00 (night time hours).
- Construction workers are to always remain within the designated site boundary.
- Where possible, eating areas must not be located within the vicinity of the neighbouring buildings.

Noise specialist recommendations:

- All construction activities are to be limited between 07:00 to 18:00 on weekdays, 08:00 to 15:00 on Saturdays and no construction activities on Sundays and public holidays;
- The developer/contractor must compile and implement a detailed noise management plan to mitigate construction noise emissions and the associated noise impacts at the sensitive receptors due to the scale of the development project;
- All vehicles and mobile machinery must be fitted with white noise ("ssh-ssh") type combination broad band smart self-adjusting reverse beeper alarms versus traditional "beep-beep" type reverse alarms to minimize mobile vehicle noise onsite;
- All vehicles and equipment are to be kept in good repair to reduce construction and operational noise levels;
- All construction vehicles must achieve a sound power level of 105 dB(A) or less within a 10m radius of the vehicle;
- All vehicles/machinery must be subject to an annual noise survey to determine the sound power levels.
- Appropriate noise-suppression must be implemented on those found to be exceeding the 105dB(A) within a 10m radius of the noise source;
- Ensuring all construction equipment and vehicles onsite is noise-suppressed (or attenuated);
- A materials handling drop height policy should be implemented and maintained onsite. All equipment operators should be trained in the policy such that drop height reduction is implemented to reduce noise generation onsite;
- Equipment found to have defects that lead to elevated noise emissions are not be returned to operations until repaired;
- Ensure all plant and equipment is maintained regularly and in accordance with manufacturer requirements;
- All equipment is to be well maintained and fitted with appropriate noise abatement measures;
- The onsite speed limit of 30km to reduce the level of noise from construction traffic is to be rigorously maintained and enforced;
- Vehicles should not be allowed to idle for more than 5-minutes when not in use;
- All vehicles are to fitted with original equipment manufacturer (OEM) specification silencers/exhaust systems;
- Machines in intermittent use should be shut down in the intervening periods between work or throttled down to a minimum;
- No blasting is permitted onsite during (all project phases) as blasting noise and blasting safety exclusion zones have not been assesses;
- A noise complaints register must be maintained at the main access gate;
- Any noise complaints should be directed to site management. Complaints and any actions arising from a complaint must be recorded in a complaint's register to be maintained by site management. An investigation should be undertaken to determine the specific activities and/or equipment / machinery which is generating the nuisance noise resulting in the noise complaints;
- Monitoring:
    - Quarterly perimeter noise monitoring and assessment as per GN320, SANS 10328 and SANS 10103 must be implemented through the construction phases at the Hartland boundary and at a suitable selection of the nearby sensitive receptors as identified in this report (i.e. the baseline monitoring points);

- The above monitoring requirements are to be stipulated in sites noise management plan which is the report to the project Environmental Management Plan (EMP).

Potential impact and risk:	**Road safety**: Traffic Impacts and Road Safety during the construction phase	No impact – Status quo remains as is
Nature of impact	Negative	
Extent and duration of impact:	Local / Medium term	
Consequence of impact or risk:	• More frequent occurrences of traffic incidents due to indiscriminatory driving by delivery vehicles. • Increased traffic volumes due to the proposed construction activities.	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	Marginal loss to resource	
Degree to which the impact can be reversed:	Barely reversible	
Indirect impacts:	Inconveniences caused to surrounding land owners/business owners.	
Cumulative impact prior to mitigation:	Medium	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High	
Degree to which the impact can be avoided:	Partly avoided	
Degree to which the impact can be managed:	Can be managed	
Degree to which the impact can be mitigated:	Can be partly mitigated	
Proposed mitigation:	Please see below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)	**No impact**

General:

- A delivery schedule must be arranged so as to ensure that no deliveries are made to the site between 17:00 and 07:00.
- Should any deliveries be required outside of these hours, such requirements must be communicated to the site engineer, the ECO and the immediately surrounding business owners/managers.
- No alcohol must be permitted on site (by neither the labourers or must be allowed in the horse of the delivery trucks where applicable).
- Random breathalyser tests must be undertaken by the security team in order to ensure that no driver under the influence is permitted onto construction areas of the site.
- Where drivers test positive for alcohol, where possible, they must be instructed to stop in an allocated area on site, until they are deemed safe to access the construction areas of the site, or be instructed to be collected by a representative of their company.
- Such drivers must be reported to the management team of the company for whom they work for and must be further banned from the proposed development area for the remainder of the construction activities.

Potential impact and risk:	**Socio-economic impacts:** Employment opportunities creation	
Nature of impact	Positive	Negative
Extent and duration of impact:	Local / Long term	Regional / Permanent
Consequence of impact or risk:	Income provision to individuals employed during the construction phase.	No income generated as a result of the construction phase activities

Probability of occurrence:	Definite	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A	Complete loss of resources
Degree to which the impact can be reversed:	N/A	Cannot be reversed.
Indirect impacts:	Quality of life of the labourers would be temporarily uplifted due to the capital influx for households.	No upliftment of the local community takes place. No temporary elevation of the quality of life is seen,
Cumulative impact prior to mitigation:	Medium	High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High	High
Degree to which the impact can be avoided:	N/A	Low (no avoidance of the impact)
Degree to which the impact can be managed:	Can be completely managed	Low
Degree to which the impact can be mitigated:	N/A	Low
Proposed mitigation:	Please see below.	No mitigation measures applicable. The proposed development must be approved for this positive impact to be observed.
Residual impacts:	None	None
Cumulative impact post mitigation:	Medium	High
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (+)	**High (-)**

General

- As far as possible, individuals from the local community must be employed. Especially for low to semi-skilled activities. Skills that are transferable to future employment opportunities must be taught.

OPERATIONAL PHASE

Potential impact and risk:	**Visual Impact Assessment: Altered Landscape and Sense of Place during Operation** The completed hospital and educational facilities will introduce a substantial new built element into the local landscape. The development will change the site from an agricultural/peri-urban landscape to an institutional precinct comprising buildings, parking areas, internal roads, sports facilities and associated service infrastructure. This permanent change may alter the perceived sense of place and visual character of the area, particularly from nearby receptors and the N2/R102 corridors	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Medium	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	Medium	
Degree to which the impact can be reversed:	Partly Reversible	
Indirect impacts:		
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation	**Medium**	

(e.g. Low, Medium, Medium-High, High, or Very-High)		
Degree to which the impact can be avoided:	Medium	
Degree to which the impact can be managed:	Medium	
Degree to which the impact can be mitigated:	Medium	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Medium	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**	No impact

Visual specialist:

- Layout optimisation: Position the tallest/most visually prominent elements centrally on the site and avoid placing large building masses on visually sensitive edges, where feasible.
- Vegetative Buffers: Plant indigenous vegetation along site boundaries to reduce direct visibility of infrastructure and enhance visual screening. adjacent properties and roads.
- Parking screening: Break up large parking areas with planting islands and perimeter tree screening.
- Signage control: Limit the number, size, and brightness of signs; avoid large digital or high-contrast signage visible from the N2, where practicable.
- Glare reduction: Avoid highly reflective glazing/finishes; use matte finishes and design glazing orientation to minimise glare to receptors, where feasible.

Potential impact and risk:	**Visual Impact Assessment: Visual Impact of Operational, Safety and Security Lighting** Operational lighting associated with the hospital and educational facilities (including building lighting, parking lighting, access road lighting, security lighting, sports facility lighting and helipad lighting) may increase night-time light levels in the area. Poorly designed or unshielded lighting can result in light spill and glare, reducing night-time visual amenity for nearby receptors and contributing to skyglow along the N2/R102 corridor.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Medium	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	Medium	
Degree to which the impact can be reversed:	Partly Reversible	
Indirect impacts:		
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:	Medium	
Degree to which the impact can be managed:	High	
Degree to which the impact can be mitigated:	High	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Medium	
Significance rating of impact after mitigation (e.g. Low, Medium,	**Low**	No impact

Medium-High, High, or Very-High)		

Visual specialist:

- Lighting design: Use full cut-off, down-directed luminaires and appropriate shielding to prevent upward light spill.
- Limit pole heights and brightness: Keep lighting structures as low as practicable and design lighting levels to the minimum required for safety and security.
- Control operating hours: Use timers, dimmers and motion sensors; apply curfews for sports facility lighting where applicable.
- Helipad lighting management: Ensure helipad lighting is activated only during operations/testing and is compliant with aviation safety requirements while minimising spill.
- Avoid façade up-lighting: Do not use architectural up-lighting or unnecessary floodlighting.
- Night-time audit and maintenance: Undertake periodic lighting audits at night and adjust luminaires/shields if light spill or complaints are recorded.

Potential impact and risk:	**Aquatic impact: Impact of stormwater runoff on the erosion and sedimentation of the diversion channel** Increased surface runoff from impermeable surfaces results in the input of high volumes of water at high velocity, which can lead to erosion of the diversion channel and sedimentation of downstream habitats.	
Nature of impact:	Negative	No impact
Extent and duration of impact:	Local / Short term	
Consequence of impact or risk:	Degradation of the aquatic resources within proximity of the proposed development	
Probability of occurrence:	Unlikely	
Degree to which the impact may cause irreplaceable loss of resources:	Negligible	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:		
Cumulative impact prior to mitigation:	Low	
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 (Avoidable)	
Degree to which the impact can be managed:	Medium (Can be managed)	
Degree to which the impact can be mitigated:	High (Can be mitigated)	
Proposed mitigation:	Please see below	
Residual impacts:	None	
Cumulative impact post mitigation:	Negligible	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Negligible**	No impact

Aquatic specialist:

- Implementation of additional SuDS measures is required to attenuate stormwater onsite and reduce stormwater impacts to an appropriate level. It is recommended that the stormwater management plan for the development should align with the urban stormwater impacts policy which requires 24 hour extended detention of the 1-year return interval, 24-hour storm event. In addition to rainwater harvesting (which will be implemented as part of the stormwater management plan) the following must, inter alia, be considered:
- Swales and detention ponds can be incorporated into the open space network to attenuate stormwater runoff, encourage infiltration and reduce the speed, energy and volumes at which stormwater is discharged from the site;
- Use of permeable paving to encourage infiltration into the soil;
- Use of retention ponds and artificial wetlands to capture stormwater runoff and prevent its discharge from the site; and

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:
  - A non-perennial drainage line is mapped through the southern portion of the property and runs through the development area. A large proportion of the property has been transformed into agricultural fields, while the remainder of the property is undeveloped and is mapped as critically endangered Garden Route Granite Fynbos. The proposed development footprint falls entirely within a transformed agricultural area. The following mitigation measures have been proposed:
    - Creation of a diversion channel/swale must be prioritised during the early phase of the project so that intermittent flows do not flow through an active construction site.
    - Permeable check dams (e.g. rock-filled gabions) can be incorporated into the design of the diversion channel/swale to slow surface flows and attenuate stormwater runoff that is likely to originate from the development area;
    - The banks must be sloped (1:4 vertical to horizontal) and must be vegetated with an indigenous grass mix to avoid erosion of the bed and banks and sedimentation of downstream habitats;
    - Culverts beneath road crossings must be appropriately sized (i.e. must be sized according to the natural width of the channel) and must not result in concentrated, high energy flow downstream of the crossing. Stormwater flows must not be channelled to a narrower section of the channel. In this respect box culverts are recommended.
    - Stream bed and bank protection must be incorporated below road crossings. The diversion channel should be buffered by a 15 m buffer which must be vegetated with and indigenous grass mix.
    - The 15 m buffer must be demarcated, and, apart from access to the construction site over the diversion channel, must be considered as a no-go area;
    - Silt fencing must be installed along the length of the outside of the buffer (i.e. 15 m away from the edge of the channel);
    - Ensure that vegetation clearing is conducted in parallel with the construction progress to minimise erosion and runoff;
    - Revegetate exposed areas once construction has been completed'
    - Ensure that stormwater and runoff generated by hardened surfaces is discharged into retention areas (i.e. swales or retention ponds), to avoid concentrated runoff and associated erosion;
    - Stockpiling must take place outside of the designated buffer. All stockpiles must be protected from erosion, surrounded by bunds and stored on flat areas where run-off will be minimised.
    - The 15 m buffer must be demarcated, and, apart from access to the construction site over the diversion channel, must be considered as a no-go area;
    - Restrict vehicle access to single points that are clearly demarcated;
    - Working areas must be clearly demarcated and no vehicle access or disturbance must take place outside of demarcated areas;
    - Excavators and all other machinery and vehicles must be checked for oil and fuel leaks daily. No machinery or vehicles with leaks are permitted to work in any natural or artificial watercourse;
    - No fuel storage, refuelling, vehicle maintenance or vehicle depots to be allowed within the buffer of the watercourse;
    - Refuelling and fuel storage areas, and areas used for the servicing or parking of vehicles and machinery, must be located on impervious bases and should have bunds around them (sized to contain 110 % of the tank capacity) to contain any possible spills;
    - Contractors used for the project should have spill kits available to ensure that any fuel or oil spills are clean-up and discarded correctly;
    - Adequate sanitary facilities and ablutions on the servitude must be provided for all personnel throughout the project area. Use of these facilities must be enforced (these facilities must be kept clean so that they are a desired alternative to the surrounding vegetation) and must be routinely serviced; and
    - No dumping of construction material on-site may take place.
    - Implementation of additional SuDS measures is required to attenuate stormwater onsite and reduce stormwater impacts to an appropriate level. It is recommended that the stormwater management plan for the development should align with the urban stormwater impacts policy which requires 24 hour extended detention of the 1-year return interval, 24-hour storm event. In addition to rainwater harvesting (which will be implemented as part of the stormwater management plan) the following must, inter alia, be considered:
    - Swales and detention ponds can be incorporated into the open space network to attenuate stormwater runoff, encourage infiltration and reduce the speed, energy and volumes at which stormwater is discharged from the site;
    - Use of permeable paving to encourage infiltration into the soil;

- Use of retention ponds and artificial wetlands to capture stormwater runoff and prevent its discharge from the site; and
- Discharge headwalls at the ends of stormwater pipes must be equipped with stilling basins and erosion protection to decrease storm water velocities, spread the flows and prevent erosion at the outlets.

- **Terrestrial Biodiversity Specialist;**
  - A narrow strip of secondary vegetation or regrowth on the south-eastern side may still serve as a minor ecological corridor along which fauna and flora can migrate. The proposed development does not encroach significantly on the biodiversity network. There are only small encroachments on terrestrial CBA's and CBA2's in the north-eastern and south-western corners of the site. About 0.2 ha of vegetation will need to be cleared if the site is developed up to the fenceline on the south-eastern boundary. However, this strip appears to be located inside a servitude. The impact on plant species, including SCC and protected tree species, is also expected to be of low significance, after mitigation. All the recorded species are common and widespread in the region. Only one SCC was recorded on site, namely *Hermannia lavandulifolia* (VU). It is still very common in the Mossel Bay area. A few milkwoods, a protected tree species, are also present. Some of these can possibly be accommodated in the development layout. The following mitigation measures were proposed for the project:
    - Where possible, retain the strip of vegetation/regrowth along the south-eastern boundary of the site. Fence off the construction area where it borders on the latter. The vegetation outside the construction area must not be disturbed in any way.
    - To mitigate the impact of vegetation clearing/disturbance outside the development footprint, topsoil and seedbearing plant material from the disturbed area(s) must be protected and replaced after disturbance as part of the rehabilitation process. As a duty of care measure, consideration should also be given to S&R of suitable species (e.g. bulbs & succulents). Bulbs should be removed along with some soil, placed in gel, bagged and then taken to a nursery for temporary storage or transplanted directly in the receiving area. S&R should be done at an appropriate time of the year, preferably when the soil is wet during the raining season. Please note that a CapeNature permit is needed for the relocation of indigenous plant species.
    - Allow at least 24 months for the monitoring of rehabilitation success and alien infestation post construction. Keep the rehabilitation area(s) clear of invasive aliens.
    - Monitor the development area and all areas disturbed during construction for rehabilitation success and alien infestation. Where needed, rehabilitate/revegetate disturbed surfaces expediently. Erosion prevention measures may be needed on steeper slopes, such as silt fences, logs or netting, to slow down runoff and potential erosion. Mulching and seeding with indigenous thicket/renosterveld seed may also be needed.
    - As a long-term maintenance requirement, continue with alien clearing on and around the development footprint, focussing on invasive species such as rooikrans, spear thistle, thorn apple, lantana and eastern prickly-pear. These species are category 1b invaders that require compulsory control as part of an invasive species control programme. Please note that it is a legal requirement for landowners to clear alien vegetation on their land.
- **Animal Species Assessment:**
  - The site comprises habitats in a completely transformed and open agricultural (farmland) state with a limited potential to support any notable faunal diversity, or any permanent subpopulations of terrestrial faunal and avifaunal SCC. From a terrestrial faunal and avifaunal perspective, the site sensitivity may therefore be regarded as "Low" rather than "High" sensitivity. The current study outlines the "Low" sensitivity of the study area from a terrestrial faunal and avifaunal perspective following from it transformed habitat structure and transient faunal profile of only common "Least Concern" species. Because of these considerations, the proposed development is expected to have negligible (insignificant) impacts to the receiving environment. Taken together therefore, the current development is supported from a terrestrial faunal and avifaunal perspective, especially considering the socio-economic benefits and need for schools and hospitals in the Western Cape Province. No specific mitigation measures proposed.
- **Agricultural Impact Assessment:**
  - The proposed development will result in the permanent loss of this land to agriculture, which will result in a loss of future agricultural production potential in terms of national food security. The overall negative agricultural impact of the development (loss of future agricultural production potential) is assessed here as being of medium significance. The acceptability and ultimate approval of the development cannot be based purely on its agricultural impact but requires the weighing of many diverse factors, which include the high demand for development space within Mossel Bay and the fact that this area is designated for foreseeable future expansion in the Mossel Bay Spatial Development Framework. Such a weighing is far beyond the scope of an agricultural impact assessment, which cannot therefore conclude on the overall acceptability of the development. The agricultural protocol requires an indication of the potential losses in production and employment from the change of the agricultural use of the land as a result of the proposed development. A total of 28.5 hectares of small grain cropland will be lost. The relatively small area of lost

cropland is unlikely to affect agricultural employment within the farming enterprise. No specific mitigation measures were proposed for the proposed development.

- **Heritage Impact Assessment:**
  - The highly transformed context in which they were found means that the archaeological resources have been graded as having Low (Grade 3C) archaeological significance and are considered Not Conservation Worthy (NCW).
    - In the unlikely that human remains are uncovered during construction activities; these must be immediately reported to the archaeologist (J Kaplan 082 321 0172) who will inform Heritage Western Cape. Burials must not be disturbed or removed until inspected by a professional archaeologist.
    - No archaeological mitigation is required prior to construction excavations commencing.
    - No archaeological monitoring is required during the Construction Phase.
- **Palaeontologist Assessment:**
  - Bamford (2026) has shown, that the Enon formation is often used as a catchall for Cretaceous and younger sediments that are not sufficiently distinct enough to assign to any other formation. The lithology includes cobbles, conglomerates, sandstones, and transported debris. `Hence it is unlikely that any fossils of scientific value would be recovered during the Construction Phase of the development'.
    - Since there is a small chance that fossils may occur below the soil cover in the conglomerate and sands of the Enon Formation (Uitenhage Group) the Fossil Chance Find Protocol should be added to the EMPr. If fossils are found by the environmental officer, or other responsible person once excavations have commenced, then they should be rescued and a palaeontologist called to assess and collect a representative sample. The impact on the palaeontological heritage would be low, as far as the palaeontology is concerned, so the project should be authorised.
- **Noise Assessment:**
  - ATB Environmental Consulting was appointed to undertake the Noise Impact Assessment for the proposed development. Seventeen (17) sensitive receptors (SR) are within a within an approximate 3km radius of the proposed development boundary were identified (Table 7 and Figure 9). These receptors are thus considered as the sensitive receptors for this assessment. The cumulative daytime construction noise impacts of the proposed project in addition to the local noise sources and existing elevated baseline noise levels throughout the wider local area is anticipated to be medium detrimental pre-mitigation and low detrimental post mitigation at the nearby sensitive receptors. For the operational aspects associated with the proposed development, four (41) scenarios were assessed (Typical operational noises emitted from the development, Noise levels emitted from the development during sporting events, hospital emergency helipad noise emissions and a cumulative scenario where all three of the other scenarios are applicable).
  - All "Sub-urban" sensitive receptors are unlikely to be impacted by the daytime Scenario 1 operational noise. A little / negligeable community response is expected and the environmental consequence of the impacts are anticipated to be low detrimental. With the implementation of typical operational phase noise mitigation measures, the residual risk of the noise impacts is anticipated to remain low detrimental but with possible nominal reduction in the impact.
  - All "Sub-urban" sensitive receptors are unlikely to be impacted by the night-time Scenario 1 operational noise. A little / negligeable community response is expected and the environmental consequence of the impacts are anticipated to be low detrimental (Table 14). With the implementation of typical operational phase noise mitigation measures, the residual risk of the noise impacts is anticipated to remain low detrimental but with possible nominal reduction in the impact.
  - All "Sub-urban" sensitive receptors are unlikely to be impacted by the daytime Scenario 2 operational noise. A little / negligeable community response is expected and the environmental consequence of the impacts are anticipated to be low detrimental (Table 18). With the implementation of typical crowd and PA system noise mitigation measures, the residual risk of the noise impacts is anticipated to remain low detrimental but with possible nominal reduction in the impact.
  - All other "Sub-urban" sensitive receptors are unlikely to be impacted by the night-time Scenario 2 operational noise. A little / negligeable community response (Table 19) is expected and the environmental consequence of the impacts are anticipated to be low detrimental (Table 20). With the implementation of typical crowd and PA system noise mitigation measures, the residual risk of the noise impacts is anticipated to remain low detrimental but with possible nominal reduction in the impact.
  - Due to the relatively low-altitude nature of helicopter operations, the predicted noise contours typically extend along the flight paths for the duration of the movement. However, the contours presented are limited to the immediate vicinity of the helipad. As distance from the helipad increases, flight paths are likely to become more spatially dispersed, resulting in a broader and less concentrated distribution of noise at ground level (i.e. reduced impact along the flight paths the further away from the helipad the sensitive receptor is located).
  - Assuming a daytime "sub-urban" district rating sound level of 50dB, both arrival and departure flights will be clearly perceptible in the vicinity of the Heartland development and at the surrounding nearby sensitive receptors (i.e. mainly those within 1.5km of the helipad and/or directly under the flight paths). On approach to and departure from the helipad, the helicopter noise will emerge above the background level of

approximately 54.3 dB(A) during the day, attain a maximum exposure for a short duration as the aircraft passes and subsequently diminishing back into the prevailing ambient baseline conditions.

- "Sub-urban" receptors SR1 to SR4, SR7, SR10, SR14 and SR17 are highly likely to be impacted by the daytime Scenario 3 helicopter operational noise. A very strong community response is expected from "Sub-urban" receptors SR1 to SR4, SR7, SR10, SR14 and SR17 and the environmental consequence of the impacts are anticipated to be medium detrimental (Table 22). With the implementation of typical aviation noise mitigation measures, and considering the temporal nature of the flights and very short duration of impact, the residual risk of the noise impacts is anticipated remain low detrimental.
- "Sub-urban" receptors SR8 to SR13, SR15 and SR16 are likely to be impacted by the daytime Scenario 3 helicopter operational noise. A medium community response (Table 21) is expected from "Sub-urban" receptors SR8 to SR13, SR15 and SR16 and the environmental consequence of the impacts are anticipated to be low detrimental. With the implementation of typical aviation noise mitigation measures, and considering the temporal nature of the flights and very short duration of impact, the residual risk of the noise impacts is anticipated to remain low detrimental but with possible nominal reduction in the impact.
- "Sub-urban" receptors SR5 and SR9 may be impacted by the daytime Scenario 3 helicopter operational noise. A little community response is expected from "Sub-urban" receptors SR5 and SR9 and the environmental consequence of the impacts are anticipated to be low detrimental. With the implementation of typical aviation noise mitigation measures, and considering the temporal nature of the flights and very short duration of impact, the residual risk of the noise impacts is anticipated to remain low detrimental but with possible nominal reduction in the impact.
- "Sub-urban" receptors SR6 and SR12 are unlikely to be impacted by the daytime Scenario 3 helicopter operational noise. A little / negligeable community response (Table 21) is expected from "Sub-urban" receptors SR6 and SR12 and the environmental consequence of the impacts are anticipated to be low detrimental. With the implementation of typical aviation noise mitigation measures, and considering the temporal nature of the flights and very short duration of impact, the residual risk of the noise impacts is anticipated to remain low detrimental but with possible nominal reduction in the impact.
- Assuming a night-time "sub-urban" district rating sound level of 40dB, both arrival and departure flights will be clearly perceptible in the vicinity of the Heartland development and at the surrounding nearby sensitive receptors (i.e. mainly those within 1.5km of the helipad and/or directly under the flight paths). On approach to and departure from the helipad, the helicopter noise will emerge above the background level of approximately 46.2db(A) during the night, attain a maximum exposure for a short duration as the aircraft passes and subsequently diminishing back into the prevailing ambient baseline conditions.
- "Sub-urban" receptors SR1 to SR4, SR7, SR8, SR10, SR11, SR13 to SR17 are highly likely to be impacted by the night-time Scenario 3 helicopter operational noise. A very strong community response is expected from "Sub-urban" receptors SR1 to SR4, SR7, SR8, SR10, SR11, SR13 to SR17 and the environmental consequence of the impacts are anticipated to be medium detrimental. With the implementation of typical aviation noise mitigation measures, and considering the temporal nature of the flights and very short duration of impact, the residual risk of the noise impacts is anticipated remain low detrimental.
- "Sub-urban" receptors SR5 to SR6 and SR9 are likely to be impacted by the daytime Scenario 3 helicopter operational noise. A medium community response is expected from "Sub-urban" receptors SR5 to SR6 and SR9 and the environmental consequence of the impacts are anticipated to be low detrimental. With the implementation of typical aviation noise mitigation measures, and considering the temporal nature of the flights and very short duration of impact, the residual risk of the noise impacts is anticipated to remain low detrimental but with possible nominal reduction in the impact.
- "Sub-urban" receptor SR12 is unlikely to be impacted by the daytime Scenario 3 helicopter operational noise. A little / negligeable community response is expected from "Sub-urban" receptor SR12 and the environmental consequence of the impacts are anticipated to be low detrimental. With the implementation of typical aviation noise mitigation measures, and considering the temporal nature of the flights and very short duration of impact, the residual risk of the noise impacts is anticipated to remain low detrimental but with possible nominal reduction in the impact.
- The environmental consequence of the cumulative nuisance noise disturbance associated with combined Scenarios 1, 2, 3 and existing noise sources is anticipated to be medium detrimental. With the implementation of typical noise mitigation measures, the residual risk of the noise impacts are anticipated to reduce and remain low detrimental.

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

- Aquatic Biodiversity:
  - Creation of a diversion channel/swale must be prioritised during the early phase of the project so that intermittent flows do not flow through an active construction site.
  - Permeable check dams (e.g. rock-filled gabions) can be incorporated into the design of the diversion channel/swale to slow surface flows and attenuate stormwater runoff that is likely to originate from the development area;
  - The banks must be sloped (1:4 vertical to horizontal) and must be vegetated with an indigenous grass mix to avoid erosion of the bed and banks and sedimentation of downstream habitats;

- Culverts beneath road crossings must be appropriately sized (i.e. must be sized according to the natural width of the channel) and must not result in concentrated, high energy flow downstream of the crossing. Stormwater flows must not be channelled to a narrower section of the channel. In this respect box culverts are recommended.
- Stream bed and bank protection must be incorporated below road crossings. The diversion channel should be buffered by a 15 m buffer which must be vegetated with and indigenous grass mix.
- The 15 m buffer must be demarcated, and, apart from access to the construction site over the diversion channel, must be considered as a no-go area;
- Silt fencing must be installed along the length of the outside of the buffer (i.e. 15 m away from the edge of the channel);
- Ensure that vegetation clearing is conducted in parallel with the construction progress to minimise erosion and runoff;
- Revegetate exposed areas once construction has been completed'
- Ensure that stormwater and runoff generated by hardened surfaces is discharged into retention areas (i.e. swales or retention ponds), to avoid concentrated runoff and associated erosion;
- Stockpiling must take place outside of the designated buffer. All stockpiles must be protected from erosion, surrounded by bunds and stored on flat areas where run-off will be minimised.
- The 15 m buffer must be demarcated, and, apart from access to the construction site over the diversion channel, must be considered as a no-go area;
- Restrict vehicle access to single points that are clearly demarcated;
- Working areas must be clearly demarcated and no vehicle access or disturbance must take place outside of demarcated areas;
- Excavators and all other machinery and vehicles must be checked for oil and fuel leaks daily. No machinery or vehicles with leaks are permitted to work in any natural or artificial watercourse;
- No fuel storage, refuelling, vehicle maintenance or vehicle depots to be allowed within the buffer of the watercourse;
- Refuelling and fuel storage areas, and areas used for the servicing or parking of vehicles and machinery, must be located on impervious bases and should have bunds around them (sized to contain 110 % of the tank capacity) to contain any possible spills;
- Contractors used for the project should have spill kits available to ensure that any fuel or oil spills are clean-up and discarded correctly;
- Adequate sanitary facilities and ablutions on the servitude must be provided for all personnel throughout the project area. Use of these facilities must be enforced (these facilities must be kept clean so that they are a desired alternative to the surrounding vegetation) and must be routinely serviced; and
- No dumping of construction material on-site may take place.
- Implementation of additional SuDS measures is required to attenuate stormwater onsite and reduce stormwater impacts to an appropriate level. It is recommended that the stormwater management plan for the development should align with the municipal urban stormwater impacts policy which requires 24 hour extended detention of the 1-year return interval, 24-hour storm event. In addition to rainwater harvesting (which will be implemented as part of the stormwater management plan) the following must, inter alia, be considered:
- Swales and detention ponds can be incorporated into the open space network to attenuate stormwater runoff, encourage infiltration and reduce the speed, energy and volumes at which stormwater is discharged from the site;
- Use of permeable paving to encourage infiltration into the soil;
- Use of retention ponds and artificial wetlands to capture stormwater runoff and prevent its discharge from the site; and
- Discharge headwalls at the ends of stormwater pipes must be equipped with stilling basins and erosion protection to decrease storm water velocities, spread the flows and prevent erosion at the outlets.

- Terrestrial Biodiversity Specialist:
  - Where possible, retain the strip of vegetation/regrowth along the south-eastern boundary of the site. Fence off the construction area where it borders on the latter. The vegetation outside the construction area must not be disturbed in any way.
  - To mitigate the impact of vegetation clearing/disturbance outside the development footprint, topsoil and seedbearing plant material from the disturbed area(s) must be protected and replaced after disturbance as part of the rehabilitation process. As a duty of care measure, consideration should also be given to S&R of suitable species (e.g. bulbs & succulents). Bulbs should be removed along with some soil, placed in gel, bagged and then taken to a nursery for temporary storage or transplanted directly in the receiving area. S&R should be done at an appropriate time of the year, preferably when the soil is wet during the raining season. Please note that a CapeNature permit is needed for the relocation of indigenous plant species.
  - Allow at least 24 months for the monitoring of rehabilitation success and alien infestation post construction. Keep the rehabilitation area(s) clear of invasive aliens.
  - Monitor the development area and all areas disturbed during construction for rehabilitation success and alien infestation. Where needed, rehabilitate/revegetate disturbed surfaces expediently. Erosion prevention

measures may be needed on steeper slopes, such as silt fences, logs or netting, to slow down runoff and potential erosion. Mulching and seeding with indigenous thicket/renosterveld seed may also be needed.
    - As a long-term maintenance requirement, continue with alien clearing on and around the development footprint, focussing on invasive species such as rooikrans, spear thistle, thorn apple, lantana and eastern prickly-pear. These species are category 1b invaders that require compulsory control as part of an invasive species control programme. Please note that it is a legal requirement for landowners to clear alien vegetation on their land.
- **Animal Species Specialist:**
    - No specific mitigation measures proposed.
- **Agricultural Impact Assessment:**
    - No specific mitigation measures proposed.
- **Heritage Impact Assessment:**
    - In the unlikely that human remains are uncovered during construction activities; these must be immediately reported to the archaeologist (J Kaplan 082 321 0172) who will inform Heritage Western Cape. Burials must not be disturbed or removed until inspected by a professional archaeologist.
    - No archaeological mitigation is required prior to construction excavations commencing.
    - No archaeological monitoring is required during the Construction Phase.
- **Palaeontology Assessment:**
    - Since there is a small chance that fossils may occur below the soil cover in the conglomerate and sands of the Enon Formation (Uitenhage Group) the Fossil Chance Find Protocol should be added to the EMPr. If fossils are found by the environmental officer, or other responsible person once excavations have commenced, then they should be rescued and a palaeontologist called to assess and collect a representative sample. The impact on the palaeontological heritage would be low, as far as the palaeontology is concerned, so the project should be authorised.
- **Traffic Assessment (as part of design phase):**
    - Public transport: Off-street public transport stops (bus stops) to be provided for both directions at both accesses onto the MR344. It is also proposed that minibus-taxi turn-around facilities be provided at both access gates.
    - Emergency vehicle facilities: The necessary attention shall be provided to the design of emergency vehicle access, parking and other facilities at the medical development.
    - Non-motorised transport: Sufficient pedestrian walkways shall be provided on the SDP of the development, also linking to the public transport facilities on the MR344
    - Parking: Sufficient parking, in line with all guidelines, shall be provided on the SDP of the development. Parking shall be provided for disabled persons at all public and/or commercial facilities
    - School drop-off zones: Detailed attention shall be provided on the SDP to the peak hour drop-off circulation surrounding the school. The school shall be situated independently from other facilities in order for peak hour traffic to be handled as efficiently as possible. This is in order to attain the highest possible level of service in the surrounds of the school from a traffic engineering perspective. Drop off parking shall be specially esigned to function as efficiently as possible in line with best practice guidelines and shall be designed by a competent traffic and transportation engineer.
    - Refuse removal: Refuse removal shall be performed by the Mossel Bay Municipality in accordance with a signed services agreement. Access for municipal refuse removal vehicles shall be properly designed into the SDP to the satisfaction and approval of the municipality
    - Contractor's Access: Contractor's access shall be separate from the main access facilities
    - Cost apportionment for intersection upgrades: The Hartenbos-North Traffic Modelling Report (SMEC, 2024) was commissioned by the Mossel Bay Municipality to a.o. develop a cost apportionment model for the various intersection upgrades required in the Hartenbos-North study area. This Traffic Modelling Report was approved by council in May 2024. As such, the cost apportionment model and the role-out of the 30-year master-plan contained therein shall be implemented.
- **Visual Assessment**
    - Minimise land disturbance: Limit the construction footprint to the minimum required for the hospital and educational facilities, including laydown areas and access routes.
    - Progressive rehabilitation: Re-contour and stabilise disturbed areas as soon as practicable and implement progressive landscaping/planting.
    - Retain and protect existing vegetation: Maintain and supplement existing vegetation buffers where practicable.
    - Temporary screening: Use site hoarding/shade-cloth or temporary screens along sensitive boundaries where required.
    - Site housekeeping: Keep the site tidy to reduce perceived visual clutter.
    - Limit night-time construction activities: Where night works are unavoidable, use low-glare, down-directed lighting.
    - Construction layout planning: Locate temporary site offices, storage areas and laydown zones away from sensitive boundaries where practicable.

- Maintain orderly stockpiles: Keep stockpiles low and compact and avoid placing them on visually prominent edges.
- Boundary treatment: Install and maintain appropriate construction hoarding/screens on sensitive edges and at access points.
- Manage construction plant: Where practicable, limit the duration of crane use and avoid leaving large plant stationed on prominent edges.
- Construction traffic management: Control delivery times, routes and on-site circulation to reduce congestion and visual clutter at entrances.
- Complaints management: Implement a communication channel for neighbouring receptors and respond to visual-related complaints timeously.
- Dust suppression: Implement active dust control on exposed surfaces, haul routes and stockpiles.
- Surface stabilisation: Stabilise or cover stockpiles and disturbed areas; re-vegetate or gravel exposed areas where practicable.
- Vehicle controls: Enforce speed limits on site and along unpaved access routes to reduce dust generation.
- Housekeeping: Regularly sweep/clean access points and maintain a neat site appearance.
- Monitoring: Monitor dust conditions during dry/windy periods and escalate suppression measures when required.
- Landscape Integration: Use materials, textures, and colours that reflect the local architectural styles to harmonise with the surrounding environment and maintain a sense of place.
- Height and massing control: Keep building heights to the minimum required and step down heights towards sensitive edges.
- Landscape framework: Implement a landscape plan that includes indigenous planting, tree avenues, berms and boundary buffers to soften built form and screen parking, where practicable.
- Ongoing maintenance: Maintain landscaping and built elements to prevent visual degradation over time.
- Layout optimisation: Position the tallest/most visually prominent elements centrally on the site and avoid placing large building masses on visually sensitive edges, where feasible.
- Vegetative Buffers: Plant indigenous vegetation along site boundaries to reduce direct visibility of infrastructure and enhance visual screening. adjacent properties and roads.
- Parking screening: Break up large parking areas with planting islands and perimeter tree screening.
- Signage control: Limit the number, size, and brightness of signs; avoid large digital or high-contrast signage visible from the N2, where practicable.
- Glare reduction: Avoid highly reflective glazing/finishes; use matte finishes and design glazing orientation to minimise glare to receptors, where feasible.
- Lighting design: Use full cut-off, down-directed luminaires and appropriate shielding to prevent upward light spill.
- Limit pole heights and brightness: Keep lighting structures as low as practicable and design lighting levels to the minimum required for safety and security.
- Control operating hours: Use timers, dimmers and motion sensors; apply curfews for sports facility lighting where applicable.
- Helipad lighting management: Ensure helipad lighting is activated only during operations/testing and is compliant with aviation safety requirements while minimising spill.
- Avoid façade up-lighting: Do not use architectural up-lighting or unnecessary floodlighting.
- Night-time audit and maintenance: Undertake periodic lighting audits at night and adjust luminaires/shields if light spill or complaints are recorded.

- **Noise Assessment**
- Construction:
  - All construction activities are to be limited between 07:00 to 18:00 on weekdays, 08:00 to 15:00 on Saturdays and no construction activities on Sundays and public holidays;
  - The developer/contractor must compile and implement a detailed noise management plan to mitigate construction noise emissions and the associated noise impacts at the sensitive receptors due to the scale of the development project;
  - All vehicles and mobile machinery must be fitted with white noise ("ssh-ssh") type combination broad band smart self-adjusting reverse beeper alarms versus traditional "beep-beep" type reverse alarms to minimize mobile vehicle noise onsite;
  - All vehicles and equipment are to be kept in good repair to reduce construction and operational noise levels;
  - All construction vehicles must achieve a sound power level of 105 dB(A) or less within a 10m radius of the vehicle;
  - All vehicles/machinery must be subject to an annual noise survey to determine the sound power levels.
  - Appropriate noise-suppression must be implemented on those found to be exceeding the 105dB(A) within a 10m radius of the noise source;
  - Ensuring all construction equipment and vehicles onsite is noise-suppressed (or attenuated);
  - A materials handling drop height policy should be implemented and maintained onsite. All equipment operators should be trained in the policy such that drop height reduction is implemented to reduce noise generation onsite;

- Equipment found to have defects that lead to elevated noise emissions are not be returned to operations until repaired;
- Ensure all plant and equipment is maintained regularly and in accordance with manufacturer requirements;
- All equipment is to be well maintained and fitted with appropriate noise abatement measures;
- The onsite speed limit of 30km to reduce the level of noise from construction traffic is to be rigorously maintained and enforced;
- Vehicles should not be allowed to idle for more than 5-minutes when not in use;
- All vehicles are to fitted with original equipment manufacturer (OEM) specification silencers/exhaust systems;
- Machines in intermittent use should be shut down in the intervening periods between work or throttled down to a minimum;
- No blasting is permitted onsite during (all project phases) as blasting noise and blasting safety exclusion zones have not been assesses;
- A noise complaints register must be maintained at the main access gate;
- Any noise complaints should be directed to site management. Complaints and any actions arising from a complaint must be recorded in a complaint's register to be maintained by site management. An investigation should be undertaken to determine the specific activities and/or equipment / machinery which is generating the nuisance noise resulting in the noise complaints;
- Monitoring:
  - Quarterly perimeter noise monitoring and assessment as per GN320, SANS 10328 and SANS 10103 must be implemented through the construction phases at the Hartland boundary and at a suitable selection of the nearby sensitive receptors as identified in this report (i.e. the baseline monitoring points);
  - The above monitoring requirements are to be stipulated in sites noise management plan which is the report to the project Environmental Management Plan (EMP).

- Operational phase:
  - The Hartland development managing company must develop a set of rules which incorporate noise emission mitigation measure to which all facilities, facility operators, tenants and property users must abide by;
  - The onsite speed limit of 40km to reduce the level of noise from traffic is to be rigorously maintained and enforced;
  - All vehicles and equipment are to be kept in good repair to reduce operational noise levels;
  - Vehicles should not be allowed to idle for more than 5-minutes when not in use;
  - All vehicles are to fitted with original equipment manufacturer (OEM) specification silencers/exhaust systems;
  - Machines in intermittent use should be shut down in the intervening periods between work or throttled down to a minimum;
  - All maintenance activities are to be limited between 07:00 to 18:00 on weekdays, 08:00 to 15:00 on Saturdays and no maintenance activities on Sundays and public holidays;
  - The following noise mitigation measures can be implemented on all sports venue PA address systems to mitigate PA system noise (www.Shure.com, 31 March 2026):
    - Mitigate PA system noise by ensuring proper grounding, using balanced cables (XLR/TRS), and optimizing gain structure to keep the noise floor low;
    - Use shielded, balanced high-quality XLR cables or TRS cables instead of unbalanced TS cables to reduce interference;
    - Use a ground loop isolators to break electrical hum;
    - Dedicated circuits: Plug all audio gear into the same power source or a power conditioner to avoid ground loops;
    - Eliminate feedback by keeping the microphones behind the main PA speakers by at least 1-2m from speakers;
    - Use cardioid or supercardioid microphone, pointing the "dead zone" (back) toward speakers;
    - Use a graphic or parametric equalizer to cut problematic screeching frequencies (e.g. 2kHz–8kHz);
    - Use DI boxes or ground loop isolators to stop buzz;
    - Lower the microphone volume in monitors or use in-ear monitoring systems;
    - Set the mixer gain high and the power amp/powered speaker volume lower, rather than boosting low-level inputs;
    - Apply a noise gate to quiet channels, such as microphones, during silences;
    - Use vibration isolation/damping techniques on speakers to stop floor transmission and or transmission to mounting structures;
    - Use ferrite chokes on cables to stop RFI (Radio Frequency Interference);
    - Turn off or mute microphones not currently in us; and
    - Speakers can be orientated to face away from sensitive receptors (where possible).
  - The following noise mitigation measures can be implemented to reduce helicopter noise:
    - Heartland should adopt the South Africa aviation noise standards and aim at noise reduction around the helipad and use a 65dB(A) threshold for noise management (where possible);
    - All aircraft must hold a noise certificate of compliance with Part 36 regulations and SA-CATS 36 and all pilots are expected to use noise abatement procedures during all aspects of the flights; and

- Pilots to utilize steeper ascent/descent angles, optimized speed, and strategic routing to avoid noise sensitive areas, such as residential zones. Key techniques include using constant acceleration on approach to reduce Blade-Vortex Interaction (BVI) noise (i.e. the classic "thumping" sound) and prioritizing altitude to minimize sound propagation to the ground and avoid turns near sensitive receptors as noise levels during turning are higher than for similar straight line flight conditions.

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.

No specialist recommendations have been excluded from implementation.

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

Operational Phase:

- **Traffic:**
  - During the construction phase of the proposed development, it is anticipated that there will be increased traffic flows leading along the R102 from and to the development site.
  - Further impacts on the traffic management regime will be seen during the formalisation of the access ways into the proposed development site. This impact will be of temporary nature during the construction phase of the proposed development.
  - As workers will be required to make use of their own means of transport, during the construction phase of the proposed development, there will probably be an increase in the amount of public transport providers making use of the road network. As it relates to the proposed works this will be limited to regular peak traffic times (ie. Before and after work hours as construction works typically occur between 07:00 and 17:00).

Operational phase

- **Traffic:**
  - During the operational phase of the proposed development, it is anticipated that there will be increased traffic into the proposed development site. It is anticipated that there will be increased traffic volumes in the evening hours (as the stop is utilised as a rest and refuelling stop) (therefore, a majority of the traffic amounting as a result of the proposed works will be seen between 17:00 and 07:00). This does not mean that there will be no increase in traffic during the normal working hours, however, this is expected to be lower.
- **Dust**
  - Due to the movement of vehicles across the site at all hours of the day, dust managers will be of concern to the surrounding property managers. This has however been mitigated by means of the implemented dust control measures (by means of compaction and stabilisation of the surface). Furthermore, it is proposed that dust monitoring in line with the relevant regulations be done for a period of 12 months in order to determine the effectiveness of the dust control measures proposed for the site.

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.

As far as reasonably possible, the operational phase of the proposed development will see the implementation of a number of interventions aimed toward the eleviating of the climate change impact of the proposed development.

This will predominantly be seen in the smart infrastructure interventions proposed for the proposed development. Where feasibly possible, the developer will be encouraged to make use of solar geysers and other electricity saving interventions for the purpose of the operational phase of the proposed development. The use of diesel generators will be discouraged during the operational phase.

Additionally, the Developer will be encouraged to have rainwater harvesting measures available on site in order to reduce the amount of municipal water used on site. Climate change causes an increased effect of extreme weather patterns (whether it be drought or rainfall). The Western Cape is a drought prone province, therefore leading to increased risk of fire. During the construction and operational phases of the proposed development, there must be adequate fire prevention and combating measures installed throughout the site. Where possible, dry-firefighting measures must be used to combat flames. Flooding in is also of great concern. Therefore, proper stormwater management measures must be implemented during both the construction (where required) and operational phases of the proposed development.

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

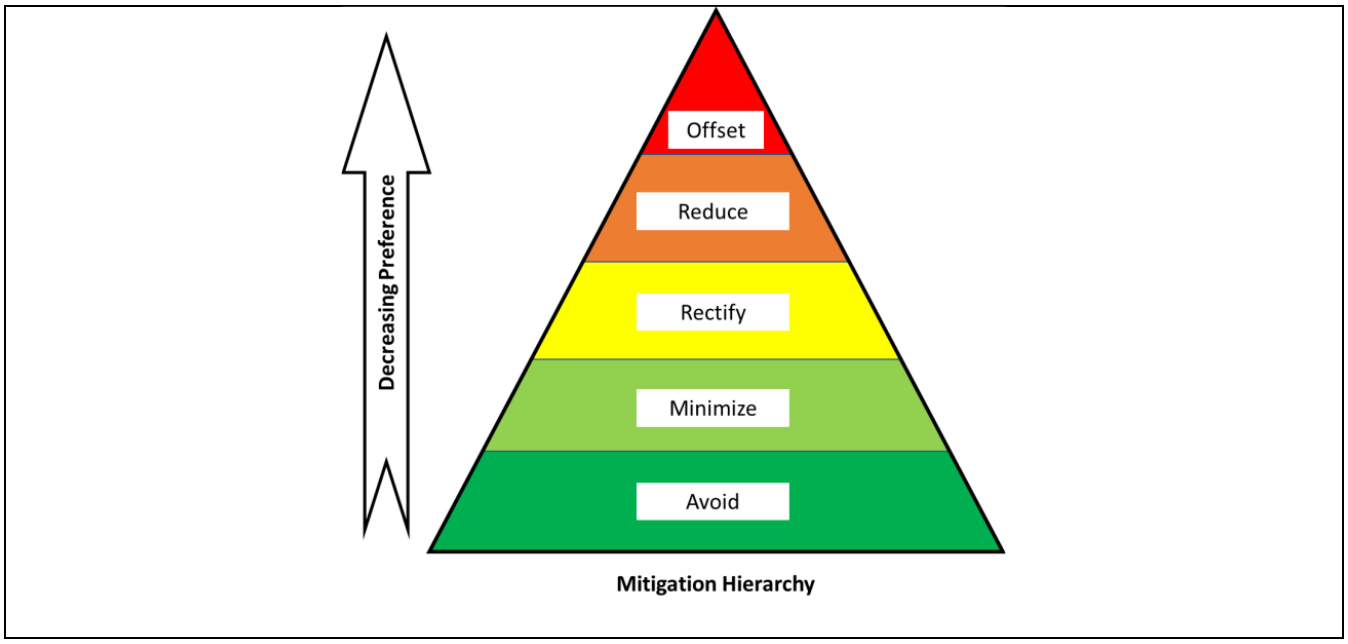
No conflicting findings have been described by the various specialists.

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.

All impacts and recommendation of the various specialist studies have been integrated into the impact tables as described in Section I of this report, and the attached EMPr. These measures propose to guide the management of the various phases of the project.

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

For the purpose of the proposed project, the mitigation hierarchy was considered while determining the best practicable Environmental option for the construction and operational phases of the project. Activities related to the proposed Development have been considered. Where possible activities have been avoided. Therefore all activities included in The proposal of this development are essential for the successful implementation and operation of this development. All impacts that could not be avoided, have been investigated to establish mitigation measures to minimize and rectify, Where possible or radically reduce the predicted impacts. As all the proposed impacts can be sufficiently reduced in Significance, and no residual negative biodiversity impacts will remain, no biodiversity offset was considered for this Development.



Mitigation Hierarchy

SECTION J: GENERAL

1. Environmental Impact Statement

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

Based on the conclusions of the various specialist assessments, the impacts recorded by the various specialists were recorded as follow:

- Terrestrial Biodiversity Specialist: The impact on the terrestrial biodiversity and plant species of conservation concern was considered low.
- Aquatic Biodiversity Specialist: With mitigation, the impact on the aquatic biodiversity dynamics of the proposed development site was considered Negligible.
- Heritage and Palaeontology Specialists: Limit features of concern were recorded, and the overall impact of the proposed development on the significance of the site would be considered low.
- Animal Species Impact Assessment: No species of conservation concern were recorded within the proposed development footprint.
- From a social economic perspective the Mossel Bay Local Municipality jurisdiction area would be benefitted

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)

A map has been included 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.

Below is a table of the potential impacts and their significance rating identified:

Impact	Nature	Significance Without Mitigation	Significance with mitigation
Pre-construction / Planning Phase			
Compliance with Legislative Requirements	Negative	Low	Negligible
Site establishment and pre-construction activities	Negative	Medium-High	Low
Aquatic Biodiversity: Impact of diversion of watercourse on instream habitat and aquatic biota	Negative	Negligible	Negligible
Aquatic Biodiversity: Impact of diversion channel on erosion and sedimentation	Negative	Low	Negligible
Construction Phase			
Aquatic Resources: Clearing of vegetation causing erosion and sedimentation of aquatic habitat	Negative	Low	Negligible
Aquatic Resources: Pollution of diversion channel caused by construction activities.	Negative	Low	Negligible
Agricultural Resources: Impact on Agricultural Resources	Negative	Medium	Medium
Botanical Resources: Habitat loss and degradation	Negative	Low	Low
Botanical Resources: Impact of construction on SCC	Negative	Low	Low
Animal Species theme: Impact on faunal SCCs	Negative	Low	Low
Heritage and Palaeontological Resources: Potential impact	Negative	Low	Low
Pollution management: Pollution of hydrocarbons due to spills and leaks	Negative	Low	Low
Visual: Noise, dust, light and general housekeeping	Negative	Medium	Low
Road safety: Road traffic impacts as a result of the construction works	Negative	Medium-High	No significance
Socio-economic impact: Employment opportunities created	Positive	High	High
Post-Construction / Operational Phase			
Nuisance and pollution management: Dust, noise and visual impacts	Negative	Medium	Low
Health and Safety: Increased vulnerability of the area to fire	Negative	Medium	Low
Traffic Impact: Increased traffic leading into the Northern reaches of Hartenbos	Negative	Medium	No significance
Socio-economic impact: Impact on the surrounding properties	Negative	Medium-High	Low
Socio-economic impact: Provision of additional schooling and medical aid facilities	Positive	Very High	Very High
Socio-economic impact: Employment opportunities created	Positive	Medium-High	Medium-High

Aquatic impact: Impact of stormwater runoff on the erosion and sedimentation of the diversion channel	Negative	High	Negligible	

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

Construction phase:

- Limited impacts on the receiving environment as a result of construction activities (vegetation, SCCs, water resources).
- Creation of employment opportunities to the local community.
- Reduction of the visual impacts of the proposed construction works on the neighbouring properties/land uses.
- Minimal traffic related inconveniences.

Operational phase:

- No impact on air quality.
- Prevention of contamination of the bio-physical resources in on site and within proximity to the proposed development site.
- The creation of employment opportunities to the local community.
- Promotion of employment opportunities within the logistics industry.
- Minimal traffic related inconveniences.

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.

Based on the findings of the specialists, the following conditions (as extrapolated from) by the specialists warrants inclusion into the Environmental Authorisation of the project (if granted):

- **Aquatic Biodiversity Assessment:**
  Creation of a diversion channel/swale must be prioritised during the early phase of the project so that intermittent flows do not flow through an active construction site.
- **Heritage Impact Assessment:**
  - In the unlikely that human remains are uncovered during construction activities; these must be immediately reported to the archaeologist (J Kaplan 082 321 0172) who will inform Heritage Western Cape. Burials must not be disturbed or removed until inspected by a professional archaeologist.
  - Since there is a small chance that fossils may occur below the soil cover in the conglomerate and sands of the Enon Formation (Uitenhage Group) the Fossil Chance Find Protocol should be added to the EMPr. If fossils are found by the environmental officer, or other responsible person once excavations have commenced, then they should be rescued and a palaeontologist called to assess and collect a representative sample. The impact on the palaeontological heritage would be low, as far as the palaeontology is concerned, so the project should be authorised

No further mitigations have been recommended for inclusion into the Environmental Authorisation (if granted).

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.

It is the opinion of the EAP that, based on the outcomes of the specialist studies conducted and further potential impacts as identified in this report, the proposed development of the school and hospital facilities on the Remainder of the Farm Vaalevalley 219, Hartenbos, should be approved, with the condition that all mitigation measures presented in this report, the mitigation measures presented by the independent specialists the conditions of the EMPr must be implemented on site.

From an environmental standpoint (biophysical and socio-economic), based on the findings of the specialists, the proposed development will not have a condemning impact on the receiving environment.

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

General assumptions:

- It is assumed that all the information provided in this report and on which the report is based is correct and valid at the time receipt thereof.
- It is assumed that the proposed mitigation measures, as listed in this report and the EMPr (Appendix H), will be implemented and adhered to by all the relevant stakeholders involved.
- The study will include every effort to enable public consultation but is limited to the public input which was forthcoming.
- The actual emissions resulting from the proposed development is unknown as this is a pilot plant and thus a gap in knowledge.

Aquatic Biodiversity Specialist:

- The site visit represents a brief temporal snapshot of conditions on the site. Changes in season or short-term changes in climatic conditions may possibly result in the formation of aquatic habitats (e.g. temporary or seasonal wetlands) under

significantly wetter conditions. Despite this limitation the sensitivity of aquatic biodiversity on the site was determined with a very high level of confidence.

Animal Species Assessment:
Weather conditions during the surveying periods combined with a completely open and transformed (farmland) habitat structure were optimal for establishing a representative indication of faunal diversity on the site. Even so, it is possible that the species list for the site may not be complete given that the surveying period did not correspond to the activity period of some species. Taken together therefore, the current rendering of the faunal composition within the study area only partly reflects the true faunal species richness of, and faunal abundances on the site. Even so, the inclusion and consideration of SCC was further based on a thorough desktop assessment for the included faunal groups (mammals, avifauna and butterflies; and further takes account the habitat composition of the site meaning that the majority of possibly occurring SCC within the considered faunal groups were included in the current assessment

Heritage Impact Assessment:
There were no constraints or limitations associated with the study. Access to the study areas was unrestricted and surface visibility was good.

Palaeontology Assessment:
Based on the geology of the area and the palaeontological record as we know it, it can be assumed that the formation and layout of the sandstones, shales and sands are typical for the country and only some might contain fossil plant, insect, invertebrate and vertebrate material. The sands of the Quaternary period would not preserve significant fossils.

Agricultural Assessment
There are no specific assumptions, uncertainties or gaps in knowledge or data that affect the findings of this study.

Visual Assessment
Assumptions:

- The assessment has been based on the requirements of the Western Cape Department of Environmental Affairs & Development Planning Guidelines (WC DEDP)1
- The assessment assumes that all necessary consultations with stakeholders, including local communities, authorities, and other interested parties, have been/will be conducted in accordance with legal requirements, and that their views and concerns have been duly considered.
- Whilst most homesteads and housing areas were visited during the site visit in order to confirm their nature and likely visibility of the development, it was not possible to visit all homesteads and housing areas.
- The information and analysis provided in this report is based on the details available during the undertaking of the VIA. As the VIA specialists, we have, to the best of our ability, analysed and interpreted the data provided.
- We operate under the assumption that all information supplied by the Applicant is accurate, current, and reflective of the agreements made with relevant landowners. Our assessments and recommendations are based on the information provided to us, and we rely on the client to ensure that this information is complete and up to date.
- The Project report uses the concept of 'worst case scenario' to identify issues and rate visual impacts. This scenario assumes that all facilities would be constructed at the same time.

Limitations:

- It was not possible to visit all homesteads and housing areas.
- The information and analysis are based on the details available during the undertaking of the VIA, and there is an inherent limitation in the data available at any given time.
- There is a reliance on the accuracy, currency, and completeness of the information supplied by the client. Any decisions regarding development on specific portions of land, including agreements on relocations, demolitions, or other alterations, should be confirmed and discussed directly with the relevant landowners.
- Regulation 11(3) of the EIA Regulations, which suggests that if more than one activity is part of the same development, a single application may be required, discourages the practice of splitting components or assessing them in isolation, thereby promoting a unified and integrated approach to cumulative impact assessment.
- The findings, assessments, and recommendations represent the professional judgment of the VIA practitioners at the time of the assessment. While every effort has been made to ensure accuracy and completeness, this report does not constitute legal, financial, or other specialised advice.
- The responsibility for implementing the recommendations, mitigation measures, and any other actions outlined in this report lies solely with the client or project proponent. The VIA practitioners are not responsible for monitoring, enforcing, or ensuring compliance with these measures.

Noise Specialist

- The following assumptions are applicable:
    - The proposed project infrastructure were extracted from information provided to ATB by the Applicant.
    - The NIA has been undertaken against this provided project description. Changes in this description after
    - assessment may influence the outcomes of the noise impacts.
    - Hospital helipad aviation aspects:
        - Helipad site location: S34.098012° E22.116444°;

- Helicopter type: Bell222 and/or Bell 430 helicopter types based on companies currently operating in the Western Cape Garden Route district;
- Flight routes:
  - Routes are informed by prevailing seasonal wind patterns: easterly to south-easterly winds in summer and westerly to south-westerly winds in winter. During take-off and landing, helicopters are typically operated into the wind;
  - Where possible, flight paths should avoid overflying the planned neighbouring school and hostel;
  - Where possible, flight paths should avoid overflying nearby Hartland residential developments; and
  - Preferred routing should follow the N2 highway corridor.
- Flight numbers: 2 flights landing and 2 flights departing per day (i.e. 4 flights per day in total); and
- Operational 24-hours per day, seven (7) days a week.

o Stadia lights will not exceed ten (10) metres in height and will meet aviation specifications such that they don't interfere with aviation flight paths;
o The proposed project does not trigger any listed activities under the Mineral and Petroleum Resources Development Act (Act no. 28 of 2002) (MPRDA) which governs the acquisition, use and disposal of mineral rights in South Africa; and
o No blasting is required during the construction phase and thus the Mine Health and Safety Act (Act No. 29 of 1996) regarding the management and control of blasting, vibration and shock is not applicable.

- The following limitations are applicable:
  o The specialist assessment excludes quantitative modelling of the noise impacts for the following scenarios but includes the calculation of anticipated noise levels at various distances from the proposed infrastructure, aligned with the SANS methods 10328 (2008) and 10103 (2008):
    - Scenario 1: Typical operational noise emitted from the Hartland development (Excludes scenario 2 & 3 emissions contributions);
    - Scenario 2: Noise levels emitted from the Hartland development during sporting events including public address systems; and
    - Scenario 4: Cumulative Scenarios 1, 2 and 3
  o Scenario 3: Medical aviation flights includes formal noise modelling for the operational phase with the AEDT 3g tool;
  o The Applicant was not positioned to provide much information on the hospital helipad aviation aspects. Reliance was thus placed on a series of assumptions regarding hospital emergency helipad operations. These assumptions were derived from the aviation noise modellers experience on similar projects within South Africa. Changes in these assumed aviation aspects after assessment may influence the outcomes of the noise impacts; and
  o No blasting is required during the construction phase and thus the assessment thereof are excluded.

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.

As no activities (in terms of the listed activities triggered by the proposed development) will include activities which are operational in nature, the following validity period of the EA is requested:

- Processing requirements (including town-planning processing and other permitting requirements): 2 years
- Construction (of the facilities and the pre-implementation requirements as raised by the specialists): 6 years
- Post-construction activities: 2 years

Therefore, a total of 10 years is requested for the validity period of the EA for the proposed development.

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 phase

During the construction phase of the proposed project, no potable water will be used for the purpose of construction activities, such as cement mixing, layer compaction where necessary, and where required to fulfil the mitigation measures (dust suppression methods).

Potable water within the construction site will only be used for drinking water.

Operational phase

During the operational phase of the proposed development, water will be used for the following purposes:

- Sanitation purposes (shower, lavatory, kitchen/canteen facilities).
- At the wash bay for the purpose of operating the wash bay.

- Potable water for drinking purposes.

Where possible water saving interventions will be implemented during the construction and operational activities. Rainwater harvesting (in terms of Schedule 1 activities of the National Water Act (Act No. 36 of 1998)) will also be a preferred measure of obtaining water specifically for the purpose of sanitary (lavatory) provisions.

4. Waste

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

Construction phase

During construction, the only waste that is expected to be generated will be general construction rubble. For the purpose of containing general waste, bins will be placed in strategic locations on site and waste will be collected and stored within the site camp. An SMME specialising in recycling activities will be approached to remove and sort the waste.

If possible, recycling bins (specifying the type of waste to be stored) will be placed within the site camp, to further the efforts of the waste management team. Where waste skips (or similar waste containing features) are used for the storage of general construction rubble, management of these skips are required. All waste gathered in the waste skips must be discarded at a registered landfill site.

Operational phase

A waste management plan has been compiled and has been attached as part of this BAR. Strict adherence to this management plan is required for all waste types (general and hazardous waste).

The stormwater infrastructure of the site will be managed in a meticulous way so as to prevent any raw stormwater runoff from the wash bay, filling area, tank farm or parking areas from entering into the municipal stormwater network. All stormwater generated on site will be treated by means of a grease trap before entering into the municipal stormwater system.

5. Energy Efficiency

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

As the country is currently in Emergency State in terms of Electricity, every developer should as much as reasonable limit the potential strain of their development on the National and Municipal Grids. The following energy efficiency measures have been proposed to the Applicant for the purpose of the operational phase of the proposed development:

- As far as reasonably possible, energy saving lights must be the preferred lighting option. Where possible low energy rechargeable lighting must be used throughout the administrative areas;
- In order to further reduce the strain on the Grid, the applicant is advised to make use of renewable energy sources (such as solar powered geyser solutions).
- Should the abovementioned not be possible, users of the facilities must be encouraged to limit the time spent utilizing the electricity straining infrastructure. This can be done through information boards placed in the common areas.
- Although the facilities will be required to be illuminated in the evening hours, the developer must strive to limit the strain of the illumination requirements during the evening hours.

PART 3 DECLARATIONS

SECTION A: DECLARATION OF THE APPLICANT

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

I, Andre le roux ID Number: 8 4 0 5 1 9 5 0 0 8 0 8 4
in my personal capacity or duly authorised thereto hereby declare/affirm that:

- the information provided or to be provided as part of this Application form, is true and correct;
- 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, as defined in Chapter 5 of NEMA (as amended) and any relevant Specific Environmental Management Acts and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware that 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 am aware of my general duty of care in terms of Section 28 of the NEMA;
- I appointed the Environmental Assessment Practitioner ("EAP") which:
  - meets the requirements of the Section 24H Registration Authority Regulations, 2016, promulgated in terms of NEMA;
  - meets all the requirements in terms of Regulation 13 of the EIA Regulations, 2014;
  - meets all the requirements other than the requirement to be independent in terms of Regulation 13 of the EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the EIA Regulations, 2014;
- I will provide the EAP and 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 EIA Regulations, 2014 and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any person contracted by the EAP;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the EIA Regulations, 2014;
  - costs in respect of specialist reviews; and
  - the provision of security to ensure compliance with applicable management and mitigation measures; and
- 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 the Applicant or EAP is responsible in terms of the EIA Regulations, 2014 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:

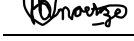
12 June 2026
Date:

Vaale Vallei eindomme (pty)ltd
Name of company (if applicable):

DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I ……Madeleine Knoetze……, EAP Registration number 2021/3230…….. 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;



12 June 2026

Signature of the EAP: Date:

Sharples Environmental Services CC

Name of company (if applicable):