



PRE-APPLICATION SCOPING REPORT

for

GWAYANG MIXED USE DEVELOPMENT

on

A Portion of Remainder Erf 464 (George)

In terms of the

National Environmental Management Act (Act No. 107 of 1998, as amended) & 2014 Environmental Impact Assessment, as amended



Prepared for Applicant:

George Municipality

Date: 12 September 2024

Author of Report: Louise-Mari van Zyl

Author Email: louise@cape-eaprac.co.za

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Case Officer: Steve Kleinhans

Cape EAPrac

Cape Environmental Assessment Practitioners

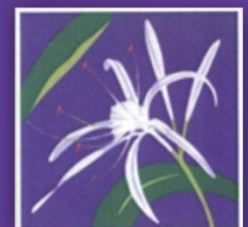
Tel: +27 44 874 0365

PO Box 2070, George 6530

Fax: +27 44 874 0432

17 Progress Street, George

www.cape-eaprac.co.za



APPOINTED ENVIRONMENTAL ASSESSMENT PRACTITIONER:

Cape EAPrac Environmental Assessment Practitioners

PO Box 2070

George

6530

Tel: 044-874 0365

Fax: 044-874 0432

Report compiled by: **Louise-Mari van Zyl** (MA Geography & Environmental Science [US]; Registered Environmental Assessment Practitioner with the Interim Certification Board for Environmental Assessment Practitioners of South Africa, EAPSA). Ms van Zyl has over nineteen years' experience as an environmental practitioner.

PURPOSE OF THIS REPORT:

Departmental Decision-Making

APPLICANT:

George Municipality

CAPE EAPRAC REFERENCE NO:

GEO837/02

DEPARTMENT REFERENCE:

16/3/3/67/1/D2/19/0169/24

SUBMISSION DATE

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Environmental Impact Assessment Regulations 2014

GWAYANG MIXED USE DEVELOPMENT

A Portion of Remainder Erf 464, George Municipal District (Western Cape)

Submitted for:
Stakeholder Review & Comment

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Report Issued by:

Cape Environmental Assessment Practitioners

Tel: 044 874 0365

Fax: 044 874 0432

Web: www.cape-eaprac.co.za

PO Box 2070
17 Progress Street
George 6530

CONTENTS OF A SCOPING REPORT

Section 2 in Appendix 2 of R982 of the 2014 EIA Regulations, details the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process. The table below lists the minimal contents of a **scoping report** in terms of these Regulations and provides a reference on where to find said information in this report.

Requirement	Details
(a) details of - <ul style="list-style-type: none"> (i) The EAP who prepared the report; and (ii) The expertise of the EAP, including a curriculum vitae. 	<p>The pre-application, scoping report was compiled by Louise-Mari van Zyl from Cape EAPrac.</p> <p>Louise-Mari van Zyl is a registered EAP (Reg No 2019/1444) with +20 years experience in the field of environmental impact assessments. She holds a Master's Degree in Geography & Environmental Studies from Stellenbosch University.</p>
(b) the location of the activity, including – <ul style="list-style-type: none"> (i) The 21 digit Surveyor General code of each cadastral land parcel; (ii) Where available, the physical address and farm name; (iii) Where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties. 	<p>C02700020000046400000</p> <p>A Portion of Remainder Erf 464 (George West)</p> <p>33°59'43789"S 22°25'40.34"E</p>
(c) a plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is <ul style="list-style-type: none"> (i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or (ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken. 	<p>Preferred Site Development Plan attached as Appendix E.</p>
(d) a description of the scope of the proposed activity, including -	<p>Refer to main report with table on listed activities as agreed to with the Department in response to the Notification of Intent.</p>

Requirement	Details
(i) All listed and specified activities triggered; (ii) A description of the activities to be undertaken, including associated structures and infrastructure.	
(e) A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.	Main Report on legislative/policy requirements.
(f) A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location	Main Report on need & desirability.
(h) A full description of the process followed to reach the proposed preferred activity, site and location within the site, including - (i) Details of all the alternatives considered; (ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs; (iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them; (iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social,	Refer to Main Report. (i) Refer to Alternatives section (ii) Details on public participation explained in the Main Report. (iii) Issues identified by project team listed and will be expanded with input from I&APs/Organs of State/Authorities post commenting period. (iv) Environmental attributes of the site discussed under the Specialist section of the Main Report. (v) Potential impacts identified by specialists – impact/significance/extent/consequences etc forms part of the next phase (impact assessment phase) and will be detailed in the Impact Assessment Report. (vi) Methodology for assessment detailed in the Plan of Study for Impact Assessment in the Main Report. (vii) Comparative assessment of impacts and alternatives will be detailed in the next phase of the assessment process namely the Impact Assessment Reporting.

Requirement	Details
<p>economic, heritage and cultural aspects;</p> <p>(v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts -</p> <p>(aa) can be reversed;</p> <p>(bb) may cause irreplaceable loss of resources; and</p> <p>(cc) can be avoided, managed or mitigated;</p> <p>(vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;(</p> <p>(vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;</p> <p>(viii) The possible mitigation measures that could be applied and level of residual risk;</p> <p>(ix) The outcome of the site selection matrix;</p> <p>(x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and</p> <p>(xi) A concluding statement indicating the preferred alternatives,</p>	

Requirement	Details
including preferred location of the activity;	
<p>(i) A plan of study for undertaking the environmental impact assessment process to be undertaken, including -</p> <ul style="list-style-type: none"> (i) A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity; (ii) A description of the aspects to be assessed as part of the environmental impact assessment process; (iii) Aspects to be assessed by specialists; (iv) A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists; (v) A description of the proposed method of assessing duration and significance; (vi) An indication of the stages at which the competent authority will be consulted; (vii) Particulars of the public participation process that will be conducted during the environmental impact assessment process; and (viii) A description of the tasks that will be undertaken as part of the environmental impact assessment process; (ix) Identify suitable measures to avoid, reverse, mitigate or manage 	Main Report.

Requirement	Details
<p>identified impacts and to determine the extent of the residual risks that need to be managed and monitored.</p>	
<p>(j) An undertaking under oath or affirmation by the EAP in relation to -</p> <ul style="list-style-type: none"> (i) The correctness of the information provided in the report; (ii) The inclusion of comments and inputs from stakeholders and interested and affected parties; and (iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties. 	Appendix I
<p>(k) An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment.</p>	
<p>(l) Where applicable, any specific information required by the competent authority.</p>	
<p>(m) Any other matter required in terms of section 24(4)(a) and (b) of the Act.</p>	Water Use License

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ABBREVIATIONS

AIA	Archaeological Impact Assessment
BGIS	Biodiversity Geographic Information System
BID	Background Information Document
CBD	Central Business District
ACMP	Archaeological Conservation Management Plan
CEMP	Construction Environmental Management Plan
DEFF	Department of Environmental Affairs (National)
DEA&DP	Department of Environmental Affairs and Development Planning
DEIR	Draft Environmental Impact Report
DSR	Draft Scoping Report
FEIR	Final Environmental Impact Report
EAP	Environmental Impact Practitioner
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMP	Environmental Management Programme
GA	General Authorisation
GPS	Global Positioning System
HIA	Heritage Impact Assessment
HWC	Heritage Western Cape
I&APs	Interested and Affected Parties
IDP	Integrated Development Plan
LUPA	Land Use Planning Act
NEMA	National Environmental Management Act
NEMAA	National Environmental Management Amendment Act
NEMBA	National Environmental Management: Biodiversity Act
NERSA	National Energy Regulator of South Africa
NHRA	National Heritage Resources Act
NID	Notice of Intent to Develop
NSBA	National Spatial Biodiversity Assessment
NWA	National Water Act
Pre-App	Pre-Application
SANBI	South Africa National Biodiversity Institute
SANS	South Africa National Standards
SPLUMA	Spatial Land Use Management Act
SDF	Spatial Development Framework
TIA	Traffic Impact Assessment
WULA	Water Use License

SUMMARY

1 INTRODUCTION

Cape EAPrac has been appointed by **George Municipality**, hereafter referred to as the Applicant, as the independent environmental practitioner to facilitate the **Scoping & Environmental Impact Assessment (EIA)** process required in terms of the National Environmental Management Act (NEMA, Act 107 of 1998 as amended) for the proposed **Gwayang Mixed Use Development** on a Portion of Remainder Erf 464 in the George Municipal District.

This study area is located approximately 1.3km West of the York Street/R102 Intersection in George, and roughly 4.3km East of the George Airport travelling along the R102. The site is bordered by the Municipal utility area that houses the Gwayang Municipal Waste Water Treatment Works (WWTW), Landfill and Waste Incineration facility on its western boundary, the George Experimental Farm directly to the North and the George Show Grounds/Groeneweide residential area is located along its north-eastern boundary. The existing Transnet railway line forms the southern boundary of the property, with the N2 National Road further to the South.



Figure 1: Gwayang Mixed-Use Precinct as a portion of Erf 464, George.

This site is zoned 'Undetermined' and roughly 182ha in size. The property is mostly vacant, with the following existing land uses present under lease agreements:

- Sport shooting range/club
- Radio flyer facility (micro aircraft)
- Grazing pastures

Due to the above-mentioned land uses, the majority of the site is transformed (mostly as a result of the historical agricultural activities), however several drainage lines traverse the property and there are limited remnants of indigenous vegetation found along these watercourses.

The George Municipality has identified this site for future **mixed-use commercial/industrial/residential development** taking into account known and identified site constraints. In order for the development to be feasible, several upgrades are required to the road network / bulk services that are under investigation by the George Municipality as part of the Bulk Services and Roads Master Plans.

The proposed development requires *prior* **Environmental Authorisation (EA)** in terms of the National Environmental Management Act (NEMA, as amended). A **Full Scoping & Impact Assessment process** (EIA) must be followed in terms of the Environmental Regulations (2014, as amended), with the Competent Authority being the **Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)**, George office.

An important part of any EIA process is stakeholder engagement that includes public participation and guidance from mandated Government Departments/Organs of State.

Due to the scale of this proposal, combined with the need for a Water Use License Application (WULA) that requires an integrated approach into the National Environmental Management Amendment Act (NEMLAA¹), a **Pre-Application (Pre-App) Scoping Report** is made available to potential Interested and Affected Parties (I&APs) for a **30-day review and comment** period extending from **13 September 2024 – 14 October 2024**.

Following the outcome of the pre-application scoping process, the formal **Application Form** must be submitted to the DEADP, followed by the availability of an updated **Draft Scoping Report (DSR)** with a further **30-day commenting period**. Comments received during these commenting periods will be considered and must be responded to and reflected in the **Final Scoping Report** for consideration by the Competent Authority.

The steps to be followed thereafter include:

1. In the event that the Final Scoping Report is accepted by the Department, then the Draft Environmental Impact Report (EIR), together with the WULA, will be made available for registered I&APS review and comment for a minimum 60-day comment period;
2. Consider, respond to and including all comments received during abovementioned commenting period to the Final EIR;
3. Submit the Final EIR to DEA&DP for decision-making who must then grant or refuse authorisation.

¹ NEMLAA stipulates an integrated process for parallel applications i.e. EIA / WULA. The combined 60-day commenting period for both the impact assessment and water use license application will be undertaken at the assessment phase of the EIA process to ensure that the prescribed project detail information for each of these applications can be considered simultaneously.

2 SITE DESCRIPTION & GENERAL ATTRIBUTES

The study site is the property of the George Municipality and forms part of a much larger cadastral unit (Erf 464 was the parent property that extends throughout George as original 'commonage'). The study site (a Portion of Remainder Erf 464) is set aside for the **development of a mixed-used precinct** that includes **industrial, commercial as well as residential development opportunities**.

The Municipality proposes to obtain the development rights for the mixed-use precinct, but with the intent of selling off portions of the development to future private investors/developers who will ultimately implement components of the precinct over time. Open spaces and bulk services/road infrastructure will continue to be maintained by the George Municipality.

This study site is reflected as being within the '**urban edge**' of George in terms of the Council adopted Spatial Development Framework (SDF) for George and is **earmarked for urban development**. According to the Environmental Regulations definition, the area still falls outside of the '**urban area**'.

Historical use of the site confirms a trend of disturbances, with evidence of multiple impacts ranging from excavations, development of the WWTW and landfill, widespread invasive alien vegetation, farming etc.

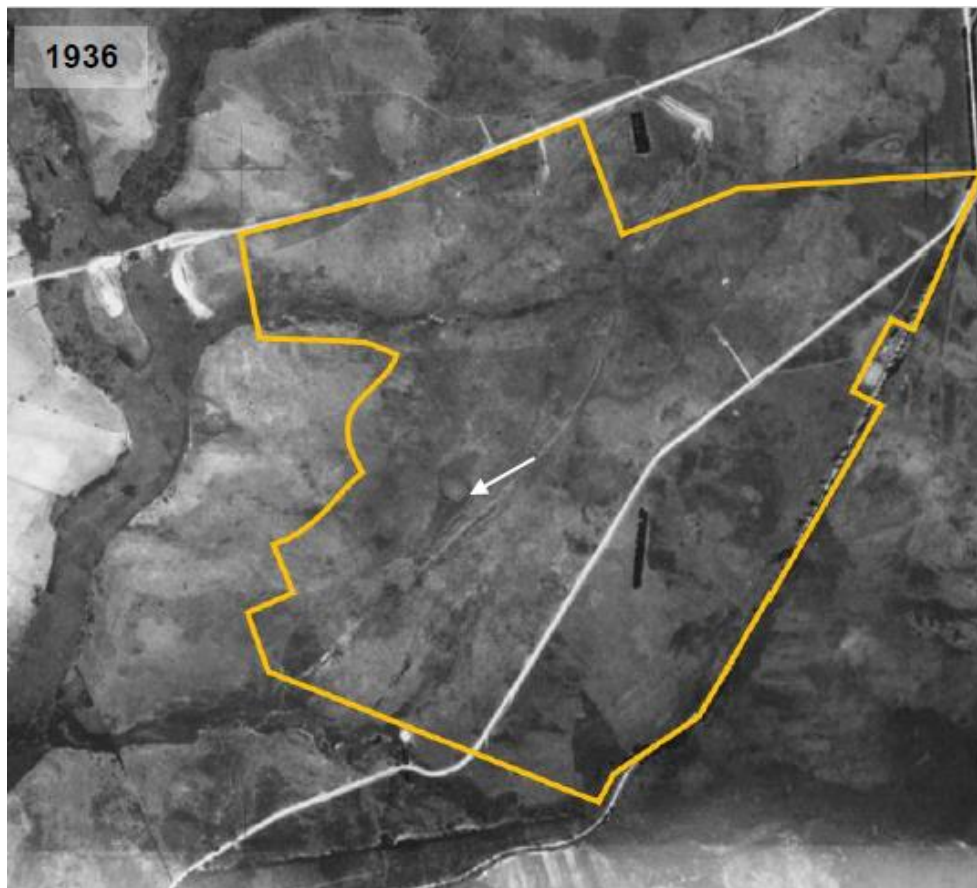


Figure 2: 1936 aerial image showing the land use as mostly grazing/pastures with small farm dams.

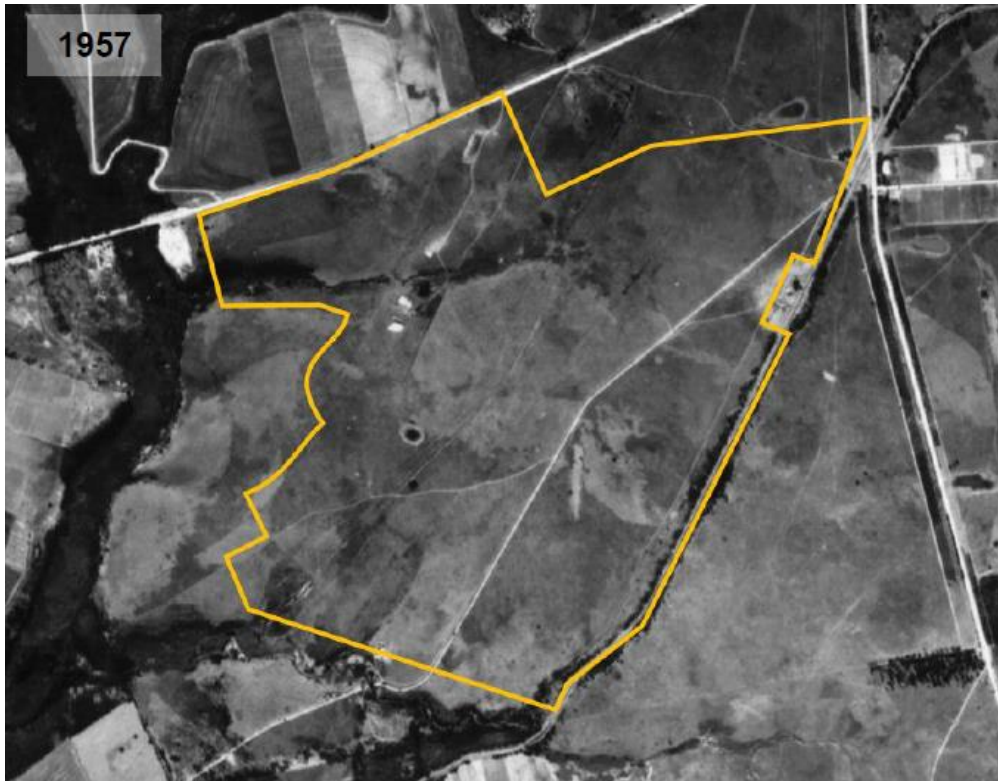


Figure 3: 1957 aerial showing mostly pastures still.

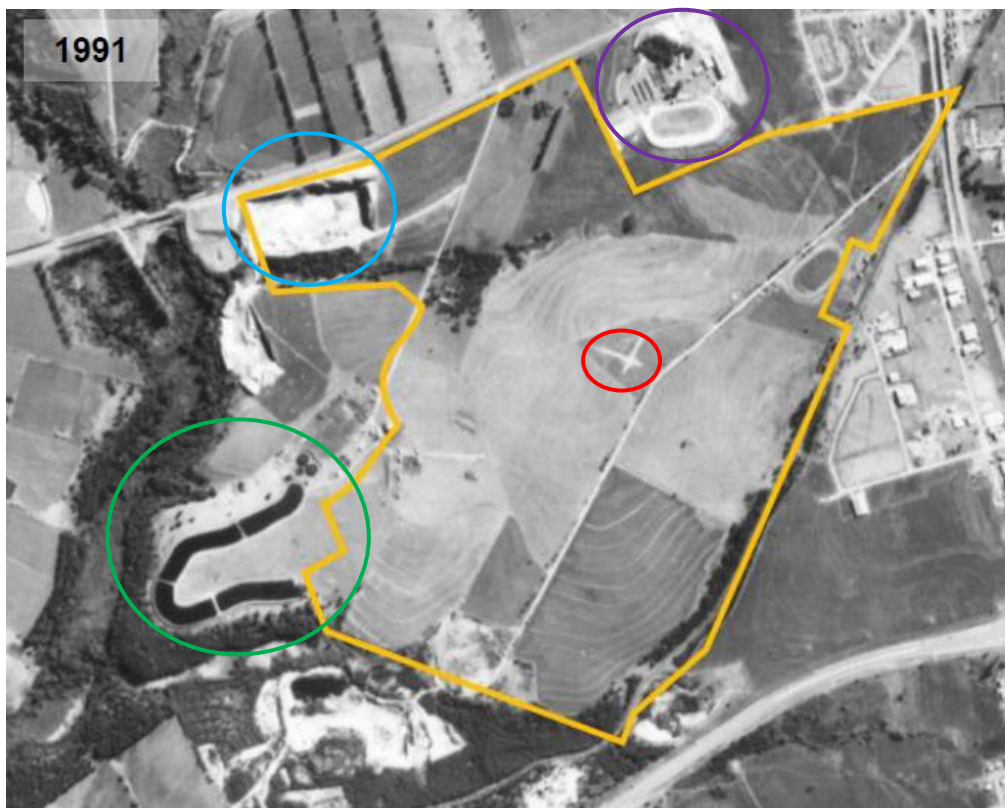


Figure 4: 1991 aerial clearly showing crops, the radio flyer club (red circle), the original dump site (blue circle) and the adjacent WWTW (green circle) and Show Grounds (purple circle).



Figure 5: 2024 aerial image of the site in its current state.

- Historic access to the property was from the north-eastern corner of the property (where the Groeneweide residential area is built today).
- A second access to the property was subsequently developed further West along the R102 (Provincial Road) to serve as primary access for the adjacent WWTW/landfill developments.

The original access road through the Groeneweide residential area, still provides access to the radio flyers club, pasture areas and also the recently approved solar facility south of the study site, whilst the second access off the R102, give access to the shooting range and municipal utility services.

Considering these two existing accesses to the property, specific consideration has been given to align the proposed precinct development, with the George Roads Master Plan.

The Municipality has continued to lease the majority of the site for various uses over an extended period of time. The continues agricultural use has ensured that invasive alien vegetation is contained mostly along the drainage lines where it is too wet to plough/cultivate, with these features also being the areas where remaining natural vegetation occurs. Remnant fynbos has been observed directly West of the access road to the WWTW/landfill on what was previously an old dump site.

The following key site constraints have been identified by the project team to date:

- ▶ Watercourses and associated wetlands

- ▶ Remnant natural vegetation
- ▶ Topography: Slopes greater than 25%
- ▶ Electrical servitudes
- ▶ Water reticulation
- ▶ Landfill and WWTW
- ▶ 500m and 800m buffer zones from landfill and WWTW
- ▶ Existing and potential site access points
- ▶ Visual aspects

It is important to acknowledge surrounding land use types to (A) inform the layout and (B) identify potential impacts:

- The existing municipal utility services (landfill / WWTW / waste incinerator) are associated with odours, air quality and dust that requires consideration be given to industrial development with a distinct distance separating land uses with permanent occupation i.e. residential from land uses with semi-permanent occupation allowable with such buffer areas;
- The next door George Show Grounds have events / house domestic livestock that may be deemed to have noise/odour related aspects to be taken into account;
- The neighbouring Groeneweide residential area dictates a focus on similar type of developments i.e. residential / commercial in proximity to these areas to avoid conflicting land use types;
- Transnet railway line runs along the boundary of the property separating the site from the George Industrial area;
- Areas deemed to be sensitive i.e. watercourses/wetland/remanent fynbos must be used to inform the site development plan.

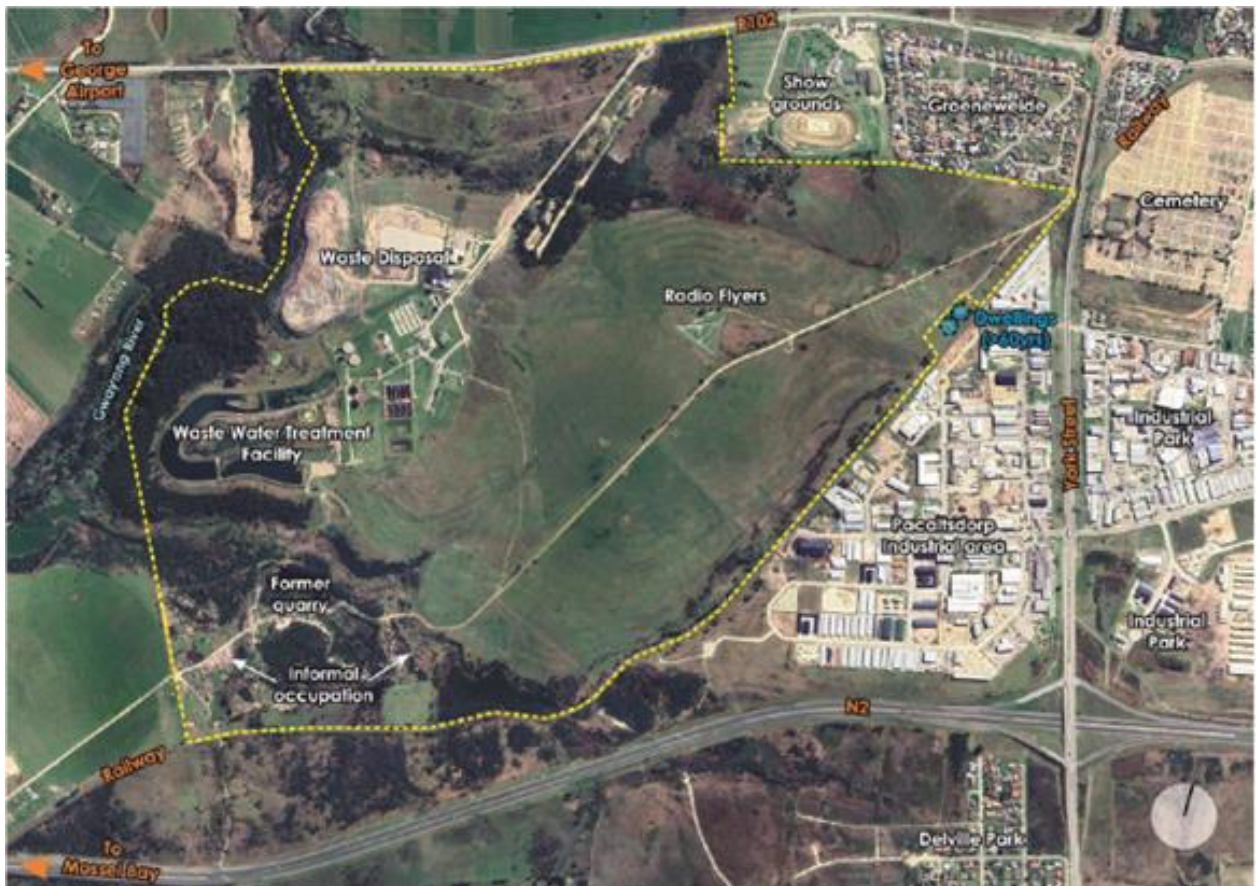


Figure 6: Existing land uses associated with the study area.



Figure 7: George Industrial area located directly East of the site separated by the Transnet railway line.



Figure 8: Groeneweide residential area and the George Show Grounds along the North-Western boundary of the property.



Figure 9: George Agricultural Experimental Farm directly North of the property opposite the R102.



Figure 10: George Municipal Gwayang WWTW and Landfill adjacent and to the West of the study site.



Figure 11: Vacant land directly to the south-west of the site where a solar facility has been authorised next to the N2 (Olympia School visible further south of the N2).

As part of the environmental process **specialists have been appointed** to determine the sensitivity levels of the vegetation/habitat/ecosystems. These specialists covered the entire environmental spectrum and have all conducted site sensitivity/scoping investigations.

The primary purpose of the specialist appointments was to **identify areas of the subject property that are deemed suitable for development, with acceptable levels of impact(s)**, as well as to provide input to the optimal site development layout plan.

The findings and recommendations of these provisional specialist investigations resulted in the **identification of areas deemed more and less suitable for development**. Studies undertaken to date include:

- Agricultural
- Aquatic
- Biodiversity
- Botanical
- Fauna
- Social
- Visual

Additional technical studies have also been undertaken to help inform site capacity and development typologies, namely:

- Planning (in the process of being finalised)
- Traffic (in the process of being updated)
- Civil Services

The development proposal, which forms the basis of this application, acknowledges the majority of “boundaries” set by the specialist investigations collectively. Each specialist scoping report has considered the environment and recommendations are made in terms of the impact management hierarchy to **avoid, mitigate and manage** the proposed development planning, design, implementation and operational impacts/risks.

The specialist scoping studies were undertaken over a period of time from when the application investigation commenced, prior to the undertaken of the EIA process to date, and copies of available reports, are included with this pre-application Scoping Report as appendices.

3 PROPOSED GWAYANG MIXED USE PRECINCT DEVELOPMENT

This development proposal is likely to be developed in phases over time, as the market dictates.

Following the outcome of the EIA process (if authorised), a **further 12 – 24 months** is set aside to obtain all the necessary approvals i.e. town planning/land use, services agreements, building plans etc. This scale of development is likely to then be develop over a period of **8-10 years** as a minimum.

The site development plan (SDP) that has been developed in response to the specialist site sensitivity verifications/scoping investigations, aims to develop approximately 70% (125ha) of the total site (+/-182ha). The remaining 30% (+/-56ha) are the areas that contain sensitive environmental features that should ideally be avoided.

The following is broadly included with each of the different land use typologies namely Heavy Industrial, Light Industrial, Business and Residential (land use taken from the Traffic Impact Assessment, 2023):

Heavy Industrial	Service industry, heavy industry, manufacturing, mini-warehousing, casino, offices, building material, hardware and paint stores
Light Industrial	Service industry, industrial park, warehousing and distribution, casino, offices, hardware and paint store, motor dealership, vehicle fitment centre
Business	Warehousing and distribution, casino, health and fitness centres, offices, medical consulting rooms, business park, building materials, hardware and paint store, nursery (garden centre), shopping centre, bulk trade centre, motor dealership, wholesale market (fresh produce), fast food, vehicle fitment centre.
Group housing	Single dwelling use, townhouse complex, apartments and flats, home office and undertaking
Flats / Apartments	Apartments and flats, student apartments and flats, multi-level townhouses, retirement village, home office and undertaking
Public facilities	Place of worship (church/religious centre), pre-school (day care facility)

The breakdown of the different land use types and the number of units for Alternative 3: Preferred Mitigated Site Development Plan (SDP), are summarised in Table 1.

Table 1: Development land use break down of the proposed Gwayang Mixed Use Precinct (Source: Zutari, July 2024). The land uses are colour coded to the provisional site development plan colours.

Gwayang				
Projected Land Use & Areas				
Land Use Description	Zoning - George Integrated Zoning Scheme By-Law	Area (sqm)	Area (ha)	% of Area
Group		41216	4,1	2,3%
1	General Residential Zone II Group Housing	11683	1,2	
2	General Residential Zone II Group Housing	7796	0,8	
3	General Residential Zone II Group Housing	14209	1,4	
4	General Residential Zone II Group Housing	7528	0,8	
Apartments		88085	8,8	4,9%
5	General Residential Zone IV Flats/Apartments	18087	1,8	
6	General Residential Zone II Group Housing	7985	0,8	
7	General Residential Zone IV Flats/Apartments	8636	0,9	

8	General Residential Zone IV Flats/Apartments	17032	1,7	
9	General Residential Zone IV Flats/Apartments	17985	1,8	
10	General Residential Zone IV Flats/Apartments	9048	0,9	
11	General Residential Zone IV Flats/Apartments	9312	0,9	
Mixed Use / Business / Retail		129143	12,9	7,1%
R12	Business Zone I	20710	2,1	
R13	Business Zone I	24045	2,4	
R14	Business Zone I	19776	2,0	
R15	Business Zone I	14550	1,5	
R16	Business Zone I	24578	2,5	
R17	Business Zone I	11580	1,2	
R18	Business Zone I	11601	1,2	
R19	Business Zone I	2303	0,2	
Public facilities (Creche's & religious centre)		2607	0,3	0,1%
20	Community Zone I & II	2607	0,3	
Light Industrial		207682	20,8	11,5%
21	Industrial Zone I	3569	0,4	
22	Industrial Zone I	4054	0,4	
23	Industrial Zone I	4038	0,4	
24	Industrial Zone I	3850	0,4	
25	Industrial Zone I	3714	0,4	
26	Industrial Zone I	6868	0,7	
27	Industrial Zone I	3445	0,3	
28	Industrial Zone I	3974	0,4	
29	Industrial Zone I	3990	0,4	
30	Industrial Zone I	3834	0,4	
31	Industrial Zone I	3876	0,4	
32	Industrial Zone I	3739	0,4	
33	Industrial Zone I	3811	0,4	
34	Industrial Zone I	3381	0,3	
35	Industrial Zone I	3632	0,4	
36	Industrial Zone I	3893	0,4	
37	Industrial Zone I	3441	0,3	
38	Industrial Zone I	8071	0,8	
39	Industrial Zone I	18341	1,8	
40	Industrial Zone I	18224	1,8	
41	Industrial Zone I	10060	1,0	
42	Industrial Zone I	11495	1,1	
43	Industrial Zone I	11098	1,1	
44	Industrial Zone I	12538	1,3	
45	Industrial Zone I	8699	0,9	

46	Industrial Zone I	10073	1,0	
47	Industrial Zone I	9947	1,0	
48	Industrial Zone I	11186	1,1	
49	Industrial Zone I	10840	1,1	
Heavy Industrial		360711	36,1	19,9%
50	Industrial Zone II & III	15388	1,5	
51	Industrial Zone II & III	20075	2,0	
52	Industrial Zone II & III	17609	1,8	
53	Industrial Zone II & III	17743	1,8	
54	Industrial Zone II & III	17185	1,7	
55	Industrial Zone II & III	15519	1,6	
56	Industrial Zone II & III	21307	2,1	
57	Industrial Zone II & III	29145	2,9	
58	Industrial Zone II & III	14178	1,4	
59	Industrial Zone II & III	14856	1,5	
60	Industrial Zone II & III	15540	1,6	
61	Industrial Zone II & III	13406	1,3	
62	Industrial Zone II & III	10749	1,1	
63	Industrial Zone II & III	8158	0,8	
64	Industrial Zone II & III	12026	1,2	
65	Industrial Zone II & III	11218	1,1	
66	Industrial Zone II & III	12585	1,3	
67	Industrial Zone II & III	9494	0,9	
68	Industrial Zone II & III	10423	1,0	
70	Industrial Zone II & III	8357	0,8	
71	Industrial Zone II & III	6471	0,6	
72	Industrial Zone II & III	7287	0,7	
73	Industrial Zone II & III	5859	0,6	
74	Industrial Zone II & III	5832	0,6	
75	Industrial Zone II & III	7924	0,8	
76	Industrial Zone II & III	8972	0,9	
77	Industrial Zone II & III	5628	0,6	
78	Industrial Zone II & III	5052	0,5	
79	Industrial Zone II & III	6945	0,7	
80	Industrial Zone II & III	5781	0,6	
Sludge Outlet		16768,0	1,7	0,9%
69	Utility Zone	14266	1,4	
81	Utility Zone	2502	0,3	
Open space / Conservation areas etc.		677353	67,7	37,4%
82	Open Space Zone I	51869	5,2	
83	Open Space Zone I	506	0,1	
84	Open Space Zone I	1473	0,1	
85	Open Space Zone I	2736	0,3	
86	Open Space Zone I	50103	5,0	
87	Open Space Zone I	200141	20,0	
88	Open Space Zone I	211684	21,2	

89	Open Space Zone I	46465	4,6	
90	Open Space Zone I	1298	0,1	
91	Open Space Zone I	13788	1,4	
92	Open Space Zone I	90553	9,1	
14	Open Space Zone II	6735	0,7	
Transport Zone II		289327	28,9	16,0%
93		289327	28,9	
Total Area		1812892	181,3	100%

Total Site Area:	1812892	181,3	
Total developable:	1135540	113,6	63%
Total undevelopable land:	677353	67,7	37%

These different land use types are represented spatially in the following colour coded map:



Figure 12: The Alternative 3 Preferred SDP depicting different land use types across the study site (Source: Zutari, July 2024).

Surrounding land use rights/restrictions, as well as known future plans associated with existing land uses/surrounding land uses, have been accounted for as part of the provisional site development plan.

These include, amongst others, the following:

- This provisional SDP takes into account the **500m, as well as the 800m risk buffers** around the WWTW/landfill allowing for a combination of (mostly) Heavy Industrial and Light Industrial properties within these buffer areas.
- The **800m buffer** area accommodates mostly Light Industrial and Business (retail / commercial) development, whilst the Residential (group housing and apartments) is situated **outside of the 800m buffer** that is more aligned to the existing land uses i.e. residential/light industrial.

According to Zutari the landfill has a Waste Management License (WML: Ref 19/2/5/4/D2/19/WL0139/19) for decommissioning by 10 November 2024. The original permit issued in 1994 stipulated that no light industry, business or residential land use may take place within 800m of the (landfill) site. Although this permit was repealed when the WML for decommissioning was applied for, it must be confirmed whether this condition still applies if decommissioning is not achieved within the specified license timeframe.

Furthermore it has been noted that an existing waste incinerator operates in proximity to the landfill site. Garden Route District Municipality who is the mandated Authority for Air Quality has been consulted to give further input/advice on any conditions/buffers that may be applicable to the incinerator Air Emission License (AEL).

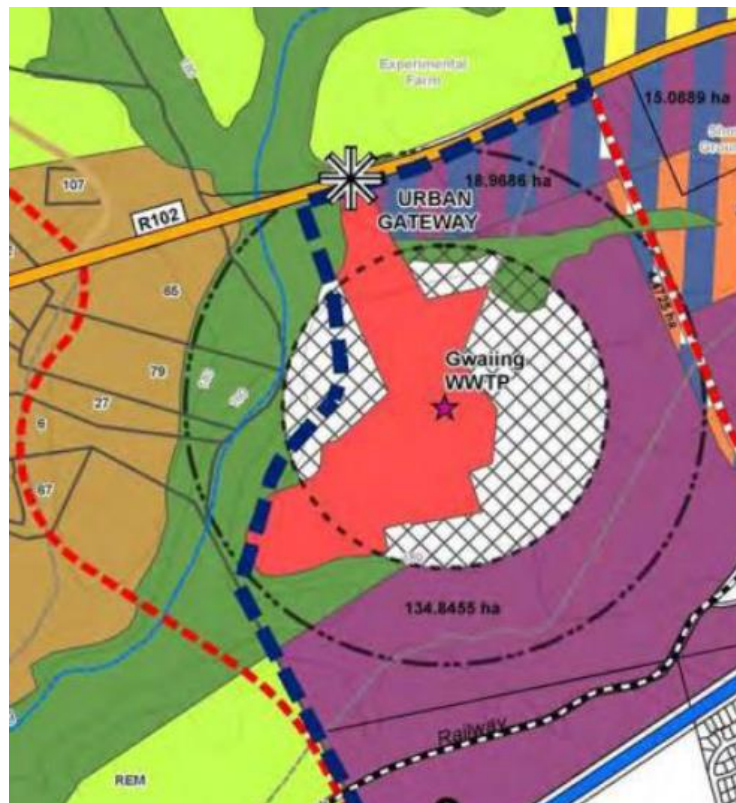


Figure 13: The 800m and 500m buffers respectively drawn around the Gwayang WWTW (Source: Gwayang Local Spatial Development Framework).

- **Open areas** throughout the site follow mostly **drainage lines** and accommodates **visually sensitive corridors** and areas of **ecological importance** (fynbos, wetlands, faunal habitat);
- The existing **George Roads Master Plan** allows for various future link roads that will provide additional access over the Transnet railway line towards the N2 in the south, as well as linkages to the North. Although this project is not dependant on these link roads, the current design must reflect these long-term future (potential) connection roads;
- The **existing access to the Municipal WWTW and landfill** has not been compromised by the proposed layout albeit in a different alignment to accommodate for on-site sensitivities identified;
- The **Transnet railway line** does allow for a potential future station along this stretch of railway bordering the site. Although this development is not dependent on this station being developed, the layout is done in a manner that it does not compromise any potential future plans that Transnet may have.
- **Eskom powerline** have been taken into account with the appropriate buffers along the line.
- **Existing tenants** (radio flyers, agricultural tenant and shooting club) are on a month-to-month rental agreement and have been contacted for input as part of the pre-application scoping phase.
- The neighbouring **George Show Grounds** is deemed an events location that includes activities such as stock cars / shows. These activities each may have its own associated 'impacts' that may influence land use types to avoid potential future conflict.

The Municipality's intention with the mixed-use type development is to create a destination that combines areas of employment i.e. industry, with places of accommodation (homes). The Municipality has indicated that it wishes for this precinct to contribute to the area's sense-of-place rather than detract from it. For that reason, specifications for landscaping / building styles are likely to be part of the more detailed assessment phases of this proposal.

The following images are indicative of the character the Municipality envisions for this precinct development (Source: Zutari 2024) within its different zones:







The development zone 'parameters' for this precinct, are summarised in the following tables (Zutari 2024). Of importance for the purposes of public participation and for stakeholders to better understand the potential impact(s) are the land use, coverage and height:

Zoning	General Residential Use Zone IV
Development parameters	
Coverage	Coverage may not exceed 60%
Floor factor	The floor factor may not exceed 1.
Height	The highest point of a building may not exceed 15 meters to the top of the roof.
Building lines	<ul style="list-style-type: none"> • The street building line is at least 5 meters. • Side and rear building lines are at least 4,5 metres.
Parking and access	<ul style="list-style-type: none"> • The standard parking requirements as per the zoning scheme by-law is as follows: <ul style="list-style-type: none"> o 1.75 bays per dwelling o 0.25 bays/unit for visitors

Zoning	General Residential Use Zone II
Development parameters	
Density	The maximum gross density on a group housing site is 35 dwelling units per hectare
Height	The height of dwelling units may not exceed 6.5 metres to the wall plate in all cases, and 8.5 metres to the ridge of the roof in the case of a pitched roof
Building lines	<ul style="list-style-type: none"> • The street building line is at least 3 meters. • Side and rear building lines are at least 1,5 metres.
Parking and access	<ul style="list-style-type: none"> • Parking and access must be provided in accordance with the requirements of the By-law

Zoning	Industrial Zone I (Light Industrial)
Development parameters	

Coverage	Coverage may not exceed 75%
Floor factor	The floor factor may not exceed 1,5
Height	The highest point of a building may not exceed 15 meters to the top of the roof.
Building lines	<ul style="list-style-type: none"> • The street building line is at least 5 meters. • Side and rear building lines are at least 3 metres.
Parking and access	<ul style="list-style-type: none"> • Parking and access must be provided in accordance with the by-law

Zoning	Industrial Zone II (Industry)
Development parameters	
Coverage	Coverage may not exceed 75%
Floor factor	The floor factor may not exceed 1,5.
Height	<p>The highest point of a building may not exceed 20 metres to the top of the roof.</p> <p>The highest point of a stack of shipping or transport containers stored outside a building may not exceed 15 metres above average ground level.</p>
Building lines	<ul style="list-style-type: none"> • The street building line is 0 meters, with a street centreline setback of at least 8 metres. • Side and rear boundary building lines are 0 metres, provided that the Municipality may lay down side and rear building lines of up to 3 metres in the interest of public health and/or safety..
Parking and access	<ul style="list-style-type: none"> • Parking and access must be provided in accordance with the by-law

Zoning	Business Zone I
Development parameters	
Coverage	Coverage of 100% allowed
Floor factor	The maximum floor factor on the land unit is 3.

Height	The highest point of a building may not exceed 15 metres to the top of the roof.
Building lines	<ul style="list-style-type: none"> • The street building line is 0 metres. • Side and rear building lines are 0 metres up to a height of 8.5 metres and 4.5 metres for the remainder of the building provided that the Municipality may lay down more restrictive common building lines in the interest of public health and safety or in order to enforce any other law or right.
Parking and access	<ul style="list-style-type: none"> • Parking and access must be provided in accordance with the by-law

Zoning	Community Zone I & II (Creches & Religious Centres)
Development parameters	
Coverage	Coverage may not exceed 60%
Floor factor	The floor factor may not exceed 1.
Height	The highest point of a building may not exceed 15 meters to the top of the roof.
Building lines	<ul style="list-style-type: none"> • The street building line is at least 5 metres. • Side and rear building lines are at least 4,5 metres.
Parking and access	<ul style="list-style-type: none"> • Parking and access must be provided in accordance with the by-law

The preliminary visual modelling for the fully developed site was done by Zutari (June 2024) to provide an indication of the 'developed' landscape in the event the George Municipality obtained all of the approvals needed for this development.

This model does not incorporate landscaping requirements as yet, but it will be used by the visual specialist to inform the detailed Visual Impact Assessment(VIA).



Figure 14: Visual modelling overlooking the site in a Northerly direction.



Figure 15: Visual modelling overlooking the site in a Southerly direction.

4 ACCESS & SERVICES

According to Zutari Consulting Engineers (June 2024) the ultimate intent of the Municipality is to create fully serviced erven for sale in support of integrated mixed-use development within the urban edge.

Given the site's strategic location along the R102 on route to the George Airport, in proximity to existing businesses/schools/hospitals/accommodation etc, the Municipality intends to invest capital into the service delivery that is needed to support this type of development.

The Municipality confirms that the development in its entirety or in phases, is subject to confirmation by the Director: Civil Engineering Services regarding the availability of water supply and treatment capacity and sanitation bulk conveyance and treatment capacity at the time of the development implementation, or if developed in phases, before commencement of each phase.

4.1 Bulk Water

GLS Consulting Engineers was appointed to compose a Water Master Plan for the Municipal area to determine the effect of (future) developments on the Water Master Plan. According to their 2022/2023 investigations, water demand for George is 2 363kl/day.

The existing bulk water distribution line running from town to the Airport is positioned along the northern boundary of the study site (along the R102). This pipeline is in the process of being installed and in its upgraded format will have sufficient capacity for this proposed development upon completion of Phase 1 (of the upgrade). This pipeline will be the main water supply to the proposed development.

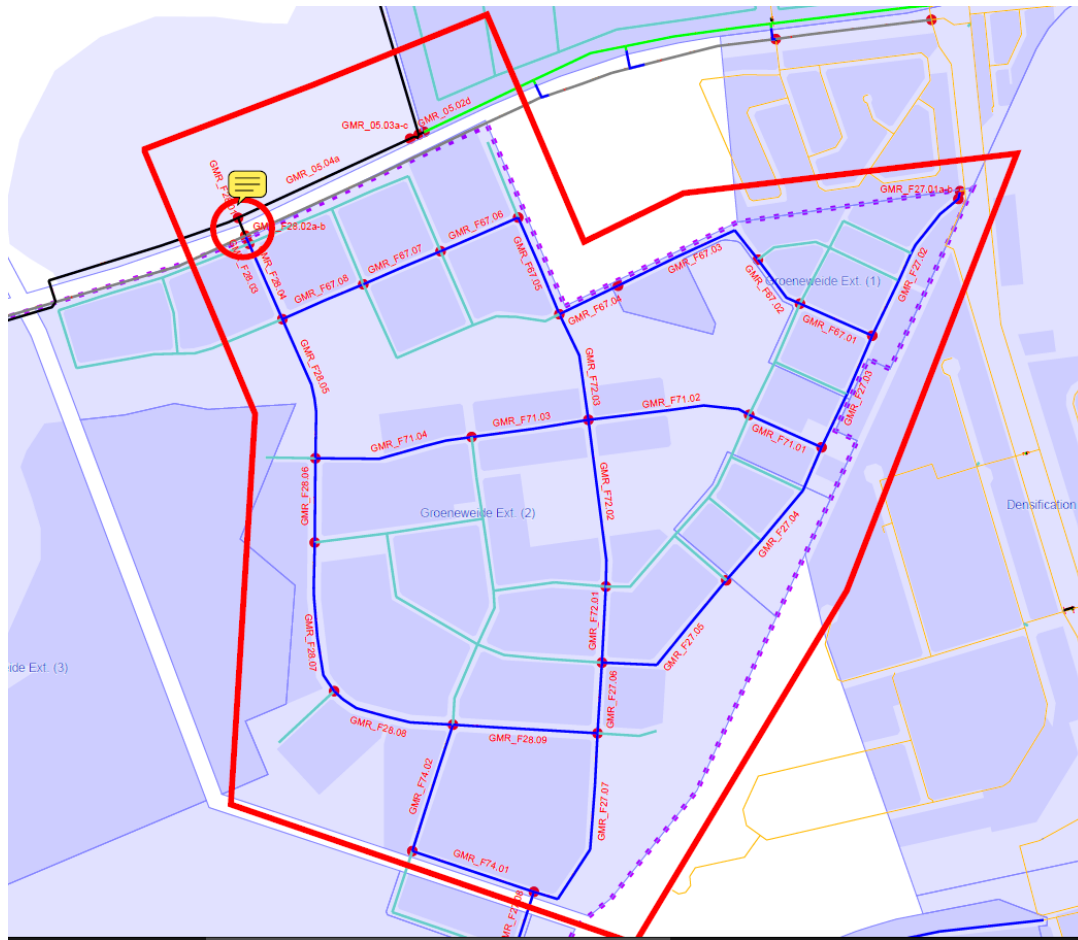


Figure 16: Proposed water supply network for the Mixed Use development proposal (Source: George Municipality, 2023).

Table 2: Water demand per land use and combined for the proposed development (Source: Zutari, June 2024).

Description / Land Use	Calculations	AADD
Group Housing	145 no. x 0.5 kℓ/unit/day	72.50 kℓ/day
Apartment Housing	1762 no. x 0.3 kℓ/day	528.60 kℓ/day
Light Industrial	20.7 ha x 13 kℓ/ha/day	269.10 kℓ/day
Heavy Industrial	38.1 ha x 13 kℓ/ha/day	495.30 kℓ/day
Mixed Use / Business / Retail	15.0 ha x 21 kℓ/ha/day	315.00 kℓ/day
Public facilities (Creche's & religious centre)	0.3 ha x 12 kℓ/ha/day	3.60 kℓ/day
Sludge outlet	N/A	-
Open / conservation areas etc.	N/A	-
TOTAL AADD (kℓ/day)		1,684.10 kℓ/day
TOTAL AADD (ℓ/day)		1,684,100.00 ℓ/day

Based on these figures, the total peak hour demand is calculated at 73.27ℓ/s at full capacity.

Considering water supply to meet the demand, it is noted that the Municipality is in the process of upgrading the Water Treatment Works (WTW) with a 20MI/day capacity which is estimated to be completed during January/February 2025. The main WTW after completion of this upgrade, will have sufficient capacity to supply in this development's water demand in its entirety.

Zutari confirms that this development site falls within the George Main Zone and that existing water connections from already developed areas adjacent to this site, has sufficient spare capacity for the development to connect to.

From a sustainable water use perspective, the Municipality proposes for the Light and Heavy Industry areas to have a supplementary water source in the form of a dedicated pipeline with greywater (treated effluent for re-use) as part of the water supply for non-potable uses. This entails a new dedicated pipeline from the WWTW for a take-off point in the development. Each property will therefore have two water connections, one for potable water and a second for re-used treated effluent.

The re-use of treated effluent as an alternative water source for non-potable use may impact on the Water Use License (WULA) of the WWTW into the volume of treated effluent that needs to be returned to the Gwayang River. BOCMA to be consulted in this regard.

4.2 Sewage

The proposed development will drain to the existing Gwayang WWTW situated directly adjacent to the study site. According to the consulting engineers the average dry weather flow (ADWF) for the development will be 1 417.63kl/day with a peak dry weather flow (PDWF) of 41.02l/s without stormwater inflow.

A known reality is that stormwater does enter sewage systems which increases the flow and can result in overflows at sewage manholes. Allowing for a 15% ingress of stormwater into the sewage system, the peak wet weather flow (PWWF) is estimated at 47.17l/s.

Consideration must be given to proximity of manholes to watercourses in the event of sewage spills during heavy rain events where such sewage may result in pollution of the watercourses.

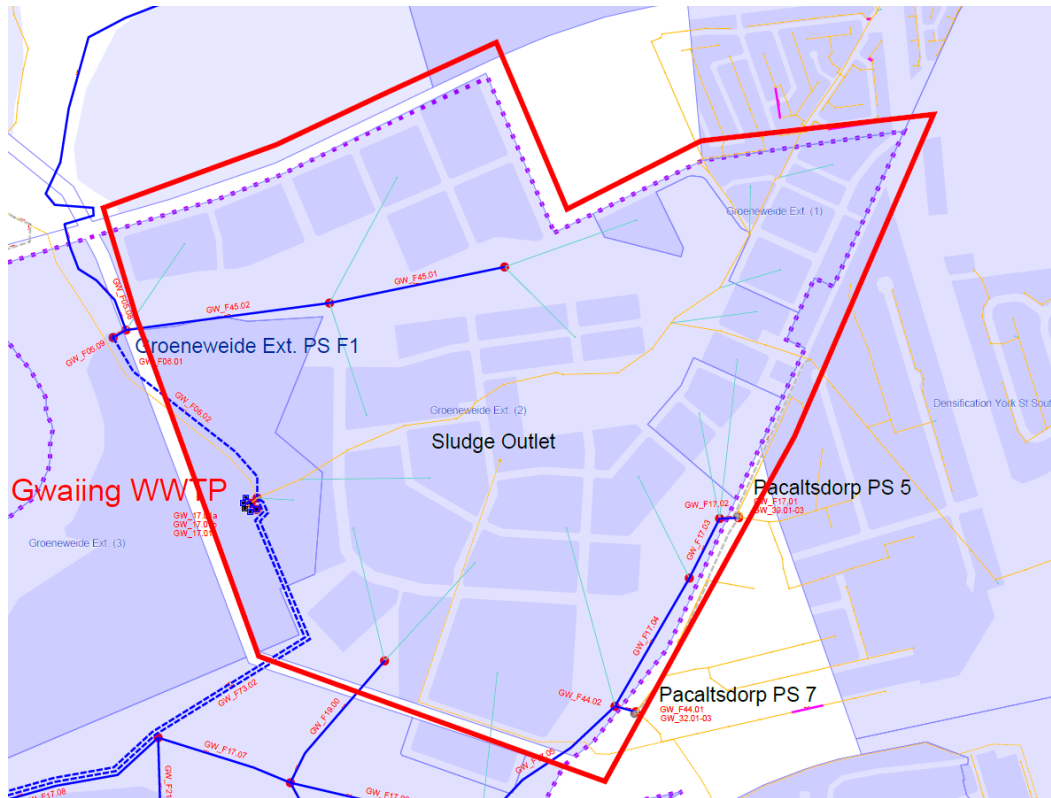


Figure 17: Proposed sewage network for the Mixed Used development (Source: George Municipality, 2023).

Table 3: Sewage volumes to be generated by the proposed development (Source: Zutari, June 2024).

Description / Land Use	Sewer ration (% AADD)	kℓ/day
Group Housing	90%	65.25
Apartment Housing	98%	518.03
Light Industrial	80%	215.28
Heavy Industrial	80%	396.24
Mixed Use / Business / Retail	70%	220.50
Public facilities (Creche's & religious centre)	65%	2.34
TOTAL ADWF (kℓ/d)		1,417.638

According to Zutari (June 2024) the Gwayang WWTW is currently operating under constraint and therefore has insufficient capacity to support his development. The upgrading of the existing sewage infrastructure, as well as the construction of new supporting bulk sewer infrastructure is required to accommodate this development, including:

- Pacaltsdorp pump stations 2, 5 & 7 to be abandoned and drain via a new gravity sewer system to the Gwayang WWTW;
- New gravity mains required to drain the proposed properties situated on the southeastern boundary of the study site that will also include flow from the Pacaltsdorp pump stations;

- A new sewer pump station near Groeneweide and a new rising main to the existing Gwaying WWTW;
- A new gravity sewer collecting sewage from the abandoned Pacaltsdorp sanitation pump stations 2, & 7, as well as the remainder of the development via a new gravity line to the future Groeneweide Extension F3 pumpstation to be pumped via the future rising main to the existing Gwaying WWTW;
- Rerouting of an existing sludge-handling pipeline connecting the Outeniqua WWTW and the Gwaying WWTW that must most likely run from the West, along the outlet of the Gwayang WWTW to the East, where it will have to connect to the Pacaltsdorp Pumpstation.

The Municipality has indicated that an additional 10MI/day capacity upgrade of the Gwaying WWTW is in the planning phase, however the timeframe for upgrade of the facility to support this development is dependent on the availability of capital funding.

4.3 Stormwater

Due to the low slope gradient of the site, low permeability of the soils and high groundwater levels in some locations on the property, the stormwater that will be generated upstream from the development must be conveyed through the development by means of an underground system, as well as an emergency overland flow system to ensure that all upstream stormwater generated by existing development areas are dealt with effectively through the proposed development site.

A combination of detention basins, retention ponds and swales will have to be implemented according to the site topography. Since the site slopes to the southwestern corner of the property, the possible location of attenuation ponds must be investigated.

Energy dissipating structures must be implemented with detail design to minimise the effect of peak runoff downstream.

A detailed stormwater management plan must be compiled in consultation with the aquatic specialist, to address stormwater impacts.

4.4 Access

Access to the site is currently obtained from the R102 via a stop-controlled intersection onto the property. This existing position of the intersection is not ideal and must therefore be moved further West along the R102 to improve sight distance safety to enable the proposed development.

Furthermore, a second access must be developed along the Western boundary of the George Show Grounds to ensure that the development traffic generated by the proposed development can be accommodated safely.

Internal road network design must adhere to minimum road design standards, however care has been taken to avoid, where possible, identified sensitive environmental features such as wetlands, remnant fynbos and faunal habitat.

A detailed Traffic Impact Assessment (TIA) was conducted (2023) and concluded that trip reduction factors (i.e. expansion of the Go-George Public Transport initiative), General Leasable Area (GLA), Floor Area Ration (FAR) and compilation of different land use types per

development zone has a significant impact on the trip generation factor per zone. the Provincial Roads Authority will have to confirm that the proposed intersections are deemed appropriate and whether or not any further upgrades may be required to the R102 at these intersections, or alternatively at the York Street/R102 traffic circle.

It is important to note that the Go-George Public Transport services does not currently extend to this area. The anticipated traffic generation from this development can be reduced should this public transport mode be extended to cover the study area.

The 2023 TIA is in the process of being updated with the latest preferred SDP and will inform the impact assessment phase of the environmental investigation.

4.5 Solid Waste

Refuse collection from this development will be collected once a week as applicable to all areas within the George Municipal area. The total solid waste based on an estimated 1.29kv/per/day amounts to 8.12 tonnes/day which equals 2 963.06 tonnes/year once the development is fully operational.

In light of the closure of the existing landfill site adjacent to this development, it is important that confirmation be obtained for solid waste from this development to be accommodated at the Regional Waste Site in Mossel Bay.

4.6 Geotechnical

Zutari submits that generally the majority of the site is suitable for the proposed development with some moderate geotechnical constraints expected. Areas where there are problematic ground conditions are isolated and will require more detailed geotechnical investigations. The provisional geotechnical study undertaken by Outeniqua Geotechnical Services (2022) confirms the presence of deposits of uncontrolled fill in the areas along the R102 where the old municipal landfill was.

- Due to the in-situ soils obtained from excavations for road box cuts/services trenches being too fine-grained for use as compacted fill material, the excavated material for these services will need to be stockpiled for non-structural filling/landscaping or general fill over pipe cradles. It may require such material to be removed completely if not suitable for development, or the area abandoned in favour of open space.
- Clay material must be carted to spoil and used for construction of earth-filled retention ponds as directed by an engineer.
- Improved site drainage measures are considered important with good site landscaping and a piped underground stormwater management system recommended for collection, diversion, control and discharge of stormwater from properties and roads to prevent flooding and ingress into subsoils which could potentially cause settlement of structures or unwanted erosion problems.

The area that require intervention or further geotechnical investigations are depicted on the below Figure with test pits 18, 20, 26, 33, 34 and 39 highlighted.



Figure 18: Geotechnical test pit locations across the study area (Source: Outeniqua Lab 2023).

4.7 Electricity

According to Zutari (2023) there is sufficient spare capacity to supply the complete development area. Power supply to this development will mainly be from the existing Municipal 66kV network that partially cross over the development site with a 132kV overhead line from Eskom via the Schaapkop and Proefplaas Substation areas.

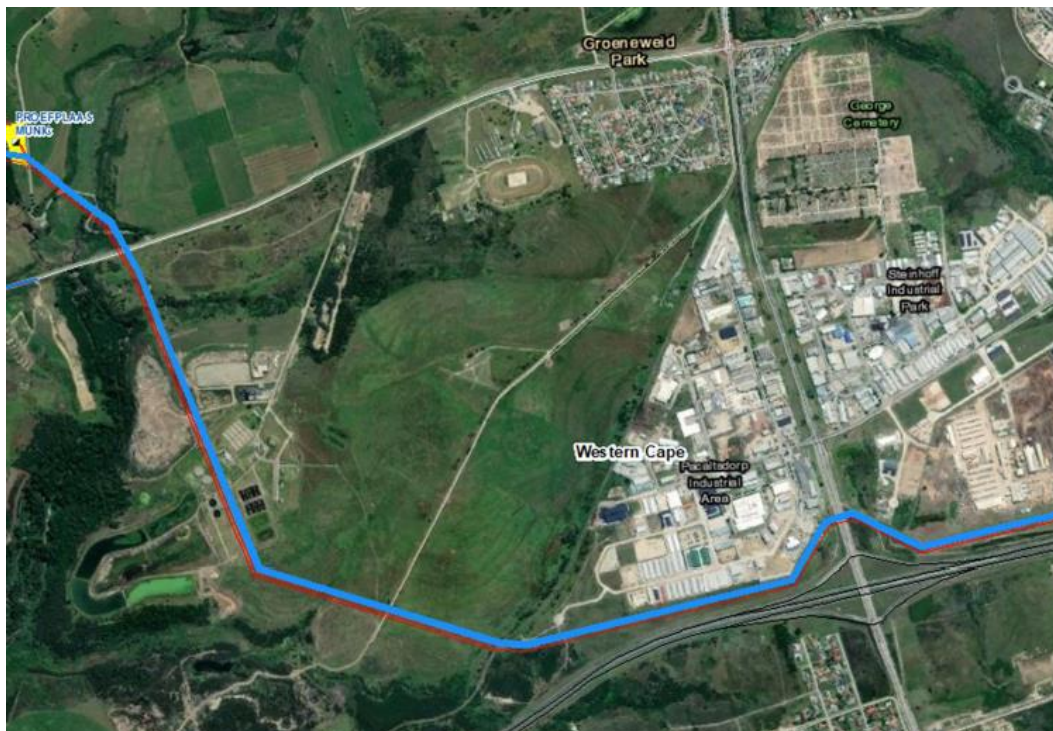


Figure 19: Existing electrical line partially crossing the property.

It is understood that the recently approved solar facility² directly south of the study site will tie into the existing 66kV line that will reduce non-renewable electrical demand.

It is likely that the use of alternative energy sources such as rooftop solar and/or battery storage for individual properties will further reduce demand on the Municipal electrical network.

5 PHASING & ALTERNATIVES

Based on the anticipated traffic generated by the proposed development, as well as phased bulk services upgrades required, it is proposed that the development be implemented in phases. Below phases are indicative based on services and planning requirements and may change depending on market demand and/or funding availability/restrictions. The provisional phasing proposal has been submitted by Zutari (2024).

5.1 Phase 1

The first Phase includes the construction of the two access points on the R102 and incorporates the mixed use node and some industrial sites.

5.2 Phase 2

The second phase concentrates on the development of the residential component adjacent to the existing Groeneweide Park residential neighbourhood and also includes a small component of industrial sites.

5.3 Phase 3

Phase 3 is mainly focussed on industrial development opportunities.

5.4 Phase 4

The Phase 4 of the proposed development includes a mix of uses with the mixed use / business nodes around the railway station, as well as some high density residential sites and industrial development opportunities.

5.5 Phase 5

Phase 5 includes the balance of the industrial opportunities to the south of the site of development.

With regards to Alternatives, numerous reiterations of the SDP have been developed in the time leading up to the EIA process, however most of these are not deemed feasible considering that they have not been informed by the more detailed environmental investigations.

An initial site sensitivity (desktop) resulted in the SDP that has since been amended to reflect updated botanical / aquatic / visual and biodiversity site constraints. The initial constraints are reflected in below image.

² EIA reference number 16/3/3/1/D2/44/0016/23 dated 6 November 2023.

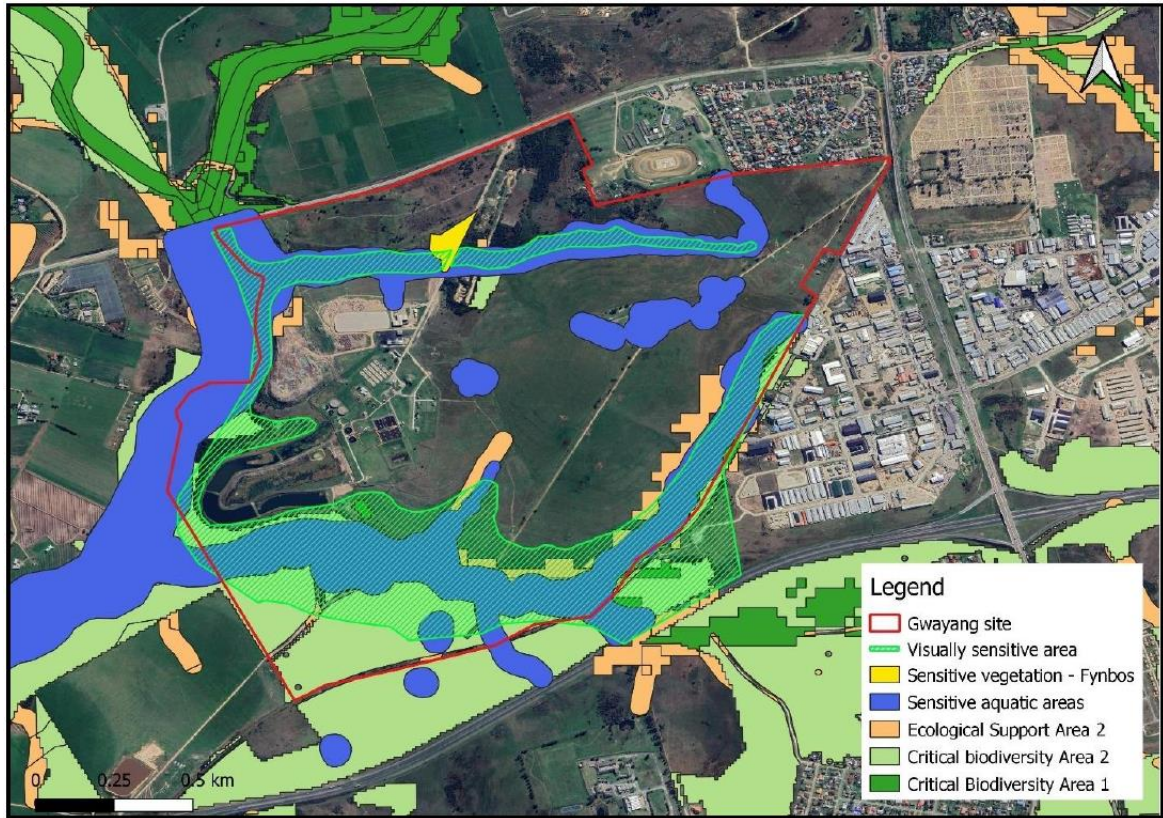


Figure 20: Initial high-level site constraints identified with preliminary specialist input and desktop datasets (Source: Zutari 2023).

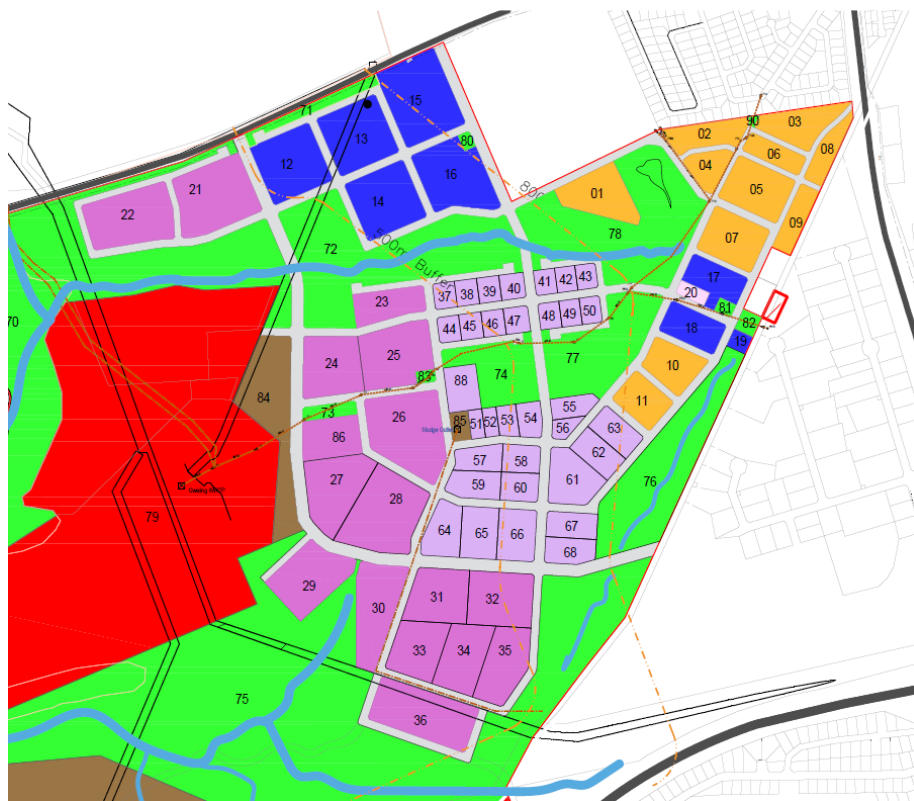


Figure 21: Initial Alternative 1 SDP based on the provisional site sensitivity constraints (Source: Zutari 2023).

This initial SDP (2023) contained a number of **conflicts with the site sensitivity** as identified by the botanical, fauna and aquatic specialists. The following conflict areas were identified and used to inform the preferred SDP for the scoping phase:

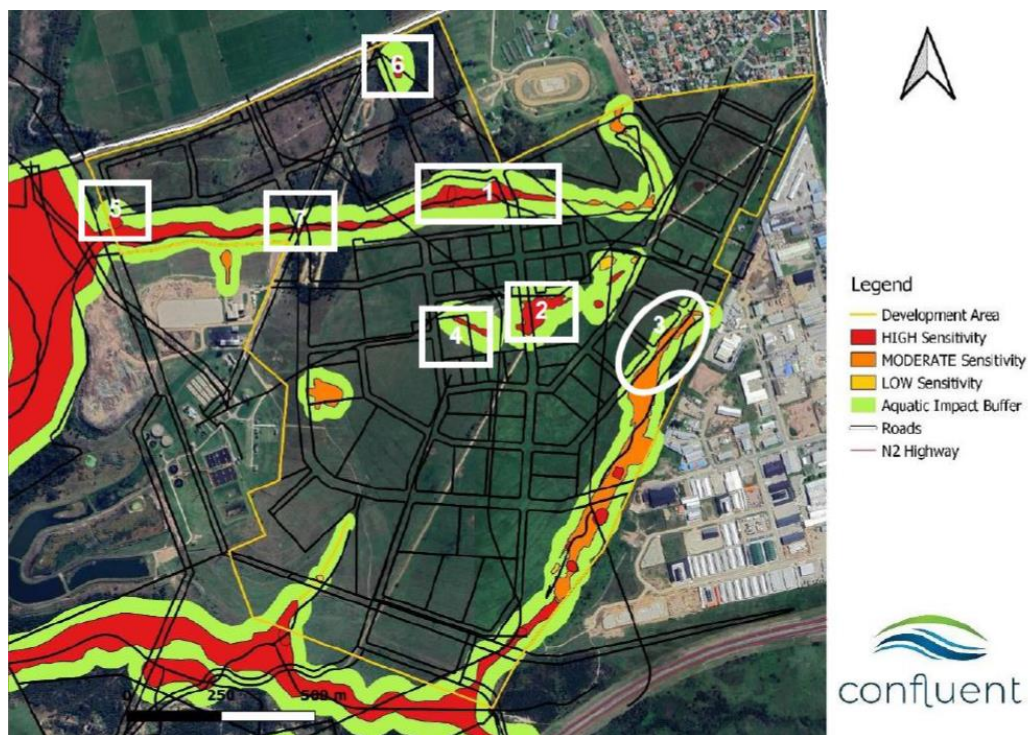


Figure 22: Combined constraints map with initial SDP superimposed to highlight conflict areas (Source: Confluent Consulting, 2024).

Table 4: Alternative 1 - Provisional SDP land use breakdown (Source: Zutari 2023).

Gwayang Development - George										
Projected Land Use										
Land Use Description	Zoning - George Integrated Zoning Scheme By-Law	Units	Stands	Density	stand size (average)	Area (ha)	FAR	GLA (m2)	% of total area	% of units
Group Housing	General Residential Zone II Group Housing	145	4	35	285	4.1	na	na	1%	7.2%
Apartment Housing	General Residential Zone IV Flats/Apartments	1878	7	200	1.3	9.4	1.0	93895	3%	92.8%
Light Industrial	Industrial Zone I	na	33	na	0.6	18.7	1.5	280272	6%	na
Heavy Industrial	Industrial Zone II & III	na	17	na	2.2	38.1	1.5	572081	11%	na
Mixed Use / Business / Retail	Business Zone I	na	8	na	2	15.5	3.0	464178	5%	na
Public facilities (Creche's & religious centre)	Community Zone I & II	na	1	na	0.26	0.3	1.0	2600	0%	na
Public Squares	Open Space Zone I	na	4	na	1.0	0.7	na	na	0%	na
Municipal Land Fill Site & WWTW	Utility Zone	na	1	na	na	54.4	na	na	16%	na
Municipal Solar Farm	Utility Zone	na	1	na	na	24.5	na	na	7%	na
Open / conservation areas etc.	Open Space Zone I	na	9	na	na	107	na	na	32%	na
Undetermined Use Zone	Undetermined Use Zone	na	3	na	na	27	na	na	9%	na
Planned roads	Transport Zone II	na	tbd	na	na	32.6	na	na	10%	na
Total number of units/stands		2023	88			333.0			100%	100%

Table 5: Alternative 2 - Mitigated Site Development Plan.

Gwayang Development - George										
Projected Land Use										
Land Use Description	Zoning - George Integrated Zoning Scheme By-Law	Units	Stands	Density	stand size (average)	Area (ha)	FAR	GLA (m2)	% of total area	% of units
Group Housing	General Residential Zone II Group Housing	145	4	35	285	4.1	na	na	4.1%	7.6%
Apartment Housing	General Residential Zone IV Flats/Apartments	1762	7	200	1.3	8.8	1.0	88081	8.8%	92.4%
Light Industrial	Industrial Zone I	na	32	na	0.6	20.7	1.5	310637	11.4%	na
Heavy Industrial	Industrial Zone II & III	na	17	na	2.2	38.1	1.5	570926	21.0%	na
Mixed Use / Business / Retail	Business Zone I	na	8	na	2	15.0	3.0	450525	8.3%	na
Public facilities (Creche's & religious centre)	Community Zone I & II	na	4	na	0.07	0.3	1.0	2607	0.1%	na
Open / conservation areas etc.	Undetermine Use Zone	na	na	na	na	0.3	na	na	0.1%	na
Open / conservation areas etc.	Open Space Zone I	na	4	na	1.0	55.9	na	na	30.8%	na
Planned roads	Transport Zone II	na	tbd	na	na	38.2	na	na	21.1%	na
Total number of units/stands		1907	75			181.3			100%	100%



Figure 23: Mitigated Alternative 2 based on updated environmental and site constraints (Source: Zutari, May 2024).

The most significant changes from the provisional (2023), to the updated SDP (May 2024) include the following:

YELLOW circle	This area has been highlighted by the geotechnical investigation as potentially unsuitable for development due to historic infilling (old landfill site). Furthermore a portion of this area is deemed to fall within a visual corridor along the R102 due to its elevation. Also a small patch of remnant Granite Fynbos is present in this area, alongside a potential habitat for golden moles which the faunal specialist identified. Development constraints may apply in this area.
ORANGE circle	To accommodate both the fynbos and the mole habitat, as well as sensitive aquatic features, the entrance road leading into the development has been re-routed. The traffic engineer must verify the feasibility of this re-alignment from a road design perspective.
BLUE circle	The presence of sensitive aquatic features (wetlands) in what is shown as an open space #82 has been avoided by relocating the road away from the wetlands to avoid them altogether.

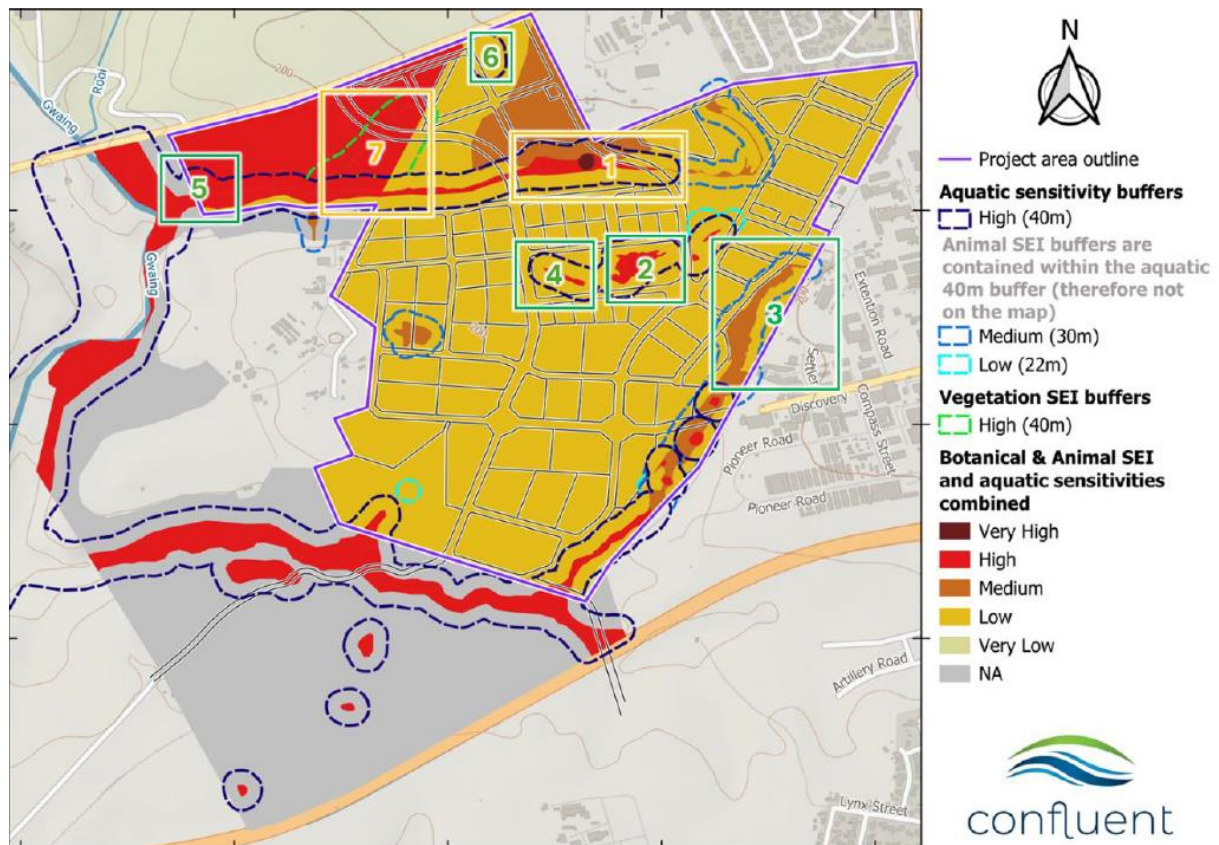


Figure 24: Mitigated Alternative 2 SDP that shows confirmation of the amendments the SDP to address the conflicting areas (Source: Confluent Consulting, 2024).

The Mitigated Alternative (July 2024) has been further mitigated to exclude the wetland that was identified at a later stage (on Erf 14) and the visual corridor along the R102 has been extended to link to this wetland area.

The July 2024 SDP (Alternative 3) is therefore presented in this pre-application Scoping Report as the **preferred alternative**, however it is recognised that it may well be subject to further changes as the detailed specialist impact assessments become available.

For the purpose of the scoping investigation (where issues/concerns/constraints/opportunities are identified), the following (reasonable/feasible) alternatives are to be considered:

- **No-Go Alternative:** Site remains as per the Status Quo (vacant with no immediate development – noted however that the spatial planning tools demarcate this site for future development thus it is unlikely that the site will continue to exist in this format):
- **Alternative 1:** Site plan prior to having detailed specialist site constraint inputs at the scoping phase.
- **Alternative 2: Mitigated SDP** to accommodate conflict areas.
- **Alternative 3: Preferred SDP** to exclude the newly identified wetland on Erf 14 and extend the visual corridor along the R102.



Figure 25: Alternative 3 Preferred Mitigated Site Development Plan for consideration as part of the scoping phase with the YELLOW circle indicating the further adjustments.

Table 6: Alternative 3 Preferred Mitigated Site Development Layout land use typologies.

Gwayang Development - George									
Projected Land Use									
Land Use Description	Zoning - George Integrated Zoning Scheme By-Law	Units	Stands	Density	Area (sqm)	Area (ha)	FAR	% of total area	% of units
Group Housing	General Residential Zone II Group Housing	145	4	35	41216	4.1	na	2.3%	8%
Apartment Housing	General Residential Zone IV Flats/Apartments	1762	7	200	88085	8.8	2.0	4.9%	92%
Light Industrial	Industrial Zone I	na	29	na	207679	20.8	1.5	11.5%	na
Heavy Industrial	Industrial Zone II & III	na	30	na	360711	36.1	1.5	19.9%	na
Mixed Use / Business / Retail	Business Zone I	na	8	na	129143	12.9	3.0	7.1%	na
Public facilities (Creche's & religious centre)	Community Zone I & II	na	1	na	2607	0.3	1.0	0.1%	na
Waste Water Treatment	Utility Zone	na	2	na	16768	1.7	na	0.9%	na
Open / conservation areas etc.	Open Space Zone I	na	12	na	677353	67.7	na	37.4%	na
Planned roads	Transport Zone II	na	1	na	289306	28.9	na	16%	na
Total number of units/stands		1907	93		1812892	181.3		100%	100%

The requirement for the impact assessment and determination of the final development alternative must be informed by applying the Impact hierarchy whereby specialist must show how impacts have been avoided, minimised, rectified, reduced or whether or not off-sets are applicable in circumstances where impacts cannot be avoided/mitigated/managed.

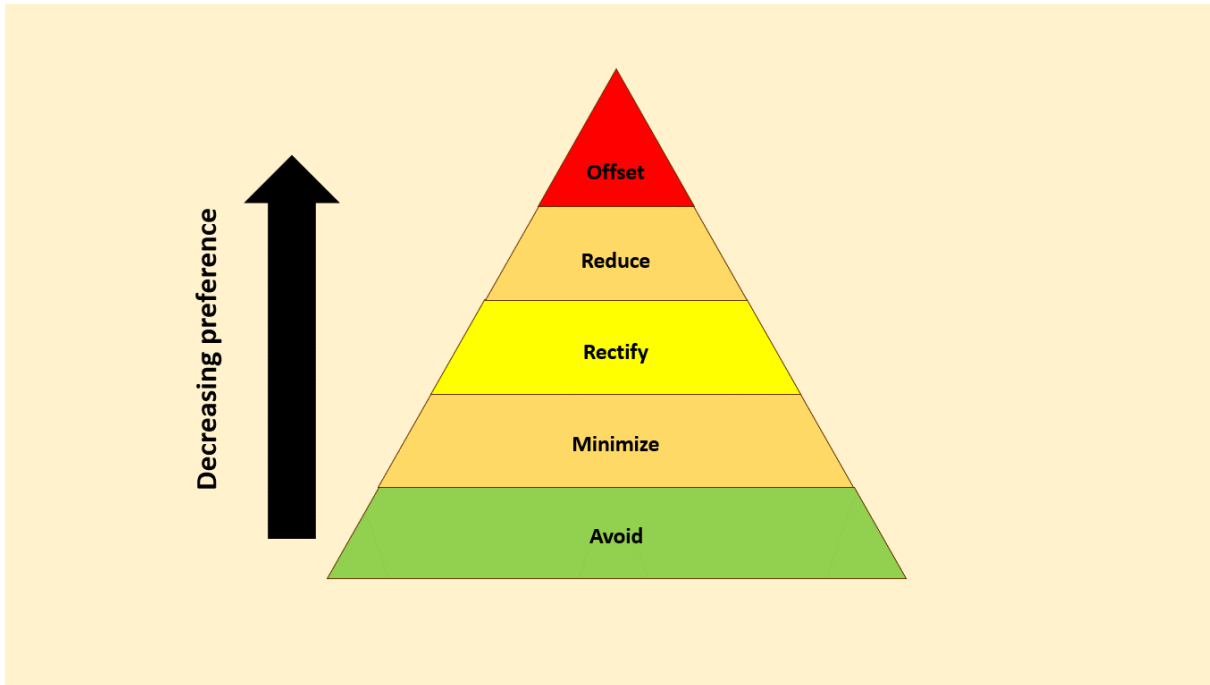


Figure 26: Impact hierarchy for environmental impact assessments.

Only once the detailed impact assessments are underway by the specialists, will it be possible to apply the impact hierarchy and determine if a further feasible alternative is required, should the aspects needing detailed assessment and/or further consideration not be acceptable to the independent specialists/EAP.

Note that although numerous earlier options for the layout were considered by the Applicant, only the SDPs identified/discussed in this scoping report, have been provided to the specialists as part of the ongoing environmental investigation process.

- It is noted that **Alternatives 1** has been **eliminated** due to the multiple conflicts with specialist constraints/sensitivities making it a non-feasible option.
- **Alternative 2** is also **not deemed feasible** considering the need to avoid unnecessary impacts associated with wetland habitat destruction and mitigating visual impact along the R102 visual corridor.

6 ENVIRONMENTAL REQUIREMENTS

The current assessment is being undertaken in terms of the **National Environmental Management Act** (NEMA, Act 107 of 1998 as amended). This Act makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority (in this case, the Provincial

Department of Environmental Affairs and Development Planning) based on the findings of an Environmental Assessment.

The proposed development entails a number of listed activities, which require a **Scoping & Environmental Impact Reporting (S&EIR) process**, which must be conducted by an independent environmental assessment practitioner (EAP) *Cape EAPrac* has been appointed to undertake this process.

The listed activities associated with the proposed development, as stipulation under 2017 Regulations 324, 325 and 327 are shown in the table below.

Activity No(s):	Provide the relevant Basic Assessment Activities as set out in Listing Notice 1	Describe the portion of the <u>proposed development</u> to which the applicable listed activity relates.
9	The development of infrastructure exceeding 1000 metres in length for bulk transport of water or storm water (i) with an internal diameter of 0.36m or more; or (ii) with a peak throughput of 120m per second or more.	Bulk services upgrades may be required to service this development. Final engineering input to verify the applicability of this listed activity.
10	The development of infrastructure exceeding 1000 metres in length for bulk transport of sewage, effluent, waste water, return water, industrial discharge or slimes (i) with an internal diameter of 0.36m or more; or (ii) with a peak throughput of 120m per second or more.	Bulk services upgrades may be required to service this development. Final engineering input to verify the applicability of this listed activity.
11	The development of facilities or infrastructure for the transmission and distribution of electricity (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts.	Bulk services upgrades may be required to service this development. Final engineering input to verify the applicability of this listed activity.
12	The development of- (ii) Infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs – (a) within a watercourse (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.	The site contains both natural and artificial wetlands as well as non-perennial drainage lines. The proposal requires roads and infrastructure to cross watercourses/wetlands, or run in proximity to the same features. Final designs will confirm the extent of such infrastructure that may be required. A Water Use License Application (WULA) is run in parallel to the EIA process.
13	The development of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more.	The need for potential water storage facilities to be confirmed through detailed engineering studies.
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving	The site contains both natural and artificial wetlands as well as non-perennial drainage lines. The proposal requires roads and infrastructure to cross

	of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.	watercourses/wetlands, or run in proximity to the same features. Final designs will confirm the extent of such infrastructure that may be required. A Water Use License Application (WULA) is run in parallel to the EIA process.
27	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (ii) will occur outside the urban area, where the total land to be development is bigger than 1ha.	The site has been transformed through land use activities such as agriculture/cultivation and various existing municipal waste facilities (existing land fill site and WWTW). The property is zoned Undetermined.
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 1 April 1998 and where such development (i) will occur outside an urban area, where the total land to be developed is bigger than 1ha.	Development will exceed 1ha for total development and will be developed in phases over an extended period of time. Although the site is included with the George urban edge, it is still deemed to fall outside of the 'urban area' of the town in terms of the Environmental Regulations.
45	Expansion of infrastructure exceeding 1000 metres in length for bulk transport of water or storm water (i) with an internal diameter of 0.36m or more; or (ii) with a peak throughput of 120m per second or more.	Bulk services upgrades may be required to service this development. Final engineering input to verify the applicability of this listed activity.
46	Expansion of infrastructure exceeding 1000 metres in length for bulk transport of sewage, effluent, waste water, industrial discharge or slimes water (i) with an internal diameter of 0.36m or more; or (ii) with a peak throughput of 120m per second or more.	Bulk services upgrades may be required to service this development. Final engineering input to verify the applicability of this listed activity.
56	The widening of a road by more than 6 metres, or the lengthening of a road by more than 1km (i) where the existing reserve is wider than 13.5m or (ii) where no reserve exists, where the existing road is wider than 8 metres excluding where such lengthening occurs inside urban areas.	Road upgrades may be required to service this development in the form of possible road widening (additional turning lanes / new access / update of existing access). Final traffic engineering input to verify the applicability of this listed activity.
Activity No(s):	Provide the relevant Basic Assessment Activities as set out in Listing Notice 3	Describe the portion of the proposed development to which the applicable listed activity relates.
1	The development of billboards exceeding 18 square metres in size outside urban	Potential billboards for advertising/marketing/logistics associated with the development.

	areas, mining areas or industrial complexes in the Western Cape (i) for all areas outside urban areas, mining areas or industrial complexes.	
2	The development of reservoirs, excluding dams, with a capacity or more than 250 cubic metres in the Western Cape (ii) in areas containing indigenous vegetation.	Possible need for on-site reservoirs for water storage to be confirmed by the Project Engineers.
4	The development of a road that is wider than 4 metres with a reserve less than 13.5 metres in the Western Cape (ii) for areas outside urban areas (aa) areas containing indigenous vegetation.	Road network (internal as well as external) necessary to support the development proposal. Detailed upgrades/new roads to be verified by the traffic engineer.
12	<p>The clearance of an area of 300m² or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>(i) within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEM:BA or has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>(ii) within critically biodiversity areas identified in bioregional plans.</p>	<p>According to SANBI Red List Original Map, the proposed site used to contain Garden Route Granite Fynbos (Critically Endangered). However, according to the SANBI Red List Remnant Map, only a few portions of Garden Route Granite Fynbos is left on site.</p> <p>According to the appointed Botanist, the Terrestrial Biodiversity is low for most of the site, apart from the graminoid dominated patch of Garden Route Granite Fynbos, alluvial vegetation around the Gwaing River, and wetlands which is confirmed to have a high sensitivity and that may be impacted by structures/infrastructure/development.</p> <p>The preferred SDP proposal (July 2024) excludes the remnant Granite Fynbos patch although access/services to the site may affect this area.</p>
14	<p>The development of –</p> <p>(ii) infrastructure or structures with a physical footprint of 10m² or more; where such development occurs-</p> <p>(a) within a watercourse,</p> <p>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse in the Western Cape (i) outside urban areas (ff) in critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the Competent Authority in bioregional plans.</p>	<p>According to CapeFarmMapper (2023), the site consists of natural and artificial wetlands as well as non-perennial drainage lines and work may be required within watercourses and/or in proximity to watercourses/wetlands on the property.</p>

18	The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 km in the Western Cape for (ii) all areas outside urban areas in (aa) areas containing indigenous vegetation.	Road networks will require upgrade/widening and may affect remaining natural vegetation.
24	The development of a road (ii) with a reserve wider than 13.5 metres, or where no reserve exists where the road is wider than 8 metres.	Road network / Access may include roads exceeding this threshold – the details will be confirmed by project engineers in the detailed assessment phase at which time the applicability of this listed activity will be confirmed.
26	Phased activities for all activities (i) & (ii), where such phase of the activity was below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.	The development will happen over an extended period of time (minimum 8-10 years) and phased development is anticipated by the Applicant considering both bulk services and development components.
Activity No(s):	Provide the relevant Scoping and EIR Activities as set out in Listing Notice 2	Describe the portion of the proposed development to which the applicable listed activity relates.
15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	The disturbance of approximately 147ha of vegetation, inclusive of agricultural fields (natural grazing), fynbos remnants and invasive alien vegetation associated with the proposed development/services/infrastructure.
27	The development of a road (iii) with a reserve wider than 30 metres or, (vi) catering for more than one lane or traffic in both directions.	Road network details to be verified by the traffic engineer to determine the applicability of this listed activity.
<p>Note:</p> <ul style="list-style-type: none"> Only those activities listed which will be applied for shall be considered for authorisation. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. Environmental Authorisation must be obtained prior to commencement with each applicable listed activity. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted. The Minister responsible for mineral resources is the Competent Authority to deal with all applications where the listed or specified activity is directly related to- <ul style="list-style-type: none"> (a) prospecting or exploration of a mineral or petroleum resource; or (b) extraction and primary processing of a mineral or petroleum resource. <p>It must be noted that future developers / investors that may purchase properties within the development, may wish to conduct activities not assessed in terms of this EIA process. In such events, should their activities trigger additional listed activities they will be obliged to apply for additional authorisations in terms of the applicable legislation. Although a wide scope of works will be covered as part of the EIA process for this application, which will be aligned with the permissible primary rights under proposed</p>		

zonings, measures will still have to be put in place to regulate future landowners in terms of what they may/may not apply for as additional environmental/planning rights.

7 PLANNING CONTEXT

Due to the current zoning being 'Undetermined', a rezoning and subdivision application is required to change the land use to Subdivisional Area. To this end a Town Planning application must be submitted to the George Municipality with relevant consent uses and departures.

The land use planning application will be advertised (for public review and comment) separately and circulated to relevant State Departments for comment by Zutari.

The outcome of the environmental application process will inform the Municipality's decision on the planning application.

In terms of the George Integrated Zoning Scheme By-Law (2023), the objective of Undetermined Use Zones is to **enable the Municipality to defer a decision regarding a specific land use** and development management provisions **until the circumstances affecting the land unit have been properly investigated**; or until the owner of the land makes an **application for rezoning**; or a **zoning determination** is made by the Municipality.



Figure 27: Zoning map for the study area and surrounding properties with BROWN indicating the zoning 'Undetermined'.

In 2015 the George Municipality identified this study area for mixed-use development. Subsequently it was incorporated into the Spatial Development Framework (SDF) and is designed for urban development. The site remains **earmarked for development** according to the George 2023 SDP.

8 SPECIALIST/TECHNICAL INPUT

The following **specialist input** was obtained to inform site constraints and the development proposal/alternatives. The studies have been identified in consultation with the Competent Authority following the outcome of the Screening Tool and Site Sensitivity Verification Reports (SSVR) compiled by the specialists.

It must be noted that the potential impacts / risks associated with this proposed development, are identified and highlighted according to each of the different specialist themes discussed in this section.

Note that in terms of the May and October 2020 Protocols Gazetted by the Minister of Environmental Affairs, all specialists must be **SACNASP registered** where the protocol so prescribes and all reports must adhere to the protocols where necessary.

Technical investigations are not subject to the protocols, however the professionals must still be registered in terms of their professional affiliations.

TECHNICAL INVESTIGATIONS:

- Geotechnical
- Civil Engineering
- Electrical Engineering
- Stormwater Design
- Traffic
- Planning

SPECIALIST BASELINE INVESTIGATIONS	
(Please note specialist assessments are on-going and detailed impact assessments will be included in the environmental impact assessment phase of the Environmental Process. Baseline specialist scoping reports are included in this Scoping Report.)	
Heritage Investigation	Perception Planning
Faunal Investigation	Confluent Consulting
Freshwater Investigation	Confluent Consulting
Social Investigation	Tony Barbour Consulting
Visual	VRMA Consulting
Botanical	Confluent Consulting
Agriculture	Johann Lanz Consulting
Biodiversity	Confluent Consulting

Apart from the social specialist, all of the above-mentioned specialists have conducted thorough site specific investigation inclusive of site inspections.

8.1 **Botanical & Biodiversity**

Site investigations and surveys were undertaken on 29 September 2022 (spring survey) and again on 22 February 2024 (summer survey). The botanist recognises that the Screening Tool identifies the study site as falling within the ecosystem for Garden Route Granite Fynbos which is part of the fynbos biome. The site is indicated as part of the Critical Biodiversity Areas (CBA) of which both CBA 1 and CBA 2 is designated for this property with Ecological Support Area (ESA2) designated to a lesser extent.

CBA 1 definition: Areas in natural condition that are required to meet biodiversity targets for species, ecosystems or ecological processes and infrastructure.

CBA 1 objective: To maintain in a natural or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.

CBA 2 definition: Areas in a degraded or secondary condition. These areas are also required to meet the biodiversity targets for species, ecosystems, or ecological processes and infrastructure.

CBA 2 objective: To maintain in a functional, natural, or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.

The botanist confirms that there are no protected areas in close proximity to the site, however the development site does fall within an area designated as part of the Outeniqua Strategic Water Source Area for surface water (so does the whole of George).

According to the investigation, most of the site's vegetation is of a very poor quality with heavy invasions by invasive alien plants. No species of special concern (SCCs) were found during the site surveys although the potential presence of two SCC species, is slightly higher in the remnant Granite Fynbos patch identified by the botanist. Although more than 100 plant species were recorded for the site more than 25% of these species were recorded as not indigenous including at least 11 NEMBA listed invasive plant species.

The vegetation on the site is split into six (6x) broad groups that have been used to inform the site ecological sensitivity:

1. Areas that are primarily invaded by black wattle (invasive plant species)
2. Fields used primarily for grazing livestock;
3. Mixture of various kinds of disturbed, modified and transformed vegetation (excluding the grazing fields);
4. Dams with associated aquatic plants;
5. Small patch of Garden Route Granite Fynbos;
6. Drainage lines and wetland vegetation along watercourses.

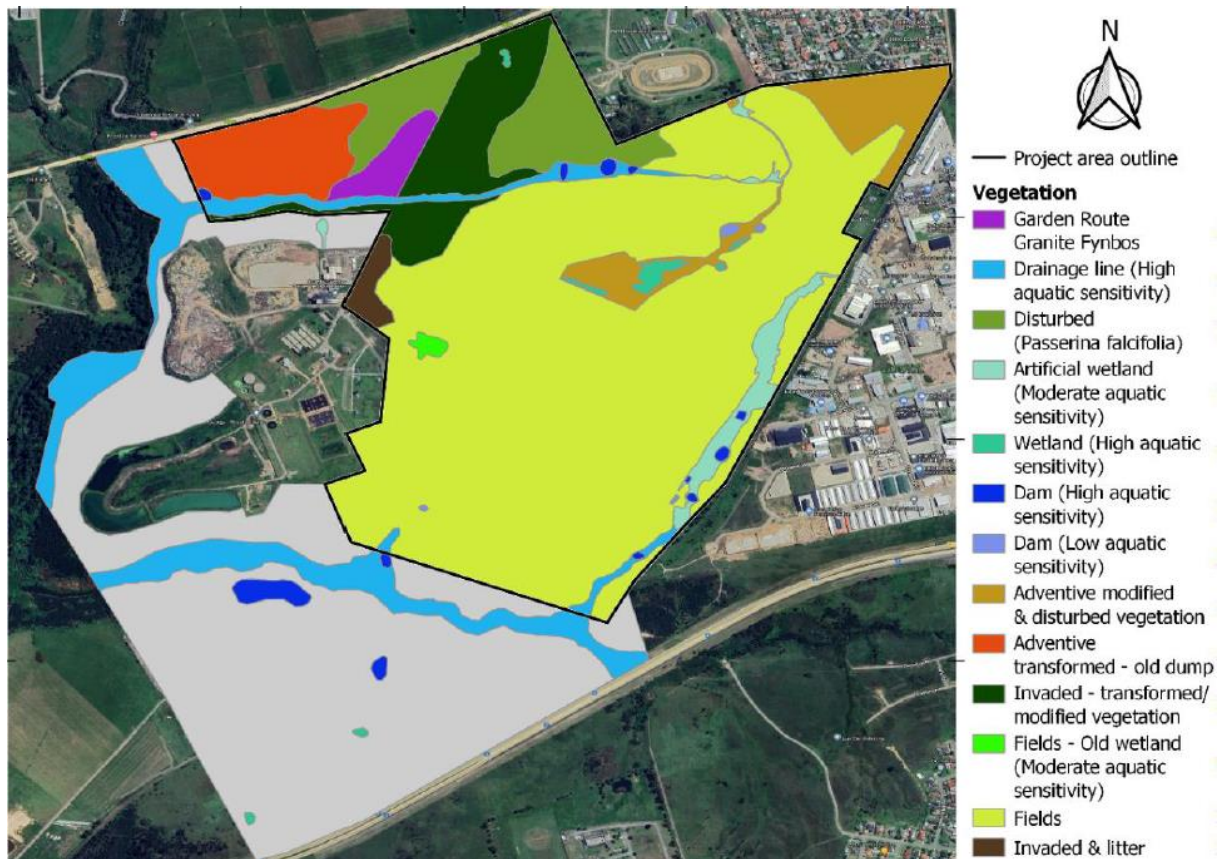


Figure 28: Different categories of vegetation found on the property (Source: Confluent 2024).

Having considered the botanical condition of the site, alongside the preferred SDP that has been adjusted accordingly, the botanist expressed the opinion that the development footprint is likely to have a 'low' or 'very low' botanical sensitivity for the most part, with 'medium' along the drainage lines/wetlands and 'high' in the remaining patch of Granite Fynbos.

On the biodiversity side, taking into account CBAs and ESAs, the theme for the site is 'low' for the most part, with 'very high' for the Granite Fynbos area that should be avoided is possible.

When taking into account both botanical sensitivity and terrestrial biodiversity, the combined environmental sensitivity map for the area

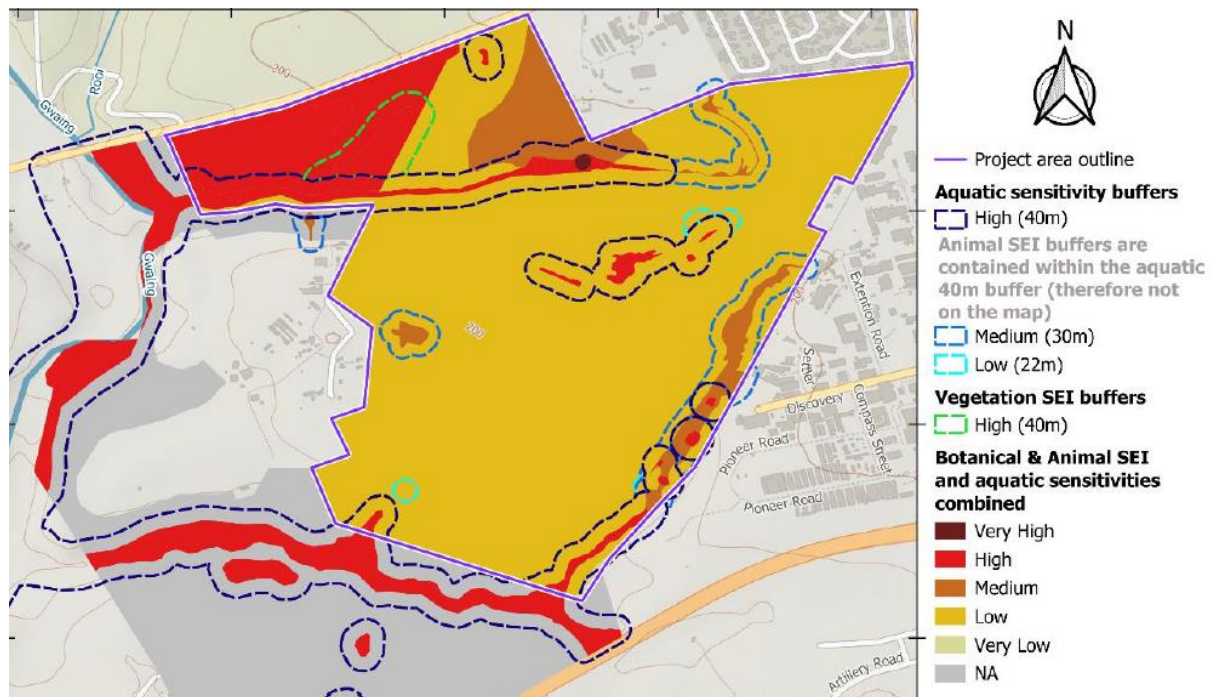


Figure 29: Integrated biodiversity, aquatic and terrestrial biodiversity areas of importance (Source: Confluent Consulting, 2024).

The following potential impacts have been identified by the specialist:

- Habitat loss and degradation due to invasive alien vegetation species;
- Grazing and mowing disturbances;
- Existing roads, infrastructure, squatters and dumps outside of the development that may impact on the designated open space areas;
- Soil erosion and poor water quality;
- Cumulative impacts associated with urban expansion.

To address these issues, the botanist recommends that an Alien Management/Control Plan be compiled for areas designated as Open Space in the preferred SDP, and that details must be provided by the Applicant about structures/infrastructure that may extend into or through the open space areas so as to ensure that all possible impacts have been identified and investigated, along with the appropriate mitigation and long-term management measures.

An integrated biodiversity/botanical impact assessment will be undertaken by the specialist to inform the impact assessment report that follows on acceptance of the scoping report by the DEADP.

8.2 Fauna

According to the Screening Tool, the vast majority of the site indicated as having 'medium' sensitivity for animal species. The faunal specialist considered the potential SCCs identified in the screening tool and also consulted other relevant sources/platforms, including iNaturalist, the Virtual Museum for herpetofauna, mammals and invertebrate taxa, the South African Bird Atlas Project, as well as the SANBI Red List of South African Species, in order to determine the most likely SCCs that could potentially occur on the property given their habitat, breeding and feeding requirements. To further verify SCCs the specialist also conducted taxa-specific sampling techniques in the habitats where SCCs are likely to occur on the property.



Figure 30: Faunal sensitivity rating according to the National DFFE Screening Tool.

In total, the faunal specialist undertook ten (10x) separate field site visits³ coinciding with the late summer and autumn months. Site surveys were undertaken during daylight hours and camera traps were used to assist in detecting nocturnal and diurnal animals over a 48hr period. Sherman traps and live mole traps were also set and active over two (2) consecutive nights to sample nocturnal small mammals.

The mapped faunal habitats coincide with that of the botanist for this site.

³ 22 February, 7 -9 March, 13 March, 24-26 March.

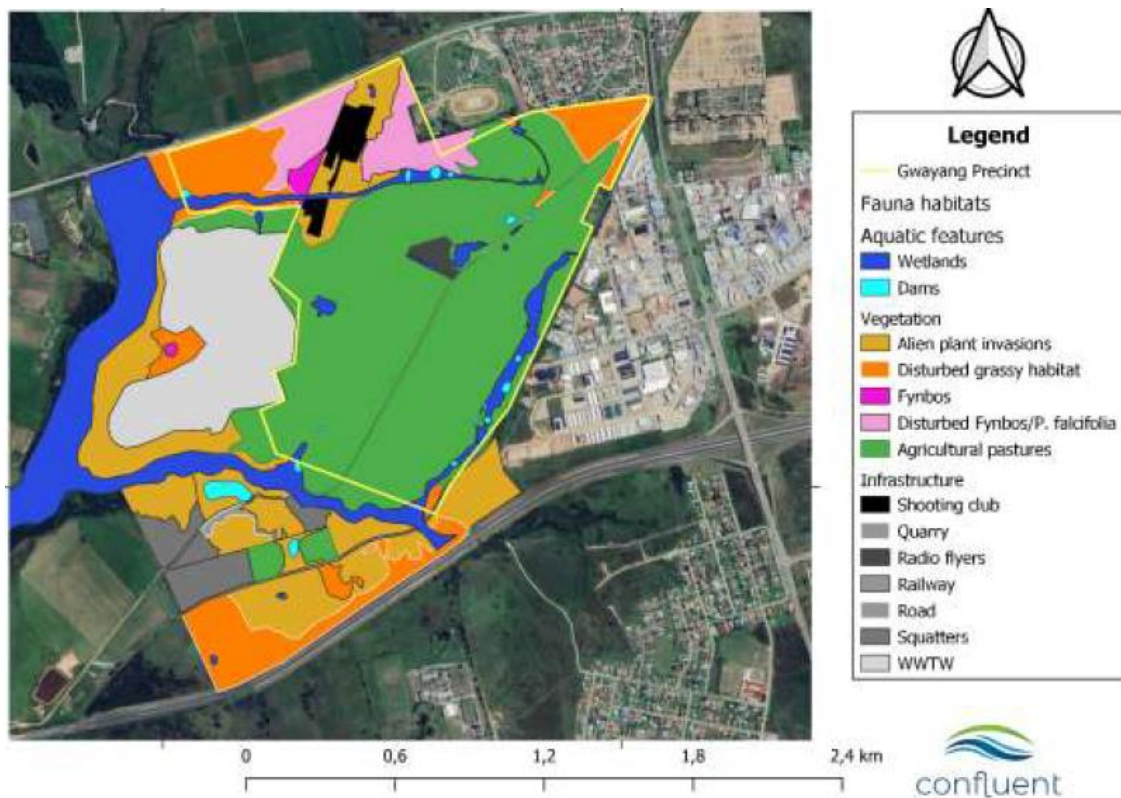


Figure 31: Faunal habitat definition for the site (Source: Confluent, 2024).

8.2.1 Birds:

The faunal specialist conducted 12x bird counts across the site in search of opportunistic sightings, nests/roosting sites in suspected habitat. A total of 46 bird species were identified on the site of which one SCC (**Forest buzzard**, Least Concern regional, Near Threatened global) was encountered (next to the shooting range).

Other bird species include the **Yellow-billed Kite**, **Booted Eagle**, **Long-crested Eagle** and a pair of resident **Jackal Buzzards** noted frequently during site inspections. This indicates that the pasture areas act as valuable hunting areas for birds of prey.

Although **not encountered** by the faunal specialist, **Denham's Buzzard** (medium-high likelihood of occurrence on the site, Red list status 'vulnerable') and **Blue Crane** (medium likelihood of occurring on the site, Red list status 'near threatened') (both SCCs) **could be** attracted to the pastures.

The specialist noted that the adjacent areas West of the site (the landfill and areas along the Gwayang River) are noteworthy areas for birds, mostly because the landfill offers (waste) food for rodents and birds alike.

8.2.2 Mammals

The area on the site that used to be an old landfill (dump) shows clear evidence of the Fynbos **Golden Mole** favouring this (highly modified) area as habitat near the remnant patch of Granite Fynbos. This SCC is highly adapt to modified/transformed environments. Although mole traps were placed in an attempt to capture a golden mole over two consecutive nights, these attempts were unsuccessful. However given the indicators observed, the precautionary principle has been applied to this SCC.

With the help of Sherman traps⁴ two rodent species were captured (South African Vlei rat and the Four Striped Field Mouse). Camera traps did not capture anything over a two-night period, however evidence of bushbuck was evident from droppings/dung found on the site near the wetland habitat.

Although not observed, there is a 'medium' likelihood of occurrence of the Long-tailed forest shrew (Red list status 'endangered') although its habitat is associated mostly with the Gwaing River habitat.

8.2.3 Terrestrial Invertebrates (insects)

No SCCs were found during the site visits and no suitable fynbos or aquatic habitat was identified for these species. Nonetheless, sweepnetting was conducted in various habitats and 17 invertebrate families were found on the site including spiders, butterflies, grasshoppers etc.



Figure 32: Examples of insects found on the site by the faunal specialist (Source: Confluent Consulting, 2024).

8.2.4 Amphibians

No SCCs were found during the site visits, however one of the wetlands is deemed suitable habitat for the Knysna Leaf-folding Frog which is a SCC (Red list status 'endangered') which has a 'medium-high' likelihood of occurrence at one specific wetland on the site. Surveys during its breeding season is recommended (September – November) to confirm its presence.

A risk averse approach has however been followed to avoid the majority of wetlands on the site also because of the confirmed presence (identified by their calls) of at least three (3x) other frog species as well.

⁴ Sherman traps are box-style, surface animal traps design for the live capture of small mammals.

8.2.5 Reptiles

No reptile SCCs were highlighted for the site by the Screening Tool or any other platforms. Therefore no targeted sampling took place and it is also confirmed that no reptiles were opportunistically encountered during any of the site inspections.

Considering all of the animal categories the specialist has confirmed the site as having a 'very high' and 'high' faunal site sensitivity. To account for this in the design, the following measures have been implemented:

- Buffers (40m wide) have been applied to the habitats where the Long-tailed Forest Shrew and the Knysna Leaf-folding Frog SCCs may occur;
- Invasive alien vegetation (especially trees) to be removed from the identified open space areas;
- Important wetlands to be avoided;
- Area identified as suitable for the Golden Mole (grassy fynbos/remnant Granite Fynbos patch) to be avoided and protected given its limited mobility and no connectivity to other suitable habitat in the surrounding landscape.

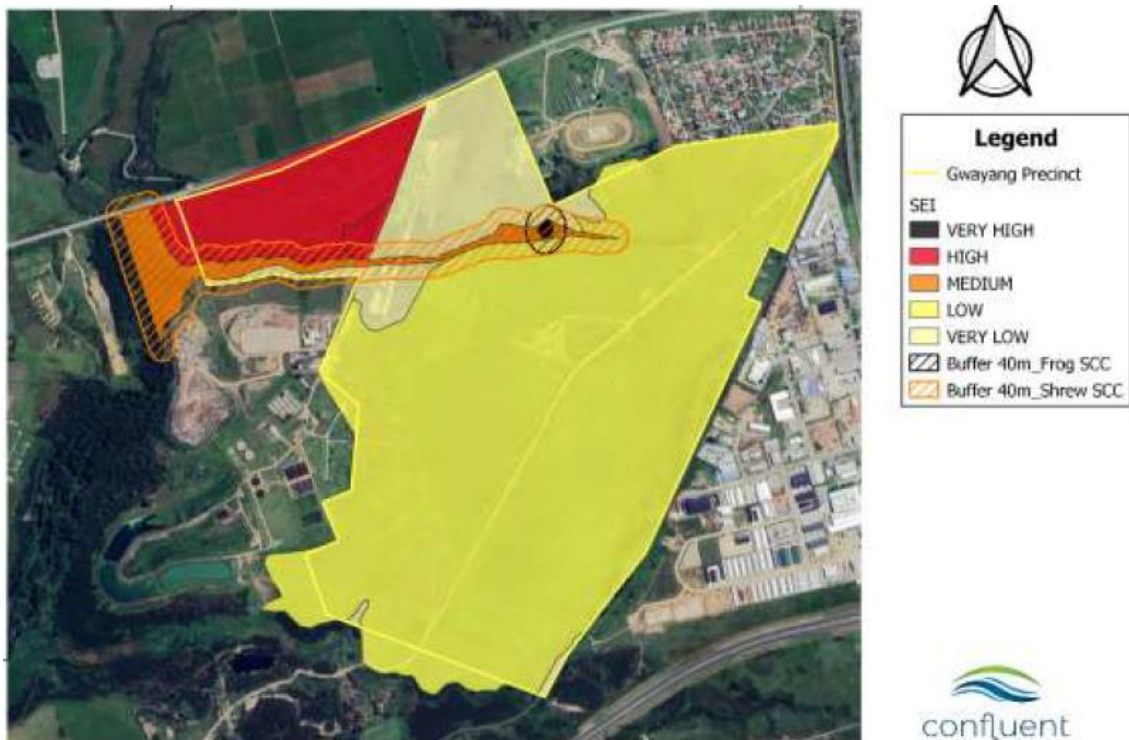


Figure 33: The faunal site ecological sensitivity for the development site (Source: Confluent Consulting, 2024).

Potential impacts that have been identified for further investigation and assessment by the specialist include, but are not limited to:

- Impact of habitat fragmentation/disturbance to the Golden Mole (by road) and long-term conservation/management of the identified habitat;
- Loss of habitat for identified fauna;
- Impact on wetland dependent faunal species (direct, as well as indirect from changes in run-off and water quality), particularly the impact of stormwater runoff during construction as well as operational phases;

- Additional survey for Knysna Folding-leaf Frog during September-November to confirm its presence;
- Ideally additional surveys on the Golden Mole to inform management requirements;
- Practical monitoring of identified habitats during construction/operational phases to ensure protection/conservation of these features in the landscape;
- Contamination of habitat or harm to fauna (litter/pollution);
- Displacement of fauna within the footprint;
- Impact of light pollution on fauna during operational phase;
- Invasive alien vegetation plants impacting on suitable fauna habitat in the open space areas ;
- Cumulative impacts/risks.

A detailed faunal impact assessment will be undertaken by the specialist to inform the impact assessment report that follows on acceptance of the scoping report by the DEADP.

8.3 Aquatic

According to the DFFE screening tool, the site has a 'very high' sensitivity. This rating is based on the critical biodiversity areas (aquatic), presence of rivers/wetlands and the site falling within a strategic water source area. To confirm/refute this sensitivity rating, the specialist considered the DWS spatial layer, National Freshwater Ecosystem Priority Areas (NFEPA) spatial layer, the National wetland map 5 and Confidence Map, as well as the Western Cape Biodiversity Spatial Plan.

Furthermore, the specialist conducted several site inspections to determine the site sensitivity in order to classify watercourses, determine the present ecological state (PES) and ecological importance and sensitivity (EIS) of watercourses, delineate wetland/riparian areas and determine appropriate buffers for wetlands using the Macfarlane & Bredin buffer tool.

By definition, a 'watercourse' (inclusive of its bed and banks) means:

- A river or spring;
- A natural channel in which water flows regularly or intermittently;
- A wetland, lake or dam into which, or from which, water flows and
- Any collection of water deemed so by the Minister.

A wetland as defined in the National Water Act (NWA) is '*...land which is transitional between terrestrial and aquatic systems where the water table is usually at, or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil*'. Accordingly, wetlands must therefore have one or more of the following attributes to meet the wetland, namely (a) a high water table that results in the saturation at or near the surface leading to anaerobic conditions developing in the top 50cm of the soil, (b) wetland or hydromorphic soils that display characteristics resulting from prolonged saturation; and (c) the presence of, at least occasionally, hydrophilic plants (water loving plants).

No activity may take place within a watercourse unless it is authorised by the Department of Water Affairs & Sanitation (DWS) and any activities that may impede or divert the flow of a watercourse, or alter the bed, banks, course or characteristics of a watercourse must be generally authorised or licensed prior to said activities being undertaken. Furthermore, the regulated area of a watercourse for such activities means the 1:100 year flood line and/or

delineated riparian habitat whichever is the greatest distance, in the absence of a determined 1:100 year flood line or riparian area, the area within 100m from the edge of a watercourse, or a 500m radius from the delineated boundary of any wetland/pan.

It is confirmed by the specialist that the site does not form part of the NFEPA and the majority of the site is excluded from having any aquatic CBA with the exception being the identifiable drainage lines / watercourses, inclusive of wetlands that were identified through site surveys.

Importantly, the specialist recommends that development on this site must not compromise water quality in the nearby Gwaing River due to the possibility of Cape galaxias and Cape kurper possibly occurring in the Gwaing River which status is indicated as 'decreasing' on the IUCN Red List.

Site surveys undertaken over two days in September 2022 and again three times during March 2023 confirm the presence of wetlands and drainage lines (both mapped and unmapped). There are several instream dams associated with historic drinking water for livestock which have over time created habitat for birds, amphibians and small mammals therefore providing a valuable ecosystem service.

It is anticipated that once developed, the site will generate additional stormwater runoff that will most likely enhance wetland features on the property (especially along the Transnet railway line).



Figure 34: Image of the broad unchanneled wetland below the industrial area along the railway line reflecting seasonal wetland conditions (Source: Confluent Consulting, 2024).

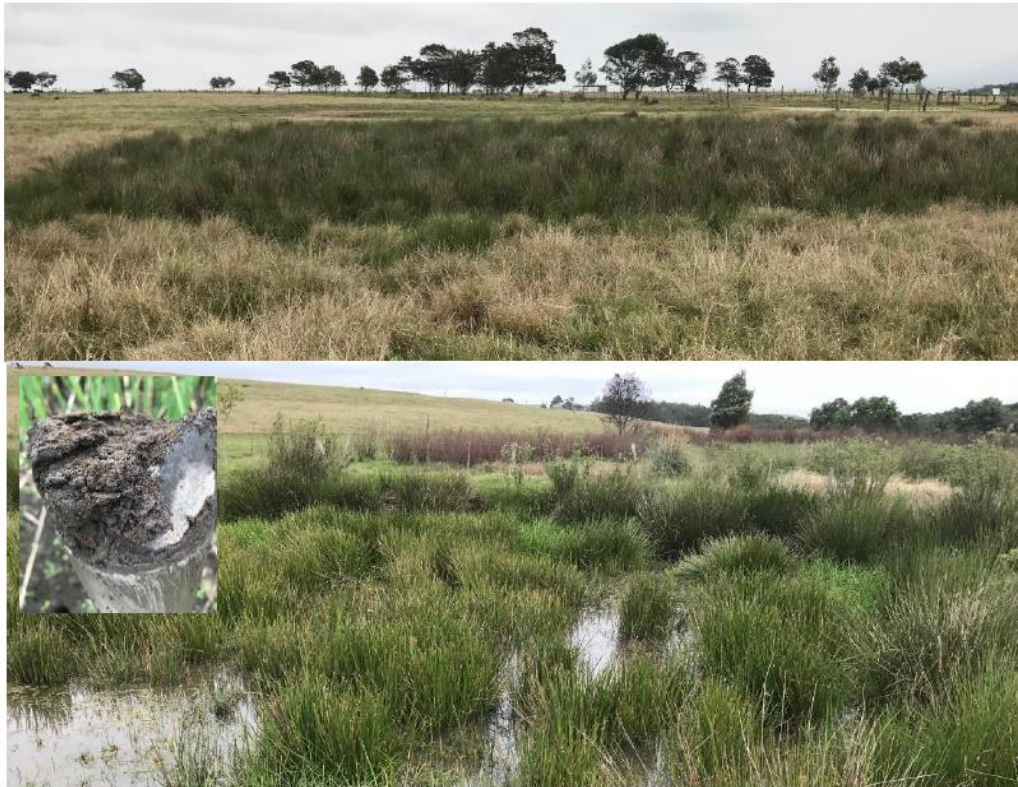


Figure 35: Natural wetlands near the radio flyer club (top picture) and near the showgrounds (bottom picture) (Source: Confluent Consulting 2024).

The specialist delineated the drainage lines, inclusive of natural, as well as artificial wetlands traversing the property.

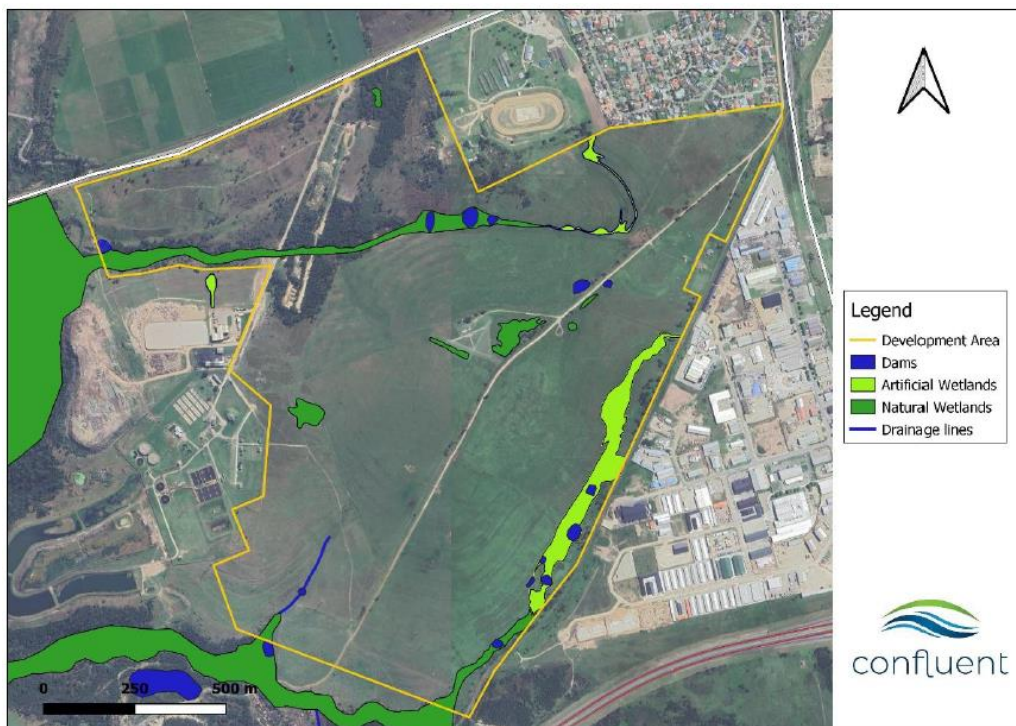


Figure 36: Delineated watercourses (inclusive of wetlands) with associated classifications (Source: Confluent Consulting, 2024).

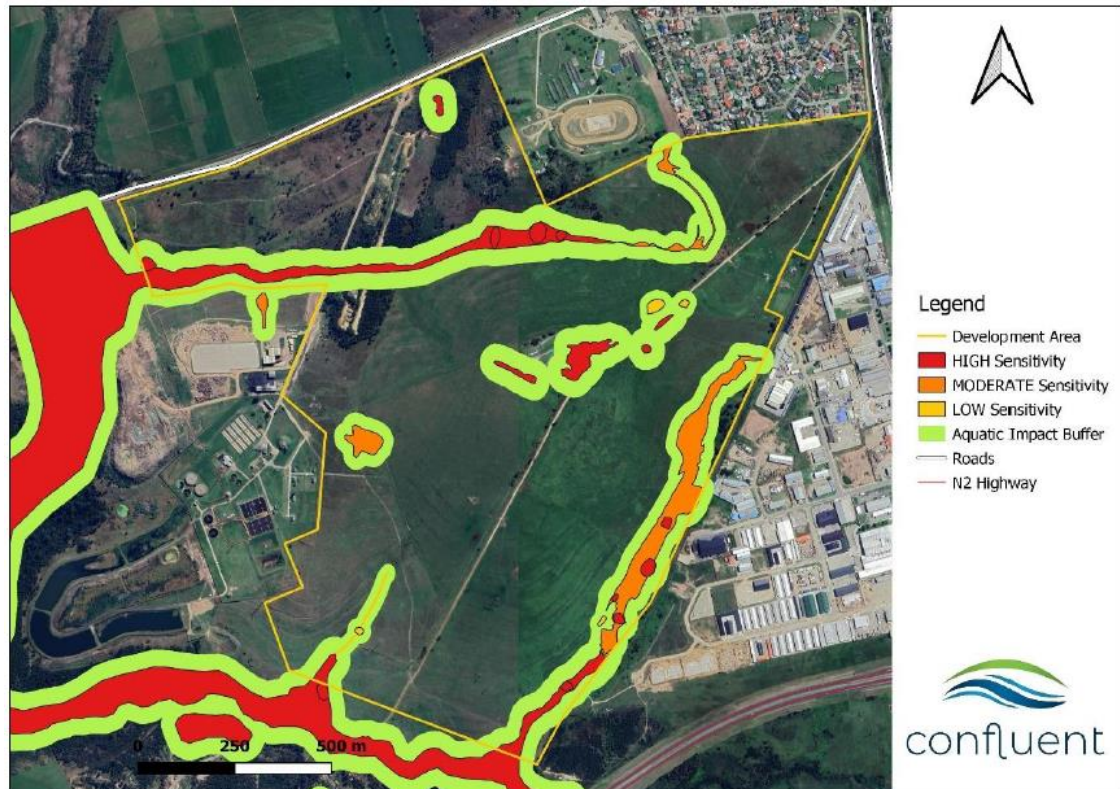


Figure 37: The aquatic sensitivity of features indicated spatially inclusive of recommended buffers (Source: Confluent Consulting, 2024).

Given the ecosystem service and ecological sensitivity of the watercourses, the specialist recommended buffers along the site-based aquatic features in the following manner:

- High sensitivity watercourses: 40m
- Moderate sensitivity watercourses: 30m
- Low sensitivity watercourse: 22m

The SDP was informed by the outcome of the aquatic SSVR and scoping investigation and taking into account the site sensitivity, the preferred SDP was amended with specific numbered areas indicated for potential further improvement should it be possible all other disciplines and project requirements considered.

Based on the aquatic investigation, the specialist confirmed that site sensitivity to be 'very high' due to the presence of natural watercourses which will be directly and indirectly affected by the proposed development. It is submitted that a detailed Aquatic Impact Assessment will be undertaken to investigate the impacts that may result from the proposed development should it not be possible to avoid them.

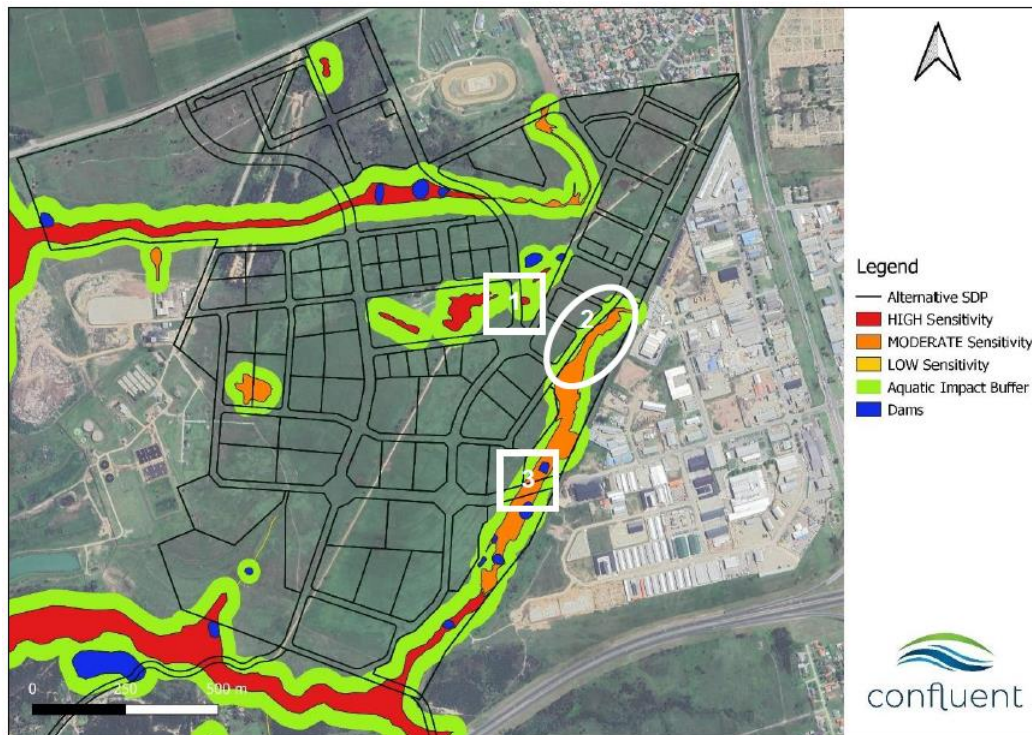


Figure 38: Map indicating the preferred SDP at scoping level indicating areas for possible further improvement (Source: Confluent Consulting, 2024).

Potential impacts that have been identified through the investigation, that requires further investigation/attention in the impact assessment phase include, but are not limited to:

- Construction stormwater runoff impacting water quality and habitat;
- Construction activities in proximity to watercourses that may result in disturbance of soil, vegetation, water quality and aquatic biota;
- Structures/infrastructure crossing watercourses with direct impacts on instream habitat, water quality and biota;
- Colonisation of disturbed areas by invasive alien vegetation along with the spread of invasive alien vegetation along watercourses during operational phase;
- Uncertainty about the monitoring requirements for long-term management of open space areas;
- Compliance with buffers and clarification on permissible activities within the recommended buffer areas;
- Long-term discharge of operational stormwater, possibly containing industrial waste, to stormwater drains leading to natural watercourses causing water pollution (already evident from the neighbouring industrial areas), along with poor compliance and monitoring concerns;
- Higher volume and velocity of stormwater runoff from increased impervious areas resulting in channel incision, erosion, vegetation loss, terrestrialisation of wetland habitat;
- Fragmentation of riparian and wetland habitat due to major roads planned to cross the very high sensitive watercourse on site (double crossing has a cumulative impact

exacerbating disturbance due to noise, lights, pollution), with a similar impact in the wetland flat area where the road crosses between wetland units;

- Unwanted blockage of sewer lines, leaking sewer lines, pump stations overflowing, sewer manholes overflowing during rain events, creating water pollution;
- Cumulative impact on Gwaing River (already carrying a high pollution load from landfill leachate and treated effluent).

8.4 **Agriculture**

The DFFE screening tool indicates most of the site having a 'high' agricultural sensitivity as depicted in below image.



Figure 39: Development area overlaid on the agricultural sensitivity as given by the screening tool (RED high, ORANGE medium).

The high sensitivity classification is due to a combination of some land being classified as cropland and some being classified with a land capability of 9. However, according to the agricultural specialist, the data set used by the screening tool to classify cropland is outdated. All land across the footprint is no longer used or viable as cropland. This land should not, therefore, still be classified as cropland and allocated high sensitivity because of it. The agricultural specialist therefore disputes the 'high' sensitivity rating by the screening tool that is based on cropping status.

The site falls outside of an area that is classified as 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, particularly of arable land, is considered a priority

for the protection of food security in South Africa, but the protection of land outside of these areas is generally not considered a food security priority.

The specialist found that although climate and terrain are suitable for a range of crop types, the cropping potential of the site is limited by soil constraints. These constraints are limited soil depth, low water and nutrient holding capacity of the sandy upper soil horizons, and limited drainage.

Because of these constraints, the site is marginal for viable rainfed crop production and its viable agricultural use is more suited to grazing. The site would be suitable for crop production of specific crops under irrigation, if irrigation water was available but it is understood that the Municipality stopped providing the tenant with treated effluent some years ago and no other existing lawful water use rights are registered for the property.

Although rain-fed cropping may have been done on the site in the past, such production is no longer economically viable. The specialist concludes that a more appropriate sensitivity rating for the site should be 'medium'. No further agricultural potential assessment investigations is deemed necessary to inform either the layout or the development application.

The Department of Agriculture for the Western Cape, will however be approached for comment as part of the ongoing scoping phase of this application.

8.5 Heritage

From a colonial perspective, a substantial portion of the site (i.e. northwards of the railway line) forms part of the original George Town Commonage, surveyed and framed during August 19198 by surveyor Dumbleton whilst the area south of the railway line (i.e. Erven 324 and 2819) forms part of the former Pacaltsdorp Commonage, once registered to the Pacaltsdorp Village Management Board. The Pacaltsdorp Municipality was formally incorporated into George Municipality during the c. 1950's. Basic historical background research did not identify or highlight significant heritage-related themes pertinent to this particular portion of land.

The two historic (railway) dwellings remain along the eastern study area boundary. Both structures appeared dilapidated and are not considered of any particular local architectural or cultural significance. Said structures are situated outside the study area and therefore unlikely to be directly impacted through the proposed development.

From an archaeological perspective, the closest Provincial Heritage Site (Grade II) to the study area is Herold's Bay Cave, some 6.7km to the south-west.

It seems unlikely that any significant artefact material will be identified in the study area. Scatters of ESA and/or MSA material are possible but are likely to be of low significance. Caves/rock shelters do occur in rock outcrops along the lower reaches of the Gwayang River, near the coast and it is possible that some may be found higher up the river valleys as well. However, these are not likely to be impacted.

According to SAHRIS Palaeontological sensitivity mapping, the entire study area forms part of an area highlighted as being of no palaeontological sensitivity (grey) where "*no palaeontological studies are required*"

In considering the heritage investigation, the Heritage Western Cape (HWC) in their comment dated 6 April 2023, confirmed that since the specialists are of the opinion that the proposed development will not impact on heritage resources, no further studies are required in terms of Section 38 of the National Heritage Resources Act. However, in the event that any heritage resources, including evidence of graves and human burials, archaeological material and

paleontological material are discovered during execution of the development, all works (in that area) must be stopped immediately and HWC notified for further instructions. The Heritage Western Cape's Chance Find procedure must be noted.

8.6 Visual

The finding of the specialist responsible for the visual and landscape scoping assessment, is that there are areas suitable for industrial type development within the project areas. There are, however, also areas in close proximity to receptors which are likely to be sensitive to landscape change.

These areas include the close proximity areas relating to the N2 Highway, the R102 District Road as well as the Groeneweide Park residential areas. These areas are suitable for residential type/ lower intensity type developments.

Due to the location of the proposed development to the R102 tourist view corridor, the Agricultural Research Farm and the rural agricultural areas to the west of the site that add value to the local scenic quality, further information on the nature and scale of the Heavy Industry landscape along this road will be required for more detailed assessment.

The key receptors outside the study site, as identified by the visual specialist include the following:

- N2 Highway to the South;
- Groeneweide Park residential suburb to the North-East;
- Western rural farm accesses;
- Delville Park

On-site features that are deemed to have visual quality, include:

- River/streams and associated riparian areas significant to the NWA;
- Wetlands identified as significant to the NWA;
- Ecological areas identified as having significance on the site;
- Heritage areas identified as having high significance (there are none);
- Hydrological drainage lines and associated buffers as identified by the aquatic specialist.

The visual specialist confirms that due to the negative visual elements that already existing in the landscape namely the municipal landfill and industrial uses, the potential for negative cumulative impacts are likely to be limited. However the development of heavy industrial components along the R102 is likely to visually degrade this corridor as well as the scenic quality of the rural agricultural areas and the research farm opposite the R102.

The preliminary viewshed analysis identify the key visual observation points that is used as locations to assess the suitability of the landscape change to be expected.

Name	Theme	Exposure	Motivation
N2 Highway	Tourist view corridor	Very High	Located in close proximity to residential and tourist related receptors where the proposed industrial landscape change could influence the local landscape character.
GroeneweidePark	Residential	Very High	
Deville Park		High	
Western rural farm access.	Rural agricultural	Medium	Located to the northwest of the project where rural agricultural land uses take place, where the proposed industrial landscape change could influence the local sense of place.

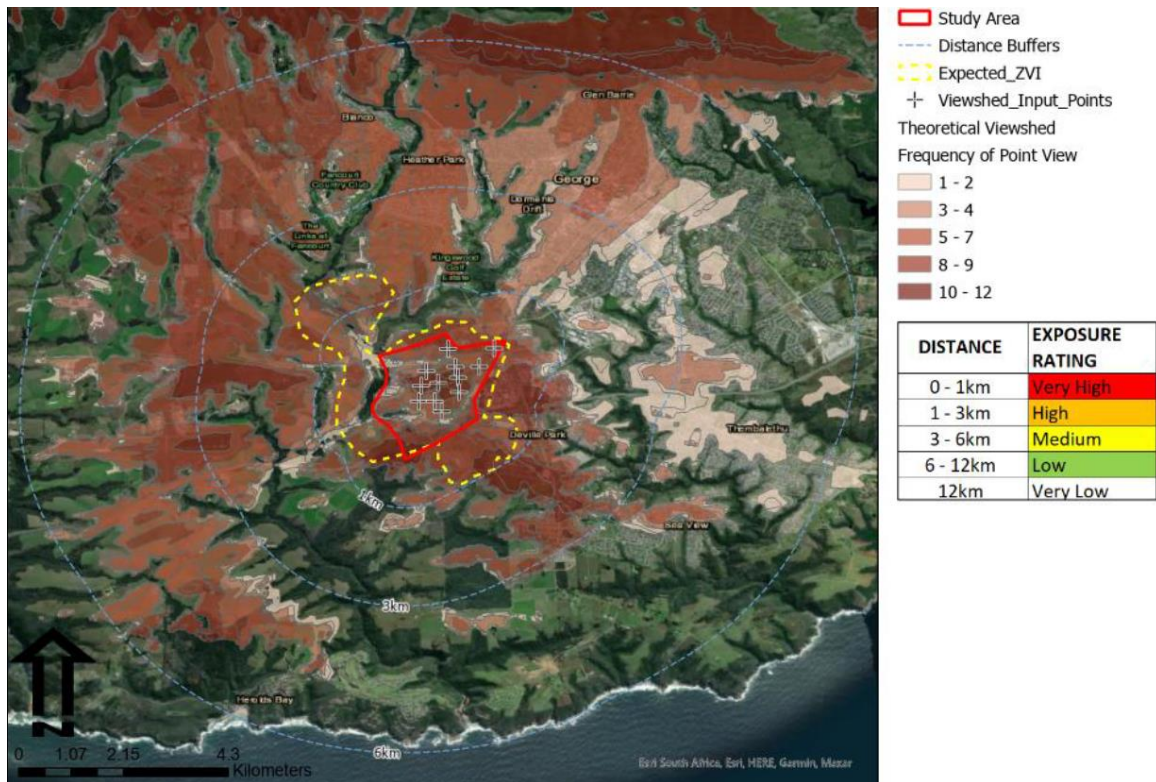


Figure 40: Preliminary viewshed analysis (Source: VRMA, 2024).

Having considered the viewshed and key observation points, the visual specialist was able to compile a visual classes map that must be used to inform spatial planning.



Figure 41: Visual classes map of the study area (Source: VRMA, 2024).

Based on the visual classes map, the specialist finds the scenic quality of the development proposal as being **'medium – low'**. The reception sensitivity to the landscape is also identified as **'medium – low'**.

As the site is fairly degraded, the recommendation of the Landscape and Visual Impact Assessment is that a Level 4 visual impact assessment be undertaken, that does include generic photomontages to adequately depict the landscape change as seen from the Key Observation Points.

8.7 Social

Based on the findings of the review of spatial planning documents, the specialist found the site to be located with the urban edge of George and set aside for development in terms of the current SDF. As such the area is identified as being suitable for development.

There are several socio-economic impacts likely to result from a development of this nature which area combination of both positive and negative:

- Change in landscape character / impact on sense of place
- Employment opportunities
- Income generation
- Additional income generation for the Local Municipality
- Security and safety associated with construction periods
- Noise, dust and safety impacts associated with construction periods
- Provision of affordable housing/accommodation
- Impact associated with additional traffic

- Potential negative impact associated with the WWTW, landfill site and waste incinerator on the future owners/occupiers/tenants
- Phasing of the development (will impact on the significance of positive/negative impacts)

A detailed social impact assessment will be undertaken in order to quantify the level and scope of potential social impacts that may arise from this development.

9 LEGISLATION, POLICY & REGULATIONS

As Planners on the project, Zutari (2024) provided details on the spatial planning aspects related to the proposal. Additional regulatory requirement in terms of the applicable environmental aspects are also discussed in this section.

9.1 Strategic National, Provincial and Local Planning Frameworks and Policies

9.1.1 National Policy Context

- The National Development Plan 2030

The National Development Plan (NDP) 2030 was developed by the National Planning Commission (NPC) in the office of the President in 2012. The objectives stated within the NDP include the need for a strong and efficient planning system, integrated across the various spheres of government. The NDP sets out an integrated strategy for accelerating growth, eliminating poverty and reducing inequality, by 2030. It further provides a new focus for planning authorities to embrace several other policies of the government, developed since 1994. Accordingly, the NDP places spatial transformation as the key challenge and objective within South Africa and is seen as the foundation, and enabler, of economic growth and development.

Chapter 8 of the NDP 2030 deals with “Transforming Human Settlements”, where specific provision is made for spatial planning, and which includes issues of importance for the review of a Spatial Development Framework (SDF). The NDP states that “planning in South Africa will be guided by normative principles to create spaces that are liveable, equitable, sustainable, resilient and efficient, and support economic opportunities and social cohesion”. These principles for spatial development are premised on spatial justice, spatial sustainability, spatial resilience, spatial quality and spatial efficiency. These principles are regulated in Chapter 2 of the Spatial Planning and Land Use Management Act (SPLUMA): Development Principles Sections 7(a), (b), (c), (d) and (e).

Furthermore, the NDP proposes that: “These principles need to be incorporated into operational principles that provide guidance on”:

- ▶ Integrating rural and urban areas;
- ▶ Accommodating social diversity within the built environment;
- ▶ Creating more dense settlements without raising the cost of land and housing for the poor;
- ▶ Integrating transportation systems and land use;

- ▶ Broadening the economic base of towns and cities through the supply of reliable infrastructure, suitable land and property, connectivity, skills and logistics;
- ▶ Building community involvement and partnerships;
- ▶ Supporting the development of vibrant, diverse, safe, green and valued places; and
- ▶ Ensuring that governance arrangements and leadership deliver equitable and efficient decision-making.”

The spatial interventions, concepts and principles underpinning the proposed development is therefore aligned with the NDP objectives ensuring spatial transformation, liveable and equitable urban spaces.

- Spatial Planning and Land Use Management Act

The Spatial Planning and Land Use Management Act (2013) (SPLUMA) is a law assented to by the President of the Republic of South Africa on 5 August 2013. SPLUMA replaced the Development Facilitation Act (DFA) and the Land Use Planning Ordinance, 15 of 1986 (LUPO), and came into effect on 1 July 2015. SPLUMA is a framework act for all spatial planning and land use management legislation in South Africa. It seeks to promote consistency and uniformity in spatial planning and management related procedures and decision-making. Other objectives include addressing historical spatial imbalances and integrating the principles of sustainable development into land use and planning regulatory tools and legislative instruments. SPLUMA requires national, provincial and municipal spheres of government to prepare SDFs that establish a clear vision that must be developed through a thorough inventory analysis based on national spatial principles and local long-term development goals and plans. SPLUMA was developed to legislate a single and integrated planning system for South Africa. Furthermore, SPLUMA provides a framework for spatial planning and land use management and, as such, it can be used as a tool to aid the spatial transformation of our rural and urban areas.

As it pertains to urban planning, SPLUMA provides for two pillars of planning, namely spatial forward planning and land use management, or land development administration. SPLUMA provides general development principles in Chapter 2, subsection 7(a)-(e) of the Act, that applies to spatial planning and land use management, including:

- ▶ Spatial justice: Past spatial, and other, development imbalances must be redressed through improved access to, and use of, land.
- ▶ Spatial sustainability: Spatial planning and land-use management systems must promote land development that is within the fiscal, institutional and administrative means of South Africa, protect prime and unique agricultural land, comply with environmental laws and limit urban sprawl.
- ▶ Efficiency: Land development should optimise the use of existing resources and infrastructure, and decision-making procedures must be designed to minimise negative financial, social, economic or environmental impact.
- ▶ Spatial resilience: Flexibility in spatial plans, policies and land-use management systems are accommodated to ensure sustainable livelihoods in communities that are most likely to suffer the impacts of economic and environmental shocks.

- ▶ **Good administration:** All spheres of government are to ensure an integrated approach to land-use and land development, that is guided by spatial planning and land-use management systems. All governmental departments are to provide sector inputs, comply with any other requirements and follow a transparent public process.



Figure 42: SPLUMA principles

Sustainable principles, regulations and practices have been incorporated into the proposed development. The spatial interventions conform to these normative principles to ensure sustainable development and the promotion of natural, human, social and physical capital within the immediate area.

- National Environmental Management Act

The National Environmental Management Act (Act.107 of 1998) (NEMA) provides for cooperative environmental governance by establishing principles for decision-making on matters affecting the environment. It also provides for certain aspects of administration and environmental management law enforcement to be undertaken by institutions that can promote cooperative governance and procedures for co-ordinating environmental functions exercised by organs of government.

NEMA is crucial in matters of environmental sustainability, resilience to climate change and the sustainable use of natural resources, as these are key to the current and future socio-economic well-being of residents within a municipal area. To this end, it is crucial that NEMA principles, in conjunction with the development principles set out in SPLUMA, are applied. Both NEMA and SPLUMA provide for an integrated and coordinated approach towards managing land use and development processes. This approach is based on co-operative governance and foresees the utilisation of spatial planning and environmental management instruments, such as SDFs and EMFs, to align the requirements of allowing development, while ensuring that biodiversity, as well as other sensitive natural elements, are protected.

The NEMA principles are considered and a spatial strategy that is environmentally sustainable, and which creates a balance between development and the protection of natural resources are presented.

- National Heritage Resources Act

In terms of the National Heritage Resources Act (Act 29 of 1999) (NHRA), Section 30(5), it is a legal requirement for local authorities to compile an inventory of heritage resources within their areas of jurisdiction: "At the time of the compilation, or revision, of a town planning scheme or spatial development plan, or at any other time of its choosing...". It also requires that the

planning authority submit the inventory to the relevant provincial heritage authority “which shall list in the heritage register” those heritage resources that fulfil certain heritage criteria, as stated in the Act.

When read in conjunction with Section 34 of the NHRA, this includes the identification, mapping and grading of structures older than 60 years. A consequence of Section 34 of the NHRA, is that approval for demolitions and alterations to buildings older than 60 years, currently falls within the jurisdiction of Heritage Western Cape (HWC), and not the local authority. This will remain the case until a local authority obtains competency from HWC to fulfil these functions. Significantly, the NHRA is structured to encourage decision-making on the management of heritage resources to be devolved to a local level, i.e. “where such resources are deemed to be of local significance.” (Western Cape Government, 2013).

With regards to the National Heritage Resources Act (NHRA), Act 29 of 1999, certain activities may not be initiated without any prior approval/consent from the competent authority, which in this case would be Heritage Western Cape (HWC), if they have a potential to impact on the heritage or cultural features (structures older than 60 years, landscapes and natural features of cultural significance, geological sites of scientific or cultural importance, archaeological and palaeontological sites, graves and burial grounds, sites of significance relating to slavery or movable objects) considered to be a national estate and need to be preserved or protected. Section 38 (1) of the NHRA provides a list of the activities which should be authorised by Heritage Western Cape (HWC) and is quoted below:

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

(a) the construction of a road, wall, powerline, pipeline, canal or other similar forms of linear development or barrier exceeding 300m in length;

(c) any development or other activity which will change the character of a site—

(i) exceeding 5,000m² in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by South African Heritage Resource Agency (SAHRA) or a provincial heritage resources authority;

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

A notification of intent to develop was undertaken and submitted to Heritage Western Cape (HWC) who confirmed that no further studies are deemed necessary to inform decision-making from a heritage perspective.

- Integrated Urban Development Framework

The Integrated Urban Development Framework (IUDF) is the government’s policy position, coordinated by the Department of Co-operative Governance and Traditional Affairs (COGTA), to guide the future growth and management of urban areas. The IUDF responds to the post-

2015 Sustainable Development Goals (SDGs), particularly Goal 11, which focuses on making cities and human settlements inclusive, safe, resilient and sustainable.

An important outcome of the IUDF is that of spatial transformation. The policy levers that have been identified are crucial for maximising the potential of urban areas, by integrating and aligning investments in a way that improves the urban form. The IUDF adopted a Transport-Oriented Development (TOD) approach to urban design, where all development policies promote higher-density urban development along mass transit corridors. This approach should promote investment in human settlements and other key economic infrastructure, further enabling mobility and accessibility to social and economic opportunities.

To reach its vision, the IUDF identifies four strategic goals (defined below) which will aid in achieving the transformative vision of restructured urban spaces, and compact, connected cities and towns:

- Spatial integration: To forge new spatial forms in a settlement, transport, social and economic areas.
 - Inclusion and access: To ensure people have access to social and economic services, opportunities and choices.
 - Growth: To harness urban dynamism for inclusive, sustainable economic growth and development.
 - Governance: To enhance the capacity of the state and its citizens to work together to achieve spatial and social integration.
- National Water Act

The National Water Act (NWA), Act 36 of 1998, aims to regulate the use of water and/or activities that may potentially impact water resources through the categorisation of water use activities as described in Section 21 of the said Act:

- (a) Taking water from a water resource;
- (b) Storing water;
- (c) Impeding or diverting the flow of water in a watercourse;
- (d) Engaging in a stream flow reduction activity contemplated in section 36;
- (e) Engaging in a controlled activity identified as such in section 37(1) or declared under section 38(1);
- (f) Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduits;
- (g) Disposing of waste in a manner that may detrimentally affect a water resource;
- (h) Disposing of in any manner of water which contains waste from, or which has been heated in any industrial or power generation process;
- (i) Altering the bed, banks, course or characteristics of a watercourse;
- (j) Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or the safety of people; and
- (k) Using water for recreational purposes.

The provision of the National Water Act (NWA), Act 36 of 1998 are being complied with as part of the water use license application (WULA) for the proposed development.

9.2 Provincial Policy Context

9.2.1 Western Cape Provincial Spatial Development Framework

for both the public and private sectors and serves as the guide to all sectoral considerations concerning space and place in the Western Cape. The PSDF serves to guide the location and form of public investment and seeks to influence other investment decisions, by establishing a coherent and logical framework for spatial investment. The PSDF furthermore provides the spatial development policy framework through which the various provincial strategic goals will drive economic growth, improve natural resource management and resource use efficiencies, and develop more sustainable and integrated settlements.

The Provincial spatial agenda can be summarised as follows:

- Growing the Western Cape economy, in partnership with the private sector, non-governmental and community-based organisations;
- Using infrastructure investment as the primary lever to bring about the required urban and rural spatial transitions; and
- Improving oversight of the sustainable use of the Western Cape’s spatial assets.

The PSDF includes four spatial themes, namely resources, space economy, settlement and spatial governance. The policies and strategies that flow from these themes focus on strategic investment in the space economy, settlement restructuring and the protection of the Province’s natural and cultural resource base.

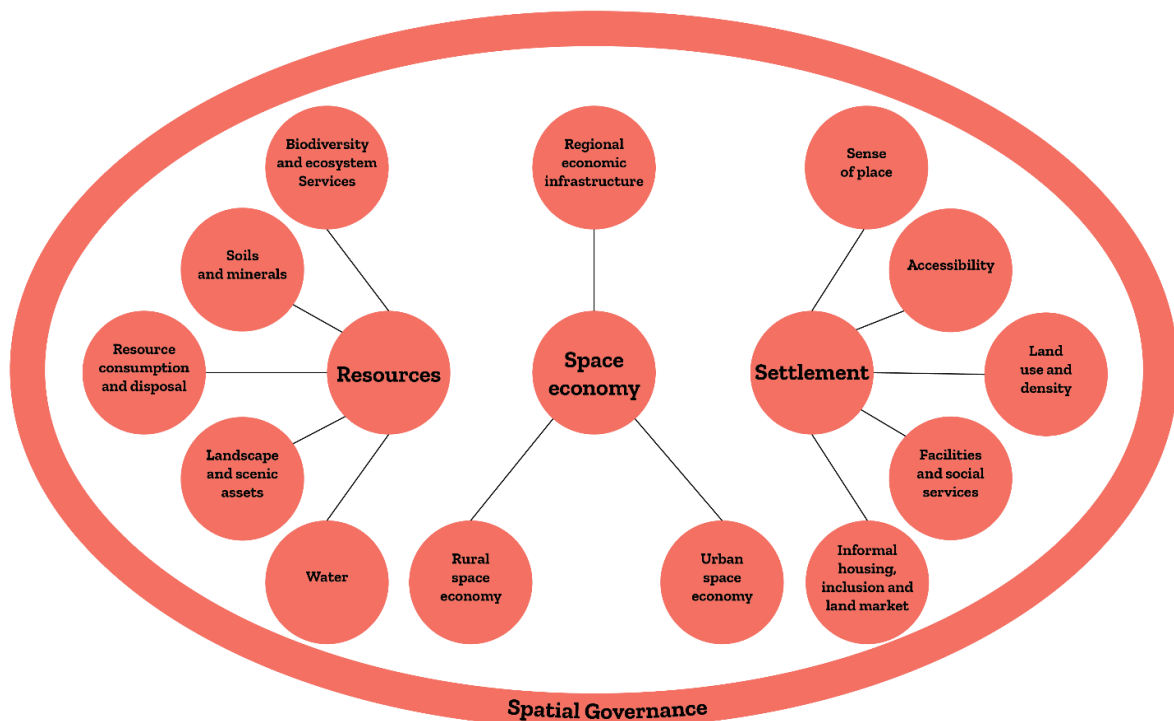


Figure 43: PSDF themes

The PSDF is an important spatial planning and land use management tool. It graphically portrays the Western Cape at a provincial level. The spatial planning principles and strategies underpinning the proposed development of the Gwayang Mixed-Use development site aligns with the PSDF.

9.2.2 Western Cape Land Use Planning Act

The purpose of the Western Cape Land Use Planning Act (Act 3 of 14) (LUPA) is to consolidate legislation in the Western Cape Province that relates to spatial planning and to coordinate public investment. It is strongly aligned with SPLUMA and governs spatial planning and land use management in the Western Cape.

9.2.3 OneCape 2040

integrated and resilient economic future for the Western Cape region: *“A highly-skilled, innovation-driven, resource-efficient, connected, high opportunity and collaborative society”*. The spatial vision that OneCape 2040 foresees, is: *“creating a resilient, inclusive and competitive Western Cape with higher rates of employment, producing growing incomes, greater equality and an improved quality of life”*. This vision seeks to set a common direction to guide planning and action and to promote a common commitment to, and accountability of sustained long-term progress. To this end, the six transitions have been identified, as summarised in Table 7.

Table 7: The role of local government in achieving the OneCape 2040 vision

Educated Cape	Every person will be appropriately educated for an opportunity. Recognised centres of ecological, creative, science and social innovation excellence.
Enterprising Cape	Anyone who wants to be economically active can work. The entrepreneurial destinations of choice.
Connecting Cape	Welcoming, inclusive and integrated communities. Global meeting place and connector.
Living Cape	Healthy, liveable, accessible, high opportunity neighbourhoods and towns. Ranked as one of the greatest places to live in the world.
Green Cape	Functioning ecosystems working for and with communities. Leader and innovator in Green Economy.
Leading Change	Collaboration. Innovation mechanisms. Supportive roles.

Source: Western Cape Government OneCape 2040 presentation

OneCape 2040 has a strong focus on inclusive, integration and the creation of job opportunities. The proposed Gwayang Mixed-Use development is deemed to be aligned with these principles to provide an integrated, mixed-use development that will stimulate job creation.

9.2.4 Western Cape Biodiversity Spatial Plan Handbook

The Western Cape Biodiversity Spatial Plan (WCBSP) (2017), developed by the Western Cape Department of Environmental Affairs and Development Planning, and the Western Cape Nature Conservation Board (CapeNature), describes biodiversity as follows: “to the variety of life on earth, including genes, species and ecosystems, and the ecological and evolutionary processes that allow these to persist over time”. The plan highlights the importance of conserving biodiversity, as it is important, not only because of its essential value but also because it is the natural resource that enables human communities to build sustainable livelihoods and attain an adequate quality of life.

The handbook is a spatial tool and includes the Biodiversity Spatial Plan (BSP) Map of biodiversity priority areas.

It is written to enable users to proactively identify ecological opportunities and constraints and use them to manage and plan infrastructure development and land use appropriately. For this decision-making, the WCBSP provides up-to-date plans that identify Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs).

The BSP Map and guidelines should be used for development applications, proactive forward-planning (include SDFs), proactive conservation and restoration planning. It should not, however, replace on-site evaluations, or be used in isolation, and it is not a multi-sectoral planning tool.

The PSDF states that local SDFs should divide its landscape into Spatial Planning Categories (SPCs) “to reflect a vision of how the area should develop spatially, to ensure sustainability”. At a precinct planning level, the policies, management objectives and guidance for appropriate land use within each SPC should be incorporated.

Considering the detailed environmental investigations and various revisions of the SDP to accommodate environmental constraints, the proposed Gwayang Mixed-Use development is taking cognisance of the SPCs to protect any environmental sensitivities.

9.2.5 Western Cape Green Economy Strategic Framework

The Western Cape Green Economy Strategic Framework (WCGESF), also referred to as the “Green is Smart” Strategic Framework, positions the Western Cape as the leading green economic hub in Africa. The framework outlines the risks posed to the Province by climate change, as well as the economic opportunity presented by a paradigm shift in infrastructure provision. The framework centers around six strategic objectives that influences the development of the Gwayang Mixed-Use development site, namely:

- Becoming the lowest-carbon Province;
- Increasing the use of low-carbon mobility;
- Developing a diversified, climate-resilient agricultural sector and expanded value chain;
- Becoming an emerging market leader in resilient, liveable and smart built environments;
- Encouraging a high growth of green industries and services; and
- Securing ecosystem infrastructure.

Alternative building technologies must be explored in the implementation of the Gwayang Mixed-Use development and consider any mitigation measures as part of the project.

9.3 **District policy context**

9.3.1 Garden Route Spatial development framework.

The Garden Route Spatial Development Framework (2017) identifies several spatial drivers of change that need to be translated into the Garden Route District policy. For the Garden Route to reach its full potential, six central issues were identified that need to be addressed based on the policy review and synthesis. These issues relate to

- Regional resource capacity constraints
- Regional competitive advantage
- Sprawling low-density settlements
- Constrained regional accessibility
- Erosion of biodiversity and cultural landscapes; and
- Sustainability of agriculture and rural settlements.

In line with the Garden Route District Vision and Mission adopted in the 2017 IDP, the SDF focused on four spatial drivers of change. These spatial drivers underpinning a development approach, are:

- The **Economy is the Environment**; A sustainable environment is an economy positioned for growth;
- **Regional Accessibility for Inclusive and Equitable Growth**;
- **Coordinated Growth Management for Financial Sustainability**; and
- **Effective, Transversal Institutional Integration**.

The spatial drivers underpinning the development approach for the proposed Gwayang Mixed-use development are deemed to be aligned with the four spatial drivers of change identified in the Garden Route SDF.

9.3.2 Garden Route Integrated Development Plan 2024-2025

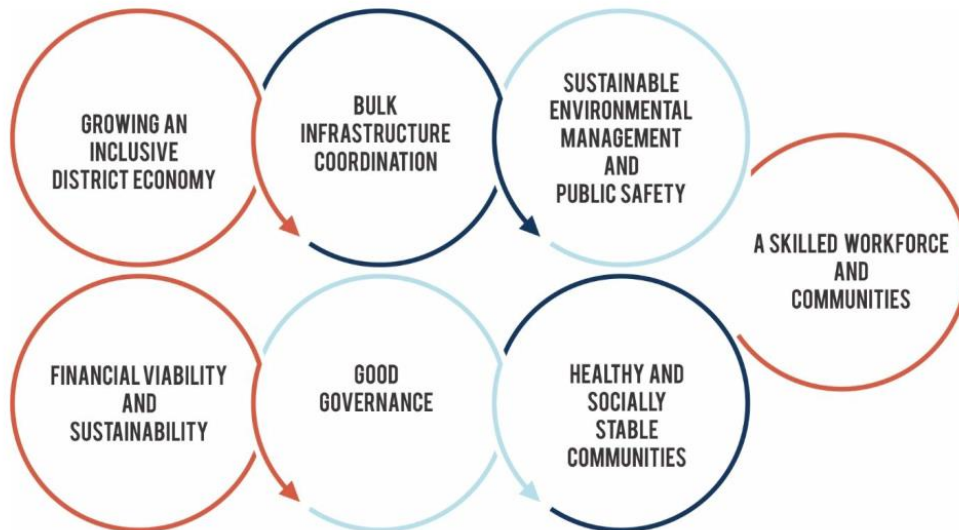
The Garden Route District Municipality adopted its vision for the 2022-2027 term of office and highlighted key aspects that should drive the administration for effective implementation of projects and programmes adopted by Council for the term of office.

“Garden Route the leading, enabling, and, and inclusive district, characterised by equitable, sustainable development, high quality of life and equal opportunities for all”.

The IDP is the fundamental part of the planning nucleus in the Garden Route District and its anchored on 7 strategic objectives which define the growth path of the District over the period. These strategic objectives guide and informs all the planning activities in the municipality;

- Growing an inclusive District Economy
- Coordinate bulk infrastructure Service Delivery
- Promote Environmental Sustainability and Public Safety

- Building a Skilled Workforce and Communities
- Ensuring Financial Viability
- Good Governance
- Promoting Healthy and Socially stable Communities



9.3.3 Garden Route Integrated Human Settlement (HIS) Strategic Plan

The Garden Route District Municipality (GRDM) has formulated principles and guidelines that will play a more meaningful strategic programme coordination role in the Human Settlement environment that best echoes with the proposed Government's strategic interventions related to service delivery.

The Integrated Human Settlement strategic plan advocates for the provision of efficient and equitable services in line with the principles listed below. For the long-term integration and sustainability, the following principles will be undertaken in the GRDM:

- ▶ **Equity:** All applicants applying for an affordable housing opportunity must have an equal opportunity for related services;
- ▶ **Transparency:** create necessary understanding and confidence by allowing all approved policies and procedures to be readily available to allow anyone to scrutinise them.
- ▶ **Pragmatic and functionality:** this plan as well as its related policies and procedures, will at all times be practical and less costly.
- ▶ **Social Cohesion**
- ▶ **Long Term Integration**

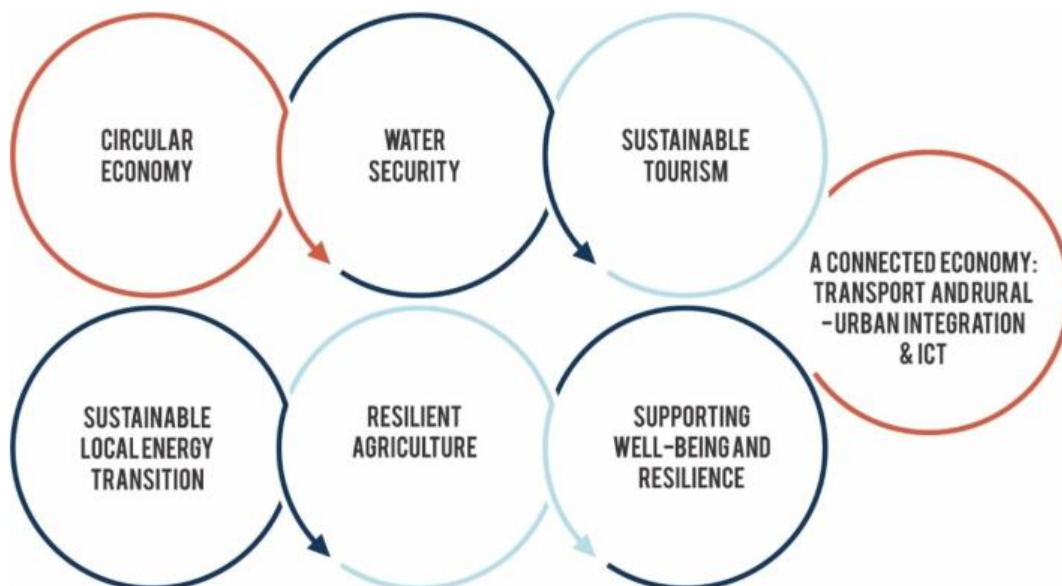
9.3.4 Garden Route Growth and Development Strategy (GDS)

The Garden Route Growth and Development Strategy (GDS) provides a framework for growth and development planning in the Garden Route District for 2020-2040. The Garden Route Region adopted a long-term approach to the development that is sensitive to the requirements

of the region and its people. Furthermore, the adopted strategic priorities for the region is intend to drive local growth and development.

There are seven (7) key strategic priorities that was adopted as listed below. These priorities have been identified based on a long-term vision for the Graden Route, as well as on the existing work, strengths, and potential of the region. Each one is also aligned to existing policies and strategies. This strategy draws on the significant work that went into Southern Cape Regional Spatial Implementation Framework (RSIF):

- ▶ Circular Economy.
- ▶ Water Security.
- ▶ Sustainable tourism.
- ▶ A connected economy.
- ▶ Supporting well-being and resilience.
- ▶ Resilient agriculture.
- ▶ Sustainable local energy transition.



9.4 Municipal Policy Context

9.4.1 Integrated Development Plan (IDP)

The IDP is an instrument of both local mobilisation and intersectoral and intergovernmental coordination and covers the extent of the local agenda. It must be viewed as the convergence of all planning, budgeting and investment in the George municipal area and must incorporate and illustrate national, provincial and district policy directives. The plan also seeks to integrate and balance the economic, ecological and social pillars of sustainability without compromising effective service delivery. The George municipality vision is to be “**A city for a sustainable future**”.

The focus of the George Municipality’s Integrated Development Plan (IDP) for the current term of council (2022) is to pave a way for socio-economic, infrastructural and institutional development for the next five years. The 2022 IDP seeks to attain inter alia:

- Continue to elevate the IDP as the principal plan through which an integrated response to the current realities of George is coordinated.
- Enhance the quality of ward based plans (targeted development)
- Economic development strategy to serve as a key for socio-economic transformation
- Long term infrastructure planning to promote growth.



Figure 44: Vision, Mission and Values of the George Municipality (IDP)

According to Zutari (2024) the proposal to develop the Gwayang Mixed-use site will support the municipality’s Strategic Goal 1 to develop and grow George.

9.4.2 Municipal Spatial Development Framework (MSDF)

The Municipal Spatial Development Framework 2023, for the period May 2023 to May 2027, guides spatial growth and development in George. The MSDF provides clarity in respect of the manner in which land-use, development, and investment will be supported to build a spatial form which facilitates the vision and strategic objectives of the Municipality.

Building on the George Municipality’s IDP vision of “**A city for a sustainable future**” the supporting Spatial Planning Vision to guide the George MSDF remains to “**Develop George as a resilient regional development anchor of excellence for prosperity, inclusive-and smart growth**”.

The MSDF (or SDF) informs land development and service provision decisions made by the municipal departments and decision makers in other tiers of government but does not confer, or take away, land use rights. The purpose of the George Municipal Development Framework (MSDF), as set out in the Spatial Planning & Land Use Management Act (2013) (SPLUMA), is to:

- Interpret and represent the spatial development vision of the municipality.
- Guide planning and development decisions across all sectors of government and specifically the municipality and provincial government in its spatial planning and land use management decisions.
- Contribute to a coherent, planned approach to spatial development across the spheres of government.
- Provide clear and accessible information to the public and private sector and provide direction for investment purposes.
- Include previously disadvantaged areas, rural areas, informal settlements, slums and landholdings of state-owned enterprises and government agencies and address their inclusion and integration into the spatial, economic, social, and environmental objectives of the relevant sphere.
- Address historic spatial imbalances in development
- Identify the long-term risks of spatial patterns of growth and development and the policies and strategies necessary to mitigate those risks.
- Provide direction for strategic developments, infrastructure investment, promote efficient, sustainable, and planned investments by all sectors and indicate priority areas for investment inland development.
- Promote a rational and predictable land development environment to create trust and stimulate investment.
- Assist in integrating, coordinating, aligning, and expressing development policies and plans emanating from the various sectors of the spheres of government as they apply within the municipal area, specifically as it relates to environmental management, and
- Outline specific arrangements for prioritising, mobilising, sequencing, and implementing public and private infrastructural and land development investment in the priority spatial structuring areas identified. (SLUMA, 2013).

The land development and service provision of the Gwayang Mixed-use development is informed by the Municipal Spatial Development Framework.

9.4.3 Local Economic Development strategy

In the context of the George Municipality Economic Development Strategy released April 2012, the purpose of the municipality is to deliver an enabling environment that is as conducive and business friendly as is possible within the law and national regulations and to make every effort to eliminate structural barriers to investment, business retention and growth.

In the context of economic growth and development and given South Africa's history it is not viable option to leave business development and investment decisions to the market alone.

For this reason, it is imperative that the George Municipality intervenes strategically in the development arena.

- Improve functionality or markets;
- Facilitating catalytic projects, that level the playing field for entrepreneurial activity,
- Facilitating growth in sectors of strategic priority,
- Manage mechanisms that organise buying and selling, channel the flow of information but all the same time do not distort the market by creating unfair competition.

The proposed Gwayang Mixed-use development will provide an enabling and conducive environment for the local community.

9.4.4 George Integrated Zoning Scheme By-Law

The George integrated Zoning Scheme By-Law, 2023 was adopted by the Municipal Council in terms of Section 12 of the local Government Municipal Systems Act, 2000 (Act 32 of 2000) on 28 September 2023 and promulgated in terms of Section 13 of said Act on 6 October 2023. The integrated Zoning scheme By-Law provides detailed land-use planning information, indicating for which purpose properties may be used as well as the regulatory process(es) to follow for development applications.

Zutari (2024) confirms that the proposed development is planned in strict accordance with the prescripts of the George integrated Municipal Zoning Scheme By-Law, 2023.

10 NEED AND DESIREABILITY

In keeping with the requirements of an integrated Environmental Impact process, the DEA&DP **Guidelines on Need and Desirability (2010 & 2011 & 2017)** were referenced to provide an estimation of the activity in relation to the broader societal needs. The concept of need and desirability can be explained in terms of its two components, where *need* refers to *time* and *desirability* refers to *place*.

The following considerations have been taken into account in considering need & desirability of the project:

- Site is earmarked for urban development in terms of the local SDF;
- The property is included within the urban edge of George albeit outside the urban area as per the definition of the Environmental Regulations;
- Site is not deemed to be ecological sensitive apart from the watercourses, faunal habitat and remnant fynbos areas that can be avoided through layout selection;
- Open space conservation area can improve ecological functioning of the aquatic corridors;
- Addressing demand for industrial development in the George Municipal area which according to the George Municipality there is a high demand for since available industrial development areas have been optimised already;
- Addressing demand for affordable housing through both group housing and apartment living spaces;

- Accessibility of the site via existing road networks that can be updated in accordance to the George Municipality Roads Master Plan;
- Services capacity can be supplied by the George Municipality through the necessary upgrades in terms of their Bulk Services Master Plan.

11 PUBLIC PARTICIPATION PROCESS

Section 41 in Chapter 6 of regulation 982 details the public participation process that has to take place as part of an environmental process. The Environmental Process for the proposed development intends to **comply** with the public participation process (PPP) requirements as stipulated in the Regulations.

It is important for stakeholders to understand that this pre-application Scoping Report is the first in a series of documents that must be compiled in terms of the Environmental Regulations and that this development proposal may not be implemented by the George Municipality without all of the necessary approvals in place.

Comments received during the various commenting periods will be recorded and depending on the type of issues/concerns/inputs/alternative suggestions submitted by registered Interested & Affected Parties, the current SDP (proposal) may still change in order to address / avoid / mitigate potential impacts and/or concerns that stakeholders raise during the ongoing environmental process.

This pre-application scoping report will be available to potential Interested & Affected Parties for a period of 30-days extending from **13 September 2024 till 14 October 2024**.

Comments received in response to the pre-application Scoping Report will be considered and the document updated to the Draft Scoping Report. This report will **again be available for review and comment** to registered I&APs for a period of **30-days**, whereafter the Final Scoping Report will be submitted to the DEADP for consideration.

Upon acceptance of the Final Scoping Report, the Draft Environmental Impact Report must be compiled and issued to registered I&APs for a further **60-day commenting period** along with the WULA, before the Final Impact Assessment Report may be submitted to the DEADP for decision-making.

The purpose of this pre-application Scoping Report is to present the development proposal, along with initial specialist findings describing the site conditions, as well as potential impacts that require further investigation, to stakeholders that may be affected, or have a mandate in terms of decision-making powers.

The more detailed impact assessment phase will include the detailed project information and specialist assessments, and also provide for additional stakeholder input as well when more detailed about impacts and mitigation measures become available.

IMPORTANT NOTE: Only stakeholders that formally register as an Interested & Affected Party (I&AP) will be kept informed of future documentations, progress and the outcome of the environmental investigation and application. It is therefore important for any member of the public that feel they may be impacted, or that have an interest in this project, contact Cape EAPrac directly either via submitting their comment, or to request to be registered:

Attention: *Cape EAPrac*

c/o Louise-Mari van Zyl or Mariska Byleveld

louise@cape-eaprac.co.za or mariska@cape-eaprac.co.za

Tel: 044-874 0365

12 PLAN OF STUDY FOR ENVIRONMENTAL IMPACT ASSESSMENT

In compliance with section (i) of Appendix 2 of the 2014 Environmental Regulations, the following plan of study for undertaking the Environmental Impact Assessment Report is provided. In terms of these regulations the following must be included in this plan of study.

- (i) a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity [No-Go Alternative];
- (ii) a description of the aspects to be assessed as part of the environmental impact assessment process;
- (iii) aspects to be assessed by specialists;
- (iv) a description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists;
- (v) a description of the proposed method of assessing duration, significance, nature, status, risk and consequences;
- (vi) an indication of the stages at which the competent authority will be consulted;
- (vii) particulars of the public participation process that will be conducted during the environmental impact assessment process; and
- (viii) a description of the tasks that will be undertaken as part of the environmental impact assessment process;
- (ix) identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

12.1 DESCRIPTION OF THE ALTERNATIVES TO BE CONSIDERED AND ASSESSED

Although alternatives can include technology, site and location options, the assessment will focus on the comparative assessment of the feasible and reasonable alternatives unless otherwise determine through the assessments of specialists studies.

12.2 ASPECTS TO BE ASSESSED

All potential impacts on social, biophysical, and aquatic features that have been identified in this scoping report will be assessed in the Environmental Impact Assessment phase of this Environmental Process.

12.3 ASPECTS TO BE ASSESSED/INVESTIGATED BY SPECIALISTS / PROFESSIONAL TEAM

The following specialist **and** technical assessments/studies/input is proposed to form part of the Environmental Process. This this end we distinguish between **technical studies** and **independent specialist studies** as the latter is obliged to remain objective at all cost and must comply with the relevant environmental Guidelines applicable to their individual disciplines, compared to the technical input from individuals/companies that need not be independent although they must still be suitably qualified, experienced and act in a professional and responsible manner with regards to their reporting and recommendations.

- Planning Application (technical) - Zutari
- Civil Engineering Services (technical) - Zutari
- Faunal Impact Assessment (specialist) – Confluent Consulting

- Botanical & Biodiversity Impact Assessment (specialist) – Confluent Consulting
- Electrical Engineering Services (technical) - Zutari
- Freshwater Impact Assessment (specialist) – Confluent Consulting
- Traffic Impact Assessment (technical) – Urban Engineering
- Visual Impact Assessment (specialist) – VRMA Visual Resource Management
- Social Impact Assessment (specialist) – Tony Barbour Social Specialist
- Heritage application (specialist) – Perception Planning
- Agricultural study (specialist) – Johann Lanz Soil Specialists

12.4 ASSESSMENT METHODOLOGY

All possible impacts need to be assessed – the **direct, in-direct as well as cumulative impacts**. Impact criteria should include the following:

- **Nature of the impact:** impacts associated with the proposed development have been described in terms of whether they are negative or positive and to what extent.
- **Duration of impacts: Impact were assessed in terms of their anticipated duration:**
 - Short term (e.g. during the construction phase)
 - Medium term (e.g. during part or all of the operational phase)
 - Permanent (e.g. where the impact is for all intents and purposes irreversible)
 - Discontinuous or intermittent (e.g. where the impact may only occur during specific climatic conditions or during a particular season of the year)
- **Intensity or magnitude: The size of the impact (if positive) or its severity (if negative):**
 - Low, where the receiving environment (biophysical, social, economic, cultural etc) is negligibly affected or where the impact is so low that the remedial action is not required;
 - Medium, where the receiving environment (biophysical, social, economic, cultural etc) is altered, but not severely affected, and the impact can be remedied successfully; and
 - High, where the receiving environment (biophysical, social, economic, cultural etc) would be substantially (i.e. to a very large degree) affected. If a negative impact, could lead to irreplaceable loss of a resource and/or unacceptable consequences for human wellbeing.
- **Probability: Should describe the likelihood of the impact actually occurring indicated as:**
 - Improbable, where the possibility of the impact is very low either because of design or historic experience;
 - Probable, where there is a distinct possibility that the impact will occur;
 - Highly probable, where it is most likely that the impact will occur; or
 - Definite, where the impact will occur regardless of any prevention measures.

- **Significance: The significance of impacts can be determined through a synthesis of the assessment criteria. Significance can be described as:**
 - Low, where it would have negligible effect on the receiving environment (biophysical, social, economic, cultural etc), and on the decision;
 - Medium, where it would have a moderate effect on the receiving environment (biophysical, social, economic, cultural etc), and should influence the decision;
 - High, where it would have, or there would be a high risk of, a large effect on the receiving environment (biophysical, social, economic, cultural etc). These impacts should have a major influence on the decision;
 - Very high, where it would have, or there would be a high risk of, an irreversible negative impact on the receiving environment (biophysical, social, economic, cultural etc) and irreplaceable loss of natural capital/resources or a major positive effect on human well-being. Impacts of very high significance should be a central factor in decision-making.
 - Provision should be made for with and without mitigation scenarios.
- **Confidence: The level of confidence in predicting the impact can be described as:**
 - Low, where there is little confidence in the prediction, due to inherent uncertainty about the likely response of the receiving ecosystem, or inadequate information;
 - Medium, where there is a moderate level of confidence in the prediction, or
 - High, where the impact can be predicted with a high level of confidence
- **Consequence: What will happen if the impact occurs**
 - Insignificant, where the potential consequence of an identified impact will not cause detrimental impact to the receiving environment;
 - Significant, where the potential consequence of an identified impact will cause detrimental impact to the receiving environment.
 - Provision must be made for with and without mitigation scenarios.

The impacts must also be assessed in terms of the following aspects:

- **Status of the impact**

The specialist should determine whether the impacts are negative, positive or neutral (“cost – benefit” analysis). The impacts are to be assessed in terms of their effect on the project and the environment. For example, an impact that is positive for the proposed development may be negative for the environment. It is important that this distinction is made in the analysis.

- **Cumulative impact**

Consideration must be given to the extent of any accumulative impact that may occur due to the proposed development. Such impacts must be evaluated with an assessment of

similar developments planned and already in the environment. Such impacts will be either positive or negative, and will be graded as being of negligible, low, medium or high impact.

Care must be taken to ensure that where cumulative impacts can occur that these impacts are considered and categorised as **additive** (incremental or accumulative); **interactive**, **sequential** or **synergistic**.

Based on a synthesis of the information contained in the above-described procedure, the specialists are required to assess the potential impacts in terms of the following significance criteria:

- **No significance:** The impacts do not influence the proposed development and/or environment in any way.
- **Low significance:** The impacts will have a minor influence on the proposed development and/or environment. These impacts require some attention to modification of the project design where possible, or alternative mitigation.
- **Moderate significance:** The impacts will have a moderate influence on the proposed development and/or environment. The impact can be ameliorated by a modification in the project design or implementation of effective mitigation measures.
- **High significance:** The impacts will have a major influence on the proposed development and/or environment.

12.5 CONSULTATION WITH COMPETENT AUTHORITY

The competent authority has been identified as the Provincial Department of Environmental Affairs & Development Planning (DEA&DP). Engagement with the competent authority will be on-going throughout the Environmental Process and will include the following as a minimum:

- Pre Application Meeting (Completed);
- Provided with a copy of the Pre-Application Scoping Report for Review and comment (completed);
- Submission of application form and engagement on the contents of the application form (to follow);
- Provide with copy of Draft Scoping Report for review and comment (to follow);
- Provide a copy of the Final Scoping Report for decision-making (to follow);
- Provided with a copy of the draft and final Environmental Impact Report / Environmental Management plan for review and decision making (to follow);
- Undertaking a site inspection with the competent authority if deemed necessary (to follow);
- Compile the Final Environmental Impact Assessment Report (FEIR) and submit to the Competent Authority for consideration and decision-making.

12.6 STAKEHOLDER ENGAGEMENT TO BE CONDUCTED DURING THE EIA

The public participation process (PPP) for the proposed development will comply with the requirements for PPP as set out in Section 41 of **Chapter 6 of Regulation 982** of the 2014 EIA Regulations.

Below is a quick reference to the public participation requirements (Chapter 6 of GN R.982) which the Environmental Process intends to comply with.

40. (1) If the proponent is not the owner or person in control of the land on which the activity is to be undertaken, the proponent must, before applying for an environmental authorisation in respect of such activity, obtain the written consent of the landowner or person in control of the land to undertake such activity on that land.

(2) Subregulation (1) does not apply in respect of- (a) linear activities;

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 -

(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;

(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 or 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 or to any alternative site where the activity is to be undertaken;

(iii) the municipal councillor of the ward in which the site or 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

(vi) any other party as required by the competent authority;

(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;

(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) [not applicable to this application];

(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

12.7 TASKS TO BE UNDERTAKEN IN THE EIA PHASE

In terms of the 2014 EIA regulations, an environmental impact assessment report must contain the information that is necessary for the competent authority to consider and come to a decision on the application, and must include -

(a) details of -

- (i) the EAP who prepared the report; and
- (ii) the expertise of the EAP, including a curriculum vitae;

(b) the location of the activity, including:

- (i) the 21 digit Surveyor General code of each cadastral land parcel;
- (ii) where available, the physical address and farm name; and
- (iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;

(c) a plan which locates the proposed activity or activities applied for as well as the associated structures and infrastructure at an appropriate scale, or, if it is -

- (i) a linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken;
- (ii) on land where the property has not been defined, the coordinates within which the activity is to be undertaken;

(d) a description of the scope of the proposed activity, including -

- (i) all listed and specified activities triggered and being applied for; and
- (ii) a description of the associated structures and infrastructure related to the development;

(e) a description of the policy and legislative context within which the development is located and an explanation of how the proposed development complies with and responds to the legislation and policy context;

(f) a motivation for the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred location;

(g) a motivation for the preferred development footprint within the approved site;

(h) a full description of the process followed to reach the proposed development footprint within the approved site, including:

- (i) details of the development footprint alternatives considered;
- (ii) details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;
- (iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;
- (iv) the environmental attributes associated with the development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;
- (v) the impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts -
 - (aa) can be reversed;
 - (bb) may cause irreplaceable loss of resources; and
 - (cc) can be avoided, managed or mitigated;
- (vi) the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks;
- (vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;
- (viii) the possible mitigation measures that could be applied and level of residual risk;
- (ix) if no alternative development locations for the activity were investigated, the motivation for not considering such; and
- (x) a concluding statement indicating the preferred alternative development location within the approved site;

(i) a full description of the process undertaken to identify, assess and rank the impacts the activity and associated structures and infrastructure will impose on the preferred location through the life of the activity, including -

- (i) a description of all environmental issues and risks that were identified during the environmental impact assessment process; and
- (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures;

(j) an assessment of each identified potentially significant impact and risk, including -

- (i) cumulative impacts;
- (ii) the nature, significance and consequences of the impact and risk;

- (iii) the extent and duration of the impact and risk;
 - (iv) the probability of the impact and risk occurring;
 - (v) the degree to which the impact and risk can be reversed;
 - (vi) the degree to which the impact and risk may cause irreplaceable loss of resources;
- and
- (vii) the degree to which the impact and risk can be mitigated;
- (k) where applicable, a summary of the findings and recommendations of any specialist report complying with Appendix 6 to these Regulations and an indication as to how these findings and recommendations have been included in the final assessment report;
- (l) an environmental impact statement which contains -
- (i) a summary of the key findings of the environmental impact assessment;
 - (ii) a map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and
 - (iii) a summary of the positive and negative impacts and risks of the proposed activity and identified alternatives;
- (m) based on the assessment, and where applicable, recommendations from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr as well as for inclusion as conditions of authorisation;
- (n) the final proposed alternatives which respond to the impact management measures, avoidance, and mitigation measures identified through the assessment;
- (o) any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation
- (p) a description of any assumptions, uncertainties and gaps in knowledge which relate to the assessment and mitigation measures proposed;
- (q) a reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation;
- (r) where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required and the date on which the activity will be concluded and the post construction monitoring requirements finalised;
- (s) an undertaking under oath or affirmation by the EAP in relation to:
- (i) the correctness of the information provided in the reports;
 - (ii) the inclusion of comments and inputs from stakeholders and I&APs;
 - (iii) the inclusion of inputs and recommendations from the specialist reports where relevant; and
 - (iv) any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties;

The Environmental Impact Report for the proposed Development will consider and comply with the legislated requirements.

IMPORTANT NOTE: The average time for a Full Scoping & Impact Assessment process to be conducted inclusive of all the specialist investigations, technical evaluations, consultation, public participation, review times and decision-making period is roughly eighteen (18) months. At pre-application scoping phase it is safe to say that approximately 25% of this time period has been finished with the remaining 75% of the time frame yet to be completed. There is thus ample time for I&APs to give input and provide comment throughout the remainder of the application process.

13 CONTENTS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT

The final impact assessment report must as a minimum include the following sections:

- Executive Summary;
- Introduction And Description Of Study;
- Overview of the process followed to date;
- Methodology for impact assessments undertaken;
- Technical and specialist reporting;
- Assessment of Impacts (Direct, In-direct & Cumulative, including mitigation measures to reduce negative impacts and measures to enhance positive impacts and the completion of impact tables);
- Comparative Assessment between project Alternatives;
- Public Participation / Stakeholder Engagement reporting;
- Discussion and Recommendation for Preferred Alternative;
- Specialist recommendation for Pre-Construction, Construction and Operational Phase mitigation to inform the Environmental Management Plan; and;
- Conclusion

14 CONCLUSION

The scoping exercise to be undertaken is to present concept proposals to the public and potential Interested & Affected Parties and to identify environmental issues and concerns raised as a result of the proposed development alternatives to date.

This way of presenting information early in the planning and design phase of a potential project, serves to assist Interested & Affected Parties (I&APs), authorities, the project team, as well as specialists to provide input and raise issues and concerns, based on the information presented in this report that can then be investigated further.

The proposed development has been analysed from Ecological, Freshwater, Social, Agricultural, Heritage and Visual perspectives, and the constraints and anticipated risks, impacts and consequences identified.

Alternatives 1 & 2 have been eliminated from further assessment because of the conflicts they present when considering identified sensitive environmental and landscape features on the site. The No-Go alternative (leaving the property as it is) and Alternative 3: Preferred Mitigated Site Development Plan (SDP) are what specialists will be considered for detailed, comparative assessment purposes.

- Since this is a *pre-application* Scoping Report, it is anticipated that comments and inputs from registered I&APs, Organs of State, as well as State Departments are likely to still influence the development proposal. Further changes to Alternative 3 is therefore likely and such changes (should there be any) will be reported on in the updated Draft Scoping Report that will be circulated back to registered I&APs once more.
- Feedback on the pre-application and draft scoping reports will also help determine the final list of specialist and/or technical studies that may be deemed important/necessary to inform the remainder of the EIA process.

Anticipated risk, impacts and consequences associated with the proposed development have been identified and will be considered and assessed by relevant specialists during the more detailed impact assessment phase of the development.

Cape EAPrac is of the opinion that the information contained in this *pre-application* Scoping Report and the documentation attached hereto as appendices, is sufficient to allow the general public and key stakeholders to apply their minds to the potential negative and/or positive impacts associated with the development, in respect of the activities applied for and to submit preliminary comments to inform the remainder of the ongoing EIA process.

Stakeholders are requested to please ensure that they contact Cape EAPrac with written requests to be formally registered as I&APs, or alternatively to submit their preliminary comments on or no later than 14 October 2024 to ensure that it can be captured and considered as part of the ongoing EIA process.

REFERENCES

- DWA** (2001). *Generic public participation guideline*. Department of Water Affairs and Forestry.
- DEAT** (2002). *Integrated Environmental Management Information Series 3: Stakeholder Engagement*. Department of Environmental Affairs and Tourism, Pretoria.
- DEADP** (2003). *Waste Minimisation Guideline for Environmental Impact Assessment reviews*. NEMA EIA Regulations Guideline & Information Series, Department Environmental Affairs & Development Planning.
- DEAT** (2004). *Criteria for determining alternatives in EIAs*, Integrated Environmental Management, Information Series 11, Department of Environmental Affairs & Tourism, Pretoria.
- DEAT** (2004). *Environmental management Plans*, Integrated Environmental management, Informatino Series 12, Department Environmental Affairs & Tourism.
- DEAT** (2005). *Assessment of Impacts and Alternatives*, Integrated Environmental Management Guideline Series, Department of Environmental Affairs & Tourism, Pretoria.
- DEAT** (2005). *Guideline 4: Public Participation*, in terms of the EIA Regulations 2005, Integrated Environmental Management Guideline Series, Department of Environmental Affairs and Tourism, Pretoria.
- DEADP** (2005). *Guideline for the review of specialist input in the EIA process*. NEMA EIA Regulations Guideline & Information Document Series, Department of Environmental Affairs & Development Planning.
- DEADP** (2005). *Guideline for involving biodiversity specialists in the EIA process*. NEMA EIA Regulations Guideline & Information Document Series, Department of Environmental Affairs & Development Planning.
- DEADP** (2005). *Guideline for environmental management plans*. NEMA EIA Regulations Guideline & Information Document Series, Department of Environmental Affairs & Development Planning.
- DEADP** (2005). *Provincial urban edge guideline*. Department Environmental Affairs & Development Planning.
- DEAT** (2006). *EIA Regulations* in terms of the National Environmental Management Act (Act No 107 of 1998) (Government Notice No R 385, R 386 and R 387 in Government Gazette No 28753 of 21 April 2006).
- DEADP** (2006). *Guideline on the Interpretation of the Listed Activities*. NEMA EIA Regulations Guidelines & Information Document Series, Department of Environmental Affairs & Development Planning.
- DEADP** (2007). *Guide on Alternatives*, NEMA EIA Regulations Guidelines & Information Document Series, Department of Environmental Affairs & Development Planning.
- DEADP** (2007). *Guideline on Appeals*, NEMA EIA Regulations Guidelines & Information Document Series, Department of Environmental Affairs & Development Planning.

- DEADP (2007).** *Guideline on Exemption Applications.* NEMA EIA Regulations Guidelines & Information Document Series, Department of Environmental Affairs & Development Planning.
- DEADP (2007).** *Guideline on Public Participation.* NEMA EIA Regulations Guidelines & Information Document Series, Department of Environmental Affairs & Development Planning.
- DEADP (2009).** *Guideline on Need & Desirability,* NEMA EIA Regulations Guideline and Information Document Series, Department Environmental Affairs & Development Planning.
- DEADP (2009).** *Guideline on Alternatives,* NEMA EIA Regulations Guideline and Information Document Series, Department Environmental Affairs & Development Planning.
- DEADP (2009).** *Guideline on Transitional Arrangements,* NEMA EIA Regulations Guideline and Information Document Series, Department Environmental Affairs & Development Planning.
- DEADP (2009).** *Guideline on Exemption Applications.* NEMA EIA Regulations Guideline and Information Document Series, Department Environmental Affairs & Development Planning.
- DEADP (2009).** *Guideline on Appeals.* NEMA EIA Regulations Guideline and Information Document Series, Department Environmental Affairs & Development Planning.
- DEADP (2009).** *Guideline on Public Participation.* NEMA EIA Regulations Guideline and Information Document Series, Department Environmental Affairs & Development Planning.
- Keatimilwe K & Ashton PJ 2005.** *Guideline for the review of specialist input in EIA processes.* Department Environmental Affairs & Development Planning.
- Lochner P (2005).** *Guideline for Environmental Management Plans.* Department Environmental Affairs & Development Planning.
- Münster, F. (2005).** *Guidelines for Determining the Scope of Specialist Involvement in EIA Processes: Edition 1.* CSIR Report No ENV-S-C 2005 053 A. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs and Development Planning, Cape Town.
- Oberholzer B (2005).** *Guideline for involving visual & aesthetic specialists.* Department Environmental Affairs & Development Planning.
- Winter S & Beaumann N (2005).** *Guideline for involving heritage specialists in EIA processes.* Department Environmental Affairs & Development Planning.
- Mucina, L. & Rutherford, M.C. (eds) 2006.** *The Vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19.* South African National Biodiversity Institute, Pretoria.
- SANBI Biodiversity GIS (2007).** South African National Biodiversity Institute, Cape Town, South Africa.