DRAFT SCOPING REPORT: WALMER HOUSING DEVELOPMENT ON ERF 11305

PROJECT NAME:

THE PROPOSED CONSTRUCTION OF WALMER HOUSING DEVELOPMENT ON ERF 11305, PORT ELIZABETH WITHIN THE NELSON MANDELA BAY MUNICIPALITY, EASTERN CAPE PROVINCE.

DEDEAT REFERENCE NO: ECm1/C/LN2/M/07-2026

REPORT TITLE: DRAFT SCOPING REPORT

DATE: 27 FEBRUARY 2026

ENVIRONMENTAL ASSESSMENT PRACTITIONER:

ABANTU ENVIRONMENTAL SERVICES

CONSULTING ENGINEER:

GWACA CONSULTING (PTY) LTD

APPLICANT:

NELSON MANDELA BAY MUNICIPALITY

OFFICE	ADDRESS	CONTACT DETAILS
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DECLARATION OF INDEPENDENCE

I, **Sive Mlamla**, in my capacity as an EAP, hereby declare that I –

- Act as an independent consultant
- Do not have any financial interest in the undertaking of the activity, other than remuneration for the work performed
- Have and will not have vested interest in the activity
- Have no, and will not engage in, conflicting interests in the undertaking of the activity
- Undertake to disclose any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan, or document
- Will provide the competent authority with access to all information at my disposal regarding the report, whether such information is favourable to the Client or not
- Based on information provided to me by the Client and in addition to information obtained during the course of this study, have presented the results and conclusion within the associated document to the best of my professional ability
- Reserve the right to modify aspects pertaining to the present investigation should additional information become available through on-going research and/or further work in this field
- Undertake to have my work peer reviewed on a regular basis by a competent specialist.

Sive Mlamla (Pr.Sci.Nat, Reg. EAP (EAPASA))

Independent Environmental Assessment Practitioner (EAP)

18/02/2026

UNDERTAKING (AFFIRMATION BY THE EAP)

Abantu Environmental Services (Pty) Ltd hereby confirms that, to the best of our knowledge, the information provided in this report was correct at the time of compilation. Information included in this report was based on the information which was provided to us by the Engineers on behalf of the Applicant and the commissioned Specialist reports. It is further confirmed that all comments to be received from Stakeholders and Interested and Affected Parties (I&APs) shall be included in the final reports to be submitted to the Competent Authorities.

ASSUMPTIONS AND GAPS IN KNOWLEDGE

The following assumptions and potential gaps in knowledge apply:

- All information provided by the Applicant to the EAP was correct and valid at the time it was provided.
- The EAP does not accept any responsibility in the event that additional information comes to light at a later stage of the process.
- All data from unpublished research is valid and accurate at the time this report was written.
- The scope of this investigation is limited to assessing the potential environmental impacts associated with the proposed development only.

It should be noted that findings, recommendations, and conclusions provided in this report are based on the author's best scientific and professional knowledge and experience. No part of this report may be amended or extended without prior written consent of the author. Any recommendations, statements or conclusions drawn from or based on this report must clearly cite or refer to this report. Whenever such recommendations, statements, or conclusions form part of the main report to current investigation, this report must be included in its entirety.

EXECUTIVE SUMMARY

INTRODUCTION AND BACKGROUND

The Nelson Mandela Bay Municipality (NMBM) is proposing the development of the Walmer Housing project and associated facilities and infrastructure on erf 11305, in Walmer, Port Elizabeth. The property is located west of Walmer along Victoria Drive and bordered by the suburb of Walmer Heights to the north west, the Walmer Country Club to the north, and the former Arlington Race Course property, to the east. The proposed development was authorised on 31 July 2019. However, the EA lapsed since the development has never commenced. On the basis that the authorisation was issued 7 years ago and EA lapsed, a new application for EA is being lodged. This Scoping Report (SR) includes information as required per Appendix 2 of the 2014 NEMA EIA Regulations;

PROJECT DESCRIPTION

The proposed the proposed development will provide a mix of housing typologies such as Free Basic House/RDP, GAP/FLISP, Social Housing and Open/GAP market housing. Other land uses will include a business zone, institutional zone, authority zone, open space zone, special use- conservation usage (Forest patches) and transportation zone as well as associated infrastructure.

The total area of the site is 43.73 ha. The Gross Residential Area (single dwellings) is 11.11 ha with Gross Residential Density (single dwellings) being 14.90 units/ha and a Nett Residential Density (single dwellings) being 58.69 units/ha. The average erf size for single dwellings is 170.41m^2.

MOTIVATION

The proposed housing development is aimed at providing affordable housing to various income groups and will contribute to alleviating the current housing need in the municipality. The development is intended to accommodate vulnerable, poor and missing middle, those households who earn too much to qualify for government-subsidised housing but not enough to afford market-rate housing.

LEGISLATIVE REQUIREMENTS

Listed Activities (LN2 and LN3) are triggered by the proposed development and as such, an Environmental Authorisation (EA) is required prior to commencement. The EA application is subject to a Full Scoping and Environmental Impact Assessment (EIA) Process and will be adjudicated by the identified competent authority, Department of Economic Development, Environmental Affairs and Tourism (DEDEAT).

ALTERNATIVES

1. Site Alternatives

No site/property alternatives exist as the proposed site is municipally owned, and no land acquisition will be required. Furthermore, the site falls within an area that was allocated for residential development. Additionally, an Environmental Authorisation (EA) for a housing development on this site had been previously granted.

2. Design and layout Alternatives

- Alternative 1- This option comes with a higher housing yield covering 46% of the site, however it does not entirely avoid the forest patches and the development overlaps on these forest patches.

The layout was revised to avoid the forest, as such this layout option will not be subject to further assessment in this Scoping and EIA process.

- Alternative 2 (preferred)- This option comes with a lower housing yield compared to Alternative 1 but is environmentally favourable because it avoids encroaching on the forest patches.

3. **Technical Alternatives-** No alternatives have been considered. However, the applicant may consider the use of solar energy such as solar panels as well as rainwater harvesting through the installation of barrels/tanks.
4. **Operational Alternatives**- No alternatives have been considered.
5. **No-go option**- Keeping the current status quo of no activities occurring on site, which would not result in a loss of a critically endangered vegetation and a forest. However, potential positive socio-economic impacts will be lost.

An overview of the identified impacts across the development stages is presented below.

ENVIRONMENTAL IMPACTS

The environmental impacts/ aspects listed below were identified for the proposed development.

PLANNING AND DESIGN PHASE

- Legal and social compliance
- Site establishment
- Existing civil services, infrastructure and properties

- Bulk services (Electricity and sewerage)
- Stormwater management

CONSTRUCTION PHASE

- Legal and social compliance
- Site establishment and security
- Water consumption
- Sanitation
- Loss of indigenous vegetation
- Disturbance of fauna and loss of habitats.
- Loss of SCC
- Alien invasion proliferation
- Waste management
- Traffic impact
- Visual impact
- Noise pollution
- Air pollution
- Paleontological and heritage resource disturbance
- Employment opportunities

OPERATIONAL PHASE

- Waste management
- Freshwater utilization
- Bulk services (Electricity and sewerage)
- Stormwater management
- Increase in traffic levels in the area
- Employment opportunities
- Contribution to meeting housing need

SPECIALIST STUDIES

To inform the Environmental Impact Assessment (EIA) phase, a number of specialist studies are recommended to assess the potential impacts of the proposed development in greater detail. These include;

- Terrestrial Biodiversity Impact Assessment- Inclusive of Plants species
- Animal Species Impact Assessment
- Aquatic Biodiversity Impact Assessment
- Agricultural Compliance Statement
- Paleontological Impact Assessment
- Archaeological and Cultural Heritage Impact Assessment
- Socio-Economic Assessment

It is important to note that previously conducted studies are appended to this report as literature. Notwithstanding, specialist studies for the interim application will be commissioned and undertaken based on the latest Protocols and Assesment Guidelines for such investigations. The outcomes of these studies will provide essential baseline data, identify site sensitivities, and ensure that potential impacts are accurately predicted, evaluated, and addressed through appropriate mitigation measures.

PUBLIC PARTICIPATION PROCESS

This Draft Scoping Report (DSR) shall undergo a public participation process (PPP) o receive inputs and comments from the public. The report will be made available to interested and affected parties for a 30-day period commencing from 02 March 2026- 01 April 2026 and two meetings; physical and virtual will be held.

All comments from stakeholders and Interested & Affected Parties (I&APs) will be incorporated into the Final Scoping Report (FSR), which will be submitted to the Competent Authority, DEDEAT, for consideration for acceptance. Once accepted, the project will proceed to the EIA phase, where the recommended specialist studies will be undertaken, and a Draft Environmental Impact Report (DEIR) will be prepared for further public review and comment. The Final EIR will then be submitted for decision-making. This process will ensure that environmental, social, and technical considerations are fully integrated into the final project design and authorisation.

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ACRONYMS AND ABBREVIATIONS

CBA	Critical Biodiversity Area
CA	Competent Authority
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism
DEIR	Draft Environmental Impact Report
DWS	Department of Water and Sanitation
dSR	Draft Scoping Report
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECPHRA	Eastern Cape Provincial Heritage Authority
EIA	Environmental Impact Assessment
EAIR	Environmental Impact Assessment Report
EMPr	Environmental Management Programme
FEIR	Final Environmental Impact Report
FSR	Final Scoping Report
I&APs	Interested and Affected Parties
IEM	Integrated Environmental Management
IDP	Integrated Development Plan
NEMA	National Environmental Management Act
NMBM	Nelson Mandela Bay Municipality
OHSA	Occupational Health and Safety Act
PoS	Plan of Study

PPP	Public Participation Process
S&EIR	Scoping and Environmental Impact Assessment Report
SACAA	South African Civil Aviation Authority
SAHRA	South African Heritage Resources Authority
SAHRIS	South African Heritage Resources Information System
SDF	Spatial Development Framework
ToR	Terms of Reference

1. INTRODUCTION

1.1.PROJECT DESCRIPTION

The proposed project entails the construction of Walmer housing development (~43 ha), including associated facilities and infrastructure on Erf 11305, Walmer. The erf is located west of the existing Wamer township along Victoria Drive. The housing development will provide a mix of housing typologies and associated facilities, which include the following:

Housing typologies and associated facilities

- **Free Basic House/RDP**
    - Fully State Subsidised Housing – for beneficiaries earning up to R3,500 per month;
    - Each unit at least 40 m², and costing approximately R160,000 each to build;
    - Beneficiaries will depend entirely on being housed by the state without any expectation of making financial contributions towards the house/services/ transfer/ registration costs for the property to be received; and
    - Units will be either free standing or semi-detached single storey buildings.
- **GAP/FLISP**
    - Partially subsidised housing, where the state subsidy is supplemented by private funding;
    - Each unit >40 m²;
    - For financially employed individuals who can afford mortgage loans of up to R300,000; and
    - Units will be detached, semi-detached single storey or double storey buildings.
- **Social Housing**
    - Units offered for rent to beneficiaries earning between R1,500 and R15,000 per month. Policy stipulates that the rentals paid should not exceed 30% of the gross income of the tenant. This would determine the size of unit allocated to the beneficiary. The units will be owned and managed by an accredited Social Housing Institution that will hold the stock for a minimum of 15 years, and may either re-finance for another 15 years or sell it off to tenants thereafter; subject to providing remaining tenants who still wish to rent with equivalent rental (social) accommodation for another period of 15 years
    - Each unit ±30-54 m² and one to two bedroom apartments; and
    - Units will be in 3 or 4 storey apartment buildings, in an access controlled complex, similar to those in the nearby Walmer Link development.
- **Open/GAP market housing**
    - Stand-alone units priced at above R400,000, for beneficiaries earning above R15,000 per month, with those properties adjacent to Walmer Heights and north of the 12 m internal road providing future connection to Arlington Race Course property being designated for development to a minimum value of R620,000.

Other land uses

- Business Zone I- to provide for business's such as a supermarket, bottle store, service trades etc with parking provision at 3.33 bays per 100m^2.
- Institutional Zone I- school site
- Authority Zone- authority uses such as police station, fire services, telecommunications facilities etc.
- Open Space Zone I- public open space
- Special use- conservation usage (Forest patches)
- Transportation Zone II- public Zone

The total area of the site is 43.73 ha. The Gross Residential Area (single dwellings) is 11.11 ha with Gross Residential Density (single dwellings) being 14.90 units/ha and a Nett Residential Density (single dwellings) being 58.69 units/ha. The average erf size for single dwellings is 170.41m^2.

Infrastructure

No internal infrastructure is currently in place on site, however electricity, sewer and water will be connected onto existing bulk infrastructure currently servicing the surrounding areas.

- **Access:**

Two access roads to the site will be provided. The access roads will be 6 m wide with a 16 m road reserve. Access to the southern portion of the site will be obtained from Victoria Drive. The second access road is proposed for the northern section of the site, from an existing road linking up to Beethoven Road. There will be no access from the southern portion of the site linking to the northern portion of the site except for pedestrian access alongside the business development zone portion of the site. This will allow pedestrians, in particular school children, to access the northern portion of the site.

Internal roads will be provided which are appropriately sized to accommodate municipal service vehicles (e.g. waste collection) and will include surface and sub-surface stormwater drainage capacity. All roads will be surfaced, and the majority will have a 12 m road reserve, except the main roads which will have a 16 m road reserve. Internal water reticulation pipelines will be situated in the road reserves.

- **Water:**

Bulk water supply will be from the Emerald Hill Reservoir via a new 450 mm diameter gravity main pipeline (4,620 metre length) running within the servitude of the existing airport reservoir feeder pipeline which runs along Victoria Drive.

- **Sewerage:**

A full waterborne sewage system will be constructed with separate connections to each erf. The sewer pipelines will be accommodated in the roads reserves and sewage discharge from the site will be from two discharge points — an existing 225 mm diameter pipeline situated north-east of the site in the golf course, and a new 250 mm diameter pipeline running south-east of the site along Victoria Drive. This pipeline has received an Environmental Authorisation as part of a separate assessment process.

- **Stormwater:**

The 1:5-year recurrence interval minor stormwater drainage will be controlled by the use of stormwater pipelines, while the 1:50 year recurrence interval major drainage will make use of open channels, detention ponds and the road system. Stormwater will be controlled during construction via temporary ponds and berms.

Three on-site stormwater detention ponds will be provided, ranging in capacity from 1331 to 7598 m2, which will be fenced off to prevent access by the public. The ponds and surrounding public open spaces will remain vegetated and will be monitored for obstructions.

The ponds will have 525 mm diameter concrete pipeline outlets. These will convey water via pipelines to the edge of the site and from there in a concrete block lined channel which can be vegetated, into the new detention pond situated in the southern portion of the Walmer Golf Course. This will attenuate flow of stormwater from Erf 11305.

- **Electricity:**

The NMBM will supply the required electrical reticulation for the development from existing powerlines in the area.

- **Solid Waste:**

The NMBM will provide a weekly refuse removal service. The waste will be disposed of at the existing licensed waste disposal site at either Arlington.

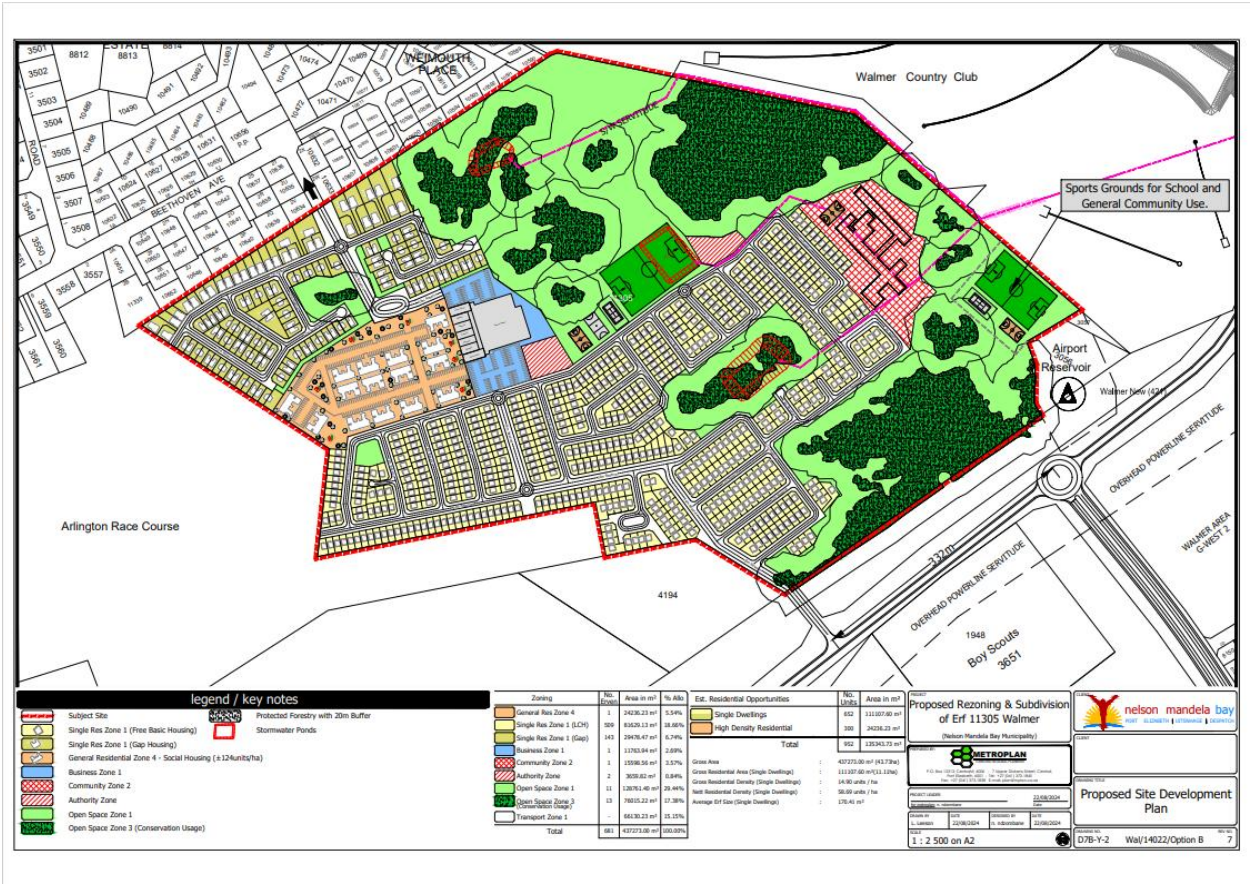


Figure 1. Proposed project layout

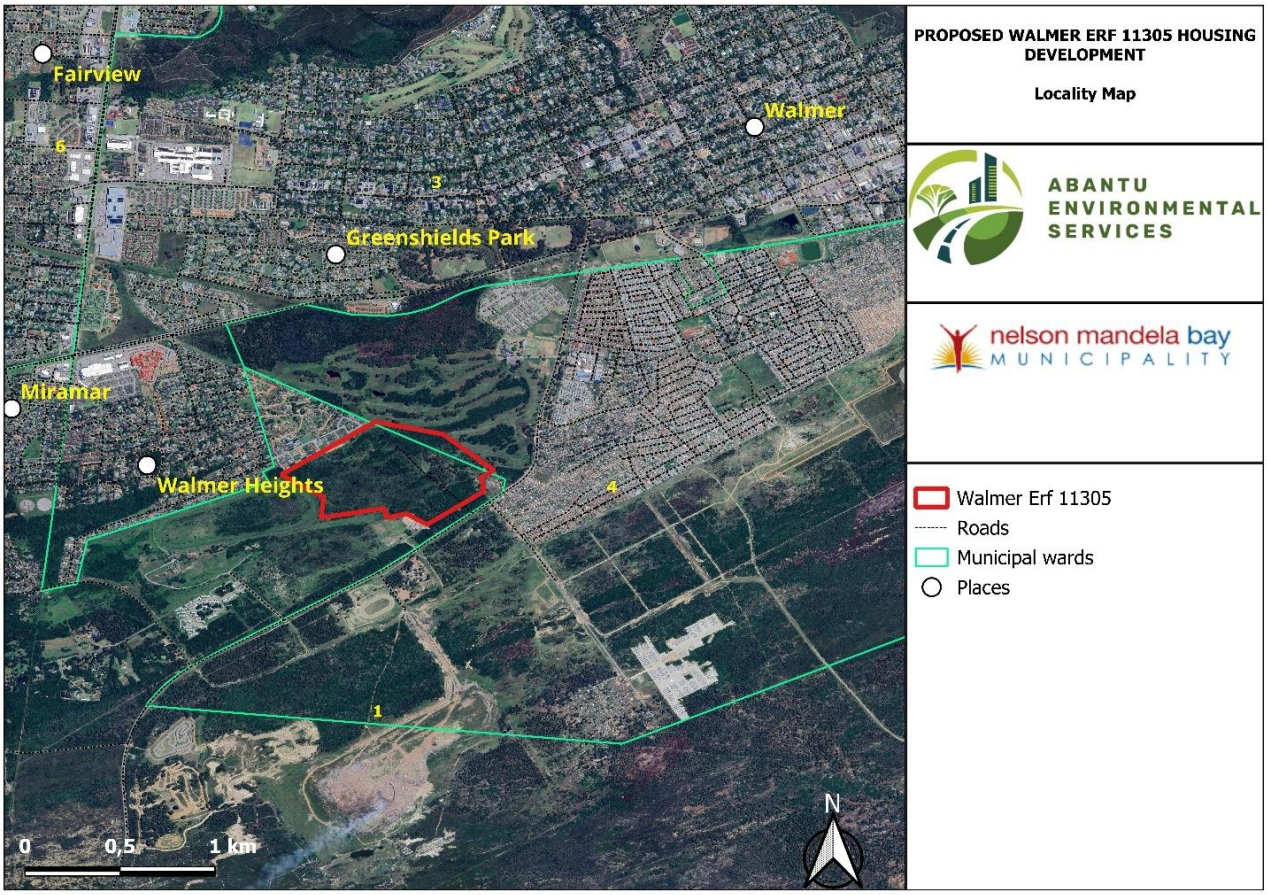


Figure 2: Walmer Housing development locality map

Several Listed Activities are triggered by the proposed development and as such Environmental Authorisation (EA) is required prior to commencement of the activities detailed in Section 4.3 of this report. Abantu Environmental Services has been appointed as the independent environmental assessment practitioners to facilitate the EIA process and obtain the relevant authorisations. The proposed development was authorised on 31 July 2019. However, the EA lapsed since the development has never commenced. On the basis that the authorisation was issued 7 years ago and EA lapsed, a new application for EA is being lodged. The EA application is subject to a Full Scoping and Environmental Impact Assessment (EIA) Process and will be adjudicated by the identified competent authority, Department of Economic Development, Environmental Affairs and Tourism (DEDEAT).This Draft Scoping Report is prepared in accordance with the requirements of Appendix 2 of the Environmental Impact Assessment Regulations, 2014, as part of the National Environmental Management Act (NEMA- Act 107 of 1998).

1.2.PROPERTY INFORMATION

The property details of the development are provided in **Table *1*** below:

Table 1: Summary of property and technical information

PROJECT ASPECT	DESCRIPTION
District	Nelson Mandela Bay Municipality
Local Municipality	Nelson Mandela Bay Municipality
Registration Division	Port Elizabeth
Wards	1
Development footprint size	43.73 ha
Coordinates	**Latitude (S)** / **Longitude (E)** 33° 59'42.69" / 25° 34'9.21" 33° 59'45.02" / 25° 34'22.98" 33° 59'52.52" / 25° 34'33.44" 33° 59'53.75" / 25° 34'30.98" 33° 59'56.72" / 25° 34'31.46" 34° 0'3.50" / 25° 34'19.84" 34° 0'1.39" / 25° 34'15.70" 34° 0'2.10" / 25° 34'11.54" 34˚ 0'0.03" / 25° 34'11.03" 34° 0'2.20" / 25° 33'58.14" 33° 59'58.03" / 25° 33'58.67" 33˚ 59'53.31" / 25˚31'49.3"
Erf number	Erf 11305
Surveyor General 21 Digit Code	C059003800130500000
Nearest City	Port Elizabeth

1.3.SITE ACCESS

The site can be accessed from two access routes, from Victoria Drive (see **Figure *4***) which is on the southern section of the site. The second access route, from an existing road (Glendour road) linking up to Beethoven Drive (**Figure *5***) on the northern site of the site.

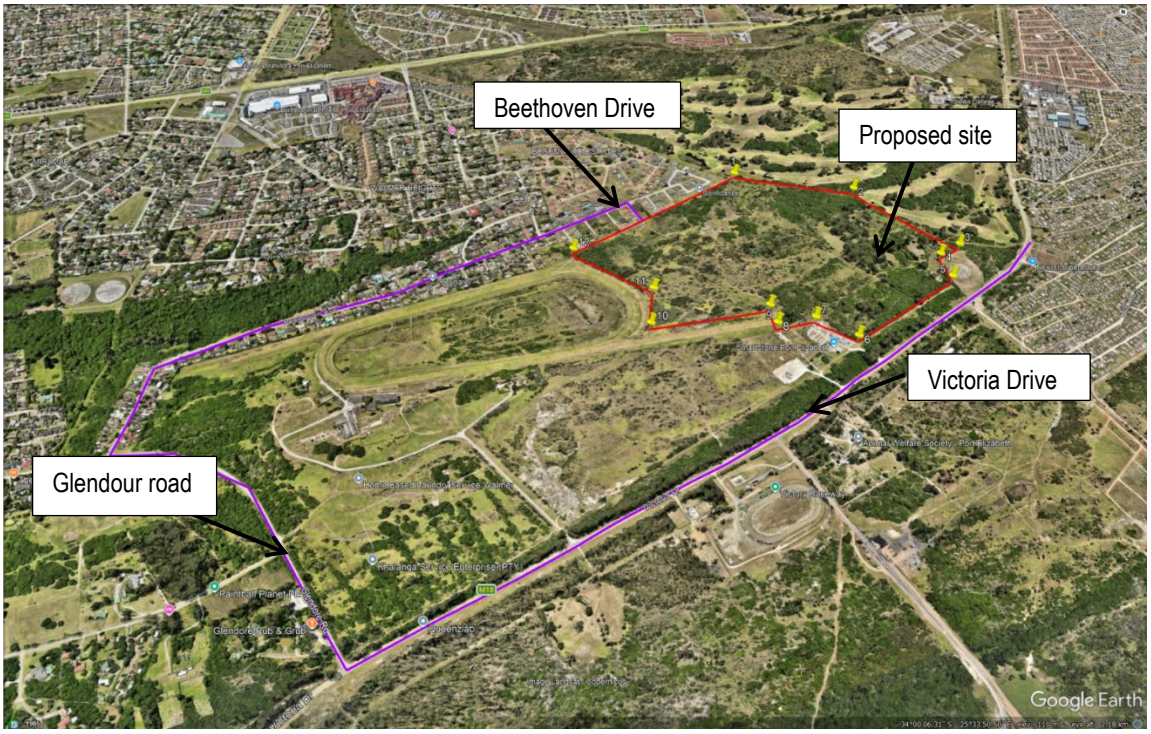


Figure 3. Access to the proposed site

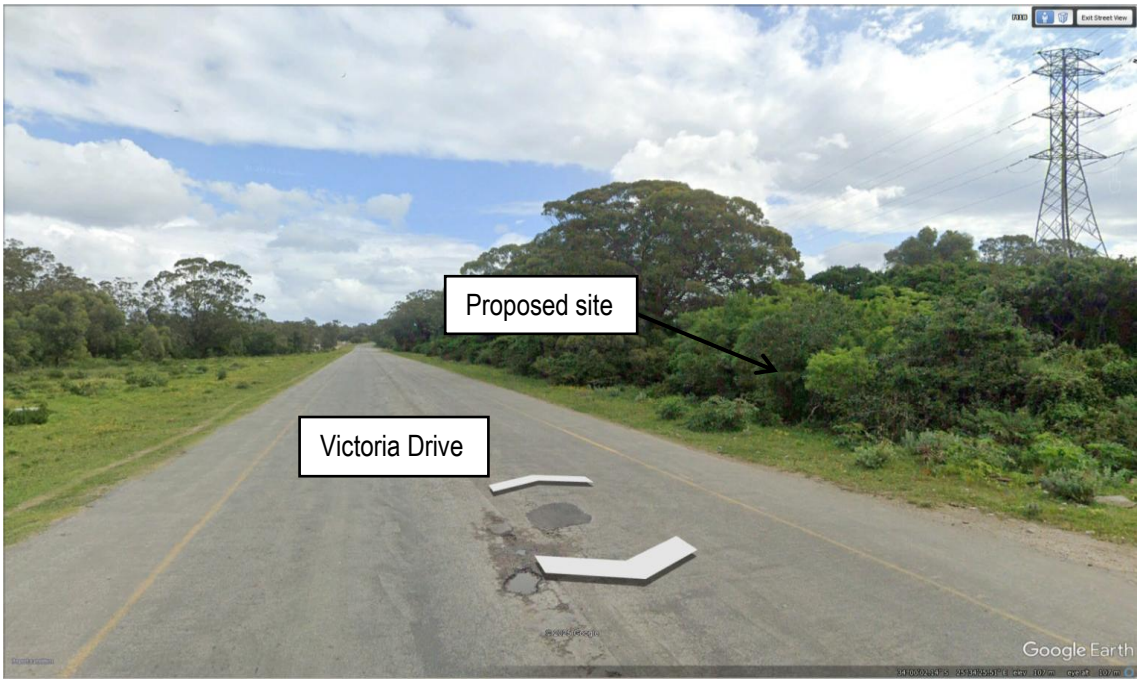


Figure 4. Access to site from Victoria Drive

Figure 5. Access to site from Beethoven drive

1.4.THE APPLICANT/PROPONENT

Details of the applicant are presented in **Table 2** below.

Table 2: Applicant details

Applicant	Nelson Mandela Bay Municipality
Contact Person on behalf of Applicant	Mr Tabiso Mfeya
Physical Address	17th Floor, Lillian Diedericks Building, Govan Mbeki Ave, 6001
Postal Address	17th Floor, Lillian Diedericks Building, Govan Mbeki Ave, 6001
Telephone	041 506 2381
Fax	
Email Address	tmfeya@mandelametro.gov.za sstemele@mandelametro.gov.za

1.5.EAP & CONTACT DETAILS

As per the requirements of the NEMA Regulations, the details and expertise levels of the EAP who prepared the report are provided in **Table *3*** below.

Table 3: Environmental Assessment Practitioner details

Contact Details	
Consultant	Abantu Environmental Services (Pty) Ltd
EAP	Sive Mlamla
SACNASP Registration	118495 – Environmental Sciences
EAPASA Registration	2022/5204
Cell	078 207 8278
Postal Address	41 Avon Place Overbaakens Gqeberha, 6070
Fax	086 685 9536
Email	info@abantuenvironmental.co.za
Website	Website: www.abantuenvironmental.co.za

Expertise of the Lead EAP are entailed in **Table *4***.

Table 4: Lead EAP Profile

Environmental Assessment Practitioner:	Mr Sive Mlamla
Expertise:	Sive Mlamla is an environmental scientist with 11 years of experience in scientific research, lecturing and environmental consulting. His key expertise includes environmental impact assessments, environmental compliance auditing, waste planning, proposal & business development, project management, strategic planning, research design & execution, remote sensing & GIS applications for land use/cover change mapping and fluvial geomorphology. **Qualifications** • M.Sc. Geography (Catchment Hydrology) • B.Sc. Honours Environmental Geography • B.Sc. Environmental Sciences (Botany and Geography) **Professional registrations:** • Registered Professional Natural Scientist (Pr.Sci.Nat) - Reg. No. 118495 – SACNASP • Registered Environmental Assessment Practitioner (Reg. EAP (EAPASA)) - Reg. No. 2022/5204 **Training:** • Practical Implementation of Environmental Auditing and Monitoring (2025) • WET-Health Tool & WET-EcoServices for Level 1B and Level 2 assessment (2025) • WET-Health Tool for Level 1A assessment (2025) • Environmental Impact Assessments (2025)

	• Introduction to Synthetic Aperture Radar and Applications (2024) • Earth Observation Data Analysis with Google Earth Engine (2023) • People Management Skills (2017) • Biodiversity spatial data management, acquisition, and analysis (2018) • Water Use Licence Applications via e-WULAAS (2020) • Remote Sensing (land use/cover classification) and SWAT hydrologic modelling (2017) **Registrations and memberships:** • Member of the South African Wetlands Society Reg. No. S9BPP477 • Member of the Southern African Association of Geomorphologists • Institute of Waste Management of Southern Africa (IWMSA) Reg No. 40120001

As per the requirements of the NEMA Regulations, details of the Candidate EAP who assisted in the compilation of the report under the supervision of the EAP are provided in ***Table 3*** below.

Table 5: Candidate Environmental Assessment Practitioner details

Candidate Environmental Assessment Practitioner:	Ms Zimkita Dalasile
Expertise:	Junior Environmental Scientist with 3 years' experience in environmental consulting and scientific research. My expertise includes scientific report writing, data analysis, monitoring and conducting environmental compliance audits. **Qualifications** • MSc. Environmental Management with Ecological Water Requirements • Postgraduate Diploma Integrated Water Resource Management • BSc. Environmental and Water Science **Professional registration:** • Candidate Environmental Assessment Practitioner (Cand. EAP (EAPASA)) - Reg. No. 2025/20366 • Candidate Natural Scientist (Cand.Sci.Nat.) - Reg. No. 132501 – SACNASP **Training:** • Introduction Environmental Impact Assessments (2024)

1.6.PURPOSE OF THE REPORT

The scoping process is aimed at identifying the issues and/ or impacts that may result from the proposed activities to inform the Impact Assessment phase of the EIA process. The Final Scoping Report (FSR) will form the basis of the Terms of Reference (ToR) for specialist studies, and it is therefore important that all issues and potential impacts that may be associated with the proposed development be identified and recorded. The purpose of the Draft Scoping Report (DSR) is to identify key issues that require further assessment, and possibly refinement of the development proposal, prior to the commencement of the regulated EIA process with its prescribed timeframes.

The EIA process thus far has focused on developing a more detailed description of the development proposal, and on identifying the potential impacts. Further, the aim of the FSR will be to identify the issues and concerns of Stakeholders and Interested and Affected Parties (I&APs).

I&APs are encouraged to review the DSR to ensure that their issues and concerns with the proposed development are captured in the FSR. All comments received will be included in the FSR, which will be submitted to the Competent Authority for acceptance.

1.7.OBJECTIVE OF THE SCOPING PROCESS

The objective of the scoping process is to, through a consultative process—

(a) identify the relevant policies and legislation relevant to the activity;

(b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;

(c) identify and confirm the preferred activity and technology alternative through an identification of impacts and risks and ranking process of such impacts and risks;

(d) identify and confirm the preferred site, through a detailed site selection process, which includes an identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;

(e) identify the key issues to be addressed in the assessment phase;

(f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including

the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and

(g) identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

The Scoping Process is supported by a review of relevant background literature on the local area. Through this comprehensive process, the environmental assessment can identify and focus on key issues requiring further assessment during the EIA Phase.

1.8.REPORT STRUCTURE

The Scoping Report includes information as required per Appendix 2 of the 2014 NEMA EIA Regulations. The structure of the Scoping Report is presented in **Table *6***.

Table 6: Scoping Report structure

APPENDIX 2	CONTENT AS REQUIRED BY NEMA	SECTION/CHAPTER
2 (1)	A scoping report must contain 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, and must include—	
(a)	details of— (i) the EAP who prepared the report; and (ii) the expertise of the EAP, including a curriculum vitae;	Section 1.5 Appendix A
(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; (iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	Section 1.2
(c)	a plan which locates the proposed activity or activities applied for 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; or (ii) on land where the property has not been defined, the coordinates within which the activity is to be undertaken;	Section 1.1
(d)	a description of the scope of the proposed activity, including—	Section 1.1

APPENDIX 2	CONTENT AS REQUIRED BY NEMA	SECTION/CHAPTER
	(i) all listed and specified activities triggered;	Section 4.3
	(ii) a description of the activities to be undertaken, including associated structures and infrastructure;	Section 1.1
(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;	Section 4.1 and 4.2
(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;	Section 2
(g)	a full description of the process followed to reach the proposed preferred activity, site and location of the development footprint within the site, including—	Section 5
	(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;	Section 7.5
	(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;	Section 7.5
	(iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section 3
	(v) the impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts— (aa) can be reversed; (bb) may cause irreplaceable loss of resources; and	Section 6.2

APPENDIX 2	CONTENT AS REQUIRED BY NEMA	SECTION/CHAPTER
	(cc) can be avoided, managed or mitigated;	
	(vi) the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;	Section 6.1
	(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;	Section 6
	(viii) the possible mitigation measures that could be applied and level of residual risk;	Section 6.3
	(ix) the outcome of the site selection matrix;	Section 6.2
	(x) if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and	N/A
	(xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity;	Section 6.4
(h)	a plan of study for undertaking the environmental impact assessment process to be undertaken, including— (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 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;	Section 7

APPENDIX 2	CONTENT AS REQUIRED BY NEMA	SECTION/CHAPTER
	(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.	
(i)	an undertaking under oath or affirmation by the EAP in relation to— (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;	Section 9 Appendix B
(j)	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;	Section 9 Appendix B
(k)	where applicable, any specific information required by the competent authority; and	N/A
(l)	any other matter required in terms of section 24(4)(a) and (b) of the Act.	N/A

1.9.SCOPING REQUIREMENTS AS PER REGULATION 20

The scoping report has been guided by the requirements of the EIA Regulations set out in terms of the NEMA. The study was also guided by the requirements of the EIA Regulations, 2014, which are more specific in their focus and define the detailed approach to the Scoping and Environmental Impact Report (EIR) process, as well as relevant guidelines published by the Department of Environmental Affairs (DEA), including:

- DEA's Public Participation Guideline in terms of NEMA EIA Regulations (DEA, 2017); and
- DEA's Guideline on Need and Desirability (DEA, 2017a).

The overall aim of the Scoping Phase is to determine whether there are environmental issues and impacts that require further investigation in the detailed EIA. More specifically, the requirements of the Scoping Phase for this EIA are to:

- Identify the relevant policies and legislation relevant to the activity;
- Motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;

- Identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
- Identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- Develop a common understanding of the proposed project with the authorities and I&APs;
- Identify stakeholders and notify them of the proposed activity and processes;
- Provide stakeholders with the opportunity to participate in the process and identify issues and concerns associated with the proposed activity;
- Develop terms of reference for any studies that will be conducted in the impact assessment phase.
- Identify the key issues to be addressed in the impact assessment phase of the EIA process;
- Agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and
- Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

This report presents the findings of the scoping study and offers an opportunity for key stakeholders and I&APs to review the issues identified, and to make further comments.

2. NEED AND DESIRABILITY

One of the objectives of the EIA process is to motivate for "the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred development footprint". Consideration should be given to the need and desirability of development in determining whether this is the right time and place for the proposed land use or activity to be established. Hence, it is therefore, equated with rational land use and should be able to answer the question of what the most sustainable use of land is.

2.1.MOTIVATION

The development of integrated and sustainable human settlements remains a national priority in South Africa. This recognizes that access to adequate housing is not only a fundamental human right, as stipulated in the Constitution, but importantly it serves as a key instrument to address features of apartheid regime which sought to promote spatial segregation and inequality. Section 26 of the Constitution; "(1) Everyone has the right to have access to adequate housing, (2) The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right". Despite significant progress since 1994 with approximately 5.2 million housing opportunities delivered, the country continues to face a persistent housing backlog (Department of Human Settlements, 2024). This is manifested in the proliferation of informal settlements, substandard living conditions, and limited access to basic services and socio-economic infrastructure, particularly in urban centres (Department of Human Settlements, 2024).

The proposed housing development is in line with the 2024 White Paper for Human Settlements, which aims to create an enabling environment for the development of integrated and sustainable human settlements. It also advocates for the creation of sustainable human settlements with a view to providing housing, safety, and comfort for all with an emphasis on vulnerable, poor and missing middle, those households who earn too much to qualify for government-subsidised housing but not enough to afford market-rate housing in our society.

The Eastern Cape faces a challenge of spatial planning and a growing housing crisis. The province continues to urbanise with informal settlement growth around urban and peri-urban areas. According to the Eastern Cape Vision 2030 Provincial Development Plan, significant population growth is expected in the metropolitan areas of Nelson Mandela Bay and Buffalo City. One of the province's key strategic goals is to ensure that every person has a decent home by 2030, which requires the upgrading of informal settlements, the construction of new residential developments, rental housing, and rural housing. Additionally, the Eastern Cape Department of Human Settlements has a mandate to create integrated, sustainable human settlements and improve the quality of household life. It supports key provincial outcomes such as informal settlement

upgrading, security of land tenure, and the provision of affordable residential and rental housing (Eastern Cape Planning Commission, 2014).

The Nelson Mandela Bay Municipality continues to face challenges in meeting its housing demand, with a relatively slow pace of delivery. One of its strategic objectives is to accelerate access to dignified housing, sanitation, and improved basic services for indigent households, thereby ensuring safe and decent living conditions for all residents. To date, NMBM has delivered approximately 685 state-subsidised housing units, which is not sufficient to meet the growing need. As part of the Priority Human Settlement and Housing Development Areas (PHSHDA's) promulgated by Minister of Human Settlements, Water and Sanitation, Walmer area was identified as a priority area that can advance spatial transformation and housing delivery (Nelson Mandela Bay IDP, 2022/23-2026/27). Additionally, the proposed site is adjacent to an existing residential area and will therefore tie into existing municipal services, reducing costs and environmental impacts associated with the construction. The proposed housing aligns with national, provincial, and municipal policy objectives. It also addresses a critical housing need within a priority development area.

2.2.NEED AND DESIRABILITY

The following **Table 7** outlines the need and desirability of the proposed housing development, addressing ecological sustainability, socio-economic considerations, and environmental justice in relation to the project's location, scale, and anticipated impacts.

Table 7: Need and Desirability assessment for the development

ASPECTS RELATED TO SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES
1.1 How will this development (and its separate elements/aspects) impact the ecological integrity of the area, disturb or enhance ecosystems, and/or result in the loss or protection of biological diversity?
The proposed development falls within two regional vegetation types; the Algoa Sandstone Fynbos (Critically Endangered) and the Sardinia Forest Thicket (Vulnerable). The proposed development will require clearing and transformation of these natural habitats for the construction of a housing development, which will result in the loss of terrestrial biodiversity and faunal habitat. Although the site does not fall within any CBAs, it is located within an aquatic ESA 1 which is crucial in supporting the functioning of CBAs. However, impact on this ecosystem is not envisaged as there are no wetlands or watercourses within the proposed development area. Additionally, the forest patches were identified within the proposed development site. The forest patches will be protected through the implementation of a 20m buffer within which no development will occur.
1.2 What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts?
The proposed development area contains forest patches, to minimise impact on these the layout was amended to reduce encroachment on the forest patches.

• Layout 1 does not entirely avoid the forest patches and results in a housing yield of 1720 units, though this layout has a higher residential capacity it shall result in the loss of the forest patches. • Layout 2 has a 20m buffer around the forest patches to protect and minimise potential environmental impacts. However, it will result in a significant reduction in housing yield.
ASPECTS RELATED TO INTRA- AND INTER-GENERATIONAL EQUITY IN THE CONTEXT OF SUSTAINABILITY
2.1 Does the proposed location, type, and scale of development promote a reduced dependency on resources? For example, can the development be located more appropriately to reduce the dependency on resources needed for service infrastructure?
The proposed development is located on an area that is already allocated for housing units, thereby aligning with the NMBM spatial development framework. The proposed Walmer housing development will be connected into existing municipal service infrastructure including, water, sewage, electricity which currently serve the Walmer area. As no new infrastructure will be required, the development will significantly reduce dependency on resources and minimise environmental disturbance.
2.2 How will the ecological impacts resulting from this development impact people's environmental right?
The proposed housing development is not anticipated to have significant negative impacts on people's environmental rights. The anticipated negative impacts during the construction phase such as noise, air quality, visual impact etc will be minimal as possible. The proposed development is anticipated to have positive impacts as formal housing and services will be provided for residents.
2.3 Describe the linkages and dependencies between human well-being, livelihoods, and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)
The development will contribute to improved livelihoods and human-well being for the prospective beneficiaries. Although ecosystems services of the site where the development is proposed shall be negatively impacted, the preferred layout option avoids loss forests and retains considerable biodiversity patches to continue to render ecosystems to the inhabitants. Loss of heritage may be eminent, however, mitigations shall assist to manage the impacts. Furthermore, reduced property values concerns are adequately addressed in the preferred layout to buffer such impacts on the upmarket neighbouring Walmer Heights properties.
2.4 Based on all the above, how will this development positively or negatively impact ecological integrity objectives/targets/considerations of the area?
The proposed Walmer housing development will negatively impact the ecological integrity of the area due to the irreversible loss of natural habitat, including Critically Endangered Algoa Sandstone Fynbos and Vulnerable Sardinia Forest Thicket. The transformation of this area into residential infrastructure will fragment habitats and reduce biodiversity.
2.5 Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope, and nature of the project its location, and existing and other planned developments in the area.
A summary of both positive and negative impacts of the proposed housing development has been provided in this report, please refer to section 5.
ASPECTS RELATED TO PROMOTING JUSTIFIABLE ECONOMIC AND SOCIAL DEVELOPMENT
3.1 What is the socio-economic context of the area, based on, amongst other considerations, the following considerations: The IDP and any other strategic plans, frameworks of policies applicable to the area; spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.), spatial

characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and Municipal Economic Development Strategy?
The proposed development aligns with the strategic objectives as outlined in the Nelson Mandela Bay Municipality Integrated Development Plan (2022/23-2026/27) which include; • 'Provide dignified housing and sanitation and accelerate access to improved services to indigent households to create safe and decent living conditions for all residents'. • 'Provide a built environment that promotes integration, inclusivity and accessibility'. • 'Ensure implementation of a spatial transformation agenda which addresses the spatial disparities of the past' The surrounding area includes a mix of formal and informal settlements, and the development supports spatial priorities, such as the integration of previously segregated communities, the upgrading of informal areas, and densification within serviced urban zones. Furthermore, the development aligns with existing land uses in the area, as the proposed site was allocated for residential units.
3.2 Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?
The proposed development aligns and supports the socio-economic needs and objectives of the NMBM. One of the municipality's key objectives is to accelerate access to dignified housing, sanitation, and improved basic services for indigent households, thereby ensuring safe and decent living conditions for all residents. This development contributes directly to that objective by providing formal housing and associated infrastructure such as water, electricity and sanitation. In addition, the development will have positive impacts by creating employment opportunities during construction and operational phase.
3.3 How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?
The proposed housing development is not expected to impact on any heritage resources. However, a Specialist has been appointed to conduct the Archaeological and Cultural Heritage Impact Assessment, and the findings will be incorporated in the Scoping and EIA reports.
3.4 How will this development address the specific physical, psychological, developmental, cultural, and social needs and interests of the relevant communities? Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term? Will the impact be socially and economically sustainable in the short- and long-term?
The proposed development addresses the physical and developmental needs by providing formal housing with access to basic services. It includes a school site to support educational development and long-term learning opportunities. Job creation during the construction phase will further contribute to the developmental and social needs of the surrounding community. The proposed development promotes equity and inclusion by offering a mix of housing typologies (low, middle, and high-income housing opportunities) thereby preventing socio-economic segregation and ensuring that vulnerable and low-income groups are not excluded. The proposed development will have a socially and economically sustainable impact in both the short and long term. In short term, the development will provide local employment during construction phase and stimulate the local economy. In the long term, the development's mixed use which includes a business zone with facilities such as a supermarket, bottle store, service trades etc, will support economic activity, and contribute to the municipality's economy.

3.5 How were a risk-averse and cautious approach applied in terms of socio-economic impacts? What are the limits of current knowledge (note: the gaps, uncertainties, and assumptions must be clearly stated)? What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability, and sustainability) associated with the limits of current knowledge? Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development (and its alternatives)?
The EMPr shall describe all reasonable and feasible mitigation measures and addresses long-term environmental management.
3.6 How will the socio-economic impacts resulting from this development impact people's environmental right?
The proposed housing development will have both positive and negative impacts. The proposed development may negatively impact adjacent residents during construction due to noise and dust but these will be temporary and can easily be mitigated. The positive impacts that will come with the proposed development include improvement in the NMBM's economy through job opportunities as well as objectives of the municipality of provided formal housing and upgrading of informal settlements.
3.7 What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations? What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)?
The proposed Walmer housing development will involve a mix of housing typologies (low, middle, and high-income housing opportunities) which promotes social integration and avoids spatial marginalisation of vulnerable communities. In this way the proposed development ensures that disadvantaged and low income residents are not excluded from housing opportunities. Additionally, the proposed site is within an area which is already allocated for residential use and shall make use of existing municipal services infrastructure reducing the need of new infrastructure thereby reducing associated environmental impacts.
3.8 What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?
An EMPr has been compiled for the proposed development which provides mitigation measures for environmental health and safety, this is to ensure that impacts encountered during the construction phase are addressed adequately.
3.9 What measures were taken to ensure that the interests, needs, and values of all interested and affected parties were considered and that adequate recognition was given to all forms of knowledge, including traditional and ordinary knowledge?
The public participation process shall take note of interests, needs and values of all I&APs based on all forms of knowledge, this will be done by ensuring that every comment received is addressed and considered.
3.10 Considering the interests, needs, and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low-, middle-, and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?
The proposed Walmer housing development will involve a mix of housing typologies (low, middle, and high-income housing opportunities) and is aligned with the priority need of the Walmer area. According to the Nelson Mandela Bay Municipality IDP, the Walmer area was identified as a priority area that can advance spatial transformation and housing delivery.

Table 6: Need and Desirability assessment from a socio-economic perspective.

NEED
Is the land use (associated with activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework agreed to by the relevant environmental authority?
Yes, the land use associated with the proposed housing development is considered to be within the timeframe and intent of the municipal SDF. The site has been allocated for a residential use and aligns with spatial planning priorities. The supports the municipality's goals to address housing demand and spatial transformation, as outlined in the IDP.
Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?
Yes, development in the form of the proposed land use should occur at this location and point in time. The area has been identified for residential use and was previously granted an environmental authorisation, which has since lapsed.
Does the community/area need the activity and the associated land use concerned? (is it a societal priority)
The proposed development addresses a societal need within both the municipal area and the Walmer area. Access to affordable housing is a national and local development priority particularly in urban centres facing high population growth and informal settlement expansion such as NMBM. The development's integrated approach of mix housing typologies particularly for low and middle income households, ensures that vulnerable and disadvantaged groups have access to adequate and secure housing opportunities, thereby contributing to spatial equity and social upliftment.
Is this project part of a national programme to address an issue of national concern or importance?
Yes, the proposed housing development aligns with the national programme such as the National Development Plan 2030, which prioritise the delivery of integrated, affordable and sustainable housing. Therefore, the proposed development contributes in addressing the national concern of housing backlogs and inadequate housing.
DESIRABILITY
Would the approval of this application compromise the integrity of the existing approved municipal IDP and SDF as agreed to by the relevant authorities?
No, the proposed development will not compromise the integrity of the existing municipal IDP and SDF. It aligns with the strategic objectives and spatial priority as outlined in the IDP.
Do location factors favour this land use (associated with the activity applied for) at this place? (relates to the contextualization of the proposed land use on this site within its broader context)
Yes, the proposed housing development area is located within an area allocated for residential use.
Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?
No, the proposed activity and associated land use will not result in unacceptable opportunity costs. The site identified for the development has already been allocated for residential use. The development shall make use of existing municipal existing infrastructure, meaning no need for new infrastructure on greenfield land which would be more costly and could potentially impact on natural or sensitive areas.
Will the proposed land use result in unacceptable cumulative impacts?
The proposed land use is not expected to result in unacceptable cumulative impacts. The development will be connected to existing municipal infrastructure, which limits the need for new infrastructure and associated environmental disruption. Potential environmental impacts such has loss of terrestrial biodiversity will be mitigated through appropriate mitigation measures.

3. DESCRIPTION OF AFFECTED ENVIRONMENT

This section of the Scoping Report provides a description of the environment that may be affected by the proposed project. Aspects of the biophysical, social and economic environment that could be directly or indirectly affected by, or could affect, the proposed project have been described. Baseline information sourced from various spatial datasets, the NMBMM Spatial Development Framework (SDF), the National Screening tool report, as well as specialist biodiversity and ecosystem mapping resources. These include the National Ecosystem freshwater Priority Areas (NEFPA) wetlands and rivers, the National Wetland Map Version 5 (NWM5), the Eastern Cape Biodiversity Conservation Plan (ECBCP) 2019 and the National Vegetation Map (Mucina & Rutherford, 2018).

3.1 CLIMATE

The weather patterns of the Nelson Mandela Bay area change throughout the day as it lies at the confluence of several climatic regimes, the most important of which are temperate and subtropical (Stone,1988). Gqeberha is dominated by topographical or gradient winds for most of the year (Grobler, 2012). The area experiences westerly winds throughout the year, though in summer the percentage of easterly winds reached more than 40% (Schumann et al., 1999). Maximum and minimum mean temperatures are experienced in February and July, respectively (McCallum 1981). Exceptionally high temperatures (~30°C) can occur during berg wind conditions that develop frequently in autumn and winter. The mean annual rainfall for the Port Elizabeth area is approximately 600 mm (Stone 1988). The strongest winds occur during October and November, with weakest winds during May and June (Schumann et al. 1991).

3.2 TOPOGRAPHY AND HYDROLOGY

The area is characterized by flats to undulating terrain (**Figure 6**). Elevation ranges from 104 m to 110 m, with an average slope of 1.9% to 2.4%.

Figure 6. Topography of the proposed housing development

The study area is situated within quaternary catchment M20A, located within the Mzimvubu-Tsitsikamma Water Management Area. The site occurs within the catchment area of the Baakens River, however there is no connectivity between the Baakens and the proposed site (Scherman Colloty & Associates, 2014). According to the NFEPA database, a NFEPA artificial wetland is located southeast of the boundary of the site, this feature is a reservoir.

Figure 7. Conditions within the proposed development area

Based on the Aquifer Classification and Aquifer Vulnerability Map, the aquifer is classified as a poor aquifer region which is a low to negligible yielding aquifer system of moderate to poor water quality, with least vulnerability meaning is only vulnerable to conservative pollutants in the long term when continuously discharged or leached.

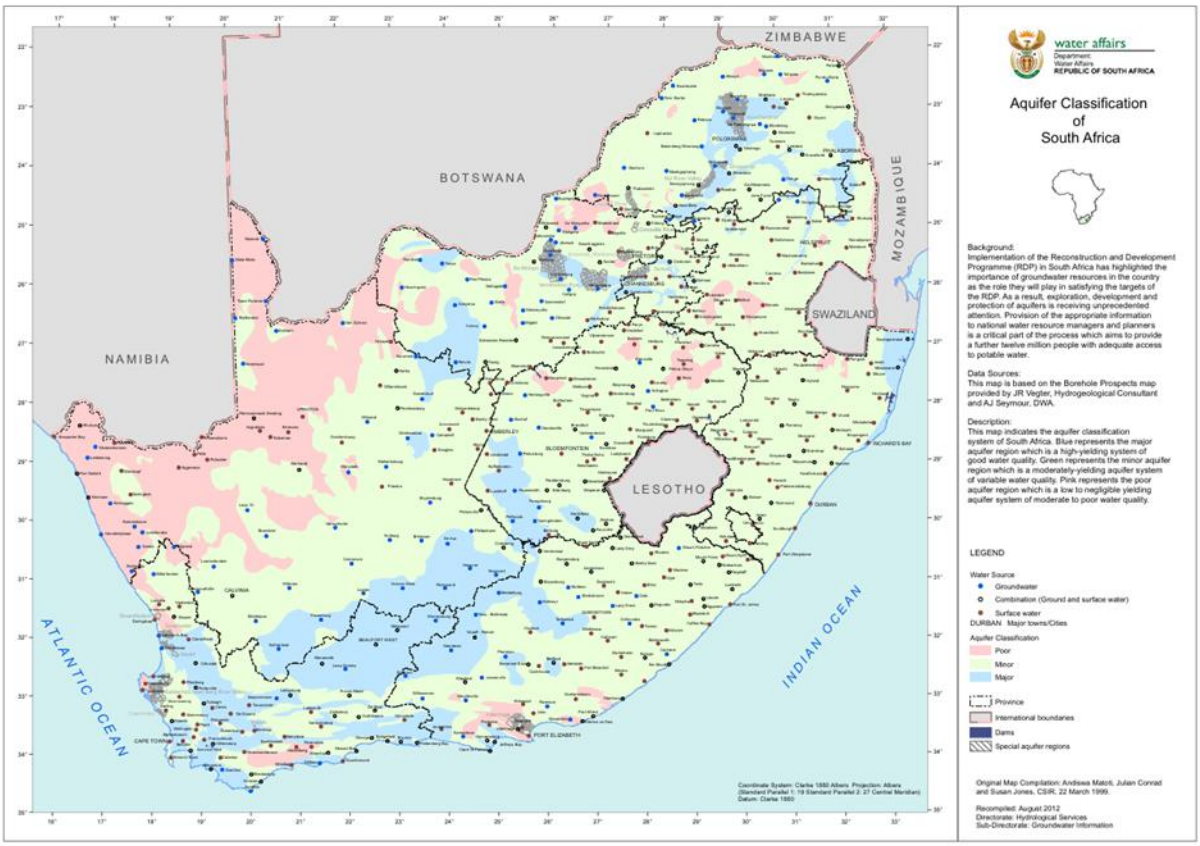


Figure 8. Aquifer classification map of South Africa

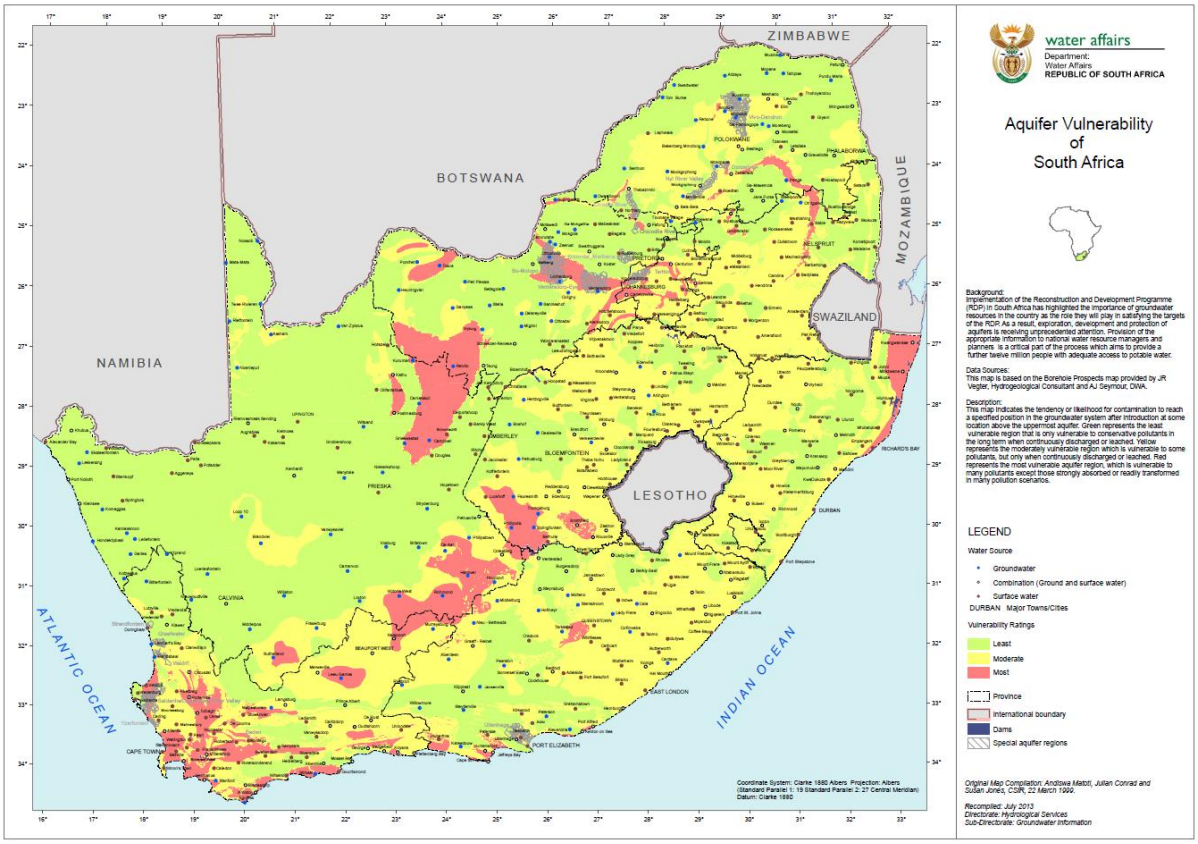


Figure 9. Aquifer vulnerability map of South Africa

3.3 GEOLOGY AND SOILS

The proposed area is underlain by coastal aeolianites (ancient, wind-blown dune sands) of the Nanaga Formation (Algoa Group) of Pliocene to Early Pleistocene age. These ancient dune sands crop out extensively to the west and east of Port Elizabeth. In the study area they unconformably overlie Palaeozoic sandstones and quartzites of the Peninsula Formation (Almond, 2014). The Nanaga Formation overlies the Alexandria Formation paraconformably, semi-consolidated, medium-grained calcareous sandstone beds are characterized by large-scale cross-bedding, interpreted as aeolian deposits (Booth et al., 1999). The Nanaga Formation is very prominent as fine-grained red sands.

3.4 TERRESTRIAL AND AQUATIC BIODIVERSITY

3.4.1 TERRESTRIAL

According to the National South African Vegetation Map (2018), the study area falls within both the Eastern Fynbos-Renosterveld Bioregion, within the Fynbos Biome and the Albany Thicket Biome. The vegetation types that occur in this area include the Algoa Sandstone Fynbos and Sardinia Forest Thicket. Algoa Sandstone Fynbos is the dominant vegetation type, covering most of the site, while Sardinia Forest Thicket occurs in a smaller section along the southern boundary. The vegetation types are described below:

(a) Algoa Sandstone Fynbos

Algoa Sandstone Fynbos is a grassy shrubland (graminoid fynbos) on coastal flats between Van Stadens River and Summerstrand in the Gqeberha area. It occurs on acidic lithosol soils derived from Ordovician sandstones of the Table Mountain Group (Cape Supergroup) (SRK Consulting, 2024). This vegetation type occurs on flat to slightly undulating plain and grasses become dominant especially in wet habitats.

The Algoa Sandstone Fynbos is classified as **Critically Endangered (CR)** according to The Revised National List of Threatened Terrestrial Ecosystems –2022.

(b) Sardinia Forest Thicket

This vegetation type is dominated by thicket clumps typical of Algoa Dune Thicket. The matrix is forest characterized by Cape ash Ekebergia capensis and coral trees Erythrina caffra (SRK Consulting, 2008). The Sardinia Forest Thicket is classified as **Vulnerable (VU).**

The vegetation on site (**Figure *10***) can be described as sparse to moderate shrubs as well as presence of forest clumps. Based on field observations the site is no longer pristine as it has been disturbed by illegal dumping, grazing, access tracks and informal soccer fields. According to the Nelson Mandela Bay Critical Biodiversity Areas (2009), none of the proposed development footprint falls within any CBAs.

Figure 10. Vegetation conditions at the proposed site

A follow-up site inspection was undertaken on 18 February 2026 following a fire event that occurred within the municipality beginning 2026. **Figure *11*** below shows portions of the site exhibiting visible fire damage, including burned grass cover. The burn pattern appears patchy, with some areas more affected than other areas while some sections of the site were not impacted by the fire.

Figure 11. Vegetation conditions post the fire events at the development site

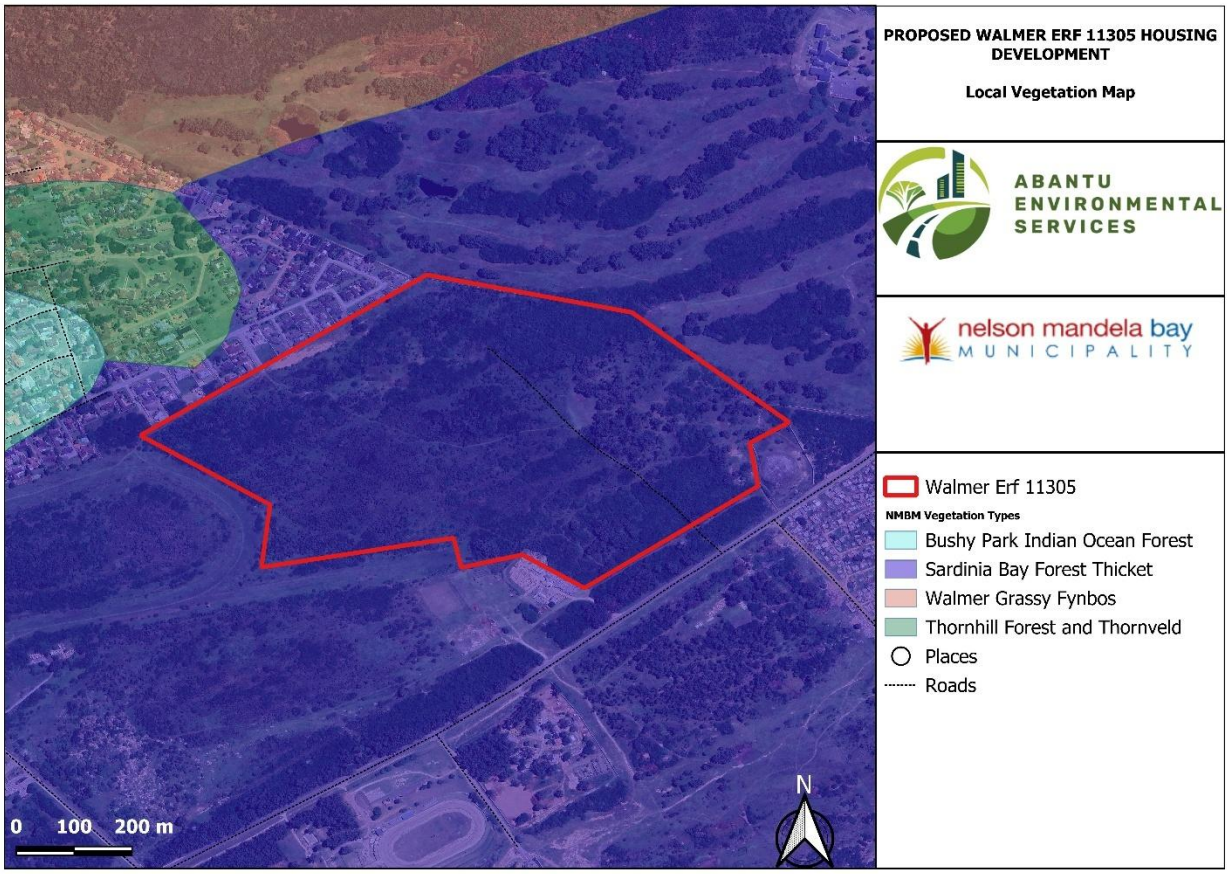


Figure 12. Terrestrial map

(c) FOREST

Forest are protected under the National Forest Act, Act 84 of 1998. A permit is required to disturb forest. According to a forest survey conducted by CEN Integrated Environmental Management Unit (2014), the proposed site occurs predominantly in two major clumps on the northern and south-eastern borders, all forest clumps that were observed were a matrix of forest species interspersed with alien vegetation and pioneer species, and all have protected species in terms of the National Forestry Act.

3.4.2 AQUATIC BIODIVERSITY AND STRATEGIC WATER RESOURCE AREAS

The project area is located in an aquatic Ecological Support Area (ESA) 1 according to the 2019 Eastern Cape Biodiversity Conservation Plan. As reported by the national web based environmental screening tool, the aquatic biodiversity sensitivity on the site is very high. Although the aquatic biodiversity sensitivity is rated as high, no wetlands or watercourses were observed within the proposed development footprint.

According to Le Maitre *et al.,* (2018), Strategic Water Source Areas (SWSAs) are areas of land that either: (a) supply a disproportionate quantity of mean annual surface water runoff in relation to their size and are

considered nationally important; or (b) have high groundwater recharge and where the groundwater forms a nationally important resource; or (c) areas that meet both criteria (a) and (b). The screening tool flags the development area as being located in a Strategic Water Source Area (Tsitsikamma).

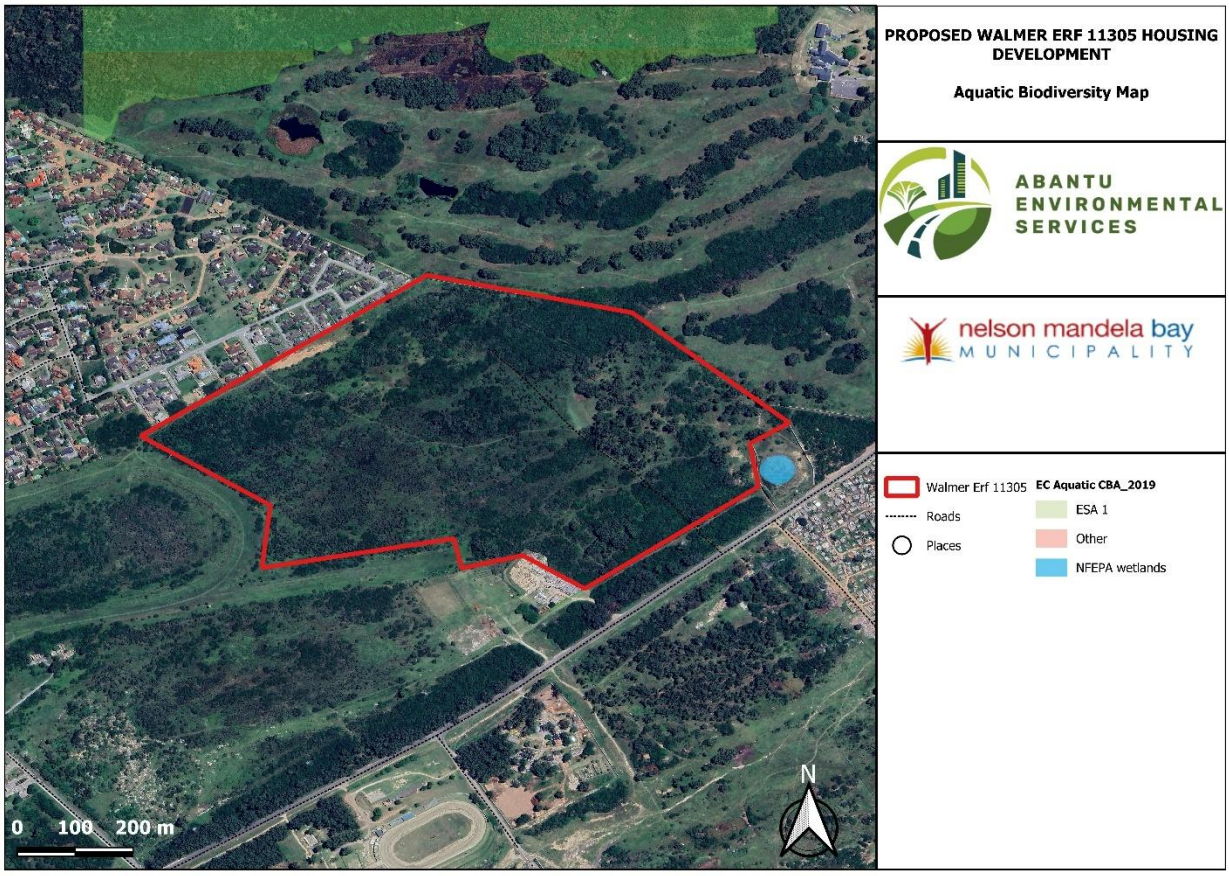


Figure 13. Aquatic Map

3.5 FAUNA

The DFFE Screening tool listed the animal species theme for the site as high. The animal species that have potential to occur on site are listed on **Table *8*** below.

Table 8. Animal species that have potential to occur on site.

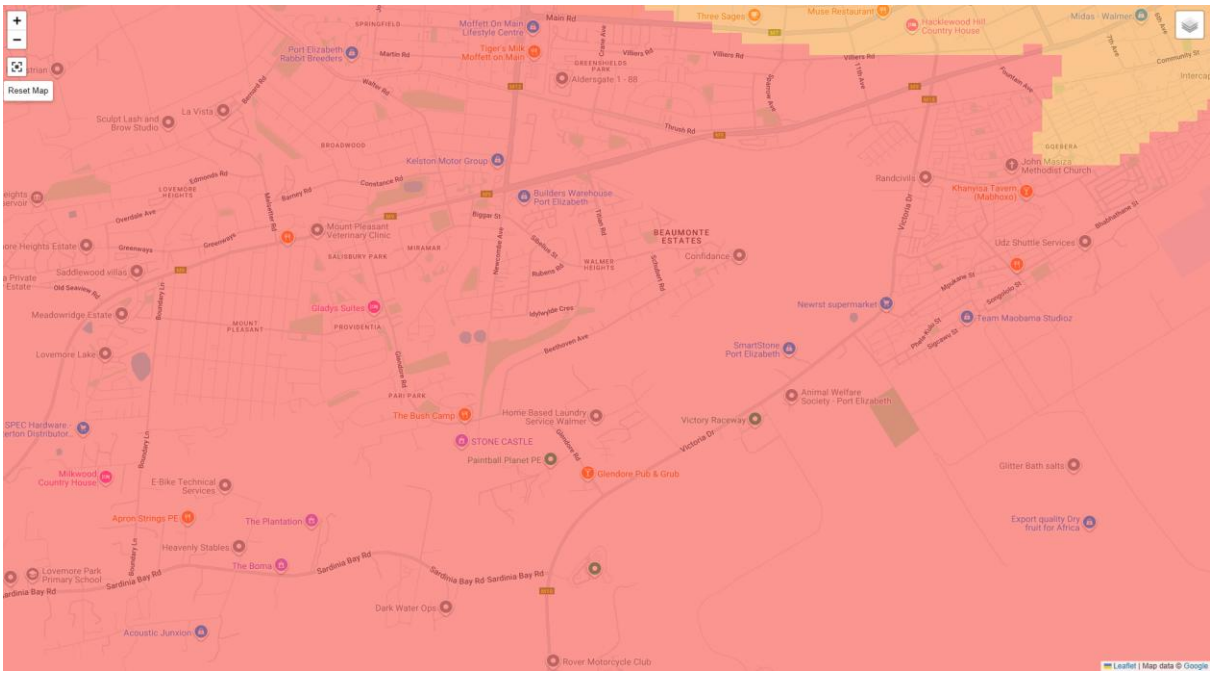
Feature
Aves-Circus ranivorus
Aves-Stephanoaetus coronatus
Aves-Neotis denhami
Aves-Bradypterus sylvaticus
Aves-Stephanoaetus coronatus
Aves-Neotis denhami
Aves-Eupodotis senegalensis
Insecta-Chrysoritis thysbe whitei
Mammalia-Chlorotalpa duthieae

Sensitive species 8
Invertebrate-Aneuryphymus montanus

3.6 ARCHAEOLOGY AND HERITAGE RESOURCES

According to the National Web-based Screening Tool the proposed area is rated as high sensitivity and within 100m of a Grade IIIb Heritage site. Grade III Built Environment Heritage Resources are buildings and sites that have sufficient intrinsic significance to be regarded as local heritage resources and are significant enough to warrant that any alteration is regulated. According to a Phase 1 Archaeological Impact Assessment conducted by Booth (2014), the following build environment sites were observed at the proposed development area: an unused dipping tank overgrown with vegetation, ruin of a dwelling and associated infrastructure, ruin of a farmstead and contemporary substation. The ruins of the built environment were considered as having a low-medium cultural significance.

As seen on **Figure 14** below the sensitivity on palaeontological resources within the proposed site is rated as 'Very High', as such a field assessment and protocol for finds is required.



Colour	Sensitivity	Required Action
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 14. Palaeo Map

3.7 LAND USE

The proposed site comprises vacant, undeveloped municipal land that has been subject to various informal and unauthorized uses. These include illegal dumping, livestock grazing, the creation of informal access tracks, and the use of portions of the site as informal soccer fields. The site is strategically located, bounded by the Walmer Golf Course to the east, Victoria Drive and the township of Walmer Gqebera to the southeast, the former Arlington Racecourse to the southwest, and the residential suburb of Walmer Heights to the north.

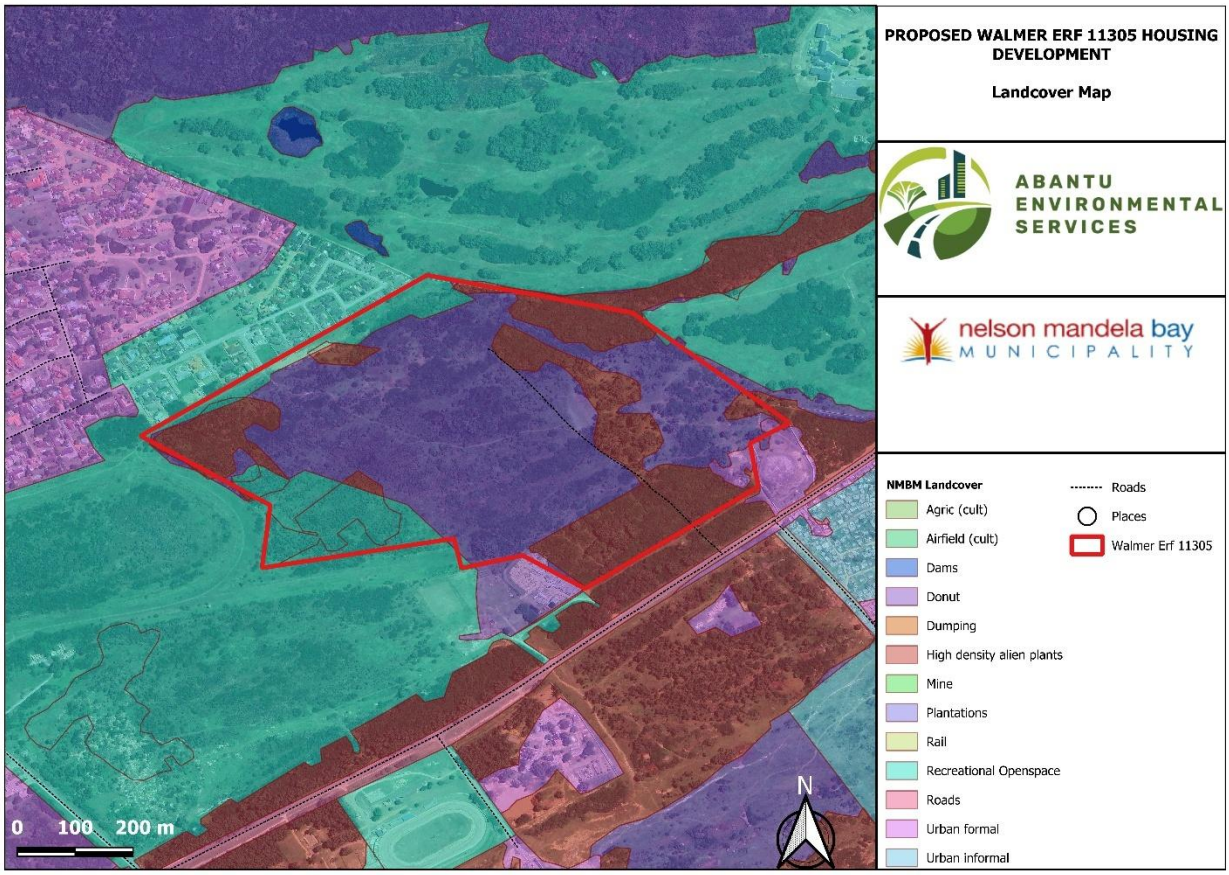


Figure 15. Landcover map

3.8 SOCIO-ECONOMIC ATTRIBUTES

The proposed project is located in Gqeberha (formerly known as Port Elizabeth) located in Nelson Mandela Bay Municipality, in the Eastern Cape Province of South Africa and is one of eight Metropolitan Municipalities. In 2001, the Nelson Mandela Bay Metropolitan Municipality was formed as a single administrative area covering inter alia Gqeberha, Kariega (formerly Uitenhage), Despatch and a number of surrounding areas.

The city has a unique advantage in that it possesses two ports, namely Port Elizabeth Harbour and Ngqura. This presents several opportunities related to the diversification of port activities, the maritime sector, and the distinction between 'dirty' and 'clean' port uses. The NMBM Municipality has a size of 195 890.76 ha and covers the smallest area of land (1952 km²) in the Eastern Cape, which is the second largest province in South Africa (Almond et al., 2008).

3.8.1 POPULATION

The current population of Nelson Mandela Bay is estimated at 1 190 496 (Community Survey, 2022), with a growth rate of 1.54% (IHS, 2017), which is lower than that of other metropolitan areas in South Africa, such as Ekurhuleni (2.1%) and Tshwane (2.6%) people. According to the census the Nelson Mandela Bay Municipality population is split 52.7% to 47.3% in favour of females, with the Black African population accounting for 62.7% of the overall population, Coloureds accounting for 19.2%, Whites are 15.7% and the rest are a mix of different ethnicities. According to the census, the elderly constitute 8.8% of the population while the young children under the 14 year make up 22.3% of the population. The literacy levels in the local municipality by 2016 were measured at 76% of the population, which is a significant increase from the 66% measured in 2006.

3.8.2 EDUCATION

According to the Municipality profile of the Nelson Mandela Bay Metro (2016) there is a total number of 324 schools, which consist of 269 ordinary public schools, 11 special needs schools, 25 independent schools and 19 Early Childhood Development (ECD) Centres within the municipality. A comparison with other metros shows that 75.8% of learners aged 7 to 24 years in Nelson Mandela Bay attended an educational institution as compared to 80.2% in Buffalo City and 79.2% in Mangaung (79.2%). The lowest attendance was observed in Cape Town (69.8%) and eThekwini (71.1%). People 20 years and older with less than Grade 7 as highest level of education are 4.1%. Buffalo City is 11.4% and Cape Town is 6.1%. 0.8% of people 20 years and older in Nelson Mandela Bay have no schooling compared to a Metro average of 1.4% (STATS SA GHS, 2019).

3.8.3 ECONOMIC ASPECT

Whilst the NMBM is undoubtedly an important node of activity within the economy of the Eastern Cape, it is characterized by several challenges in terms of economic development. These include:

- A high unemployment rate (36.6%), compounded by the low education levels of the labour force, including large numbers of illiterate adults with limited employment prospects.
- Ageing and inadequate investment in the maintenance and upgrading of infrastructure.
- The dependence on the automotive sector and insufficient diversification within the manufacturing and others sectors.
- A lack of up-to-date local economic statistics and monitoring and evaluation systems.

STATS SA states that: "according to ECSECC (Eastern Cape Socio Economic Consultative Council), the GDP growth rate for the Nelson Mandela Bay Municipality was 2.1% in 2010 and the GDP per capita R52 147. The largest economic sectors in the Nelson Mandela Metro are manufacturing, finance, community services and transport. Community services, trade and manufacturing sectors are the sectors that create the most employment in the Metro". Good quality infrastructure is key to sustainable social, economic and industrial development. Poor infrastructure hampers development, growth and ability to trade in the domestic and global economy.

Economic infrastructure, which includes transport, energy, telecommunications, water and sanitation provides services which are of fundamental importance for development. In NMBM it is deficient and this is exacerbated by inadequate maintenance and thus prematurely deteriorating installations and services. Infrastructural services are often overlooked as a means to alleviate poverty and improve environmental conditions. In order for Nelson Mandela Bay to grow and develop a sustainable economy, it is important to build new economic drivers to replace or augment the ones that have served the region in the past.

3.8.4 HOUSING

According to STATS SA General Households Survey (2019), 21,6% of households in Nelson Mandela Bay listed grants as their main source of income. A total of 640,000 individuals, accounting for approximately 49.6% of the overall population, live in poverty within the Nelson Mandela Bay Metropolitan area (ECSECC, 2017). In the 2017/18 financial year, all qualifying households with an income of less than R3 200 per month (equivalent to two state pensions) received access to free basic services provided by the Municipality through its Assistance To The Poor Programme (ATTP). There is a slow pace in housing delivery within the municipality with 92% of households living in formal dwellings, 7.4% live in informal dwellings and the remaining 0.6% live in traditional and other dwellings. The current housing demand in the metro is estimated at 126 550 (Nelson Mandela Bay Muncipality IDP, 2022/23-2026/27).

3.8.5 BASIC SERVICES

(a) Water

According to the NMBM IDP (2022/23-2026/27), the NMBM has extent of wate provision backlog in recently established informal settlements. The municipality has about 99% of households that have access to piped water as follows:

- 82.3% have access to piped water inside dwelling.
- 11.4% have access to piped (tap) water inside the yard.
- 5.4% have access to piped (tap) water on community stand.
- 0.8% have no access to basic water.

(b) Sanitation

About 96.2% of households in the Nelson Mandela Bay Municipality has access to basic sanitation. Basic sanitation includes flush toilets connected to a public sewerage system, a septic tank or a pit toilet with a ventilation pipe. There are approximately 6010 buckets in circulation and 2 834 chemical toilets in informal settlements. The Municipality rolls out basic sanitation in informal settlements and relocates households to formal sites with waterborne sanitation (NMBM IDP 2022/23-2026/27).

(c) Electricity

According to Census 2022, 96.5% of households have access to electricity from the mains electricity supply, 3.4% use other sources of energy for lighting whilst the remaining 0.1% have no access to any source of energy.

4. LEGAL AND POLICY FRAMEWORK

4.1 APPLICABLE ENVIRONMENTAL LEGISLATION

This section of the report presents an overview of the governing legislation identified which may relate to the proposed project. A summary of the applicable legislation is provided in **Table 9** below. The legal compliance obligation for this project stems from the need for an EA to be granted by the competent authority, DEDEAT, in accordance with the requirements of the NEMA. In addition, there are numerous other pieces of legislation governed by many acts, regulations, standards, guidelines on a national, provincial, and local level, which should be considered in order to assess the potential applicability of these for the proposed project. More detail on the legislative framework is presented below.

Table 9: Applicable legislations

Legislation/ guidelines	Summary	Legal requirement for this project
NATIONAL		
The Constitution of South Africa, 1996 (Act No.108 of 1996)	The Constitution is the highest and the supreme law in South Africa. The Bill of Rights in chapter 2 section 24 of the Constitution of South Africa Act (Act 108 of 1996) makes provisions for environmental issues and declares that: "Everyone has the right – a) to an environment that is not harmful to their health or well-being; and b) to have the environment protected, for the benefit of present and future c) generations, through reasonable legislative and other measures that: i. prevent pollution and ecological degradation; ii. promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development".	The applicant has an obligation to ensure that the project is undertaken in a manner that respects and protects the constitutional rights of all interested and affected parties. The applicant must ensure that the project environment is not harmful and that measures are implemented to prevent pollution so that future generations can enjoy the social and ecological benefits.
National Environmental Management Act, 1998 (Act No.107 of 1998) as amended	The National Environmental Management Act, 1998 (Act No.107 of 1998) (NEMA) is a 'principles based Act' and is an overarching statute regulating various aspects of natural resources use, integrated environmental management and pollution control. The Act provides for the right to an environment that is not harmful to the health and wellbeing of the South African people; sustainable development, environmental protection, equitable distribution of natural resources; and the formulation of environmental management frameworks. Its definition of the environment includes the land and water of the earth, microorganisms, plant and animal life or a combination of those things, and the inter relationships among them. The Act aims to provide for cooperative environmental governance by establishing principles	The applicant must ensure that construction and operation of activities must be conducted according to the generally accepted principles of sustainable development, integrating social, economic, and environmental factors. An application for Environmental Authorisation is being submitted on behalf of the client in line with the requirements of NEMA since the proposed

Legislation/ guidelines	Summary	Legal requirement for this project
	for decision making on matters affecting the environment, institutions that will promote co-operative governance, and procedures for coordinating environmental functions exercised by organs of state. Section 24 Provides for the prohibition, restriction and control of activities which are likely to have a detrimental effect on the environment.	project will trigger listed activities which require authorization prior to commencement. As part of the EIA process, mitigation measures will be proposed to ensure that the significance of the predicted impacts is reduced thus protecting the environment from degradation.
Environmental Impact Assessment Regulation, 2014 as Amended	The Environmental Impact Assessment (EIA) Regulations promulgated under NEMA in 2014 provide a list of activities which are subject to an Environmental Authorisation (EA) process prior to construction or implementation. In accordance with the 2014 EIA Regulations, (as amended) an EIA process is required owing to the applicability of the activities listed in ***Table 9***. According to the NEMA Regulations these activities may not commence without environmental authorization from the competent authority which requires the investigation, assessment and statement of potential impact of activities and must follow the procedure as described in the EIA Regulations. A Basic Assessment (BA) process must be applied to an application if the authorisation applied for is in respect of an activity or activities listed in Listing Notices 1 and/or 3 and a Scoping and Environmental Impact Assessment (S&EIA) process must be applied to an application if the authorisation applied for is in respect of an activity or activities listed in Listing Notice 2. As the Proposed Project includes activities listed in Listing Notice 2 it is necessary that a S&EIA process is undertaken in order for the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) to consider the application in terms of NEMA.	An application for Environmental Authorisation is being submitted on behalf of the client in line with the requirements of NEMA EIA Regulations since the proposed project will trigger listed activities which require authorization prior to commencement
National Environmental Management Biodiversity Act (Act No. 10 of 2004)	The National Environmental Management: Biodiversity Act (NEM:BA) makes provisions for achieving the objectives of the United Nations Convention on Biological Diversity, to which South Africa is a signatory. The Bill promotes management, conservation and sustainable use of indigenous biological resources, and provides for: ● the management and conservation of biological diversity;	The proposed housing development area does not fall within an area identified as a Critical Biodiversity Area (CBA) according to the Eastern Cape Biodiversity Conservation Plan (ECBCP) as well as the NMBMM Bioregional Plan. The proposed development will be within threatened ecosystems as defined by the NEM:BA, namely the critically endangered Algoa Sandstone Fynbos and the vulnerable Sardinia Forest Thicket.

Legislation/ guidelines	Summary	Legal requirement for this project
	● the use of indigenous biological resources in a sustainable manner; and ● the fair and equitable sharing of benefits arising from the commercialization through bio-prospecting of traditional uses and knowledge of generic resources. The Bill gives effect to international agreements relating to biodiversity which are binding on the Republic and provides for co-operative governance in biodiversity management and conservation and provides for a National Biodiversity Institute to assist in achieving the above objectives. The Act gives wide powers to the National Biodiversity Institute to inter alia protect flora and fauna in appropriate enclosures, the collection of information, undertaking and promotion of research on indigenous biodiversity and the sustainable use of indigenous biological resources, the prevention, control or eradication of listed invasive species, biodiversity planning and other functions. This act lists all critically endangered, vulnerable and protected species. The potential occurrence of any such species will be investigated in the BA process.	
National Water Act, 1998 (Act No.36 of 1998)	In terms of chapter 3 section 12-20, water resources are to be protected, used, developed, conserved, managed and controlled. This Act recognizes that water is a scarce resource; it is a natural resource that belongs to all of South Africa's people. The National Department of Water and Sanitation is responsible for the nation's water resource and also the Minister of Department of Water and Sanitation ensures that the water resource is "protected, used, developed, conserved, managed and controlled" through the implementation of this Act (National Water Act 36 of 1998). This Act makes provisions for the protection of surface water and groundwater resources and their sustainable management for the prevention and remediation of the effects of pollution, and for the control of emergency occurrences. Section 21 of the National Water Act (NWA) lists water uses for which a Water Use Licence will be required.	The proposed project is not located within 100m of a river or within 500m of a wetland therefore, Section 21 c and i of the National Water Act will not be triggered.

Legislation/ guidelines	Summary	Legal requirement for this project
National Environmental Management: Air Quality Act, 2004 (Act No.39 of 2004)	The objective of the Act is to protect the environment by providing reasonable measures for the protection and enhancement of air quality and to prevent air pollution. The Act makes provision for measures to control dust, and offensive odours. Section 32 of The National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) deals with dust control measures regarding dust control. The Minister or MEC may prescribe measures for the control of dust in specified places or areas, either in general or by specified machinery or in specified instances, the steps to be taken to prevent nuisance or other measures aimed at controlling dust. The National Dust Control Regulations (2013) provides for the management and monitoring of dust.	The EMPr which will be compiled during the EIA phase must include measures for control of dust during the construction phase, If there are any exceedances observed in terms of the National Dust Regulations then a dust monitoring programme must be submitted to the Competent Authority.
Conservation of Agricultural Resources Act, 1983 (No. 43 of 1983)	This Act provides for the control over the utilisation of the natural agricultural resources of the country in order to promote the conservation of the soil, the water sources and the vegetation and the combating of weeds and invader plants. Section 5 of the Act prohibits the spread of weeds through the prohibition of their sale. GN R1084 (published under CARA) provides categories for the classification of the various weeds and invader plants, and restrictions where these species may occur. Regulation 15E of GN R1084 provides methods to be implemented for the control of weeds and invader species.	CARA finds application throughout the project lifecycle of the Proposed Project. As a result, soil conservation and erosion prevention management and mitigation measures need to be implemented. Furthermore, an Alien Invasives Species Control and Management Plan must be developed and implemented for the duration of the project life cycle of the Proposed Project
Subdivision of Agricultural Land Act, 1970 (Act No. 70 of 1970), as amended	The Subdivision of Agricultural Land Act, 1970 (Act No. 70 of 1970), as amended provides for the subdivision of all agricultural land within the Republic thereby prohibiting certain activities from being undertaken without consent from relevant authority, the Minister of the Department of Agriculture, Land Reform and Rural Development.	This Act could be relevant to the Proposed Project if any portion of land is zoned for agriculture and will need to be leased for a period exceeding 10 years is regulated by the Act
National Forests Act, 1998 (No. 84 of 1998)	The National Forest Act (NFA) empowers the Minister of DFFE to declare and list a tree, group of trees, woodland, or a species of trees as protected. A list of protected tree species is included in GN R908, published in November 2014. Section 7 of the Act prohibits the cutting and disturbance of NFA-listed trees.	A permit is required for the removal of NFA-listed tree species in terms of Section 4 of the Act. Prior to the submission of the permit application to the competent authority, a survey of the project site is required in order to ascertain the presence and distribution of NFA-listed tree species. There are forest patches within the development area, these need to be avoided as far as possible.

Legislation/ guidelines	Summary	Legal requirement for this project
Occupational Health and Safety Act, 1993 (Act No.85 of 1993)	The Occupational Health and Safety Act makes provisions in regulations Section 8 for the general duties of employers to their employees. The act provides for the health and safety of people at work utilising machinery and the protection of others against health and safety risks associated with activities on site/work. General Administrative Regulations (2003) describe the administration of the various OHS Regulations, including the designation of health and safety committees, the reporting and recording of incidents and occupational diseases. This Act is applicable to all contractors during the planning, construction and operational phases of the project. To provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work.	The applicant must ensure that a safe working environment is provided for its employees during construction and operational phases of the project. This includes obtaining the relevant work permits, providing PPE and ensuring all required facilities are available for a working environment that is conducive. All stalls must have adequate training for their various duties and the applicant must ensure that compliance with the OHSA and Construction Regulations is monitored on a regular basis.
Hazardous Substance Act (No 15 of 1973)	This Act regulates the control of substances that may cause injury, or ill health, or death due to their toxic, corrosive, irritant, strongly sensitizing or inflammable nature of the generation of pressure thereby in certain instances and for the control of certain electronic products. To provide for the rating of such substances or products about the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, modification, disposal or dumping of such substances and products. • Group I and II: Any substance or mixture of a substance that might by reason of its toxic, corrosive, etc., nature or because it generates pressure through decomposition, heat, or other means, cause extreme risk of injury etc., can be declared as Group I or Group II substance • Group IV: any electronic product; and • Group V: any radioactive material. The use, conveyance, or storage of any hazardous substance (such as distillate fuel) is prohibited without an appropriate license being in force. It is necessary to identify and list all the Group I, II, III, and IV hazardous substances that may be on the site and in what operational context they are used, stored, or handled. If applicable, a license is required to be obtained from the	Relevant permits must be obtained for the storage of hazardous substances if any will be stored on site during construction. The contractor must ensure that hazardous substances are stored in a safe manner and MSDS are retained on file for all hazardous substances on site.

Legislation/ guidelines	Summary	Legal requirement for this project
National Environmental Management: Waste Act, 2008 (Act No.59 of 2008)	During construction waste will be produced, in either liquid, solid and/or hazardous state, and this waste will be required to be adequately and appropriately disposed of. There are several Regulations or Acts that are applicable to the proposed development in terms of waste management. To reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; and to provide for matters connected therewith.	No authorization is required in terms of NEMWA, however, the applicant must make sure that waste is managed appropriately on site. This includes separation of waste, routine cleanup of the site and spillages as well as disposal at appropriately licensed waste landfills. Where possible, waste should be recycled to minimizes volumes of waste disposed to landfills
National Heritage Resources Act (Act No. 25 of 1999)	The protection of archaeological and paleontological resources is the responsibility of a provincial heritage resources authority and all archaeological objects, paleontological material and meteorites are the property of the State. “Any person who discovers archaeological or paleontological objects or material or a meteorite in the course of development must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority”. According to Section 34 of NHRA, No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority. Section 38 Listed Activities:	The site is located in close proximity to a grade IIIb heritage site. A Heritage specialist has been appointed to assess the presence of other heritage resources within the site as well as the significance thereof. The ECPHRA has been identified as a stakeholder in this project and will be provided an opportunity to comment of the findings of the specialist studies.

Legislation/ guidelines	Summary	Legal requirement for this project
	(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length; (b) the construction of a bridge or similar structure exceeding 50 m in length; (c) any development or other activity which will change the character of a site— (i) exceeding 5 000 m^2 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 SAHRA or a provincial heritage resources authority; (d) the re-zoning of a site exceeding 10 000 m2 in extent; or (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,	
The Spatial Planning and Land Use Management Act, 2013 (No. 6 of 2013) (SPLUMA)	The Spatial Planning and Land Use Management Act, 2013 (Act No. 6 of 2013) aims to confirm and regulate the role of municipalities in land use planning and management.	Objectives of the Act relevant to the Proposed Project ensure that the system of spatial planning and land use management promotes social and economic inclusion and to provide for the sustainable and efficient use of land.
Housing Act, 1997 (Act No. 107 of 1997)	The Act recognises the Constitutional right to access to adequate housing and clarifies the State's response to this right by setting out the legal plan for the sustainable development of housing. It defines the national, provincial, and local government functions concerning housing development and the	The proposed housing development is in accordance with this Act. The NMBM shall provide residents of Walmer with adequate housing and services such as electricity, water, sanitation etc.

Legislation/ guidelines	Summary	Legal requirement for this project
	financing of housing programmes. According to part 4 Section 9 of the act, every municipality must as part of the municipality's process of integrated development planning take all reasonable and necessary steps within the framework of national and provincial housing legislation and policy to (a) ensure that- (i) the inhabitants of its area of jurisdiction have access to adequate housing on a progressive basis; (ii) conditions not conducive to the health and safety of the inhabitants of its area of jurisdiction are prevented or removed; (iii) services in respect of water, sanitation, electricity, roads, stormwater drainage and transport are provided in a manner which is economically efficient; (b) set housing delivery goals in respect of its area of jurisdiction; (c) identify and designate land for housing development; (d) create and maintain a public environment conducive to housing development which is financially and socially viable; (e) promote the resolution of conflicts arising in the housing development process; (f) initiate plan, co-ordinate, facilitate, promote and enable appropriate housing development in its area of jurisdiction; (g) provide bulk engineering services, and revenue generating services in so far as such services are not provided by specialist utility suppliers; and (h) plan and manage land use and development	

Legislation/ guidelines	Summary	Legal requirement for this project
Integrated Environmental Management Information Guidelines Series:	This series of guidelines was published by the Department of Environmental Affairs (DEA) and refers to various environmental aspects. Applicable guidelines in the series for the proposed project include: ● Guideline 5: Companion to NEMA EIA Regulations, 2010; ● Guideline 7: Public participation; and ● Guideline 9: Need and desirability. Additional guidelines published in terms of the NEMA EIA Regulations, 2014 (as amended), in particular: ● Guideline 3: General Guide to EIA Regulations, 2006; ● Guideline 4: Public Participation in support of the EIA Regulations, 2006; and Guideline 5: Assessment of alternatives and impacts in support of the EIA Regulations, 2006.	These guidelines have been consulted in the compilation of this report as well as the public participation process that will be undertaken.
Municipal Systems Act (Act 32 of 2000)	The Municipal Systems Act provides for the core principles, mechanisms and processes that are necessary to enable municipalities to provide for community participation and for the integration of all activities for the overall social and economic upliftment of communities in harmony with their local natural environment. It also states that a fundamental aspect of the new local government system is the active engagement of communities in the affairs of municipalities of which they are an integral part. The Act requires the implementation and monitoring of Integrated Development Plans, the setting of targets and key performance indicators, including environmental targets, as well as the preparation of by-laws and policies that deal with environmental issues.	The NMBM has been included as an I&AP for this project and the municipal IDP has been consulted in compilation of this report.
PROVINCIAL LEGISLATION AND POLICY FRAMEWORK		

Legislation/ guidelines	Summary	Legal requirement for this project

Eastern Cape Environmental Management Bill (Notice 205 of 2019)	The goals of the Eastern Cape Environmental Management Bill are as follow:
	• To supplement national legislation in the Province where necessary to protect the environment by providing reasonable measures for –
	  ○ The management, protection and conservation of certain areas of ecological or environmental importance;
	  ○ The promotion of the sustainable utilisation of the areas of ecological or environmental importance;
	  ○ The management, protection and conservation of biological diversity and of the components of such biodiversity; and
	  ○ The use of indigenous biological resources in a sustainable manner;
	• To provide for sound environmental management, enhancing and encouraging sustainable use of resources;
	• To encourage conservation, a risk averse approach;
	• To set provincial requirements, norms and standards for provincial environmental management according to best practices; and
	• To provide for compliance with the measures set out in paragraph (a); and
	• Generally, to give effect to section 24 of the Constitution within the Province.
		The applicant must ensure that the project design, construction, and operation apply a precautionary, risk-averse approach, prioritise biodiversity protection, and demonstrate sustainable use of natural resources. The project must comply with any provincial environmental norms and standards and secure necessary provincial inputs/approvals in addition to national authorisations.

Eastern Cape Biodiversity Conservation Plan (BCP) (2019)	The primary intention of NEMBA Chapter 3 is to facilitate conservation and management of biodiversity in "biodiversity priority areas" or priority areas for conservation, outside of the Protected Area network, at a landscape level. The BCP may be used as a precursor for further refined mapping in Bioregional or Biodiversity Sector Plans undertaken at more localised scales (e.g. District or Local Municipalities). Therefore, the purpose of the BCP is to provide a map of these important biodiversity areas and develop associated land use management guidelines to inform:	The applicant must screen the development against CBAs/ESAs and avoid development in no-go biodiversity areas. Where avoidance is not feasible, impacts must be minimized and offset according to BCP guidelines. Rehabilitation and restoration plans must be implemented to maintain ecological connectivity.

4.2 SOUTH AFRICAN GUIDELINES

The guidelines listed in the table below have been or will be considered during the EIA process. See **Table *10*** below.

Table 10: Guidelines Considered in the EIA Process

Guideline	Governing Body	Relevance
Procedures for the Assessment and Minimum Criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation	DFFE	Provides procedures for ground-truthing environmental themes identified by the web-based Screening Tool. The baselines studies used in the Scoping Report have been undertaken in accordance with the requirements of this Notice, where relevant.
Public Participation in terms of NEMA, EIA Regulations (2017)	DFFE	The purpose of this guideline is to ensure that an adequate public participation process is undertaken during the S&EIA process.
Guideline on need and desirability in terms of the EIA Regulations (2014)	DFFE	These guidelines inform the consideration of the need and desirability aspects of the Proposed Project.
National Biodiversity Offset Guidelines (2023)	DFFE	These guidelines have been published to inform the determination of the measurable outcome of compliance with a formal requirement contained in an environmental authorisation to implement an intervention that has the purpose of counterbalancing the residual negative impacts of an activity, or activities, on biodiversity, through increased protection and appropriate management, after every effort has been made to avoid and minimise impacts, and rehabilitate affected areas;

4.3 LISTED ACTIVITIES TRIGGERED

Table 11 below provides listed activities from the EIA Regulations, 2014 as amended, that are triggered by the proposed development.

Table 11: Listed Activities Applied For

Listed activity as described in GN R.324, 325, and 327	**Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324**
Listed activity as described in GN R. 324	
GN.R 324 (Listing Notice 3): Activity 4 The development of a road wider than 4 metres with a reserve less than 13,5 metres. **a. Eastern Cape** **ii. Inside urban areas:** (aa) Areas zoned for use as public open space; (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose; or (cc) Seawards of the development setback line or within urban protected areas.	Development of surfaced access roads that are 6 metres wide with a majority having 12 metre road reserves, except the main roads which will have a 16 metre road reserve on land zoned as Open Space.
GNR 324 (Listing Notice 3) Activity 12 (a)(i)(v) The clearance of an area of 300 square metres 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. **a. Eastern Cape** i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; iii. Within the littoral active zone or 100 metres inland from the high water mark of the sea, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;	The proposed project will require the clearance of 43.73 hectares of indigenous vegetation for the development of residential houses.

Listed activity as described in GN R.324, 325, and 327	Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324
iv. Outside urban areas, within 100 metres inland from an estuarine functional zone; or v. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.	
GNR 324 (Listing Notice 3) Activity 15 (a)(ii)(aa): The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010. a. Eastern Cape i. Outside urban areas, or ii. Inside urban areas: (aa) Areas zoned for conservation use or equivalent zoning, on or after 02 August 2010; (bb) A protected area identified in terms of NEMPAA, excluding conservancies; or (cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act as adopted by the competent authority.	The proposed development will entail transformation of land bigger than 1000 square metres in size (43.73ha) for residential houses.
Listed activity as described in GN R. 325	
GN.R 325 (Listing Notice 2): Activity 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 maintenance purposes undertaken in accordance with a maintenance management plan.	The activity is applicable for the clearance of vegetation for a housing (residential) development (43.73 ha).

5. PROJECT ALTERNATIVES

The identification of alternatives is a key aspect of the success of the environmental scoping phase. All reasonable and feasible alternatives must be identified and screened to determine the most suitable alternatives to consider and assess in the EIA phase. There are, however, some significant constraints that have to be considered when identifying alternatives for a project with this scope. Such constraints include social, financial and environmental issues, which will be discussed as part of the evaluation of the alternatives for this project.

"Alternatives", in relation to a proposed activity, is defined as different means of meeting the general purpose and requirements of the activity, which may include alternatives to; -

a) the property on which or location where it is proposed to undertake the activity;
b) the type of activity to be undertaken;
c) the design or layout of the activity;
d) the technology to be used in the activity;
e) the operational aspects of the activity; and

5.1. PROCESS FOLLOWED TO REACH THE PREFERRED ALTERNATIVES

The process followed to reach the preferred alternative may be described as follows:

- Developer provides description of project and proposed site area;
- The preliminary sensitivity of the site area is determined using the National Web Based Screening Tool;
- Verification of site sensitivity is done through visual site assessment;
- Options of how the desired project can be implemented with least disturbance of sensitive areas are considered (i.e. alternatives);
- The feasibility of the options/alternatives presented is assessed, only feasible and reasonable alternatives are considered for impact assessment;
- The potential Impacts that may be caused by the feasible alternatives are identified, inputs from specialist reports and I&APs are taken into consideration in this process;
- The technical justification for the alternatives are also considered;
- An assessment of the significance of the impacts is done using the methodology described in Section 6.1;

- The alternative with the lowest (negative) overall combined impact significance score is selected as the preferred alternative.

5.2. PROPOERTY OR LOCATION ALTERNATIVES

The proposed Walmer housing development entails construction of a mix of housing typologies and associated infrastructure on Erf 11305 in Ward 1, Walmer within the Nelson Mandela Bay Municipality. The site is in close proximity to the Walmer settlement and is intended to form a logical extension for beneficiaries who are currently living in the area and need to be accommodated in new destination areas. The proposed site is municipally owned, and no land acquisition will be required. Furthermore, the site falls within an area that was allocated for residential development, therefore service infrastructure will be connected on to existing municipal infrastructure. An Environmental Authorisation (EA) for a housing development on this site had been previously granted, however, this authorisation has lapsed. Thus, no other location alternatives were considered for the proposed development.

5.3. ACTIVITY ALTERNATIVES

The activity involves construction of a housing development and associated infrastructure. The use of the land is for residential development as per the municipal spatial development framework. Thus, no other activity alternatives are assessed.

5.4. DESIGN AND LAYOUT ALTERNATIVES

As per the previous application for the proposed development two layout alternatives were considered. These alternatives were based on ensuring that the development does not overlap with protected forest patches.

- Option A (see **Figure 16**)- this layout option includes development of a total housing yield of approximately 1720 units which covers 46% of the site. Layout one does not entirely avoid the forest patches and the development overlaps on these forest patches. This layout offered some positive impact such as a higher housing yield but also presented a potential impact on the forest.

The layout was revised to avoid the forest, as such this layout option will not be subject to further assessment in this Scoping and EIA process.

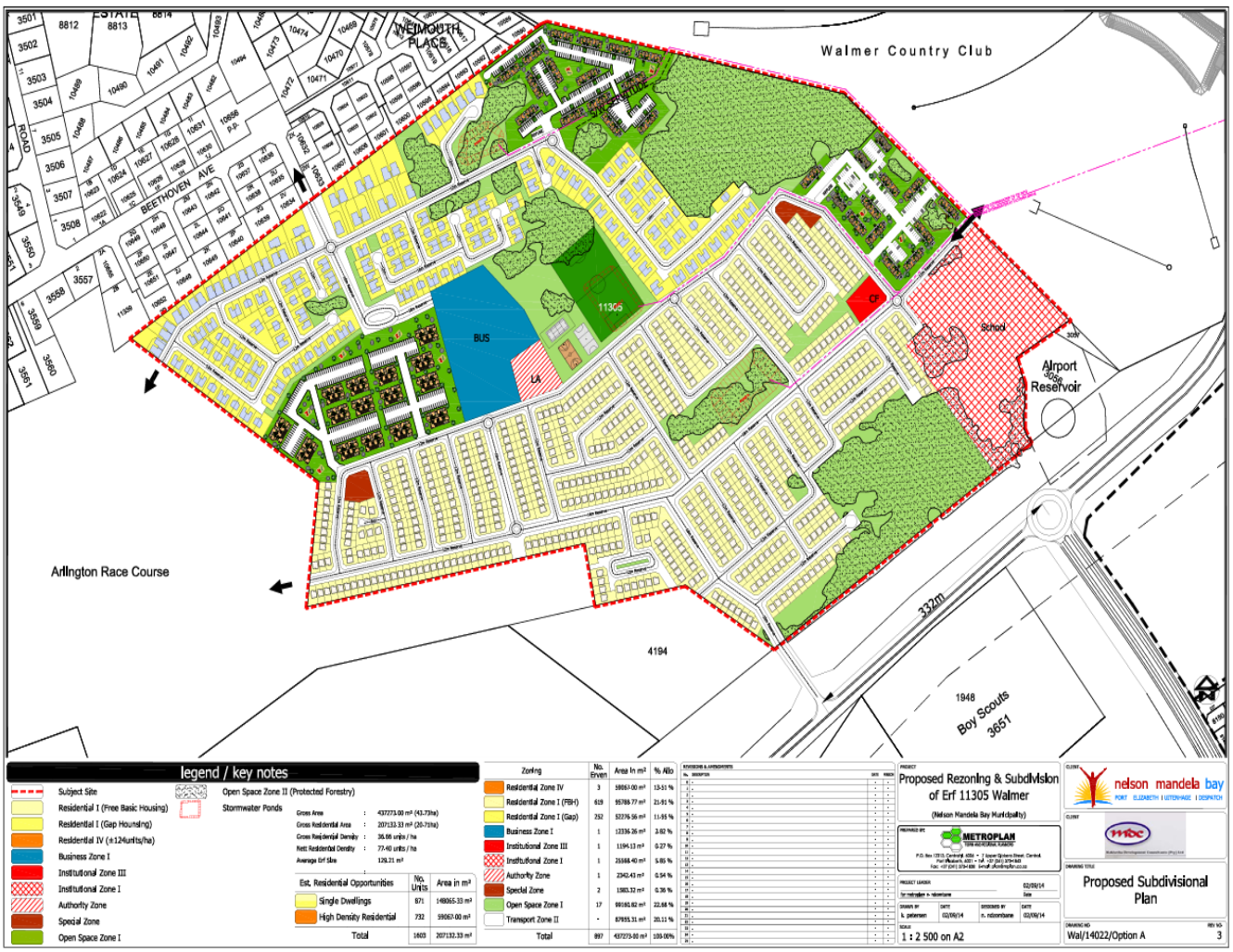


Figure 16. Proposed layout option A

Preferred Alternative

Option 2 (see **Figure 17**)- is layout option includes development of a total housing yield of approximately 1236 units which covers 38% of the site. Although this results in a lower housing yield compared to Option A, the layout avoids encroaching on forest patches. A 20m buffer is maintained around these sensitive ecological areas, minimising environmental disturbances and protect the existing forest. This layout option was authorised in the previous application.

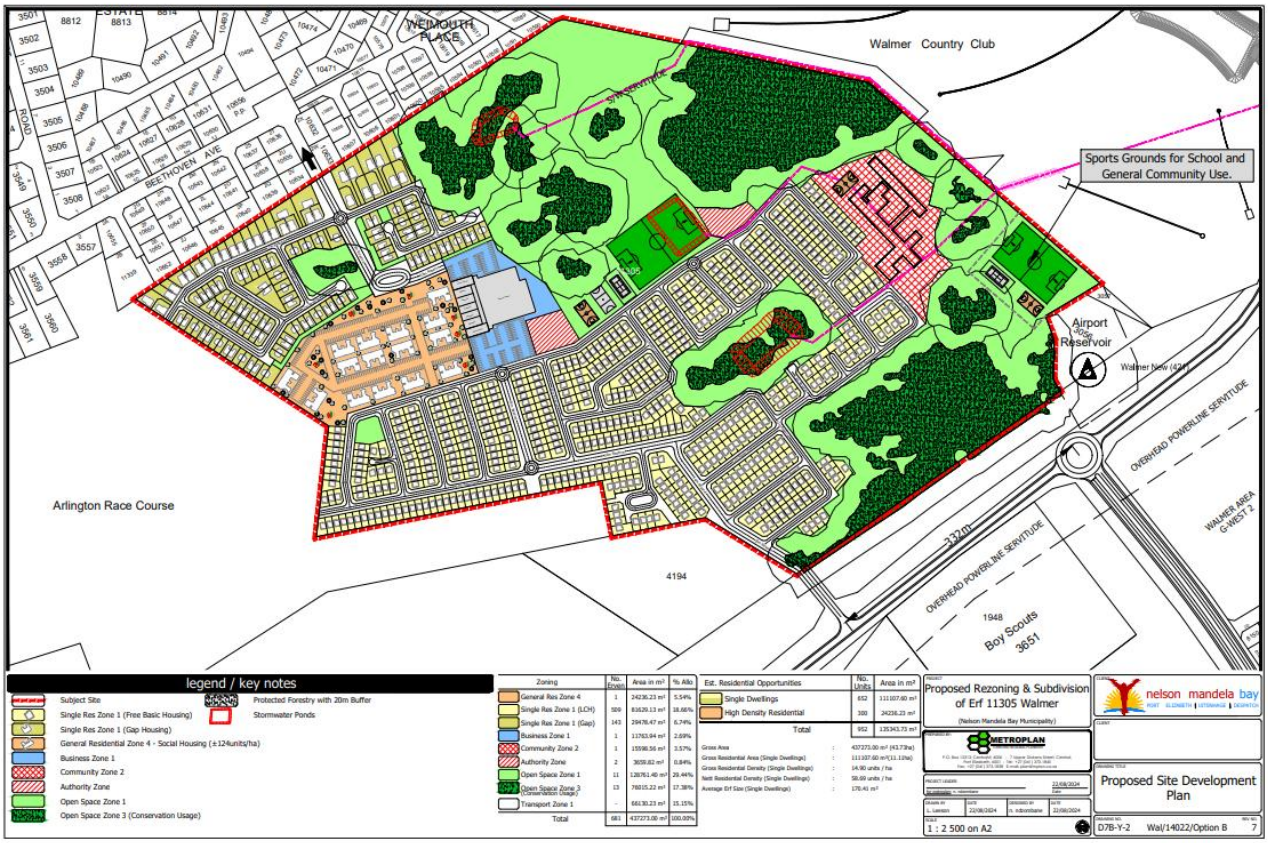


Figure 17. Proposed layout option B (Preferred)

5.5. TECHNOLOGY ALTERNATIVES

No technology alternatives have been considered in this assessment. The infrastructure required such as water, sewer and electricity will be connected onto existing bulk infrastructure currently servicing the surrounding areas. However, the applicant is encouraged to consider the incorporation of solar energy systems for residential units, as well as rainwater harvesting systems.

- **Energy efficiency**

The installation of solar panels is recommended to supplement and reduce dependence on the existing electricity network. The integration of solar panels will lead to a decrease in greenhouse gas emissions, thereby lowering the overall carbon footprint of the proposed development. Furthermore, solar panels have the potential to mitigate the effects of the urban heat island phenomenon and contribute to the moderation of the local climate.

- **Water efficiency**

Rainwater harvesting systems such as rainwater barrels or tanks can be incorporated in the development. These systems provide an essential alternative water supply in periods of drought or service interruptions. Harvested rain water can be utilized for irrigation and domestic purposes. Additionally, rainwater barrels help intercept rainfall and stormwater, thereby reducing runoff and mitigating soil erosion.

5.6. OPERATIONAL ALTERNATIVES

No operational alternatives have been considered in this assessment.

5.7. OPTION OF NOT IMPLEMENTING- "NO-GO ALTERNATIVE"

The no-go alternative means doing nothing or keeping the current status quo of no activities occurring on-site. The proposed site is situated within a residential area, by not developing the site would result in the loss of potential direct and indirect socio-economic benefits as such job creation, housing shortages and upgrading of informal settlements would not materialise. From an ecological perspective, the site has a critically endangered vegetation type and forest, not developing the site will protect the natural environment. However, the site is not in its pristine state and has been disturbed by illegal dumping and livestock grazing. Developing the area will also assist in the protection of the forest on site.

5.8. SUMMARY OF ALTERNATIVES

Table 12 below provides a summary of alternatives that have been considered and recommended for further assessment in the EIA phase.

Table 12: Summary of alternatives

CATEGORY	ALTERNATIVE	DESCRIPTION	PREFFERED ALTERNATIVE
NO-GO Alternative	Status Quo	Keeping the current status quo of no activities occurring on site, which would not result in a loss of a critically endangered vegetation and a forest. However, potential positive socio-economic impacts will be lost.	No
Site Alternatives	Alternative 1	No site/property alternatives exist as the proposed site is municipally owned, and no land acquisition will be required. Furthermore, the site falls within an area that was	Yes

CATEGORY	ALTERNATIVE	DESCRIPTION	PREFFERED ALTERNATIVE
		allocated for residential development. Additionally, an Environmental Authorisation (EA) for a housing development on this site had been previously granted.	
Design and layout Alternatives	Alternative 1	This option comes with a higher housing yield covering 46% of the site, however it does not entirely avoid the forest patches and the development overlaps on these forest patches.	No
	Alternative 2 (Preferred)	This option comes with a lower housing yield compared to Alternative 1. Although Alternative 1 would have been preferred this option avoids encroaching on the forest patches.	Yes
Technical & Operational Alternatives	No feasible and reasonable alternatives evaluated and assessed	No alternatives have been considered.	N/A

6. IDENTIFIED ENVIRONMENTAL IMPACTS

It is expected that proposed development will have environmental and social impacts during the construction and operational phases. Although additional impacts will be identified during the specialist studies and public participation process, below is a preliminary list of impacts which will be addressed as part of the EIA process: A summary of the positive and negative impacts of the proposed activity are provided in **Table 13**.

Table 13: Summary of identified impacts

Impacts/ Aspects	Description
PLANNING AND DESIGN PHASE	
Legal and social compliance	• Commencement of project construction and activities without lodging and obtaining relevant authorisation applications and being approved will result in authorities halting the projects, issuing fines, implying no development commencement.
Site establishment	• The establishment of a construction site requires appropriate planning to achieve a holistic balance between efficacy and cost-efficiency of construction activities as well as minimised environmental damage.
Existing civil services, infrastructure and properties	• Disruption and damage of water supply, powerlines, infrastructure and other properties in close proximity to the proposed site.
Freshwater utilisation	• Failure to consider technologies that reduce consumption of water can place further pressure on already stressed water resources.
Bulk services (Electricity and sewerage)	• The connection of bulk services to existing municipal infrastructure must be planned and designed to ensure that the municipality has sufficient capacity, preventing the overburdening of existing infrastructure.
Stormwater management	• Inadequate stormwater design may result in uncontrolled surface runoff, causing downstream flooding, erosion and sedimentation, and contamination of water bodies.
CONSTRUCTION PHASE	

Legal and social compliance	• Failure to fulfil legal environmental compliance may lead to overall disapproval and failure of the project.
Site establishment and security	• The establishment of a construction site requires appropriate planning to achieve a holistic balance between efficacy and cost-efficiency of construction activities as well as minimised environmental damage.
Water consumption	• Increased freshwater use for construction and drinking purposes.
Sanitation	• Lack of supply of ablution facilities for construction workers may result in the pollution of the immediate and surrounding receiving environment of the facility and may pose a health hazard to users.
Loss of indigenous vegetation	• Clearing vegetation for housing development may result in loss of vegetation and habitat fauna.
Disturbance of fauna and loss of habitats.	• Clearing of vegetation and construction activities may lead to the displacement of fauna and alteration of habitats, potentially resulting in loss of biodiversity and ecosystem fragmentation.
Loss of SCC	• Direct loss of terrestrial plant SCCs and ToPS and their habitat due to construction activities.
Impact on forest	• Clearing of vegetation on site may result in the loss of forest including its species.
Stormwater and erosion impacts	• Vegetation clearing and soil disturbance during construction expose the site to erosion by water and wind. This can result in increased sediment in stormwater runoff, localised soil loss, and destabilised slopes if not properly controlled.
Alien invasion proliferation	• Uncontrolled vegetation clearance during construction may lead to loss of natural vegetation and habitats. Opportunistic alien and invasive vegetation encroachment may result in post degradation of native vegetation.
Waste management	• Lack of adequate waste management during construction could result in spread of litter which may pollute or affect the surrounding environment.
Hazardous material storage and handling	• Environmental pollution as well as health and safety impact due to poor handling of hazardous material
Traffic impact	• During construction increase in traffic on the nearby road is expected due to construction vehicles. This may lead to increased pedestrian, animal and vehicle accidents.
Visual impact	• Temporary degradation of the visual aesthetics of the area due to the presence of construction equipment and site camp. This may cause nuisance to nearby residents.
Noise pollution	• During construction noise from machinery and vehicles may potentially cause nuisance to residents living close to the proposed site e.g Walmer Heights.
Air pollution	• During construction dust from vehicles, material stockpiles and cleared areas may potentially cause nuisance to residents living close to the proposed site e.g Walmer Heights.
Paleontological and heritage resource disturbance	• Damage to cultural, heritage, archaeological and paleaontogical resources during construction activities such as excavations and plant movement.
Employment opportunities	• During the construction phase the development will create temporary job opportunities both direct and indirect in return stimulating the local economy.
OPERATIONAL PHASE	
Waste management	• Lack of adequate waste management during operation by residents and facilities on the area may result into littering, illegal dumping and pollution of the immediate and surrounding receiving environment.

Freshwater utilization	• Inappropriate use of water resources could lead to a reduction of these resources.
Bulk services (Electricity and sewerage)	• Failure to maintain bulk services (i.e. Sewerage pipelines and manholes) may result in leakages which may pollute the surrounding environment. • During operation of the proposed project, additional energy will be consumed, resulting in an increased demand on this resource. Energy efficiency resources are essential.
Stormwater management	• The increase in impermeable surfaces associated with the operational phase of the development will reduce stormwater infiltration into the soil, resulting in higher runoff volumes and potentially exacerbating stormwater impacts.
Increase in traffic levels in the area	• Increase in traffic and pedestrian volumes is expected during operation phase on existing roads.
Employment opportunities	• Permanent employment opportunities are expected to directly result from the development.
Contribution to meeting housing need	• Provision of formal housing as well as services will significantly improve the standard of living of the beneficiaries currently living in informal settlements, and people with different accommodation needs and income levels will have access to housing as different housing typologies are proposed.

6.1. IMPACT ASSESSMENT METHODOLOGY

This section provides the methodology for assessing the significance of impacts associated with the activity. The criterion for determining impact significance has been defined in accordance with the criteria drawn from Appendix 3 of the Environmental Impact Assessment Regulations, 2014. The levels of detail described in the EIA regulations were fine-tuned by assigning specific values to each impact identified. The impact ratings will be informed by the findings of specialist assessments conducted, fieldwork, and desk-top analysis. The significance of potential impacts that may result from the proposed development will be determined in order to assist the competent authority in making a decision.

To establish a coherent framework within which all impacts could be objectively assessed, it is necessary to establish a rating system, to be applied consistently to all the criteria. For such purposes each aspect is assigned a value ranging from one (1) to five (5) depending on its definition. **Table *14*** provides a summary of the criteria and the rating scales, which will be used in the assessment of the impacts.

Table 14. Impact rating method

EXTENT OF THE IMPACT		
This addresses the physical and spatial scale of the impact.	**Site** – The impact area extends only as far as the activity – i.e. within the boundaries of the development site.	1
	Local - The impacted area extends slightly further than the actual physical disturbance footprint and could affect the whole, or a measurable portion of adjacent areas (within approx. 5 km of the development site).	2
	Landscape - The impact could affect all areas generally visible to the naked eye, as well as those areas essentially linked to the site in terms of ecosystem functioning	3
	Regional - The impact could affect the site including the neighbouring areas, transport routes and surrounding towns etc.	4
	Ecosystem - The impact could affect areas essentially linked to the site in terms of significantly impacting ecosystem functioning.	5
	National - The impacted area extends beyond provincial boundaries.	6
	International - The impacted area extends beyond national boundaries.	7
DURATION OF IMPACT		
This describes the predicted lifetime / temporal scale of the predicted impact.	**Short term** - Quickly reversible. Less than the project lifespan. The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than any of the project phases or within 0 -5 years.	1

	Medium term – Some mitigation will be required to reduce the duration of the impact – 6-15 years.	3
	Long term - the impact will cease when the operation stops.	5
	Permanent - no mitigation measure will reduce the impact after construction.	7

MAGNITUDE OF THE IMPACT		
This provides a qualitative assessment of the severity of a predicted impact / effect.	**None** - where the aspect will have no impact on the environment	0
	Minor - The affected environment is altered, but natural function and process continue.	1
	Low - where the impact affects the environment in such a way that the natural, cultural and social functions / processes are slightly affected.	2
	Moderate - where the affected environment is altered but natural, cultural and social functions / processes continue, albeit in a modified way	3
	High - natural, cultural or social functions / processes are altered to the extent that they will temporarily cease.	4
	Very High - natural, cultural or social functions / processes are altered to the extent that they will permanently cease.	5
IRREPLACEABLE LOSS OF RESOURCES		
Environmental resources cannot always be replaced; once destroyed, some may be lost forever. It may be possible to replace, compensate for or reconstruct a lost resource in some cases, but substitutions are rarely ideal. The loss of a resource may become more serious later, and the assessment must take this into account.	**Short-term** – Quickly recoverable. Less than the project lifespan. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span shorter than any of the project phases, or in a time span of 0 to 5 years.	1
	Loss of an 'expendable' resource - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria.	2
	Medium term – The resource can be recovered within the lifespan of the project. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span between 5 and 15 years.	3
	Loss of an 'at risk' resource - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria, but cumulative effects may render such loss as significant.	4
	Long term – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, but can be mitigated by other means.	5

	Permanent – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, or by artificial means.	7

REVERSIBILITY / POTENTIAL FOR REHABILITATION		
The distinction between reversible and irreversible impacts is a very important one and the irreversible impacts not susceptible to mitigation can constitute significant impacts in an EIA (Glasson et al, 1999). The potential for rehabilitation is the major determinant factor when considering the temporal scale of most predicted impacts.	**Short term** – The impact / effect will be returned to its benchmark state through mitigation or natural processes in a span shorter than any of the phases of the project, or in a time span of 0 to 5 years.	1
	Medium term – The impact / effect will be returned to its benchmark state through mitigation or natural processes in a span shorter than the lifetime of the project, or in a time span between 5 and 15 years.	3
	Long term - The impact / effect will be returned to its benchmark state through extensive mitigation or natural processes in a time span between 15 and 25 years.	5
	Permanent – The impact/ effect is permanent and will never be returned to is benchmark state	7
PROBABILITY OF OCCURRENCE		
The likelihood of the impact actually occurring.	**Remote possibility / unlikely**	0
	Possibility	1
	Low probability / anticipated	2
	Medium probability / strongly anticipated	3
	High probability / to be expected	4
	Absolute certainty / will occur	5

IMPACT SIGNIFICANCE

The overall significance of an impact / effect has been ascertained by attributing numerical ratings to each identified impact. The numerical scores obtained for each identified impact have been multiplied by the probability of the impact occurring before and after mitigation. High values suggest that a predicted impact / effect is more significant, whilst low values suggest that a predicted impact / effect is less significant.

((Spatial Extent + Severity + Duration + Resource Lost + Reversibility) * Probability) = Significance.

	Overall Score
Insignificant – the impact is meaningless has no influence on the decision to develop	< 15
Low – the impact would not have a direct influence on the decision to develop in the area;	16 - 35
Medium – the impact could influence the decision to develop in the area unless it is effectively managed / mitigated; and	36 - 65

High - the impact must have an influence on the decision-making process for development in the area.	> 65
MITIGATION	
In terms of the assessment process the potential to mitigate the negative impacts is determined and rated for each identified impact and mitigation objectives that would result in a measurable reduction or enhancement of the impact are considered. The significance of environmental impacts has therefore been assessed considering any proposed mitigation measures. The significance of the impact "without mitigation" is therefore the prime determinant of the nature and degree of mitigation required.	

Status of impact *The environmental impacts of an activity are those resultant changes in environmental parameters, in space and time, compared with what would have happened had the activity not been undertaken. It is an appraisal of the type of effect the activity would have on the affected environmental parameter. Its description includes what is being affected, and how*	
Indication whether the impact is adverse (negative) or beneficial (positive).	+ ve (positive – a 'benefit') – ve (negative – a 'cost')

Confidence of assessment	
The degree of confidence in predictions based on available information, EAP's judgment and/or specialist knowledge.	Low Medium High

6.2. IMPACT ASSESSMENT AND SIGNIFICANCE

A summary of all the identified preliminary impacts, their associated phase, as well as their impact calculations and significance are presented in **Table *15*** below.

Table 15: Impact Assessment and Significance

PHASE	Impact	Mitigation	Extent	Duration	Magnitude	Irreplaceability	Reversibility	Probability	Significance	Significance Rating	Status	Confidence
	DIRECT IMPACTS											
Planning and Design	**Legal and social compliance**	Without	2	5	3	5	5	4	80	High	- ve	High
		With	1	1	1	2	1	3	18	Low	- ve	High
	Site establishment	Without	1	3	3	3	3	4	52	Medium	- ve	High
		With	1	1	1	2	1	3	18	Low	- ve	High
	Existing civil services, infrastructure and properties	Without	1	3	3	3	3	4	52	Medium	- ve	High
		With	1	1	1	2	1	3	18	Low	- ve	High
	Water consumption	Without	1	1	1	1	1	3	15	Insignificant	- ve	High
		With	1	1	1	1	1	2	10	Insignificant	- ve	High
	Bulk services (electricity and sewerage)	Without	1	3	3	3	3	4	52	Medium	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Stormwater management	Without	1	1	3	3	3	4	44	Medium	- ve	High
		With	1	1	1	2	1	3	18	Low	- ve	High
	DIRECT IMPACTS											
Construction Phase	**Legal and social compliance**	Without	2	5	3	5	5	4	80	High	- ve	High
		With	1	1	1	2	3	3	24	Low	- ve	High
	Site establishment and security	Without	1	1	3	2	1	4	32	Low	- ve	High
		With	1	1	1	1	1	3	15	Insignificant	- ve	High
		Without	1	1	2	1	1	2	12	Insignificant	- ve	High

PHASE	Impact	Mitigation	Extent	Duration	Magnitude	Irreplaceability	Reversibility	Probability	Significance	Significance Rating	Status	Confidence
	Water consumption	With	1	1	1	1	1	1	5	Insignificant	- ve	High
	Sanitation	Without	1	1	2	1	1	2	12	Insignificant	- ve	High
		With	1	1	1	1	1	2	10	Insignificant	- ve	High
	Loss of indigenous vegetation	Without	1	5	4	4	5	4	76	High	- ve	High
		With	1	5	3	3	3	3	45	Medium	- ve	High
	Disturbance of fauna and loss of habitats	Without	1	3	3	3	3	4	52	Medium	- ve	High
		With	1	1	2	2	1	3	21	Low	- ve	High
	Loss of SCC	Without	1	3	3	3	3	4	52	Medium	- ve	High
		With	1	1	2	2	1	3	21	Low	- ve	High
	Impact on forest	Without	1	5	4	4	5	4	76	High	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Stormwater and erosion impacts	Without	2	1	3	2	1	4	36	Medium	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Alien invasion proliferation	Without	1	3	3	2	3	4	48	Medium	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Waste management	Without	1	1	2	2	1	4	28	Low	- ve	High
		With	1	1	1	1	1	3	15	Insignificant	- ve	High
	Traffic impact	Without	1	3	3	1	1	3	27	Low	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Visual impact	Without	1	1	3	1	1	4	28	Low	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Noise pollution	Without	1	1	2	1	1	3	18	Low	- ve	High
		With	1	1	1	1	1	2	10	Insignificant	- ve	High
	Air pollution	Without	1	1	2	1	1	3	18	Low	- ve	High
		With	1	1	1	1	1	2	10	Insignificant	- ve	High

PHASE	Impact	Mitigation	Extent	Duration	Magnitude	Irreplaceability	Reversibility	Probability	Significance	Significance Rating	Status	Confidence
	Paleontological and heritage resource disturbance	Without	1	3	3	2	1	4	40	Medium	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Health and safety	Without	1	1	3	1	1	4	28	Low	- ve	High
		With	1	3	1	1	1	4	28	Low	- ve	High
	Employment opportunities	Without	2	1	3	1	1	3	24	Low	+ ve	High
		With	2	1	2	1	1	3	21	Low	+ ve	High
	CUMULATIVE IMPACTS											
	Cumulative loss of indigenous vegetation	Without	1	7	3	3	3	4	68	High	-ve	High
		With	1	3	2	2	1	3	27	Low	-ve	High
	DIRECT IMPACTS											
Operation Phase	Waste management	Without	1	3	3	2	1	4	40	Medium	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Freshwater utilisation	Without	1	3	3	2	1	4	40	Medium	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Bulk services (electricity and sewerage)	Without	1	5	2	3	3	3	42	Medium	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Stormwater management	Without	2	3	3	3	3	3	42	Medium	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Increase in traffic levels in the area	Without	1	3	4	1	1	4	40	Medium	- ve	High
		With	1	1	2	1	1	3	18	Low	- ve	High
	Employment opportunities	Without	2	5	2	1	1	4	44	Medium	+ ve	High
	Contribution to meeting housing need	Without	1	5	2	1	1	4	40	Medium	+ ve	High

6.3. PROPOSED MITIGATION MEASURES

Appendix 2 of the EIA Regulations, 2014 requires that possible mitigation measures that could be applied to avoid or mitigate negative impacts and optimise positive impacts must be identified in the Scoping Report. Many of the impacts can be readily mitigated and it is not foreseen that they are likely to pose a significant risk. Where necessary, the EMPr will identify and recommend specific mitigation measures applicable to the project (**Table 16**).

Table 16: Proposed mitigation measures

Impacts/ Aspects	Mitigation measures
PLANNING AND DESIGN PHASE	
Legal and social compliance	• Ensure environmental authorisations namely EA is obtained for the development. • Environmental Control Officer (ECO) to be appointed to monitor compliance with permits conditions. • All health and safety permits and certification to be in place. • Appointment of a Community Liaison Officer (CLO). • Appointment of a Social Facilitator (SF) to manage social-economic aspects of the project relating to community and local business interest, particularly small, medium and micro-enterprise (SMMEs). • A health and safety plan in terms of the Occupational Health and Safety Act (Act No 85 of 1993) must be drawn up by the HSE officer prior to construction to ensure workers safety. • Environmental files to be compiled prior to commencement of construction activities. • Methods statement to be compiled for all works with environmental aspects and impacts, for approval of the ECO. • Employment and sub-contracting of locals.
Site establishment	• Develop a site establishment method statement • The Contractor must prepare a Construction Site Plan prior to establishing on-site. This plan must indicate: • The boundaries of the site that encompass all construction-related activities. • Vehicle and pedestrian access points and routes (safe diversions of routes when necessary). • Laydown area/s, offices, stockpile areas, storage areas, etc. • Construction site to be selected by the contractor in conjunction with the developer, consulting engineer and the ECO.
Existing civil services, infrastructure and properties	• Ensure that all existing services and infrastructure are known, mapped and marked to prevent potential damage. • Development of a plan to manage existing services to avoid damages • Wayleaves to be obtained from the relevant custodians for affected servitudes as applicable. • Property owners such as the local residents should be engaged throughout the project lifespan and engaged as necessary to promote conflict free development implementation. • Where relevant, the directly affected property owners should be informed in writing and engaged to reach a consensus and those proceedings and relevant agreements to be documented.

Water consumption	• Water conservation measures must be adopted into the building design. • Rainwater tanks should be considered.
Bulk services (Electricity and sewerage)	• The design of all residential dwellings, as well as community facilities, school buildings and business buildings should consider the use of alternative renewable energy sources such as CFL or LED lighting, solar geysers, solar street lighting etc. • All buildings should have a rainwater harvesting tanks. • Ensure that the municipality will have sufficient capacity for connection to existing infrastructure.
Stormwater management	• Infrastructure should be planned and designed in such a way as to take increased stormwater runoff in consideration.
CONSTRUCTION PHASE	
Legal and social compliance	• ECO to be appointed to audit environmental compliance with conditions in the EMPr and other permits and authorisations. • CLO and Social Facilitator to be retained throughout the construction tenure to represent the surrounding communities and local business, particularly SMMEs.
Site establishment and security	• Fulltime security officers to be appointed to safeguard the site, its personnel, plant and equipment • Necessary health and safety as well as road construction signage to be installed. • Construction areas are to be clearly demarcated, and all construction activities are to be restricted to within these demarcated areas.
Water consumption	• A sustainable and lawful water supply should be utilised. • Consistent water supply for construction staff and activities. • If water is stored on-site, drinking water and multi-purposed water storage facilities shall be clearly distinguished and demarcated. • Implement rainwater harvesting techniques, where possible. • Re-use wash water for selected activities such as concrete batching.
Sanitation	• Ensure availability of ablutions for males and females. One ablution facility for every 10 workers during construction phase. • Ensue regular servicing of the ablution toilets by a service provider. • Ablution facilities to be located outside the regulated water area by all means practically possible.
Loss of indigenous vegetation	• Minimise vegetation clearance and confine to the proposed infrastructural footprint. • No blanket clearing of vegetation is to occur on the development site. Vegetation removal must be done in phases, to reduce the area of any any exposed surfaces and potential for dust pollution to occur at any one time. • When excavating, ensure that topsoil is separated from the subsoil to preserve the indigenous vegetation seedbanks of the area. • Use existing access roads as opposed to initiating new route, the latter should be authorised first prior to initiating. • Construction should not take place outside the authorised site footprint • Minimise vegetation clearance as practically possible to do so.
Disturbance of fauna and loss of habitats.	• A suitably qualified individual is to carry out a faunal “search and rescue”, which fauna are to be relocated to a suitably protected area prior commencement of vegetation clearing. Should any injured fauna be found, they are to be taken to be examined by a veterinarian and if deemed suitable for rehabilitation, such are to be taken to a suitable faunal rehabilitation centre, in consultation with the

	department's biodiversity unit. Any species protected in terms of the Cape Nature and Environmental Ordinance (Ordinance 19 of 1974) which need to be removed or relocated require the necessary permits to be obtained from DEDEAT. • Any fauna or avi-fauna on site is to remain undisturbed as far as possible and shall not be trapped/killed or otherwise caught by any contractor or individuals carrying out any clearing or construction work. • No termite mounds should be intentionally destroyed. Any lizards, geckos, agamids, monitors or snakes encountered should be allowed to escape to a suitable habitat away from the disturbance. • The construction must be completed as quickly as possible - no fauna species may be killed. • Any bird nests that are found during the construction period must be reported to the Environmental Control Officer (ECO).
Loss of SCC	• A plant search and rescue to be conducted by a suitably qualified botanical specialist prior to commencement of any vegetation clearing for each progressive stage of clearing for construction, for any protected species and species of special concern that may be affected by the development as well as other indigenous plant specimens which can be relocated. Such specimens are to be relocated and appropriately transplanted, where applicable and practical to the open space and forest patch conservation area. • Any protected species which need to be removed or relocated require the necessary permits to be obtained from DEDEAT for those species protected under the Cape Nature and Environmental Ordinance (Ordinance 19 of 1974). The relevant permits are to be obtained from the department of Forestry, Fisheries and the Environment for any species protected under the National Forest Act (Act 84 of 1998).
Impact on forest	• Forest patches should be no-go areas during construction.
Stormwater and erosion impacts	• Minimise disturbance and clearing of vegetation • The site must be continuously monitored for erosion. • Appropriate erosion reducing methods must be implemented if required.
Alien invasion proliferation	• Develop and implement an Alien Vegetation Management Plan to mitigate the establishment and spread of undesirable alien plant species during construction and operations. • Site must be continuously monitored and managed for alien vegetation growth. • Any alien invasive species which colonises disturbed ground must be systematically removed and destroyed prior to it attaining the seed formation stage. • Removal must occur through appropriate methods such as hand pulling, application of chemicals, cutting, etc. in accordance with the NEMBA: Alien Invasive Species Regulations.
Waste management	• Develop a comprehensive solid waste management plan. • Provide clearly labelled waste bins with lids • Littering is strictly prohibited. • All waste generated on site shall be collected and appropriately disposed of at a registered municipal landfill site. • No on-site burning, burying or dumping of any waste materials, litter or refuse shall occur.

	• The Contractor shall identify and separate materials that can be re-used or recycled to minimise waste e.g. metals, packaging and plastics, and provide separate marked bins for these items. • Skips are to be provided for the temporary storage of construction waste. • All staff shall be trained on correct waste management. • Records of disposal of all waste generated on site shall be maintained for auditing purposes. • No wastewater shall be disposed of to the surrounding soil or natural water resources. • All effluent water from the camp/ office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources. • All cement wastewater shall be collected in a container, allowed to evaporate, and the sludge disposed of as waste. Under no circumstances shall it be allowed to enter soil, groundwater resources or stormwater.
Hazardous material storage and handling	• No cement/concrete mixing is permissible on the soil surface. Cement mixers are to be placed on large trays to prevent accidental spills from coming into contact with soil surface. • Generators and fuel supply needed during construction must be placed on trays which rest on clean sand. Once construction has been completed, this sand must be removed from site and disposed of at a registered waste disposal site. • No servicing of vehicles and other machinery to take place on site and no fuel or other hazardous material to be stored on site.
Traffic impact	• Ensure construction vehicles are visible and make use of Victoria Drive to gain access to site. • Pedestrians and motorists should be accommodated through appropriate traffic warning signs and measures. • Speed should be kept at a minimum next to the construction site.
Visual impact	• The site camp must be clearly demarcated and screened in order to block any unappealing aesthetics within the site camp such material storage areas. • The construction footprint must be kept as small as possible, to avoid unnecessary disruption to the surrounding environment. • Disturbed areas to be rehabilitated / revegetated as soon as possible during the construction phase. • Areas utilised for construction at the site must be kept clean and tidy at all times.
Noise pollution	• Ensure that construction vehicles and working machinery are serviced and are in good condition to reduce their noise levels. • Construction activities should be maintained during the normal working hours (08h00-17h00). • Where works are to be carried outside the normal working hours, the affected adjacent residents must be informed and such be undertaken within the shortest time possible. • Vehicles and plant to be inspected daily for defects which may cause elevated noise generation. • Vehicles and plant to be adequately services and maintained in good condition.
Air pollution	• Implement dust suppression measures as required. • Vehicle speed should be kept at a minimal reduce dust pollution. • Construction plant, equipment, machinery and vehicles should be well maintained and services regularly to minimise exhausted fumes air pollution.

	• Exposed areas should be re-vegetated as soon as all installations are completed.
Paleontological and heritage resource disturbance	• The Environmental Compliance Officer (ECO) responsible for overseeing the project should be well-informed about the potential presence of fossils within the project area. It is essential that they are aware of the likelihood of uncovering fossils during excavation into the underlying strata. • The construction managers and supervisory personnel involved in the project should also be made aware of the possibility of encountering significant fossils on-site. • During excavation, it is crucial that any geological exposures encountered are thoroughly inspected for the presence of fossil remains, particularly fossils of high scientific value e.g. vertebrate teeth and bones. If any fossils of significance are discovered, the ECO should contact the appropriate authority to further investigate the area. • In the event of significant fossil discoveries, a qualified palaeontologist should be promptly notified. This palaeontologist should possess the expertise and qualifications necessary for accurately assessing and documenting the findings. • Any fossils of scientific value found within the excavation area should be regarded as of palaeontological interest. The palaeontologist should be responsible for recording and sampling these fossils. The costs associated with this activity should be borne by the developer as part of their responsibility for preserving and managing palaeontological resources. • If a new paleontological resource is discovered, it is the jurisdiction of the SAHRA to recover and store such resource. Hence, further exploration must be conducted by a professional palaeontologist.
Employment opportunities	• Employment of local labour and contracting of SMMEs.
OPERATIONAL PHASE	
Waste management	• Regular (weekly) waste collection service to be provided. • Implementation of waste management principles, reduce, re-use and recycle. • Regular inspections of the surrounding areas for signs of dumping and educating community members to inform the NMBM of such activities.
Freshwater utilization	• Water-wise practices should be considered such as use of rainwater for non-portable water requirements. • Leak monitoring, detection repairs be implemented.
Bulk services	• Consider use of alternative energy sources such as solar panels placed on the infrastructure roofs to power the facility. • The municipality must ensure sewer system is not overloaded. • Regular maintenance of the system required.
Stormwater management	• Once the storm water facilities have been completed, and fenced to prevent access by the public, the maintenance and monitoring will remain the responsibility of the municipality. These are some of the suggested Best Management Practices (BMPs) for the development o Public open space – Vegetation to be maintained such that flood water levels are not increased. o Storm water structures – Ponds frequently monitored and obstructions (debris) to inlet/outlet works, removed.

	○ Open Channels – Channels to be regularly monitored to identify any erosion gullies or silt deposition. ○ Road Construction – No concentrated flow points are allowed onto road area. ○ Pipes – All pipes are to be frequently monitored and cleared of obstructions. • Develop a comprehensive stormwater management program which addresses management of stormwater detention ponds, the discharge outlets, inclusive of erosion protection measures and mitigation of such erosion occur. • Include periodical site inspection that inspects the effectiveness of the run-off control system and specifically records occurrence or not of any erosion on site or downstream. • Outlet structures at road culverts to be designed in a manner that dissipates flow energy. • Vegetation to be maintained in public open space such that flood water levels are not increased. • Ponds frequently monitored and obstructions (debris) to inlet and outlet works, removed. • Channels to be regularly monitored to identify any erosion gullies or silt deposition.
Management of forest patches	• No forest patches are to be developed or impacted on. These sites are to be appropriately zoned to Open Space III for conservation purposes and the protection thereof and must be incorporated into the NMBM's Metropolitan Open Space Management Plan/Bioregional Plan and managed as a conservation area. • The forest patches must be fenced off with a suitable fencing solution such as "Bettafence" to prevent dumping and destruction of the forest. • Regular inspections of the fenced areas are to be made to monitor whether dumping of rubble or refuse is occurring.
Increase in traffic levels in the area	• Upgrade intersections; provide additional facilities for public transport and vulnerable road users.
Employment opportunities	• N/A
Contribution to meeting housing need	• N/A

6.4. CONCLUDING STATEMENT ON THE ALTERNATIVES ASSESSMENT

A concluding statement indicating the preferred alternatives, including preferred location of the activity;

After consideration on the types of alternatives that exist (i.e. property, type, design, technology, operational and the no-go options) and a comprehensive assessment of potential environmental, social and technical considerations as discussed in Section 5, the following preferred alternatives for the proposed development has been identified and shall be carried forward to the EIA phase.

Site Alternatives

No site/property alternatives exist as the proposed site is municipally owned, and no land acquisition will be required. Furthermore, the site falls within an area that was allocated for residential development. Additionally, an Environmental Authorisation (EA) for a housing development on this site had been previously granted.

Design and layout Alternatives

Alternative 2 (preferred)- This option comes with a lower housing yield compared to Alternative 1. Although Alternative 1 would have been preferred this option avoids encroaching on the forest patches.

Technical & Operational Alternatives- No alternatives have been considered.

No-go option- Keeping the current status quo of no activities occurring on site, which would not result in a loss of a critically endangered vegetation and a forest. However, potential positive socio-economic impacts will be lost.

7. PLAN OF STUDY FOR THE EIA

A Plan of Study for the EIA has been prepared according to the process as described in Appendix 2 of the EIA Regulations (2014, as amended) promulgated in terms of Section 24(5) of the NEMA, to provide the Competent Authority with adequate information in order to obtain authorization and proceed with the proposed activity. The section below outlines the proposed plan of study which will be conducted for the various environmental aspects during the EIA phase. It is also important to note that the plan of study will also be guided by comments obtained from I&APs and other stakeholders during the Scoping Report public review period.

7.1. ALTERNATIVES TO BE CONSIDERED AND ASSESSED

As stated above on Section 5.8 the following alternatives will be assessed during the EIA Phase, namely:

Table 17: Development alternatives to be assessed

CATEGORY	ALTERNATIVE	DESCRIPTION
NO-GO Alternative	Status Quo	Keeping the current status quo of no activities occurring on site, which would not result in a loss of a critically endangered vegetation and a forest. However, potential positive socio-economic impacts will be lost.
Site Alternatives	Alternative 1	No site/property alternatives exist as the proposed site is municipally owned, and no land acquisition will be required. Furthermore, the site falls within an area that was allocated for residential development. Additionally, an Environmental Authorisation (EA) for a housing development on this site had been previously granted.
Design and layout Alternatives	Alternative 1	This option comes with a higher housing yield covering 46% of the site, however it does not entirely avoid the forest patches and the development overlaps on these forest patches.
	Alternative 2 (Preferred)	This option comes with a lower housing yield compared to Alternative 1. Although Alternative 1 would have been preferred this option avoids encroaching on the forest patches.
Technical & Operational Alternatives	No feasible and reasonable alternatives evaluated and assessed	No alternatives have been considered.

Only incremental alternatives will be considered further going into the EIA phase. Incremental alternatives typically arise during the EIA process and are usually suggested as a means of addressing identified impacts. These alternatives are closely linked to the identification of mitigation and management measures and are not specifically identified as distinct alternatives. Incremental alternatives to be considered by the applicant and which will be explored further during the EIA phase include the use of already disturbed areas within the areas. These will be investigated further during the EIA phase and will form part of the EMPr.

7.2. DEVELOPMENT ASPECTS TO BE ASSESSED IN THE EIA

Table *18* outlines the key aspects that were identified in the scoping phase. These aspects will be assessed in the EIA phase identified from construction to operations.

Table 18: Aspects to be assessed as part of the EIA phase

Aspect	Phase
Terrestrial Biodiversity	Construction phase
Fauna	Construction phase
Stormwater and erosion	Construction phase and operational phase
Air Quality	Construction phase

Noise	Construction phase
Visual	Construction phase
Heritage and Palaeontological resources	Construction phase
Traffic	Construction phase and operational phase
Socio-economic	Construction phase and operational phase

7.3. ASPECTS TO BE ASSESSED BY SPECIALISTS

7.3.1. IDENTIFIED SPECIALIST STUDIES

As identified by the DFFE screening tool and site verification informed and recommended studies as listed below with indications on the key areas of focus for the assessment;

- Terrestrial Biodiversity Impact Assessment- Inclusive of Plants species
- Animal Species Impact Assessment
- Aquatic Biodiversity Impact Assessment
- Agricultural Compliance Statement
- Paleontological Impact Assessment
- Archaeological and Cultural Heritage Impact Assessment
- Socio-Economic Assessment

Detailed process followed to reach the above determinations is documented in **Appendix A** of this report.

7.3.2. SPECIALISTS TERMS OF REFERENCE

All specialist studies will be prepared in line with Appendix 6 of the EIA Regulations of 2014 as amended and will be undertaken by qualified, experienced, and registered specialists.

The specialist studies will take into consideration the Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes in terms of Section 24(5) (a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation ("the Protocols") promulgated in Government Notice ("GN") No. 320 on 20 March 2020, which came into effect on 09 May 2020. All the recommended specialist studies will be initiated after 09 May 2020; therefore, the requirements apply.

The following outlines the general list of requirements to be fulfilled by the respective specialists as part of the EIR Phase of the development:

- Address all triggers for the specialist studies contained in the subsequent specific ToR;
- Address issues and concerns raised by IAPs, as contained in the Comments and Response Report, and conduct an assessment of all potentially significant impacts. Additional issues and concerns that have not been identified during Scoping Phase should also be highlighted to the EAP for further investigation;
- Ensure that the requirements of the environmental authorities that have specific jurisdiction over the various disciplines and environmental features, are satisfied;
- Approach to include desktop study and site visits, as deemed necessary, to understand the affected environment and to adequately investigate and evaluate salient issues. Indigenous knowledge (i.e. targeted consultation) should also be regarded as a potential information resource;
- Assess potential impacts (direct, indirect and cumulative) in terms of their significance (using suitable evaluation criteria) and suggest suitable mitigation measures for informed decision-making. In accordance with the mitigation hierarchy, negative impacts should be avoided, minimised, rehabilitated (or reinstated) or compensated for (i.e. offsets), whereas positive impacts should be enhanced. A risk-averse and cautious approach should be adopted under conditions of uncertainty;
- Consider time boundaries, including short to long-term implications of impacts for the project lifecycle (i.e. pre-construction, construction, operation and decommissioning);
- Consider spatial boundaries, including:
- Broad context of the proposed project (i.e. beyond the boundaries of the specific site);
- Off-site impacts; and
- Local, regional, national or global context.
- The provision of a statement of impact significance for each issue, which specifies whether or not a pre-determined threshold of significance (i.e. changes in effects to the environment which would change a significance rating) has been exceeded, and whether or not the impact presents a potential fatal flaw or not. This statement of significance should be provided for anticipated project impacts both before and after application of impact management actions;
- Recommend a monitoring programme to implement mitigation measures and measure performance. List indicators to be used during monitoring;

- Appraisal of alternatives (including the No-Go option) by identifying the best implementable option (if any) with suitable justification;
- Advise on the need for additional specialists to investigate specific components and the scope and extent of the information required from such studies;
- Engage with other specialists whose studies may have bearing on your specific investigation;
- Present findings and participate at public meetings, as necessary;
- Information provided to the EAP needs to be signed off;
- Review and sign off on EIA Report prior to submission to DEDEAT to ensure that specialist information has been interpreted and integrated correctly into the report;
- Sign a declaration stating independence;
- The appointed specialists must take into account the policy framework and legislation relevant to their particular studies; and
- All specialist reports must adhere to Appendix 6 of GN No. 326 (7 April 2017) as well as the Specialist Reporting Protocols, March 2020.

Specific terms of reference are included in the specialist reports attached in **Appendix C.**

7.4. PROPOSED METHOD OF ASSESSING IMPACTS

The criterion for determining impact significance has been defined in accordance with the criteria drawn from Appendix 3 of the Environmental Impact Assessment Regulations, 2014. In order to establish a coherent framework within which all impacts could be objectively assessed, it is necessary to establish a rating system, to be applied consistently to all the criteria. **Table *14*** provides a summary of the criteria and the rating scales, which will be used in the assessment of the impacts.

Impacts identified were assessed according to the criteria outlined below. Each impact was ranked according to the nature, extent, duration, magnitude, probability, irreplaceable loss of resources and reversibility. These criteria are based on the Department of Environmental Affairs and Tourism (DEAT) Guideline Document to the EIA Regulations (1998). A significance rating was calculated as per the methodology outlined below.
The significance rating of each identified impact / effect was further reviewed by the EAP and/or specialist by applying professional judgement. Where possible, mitigatory measures were recommended for the impacts identified.

The methodology is described in detail under **Section 6.1**

7.5. EIA PUBLIC PARTICIPATION STRATEGY

Public participation process proposed for the application as required by Regulation 41 of GN R.326, dated 07 April 2017 as amended. The principles of NEMA govern many aspects of the EIA process, including consultation with Interested and Affected Parties (I&APs). These principles include the provision of sufficient and transparent information flow to I&APs on an ongoing basis, to allow them to comment; and ensuring the participation of historically disadvantaged individuals, including women, the disabled and the youth throughout the process.

The primary objectives of the public participation process are to:

- Inform and notify potentially Interested and Affected Parties (I&APs) of the proposed application (explain steps that were taken to achieve this);
- Initiate or promote meaningful and timeous participation of I&APs by providing proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the proposed application have been displayed, placed, or given;
- Maintain a list of all persons, organization and organs of state that were registered as interested and affected parties in relation to the application;
- Identify issues and concerns of key stakeholders and I&APs with regards to the application for the proposed project;
- Provide a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues; and
- Provide responses to I &AP's queries.
- Identification of Interested and Affected Parties and Database management I&APs representing the following sectors of society will be identified:
- Provincial Authorities;
- Local Authorities;
- Ward Councillors; and

- Adjacent Landowners.

The I&AP database will be updated throughout the EIA process and new participants register on the project. All I&APs who register will be included within this database and included in project related correspondence going forward.

Public Announcement of the EIR

The following means of public engagement will also be made:

- Electronic notification of stakeholders via email
- Publication of media advertisement
- On-site notices will be placed, detailing the proposed development, the EIA process, and an invitation to register and comment.
- Notices will placed at strategic places on site and in the vicinity of the site (along the road, at intersections, etc.) as well as at high frequented places within the area; and
- Distribution of letters by means of knock-and-drops

Final Environmental Impact Report (FEIR)

All comments made on the DEIR during public review will be captured and adequately responded to in the Comments and Response Report. Once the FEIR has been finalised, it will be submitted to the DEDEAT for decision making. When a decision if received from the department, I&APs will also be notified accordingly as per requirements.

Notice of EA decision

- I&APS will be notified of the decision within 14 days from receipt of such
- A 20-day period will be allowed for appeals

7.6. ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The EIA process is a planning and decision-making tool that identifies the potential negative and positive impacts of a proposed development. It also recommends ways to enhance the positive impacts and to minimize the negative ones. The environmental studies that will be undertaken, will address the impacts associated with the proposed development, and provide an assessment in terms of the biophysical, social, cultural-historic and economic environments. This will assist both the competent authority and the applicant in making decisions regarding implementation of the proposed project. The environmental assessment will

be undertaken in compliance with the NEMA, specifically EIA Regulations 2014 (as amended). Cognisance will also be taken of related guideline documents and other relevant legislation.

7.6.1. SCOPING PHASE

The scoping phase process can be categorized into two main activities as described in the sections below.

(a) DESKTOP REVIEW AND FIELD INVESTIGATIONS

A desktop study which included the review of existing information such as specialist studies that were conducted for the development, literature review of various related to reports and consultation of a variety of databases was undertaken. A screening tool report was generated using the National Web Based Environmental Screening Tool, the report presents the sensitivities of the site which have been incorporated into this report. Copies of the screening tool reports are attached as Appendix D of this report. This Scoping Report (SR) including information as required per Appendix 2 of the 2014 NEMA EIA Regulations is then compiled.

(b) PUBLIC PARTICIPATION

During the Scoping phase of this project, the key objective of public participation is to provide I&APs with an opportunity to provide comment and input in the planning phase of the project. Issues of concern and suggestions raised by I&APs will be addressed and responded to as required in the Scoping Report, and I&APs will also be given the opportunity to comment on the findings of both the Scoping and EIA Reports and findings of the Specialist studies during the specified comment periods.

This Draft Scoping Report (DSR) will be subjected to a public participation process (PPP) mainly as follows:

Public comment (30-days): **02 March 2026- 01 April 2026**

One public and one virtual meetings will be arranged with stakeholders and community members to ensure that the report is provided to interested and affected parties.

Registered I&APS will be kept abreast of the application and Scoping process and receive notification when there is opportunity to provide comment. Please refer to **Appendix E** for a full list of Interested and Affected Parties.

(c) FINAL SCOPING REPORT AND CA EVALUATION

All comments from stakeholders and Interested & Affected Parties (I&APs) will be incorporated into the Final Scoping Report (FSR), which will be submitted to the Competent Authority, DEDEAT. The Department has 43 days to make decision. Once accepted, the project will proceed to the EIA phase, where the recommended

specialist studies will be undertaken, and a Draft Environmental Impact Report (DEIR) will be prepared for further public review and comment.

7.6.2. EIA PHASE

This phase has the following major stages;

- Impact assessment for the preferred alternatives
- Specialists assessments
- Public comment period and
- CA decision and notification of I&APs

(a) TIMEFRAMES

- An Environmental Impact Report (EIR) will be arranged shortly after the approval of the Final Scoping by the Competent Authority.
- The EIR will have the information specified in Appendix 3 of GN No R. 326.
- The EIR will be supported by Specialist studies
- According to Regulation 3 (8) and 41 to 44 of the GN No R. 326, the EIA report will be issued for PPP no less than 30 days.
- An Environmental Management Programme (EMPr) must be linked with an EIA report and must contain the necessary documentation that is required by Appendix 4 of GN. No. R. 326.
- This process would take 300 days, but if the report needs to be corrected and re-distributed, 50 days will be provided additionally to do so, making the duration of the process 350 days.

(b) IMPACT ASSESSMENT AND SPECIALIST STUDIES

During the scoping phase, specialists will be appointed and provided with available information relating to the project as to familiarise themselves with the project. If possible and where relevant, they may provide specialist desktop input at this stage. Detailed specialist assessment are undertaken to informed the EIR.

(c) PUBLIC PARTICIPATION

The Draft Environmental Impact Report (DEIR) and draft EMPr will be subjected to a PPP similar to the Scoping Phase;

Public comment (30-days)

Public meetings will be held at the same venues as the scoping phase.

(d) CA DECISION AND I&APS NOTICE

The Final EIR and EMPr will be submitted to the competent authority for its consideration and approval. The Competent Authority will make a decision on its evaluation within 107 days from the date of the final submission of the reports.

Subsequent to the issue of an Environmental Authorization (EA) decision, all registered I&APs will be informed by email, or post of the decision and availability of the EA, upon request. In addition, the registered I&APs will be informed of the procedure to lodge an appeal of the environmental authorization, should they wish to do so. **Table 19** below provides a summary of the EIA process.

Table 19: Summary of EIA Process

PHASE	ACTIVITY	TIMEFRAME
INITIAL NOTIFICATION PHASE	identification of key stakeholders and I&APs Distribution of PPP documents (BID, Notification letters, emails etc)	No timeframes
SCOPING PHASE	Submission of Application	Authority Acknowledgement = 10 days
	Public & Authority review of the Draft Scoping Report	30 days
	Submission of Final Scoping report	44 Days from receipt of Acknowledgement of Application
	Consideration by Competent Authority	43 days from receipt of Scoping report
SPECIALIST PHASE	Specialists conduct site assessments and prepare reports for inclusion in the Draft Environmental Impact Report (DEIR) and WULA Technical Report (WULA report)	No timeframes
EIA PHASE	Public Participation on the DEIR and WULA report	30 days
	Submission of the Final EIR and WULA report to Authorities	106 days from Acceptance of Scoping Report
	Notice of extension	Must be lodged within 106 days from Acceptance of Scoping Report. Extension period allows for an additional 50 days to submit the EIR, i.e. within 156 days
	Environmental Authorisation	107 Days from receipt of FEIR
	Water Use Licence	90 Days from receipt of the Final WULA report

PHASE	ACTIVITY	TIMEFRAME
	EA notification	Authority to notify Applicant within 5 Days, 14 Days to notify I&APs 20 day allowance for appeals

7.7. COMPETENT AUTHORITIES CONSULTATION

An indication of stages at which competent authority will be consulted is as follows (**Table *20***);

Table 20: Summary of stages where CA will be consulted

EIA Stage	Engagement
Pre-application	• Project announcements to all I&APs for registrations and pre-application comments.
Scoping Phase	• Notice of DSR availability for review and comment over the regulatory 30-days period • Engagements in writing and or virtual meeting
EIA Phase	• Notice of DEIR availability for review and comment over the regulatory 30-days period • Engagements in writing and or virtual meeting

All comments from the CA will be incorporated into the respective reports throughout the various project stages.

7.8. DSR SUMMARY OF COMMENTS RECEIVED

Please refer to the Comments and Responses Report in Appendix E for a full account of comments and responses as well as copies of all correspondences between the EAP and I&APs. The key issues that have been raised during the public review period of the Draft Scoping Report will be summarised in this section.

7.9. APPLICABLE MITIGATION MEASURES

Table 21 identifies the applicable mitigation measures that are likely to apply to this project. Additional and more detailed management and mitigation measures will be identified during the impact assessment phase and reported in the EIR and EMPr.

Table 21. Mitigation measures

Impacts/ Aspects	Mitigation measures
PLANNING AND DESIGN PHASE	
Legal and social compliance	• Ensure environmental authorisations namely EA is obtained for the development. • Environmental Control Officer (ECO) to be appointed to monitor compliance with permits conditions. • All health and safety permits and certification to be in place.

	• Appointment of a Community Liaison Officer (CLO). • Appointment of a Social Facilitator (SF) to manage social-economic aspects of the project relating to community and local business interest, particularly small, medium and micro-enterprise (SMMEs). • A health and safety plan in terms of the Occupational Health and Safety Act (Act No 85 of 1993) must be drawn up by the HSE officer prior to construction to ensure workers safety. • Environmental files to be compiled prior to commencement of construction activities. • Methods statement to be compiled for all works with environmental aspects and impacts, for approval of the ECO. • Employment and sub-contracting of locals.
Site establishment	• Develop a site establishment method statement • The Contractor must prepare a Construction Site Plan prior to establishing on-site. This plan must indicate: • The boundaries of the site that encompass all construction-related activities. • Vehicle and pedestrian access points and routes (safe diversions of routes when necessary). • Laydown area/s, offices, stockpile areas, storage areas, etc. • Construction site to be selected by the contractor in conjunction with the developer, consulting engineer and the ECO.
Existing civil services, infrastructure and properties	• Ensure that all existing services and infrastructure are known, mapped and marked to prevent potential damage. • Development of a plan to manage existing services to avoid damages • Wayleaves to be obtained from the relevant custodians for affected servitudes as applicable. • Property owners such as the local residents should be engaged throughout the project lifespan and engaged as necessary to promote conflict free development implementation. • Where relevant, the directly affected property owners should be informed in writing and engaged to reach a consensus and those proceedings and relevant agreements to be documented.
Water consumption	• Water conservation measures must be adopted into the building design. • Rainwater tanks should be considered.
Bulk services (Electricity and sewerage)	• The design of all residential dwellings, as well as community facilities, school buildings and business buildings should consider the use of alternative renewable energy sources such as CFL or LED lighting, solar geysers, solar street lighting etc. • All buildings should have a rainwater harvesting tanks. • Ensure that the municipality will have sufficient capacity for connection to existing infrastructure.
Stormwater management	• Infrastructure should be planned and designed in such a way as to take increased stormwater runoff in consideration.
CONSTRUCTION PHASE	
Legal and social compliance	• ECO to be appointed to audit environmental compliance with conditions in the EMPr and other permits and authorisations. • CLO and Social Facilitator to be retained throughout the construction tenure to represent the surrounding communities and local business, particularly SMMEs.
Site establishment and security	• Fulltime security officers to be appointed to safeguard the site, its personnel, plant and equipment

	• Necessary health and safety as well as road construction signage to be installed. • Construction areas are to be clearly demarcated, and all construction activities are to be restricted to within these demarcated areas.
Water consumption	• A sustainable and lawful water supply should be utilised. • Consistent water supply for construction staff and activities. • If water is stored on-site, drinking water and multi-purposed water storage facilities shall be clearly distinguished and demarcated. • Implement rainwater harvesting techniques, where possible. • Re-use wash water for selected activities such as concrete batching.
Sanitation	• Ensure availability of ablutions for males and females. One ablution facility for every 10 workers during construction phase. • Ensue regular servicing of the ablution toilets by a service provider. • Ablution facilities to be located outside the regulated water area by all means practically possible.
Loss of indigenous vegetation	• Minimise vegetation clearance and confine to the proposed infrastructural footprint. • No blanket clearing of vegetation is to occur on the development site. Vegetation removal must be done in phases, to reduce the area of any any exposed surfaces and potential for dust pollution to occur at any one time. • When excavating, ensure that topsoil is separated from the subsoil to preserve the indigenous vegetation seedbanks of the area. • Use existing access roads as opposed to initiating new route, the latter should be authorised first prior to initiating. • Construction should not take place outside the authorised site footprint • Minimise vegetation clearance as practically possible to do so.
Disturbance of fauna and loss of habitats.	• A suitably qualified individual is to carry out a faunal "search and rescue", which fauna are to be relocated to a suitably protected area prior commencement of vegetation clearing. Should any injured fauna be found, they are to be taken to be examined by a veterinarian and if deemed suitable for rehabilitation, such are to be taken to a suitable faunal rehabilitation centre, in consultation with the department's biodiversity unit. Any species protected in terms of the Cape Nature and Environmental Ordinance (Ordinance 19 of 1974) which need to be removed or relocated require the necessary permits to be obtained from DEDEAT. • Any fauna or avi-fauna on site is to remain undisturbed as far as possible and shall not be trapped/killed or otherwise caught by any contractor or individuals carrying out any clearing or construction work. • No termite mounds should be intentionally destroyed. Any lizards, geckos, agamids, monitors or snakes encountered should be allowed to escape to a suitable habitat away from the disturbance. • The construction must be completed as quickly as possible - no fauna species may be killed. • Any bird nests that are found during the construction period must be reported to the Environmental Control Officer (ECO).
Loss of SCC	• A plant search and rescue to be conducted by a suitably qualified botanical specialist prior to commencement of any vegetation clearing for each progressive stage of clearing for construction, for any protected species and species of special concern that may be affected by the development as well as

	other indigenous plant specimens which can be relocated. Such specimens are to be relocated and appropriately transplanted, where applicable and practical to the open space and forest patch conservation area. • Any protected species which need to be removed or relocated require the necessary permits to be obtained from DEDEAT for those species protected under the Cape Nature and Environmental Ordinance (Ordinance 19 of 1974). The relevant permits are to be obtained from the department of Forestry, Fisheries and the Environment for any species protected under the National Forest Act (Act 84 of 1998).
Stormwater and erosion impacts	• Minimise disturbance and clearing of vegetation • The site must be continuously monitored for erosion. • Appropriate erosion reducing methods must be implemented if required.
Alien invasion proliferation	• Develop and implement an Alien Vegetation Management Plan to mitigate the establishment and spread of undesirable alien plant species during construction and operations. • Site must be continuously monitored and managed for alien vegetation growth. • Any alien invasive species which colonises disturbed ground must be systematically removed and destroyed prior to it attaining the seed formation stage. • Removal must occur through appropriate methods such as hand pulling, application of chemicals, cutting, etc. in accordance with the NEMBA: Alien Invasive Species Regulations.
Waste management	• Develop a comprehensive solid waste management plan. • Provide clearly labelled waste bins with lids • Littering is strictly prohibited. • All waste generated on site shall be collected and appropriately disposed of at a registered municipal landfill site. • No on-site burning, burying or dumping of any waste materials, litter or refuse shall occur. • The Contractor shall identify and separate materials that can be re-used or recycled to minimise waste e.g. metals, packaging and plastics, and provide separate marked bins for these items. • Skips are to be provided for the temporary storage of construction waste. • All staff shall be trained on correct waste management. • Records of disposal of all waste generated on site shall be maintained for auditing purposes. • No wastewater shall be disposed of to the surrounding soil or natural water resources. • All effluent water from the camp/ office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources. • All cement wastewater shall be collected in a container, allowed to evaporate, and the sludge disposed of as waste. Under no circumstances shall it be allowed to enter soil, groundwater resources or stormwater.
Hazardous material storage and handling	• No cement/concrete mixing is permissible on the soil surface. Cement mixers are to be placed on large trays to prevent accidental spills from coming into contact with soil surface.

	• Generators and fuel supply needed during construction must be placed on trays which rest on clean sand. Once construction has been completed, this sand must be removed from site and disposed of at a registered waste disposal site. • No servicing of vehicles and other machinery to take place on site and no fuel or other hazardous material to be stored on site.
Traffic impact	• Ensure construction vehicles are visible and make use of Victoria Drive to gain access to site. • Pedestrians and motorists should be accommodated through appropriate traffic warning signs and measures. • Speed should be kept at a minimum next to the construction site.
Visual impact	• The site camp must be clearly demarcated and screened in order to block any unappealing aesthetics within the site camp such material storage areas. • The construction footprint must be kept as small as possible, to avoid unnecessary disruption to the surrounding environment. • Disturbed areas to be rehabilitated / revegetated as soon as possible during the construction phase. • Areas utilised for construction at the site must be kept clean and tidy at all times.
Noise pollution	• Ensure that construction vehicles and working machinery are serviced and are in good condition to reduce their noise levels. • Construction activities should be maintained during the normal working hours (08h00-17h00). • Where works are to be carried outside the normal working hours, the affected adjacent residents must be informed and such be undertaken within the shortest time possible. • Vehicles and plant to be inspected daily for defects which may cause elevated noise generation. • Vehicles and plant to be adequately services and maintained in good condition.
Air pollution	• Implement dust suppression measures as required. • Vehicle speed should be kept at a minimal reduce dust pollution. • Construction plant, equipment, machinery and vehicles should be well maintained and services regularly to minimise exhausted fumes air pollution. • Exposed areas should be re-vegetated as soon as all installations are completed.
Paleontological and heritage resource disturbance	• The Environmental Compliance Officer (ECO) responsible for overseeing the project should be well-informed about the potential presence of fossils within the project area. It is essential that they are aware of the likelihood of uncovering fossils during excavation into the underlying strata. • The construction managers and supervisory personnel involved in the project should also be made aware of the possibility of encountering significant fossils on-site. • During excavation, it is crucial that any geological exposures encountered are thoroughly inspected for the presence of fossil remains, particularly fossils of high scientific value e.g. vertebrate teeth and bones. If any fossils of significance are discovered, the ECO should contact the appropriate authority to further investigate the area.

	• In the event of significant fossil discoveries, a qualified palaeontologist should be promptly notified. This palaeontologist should possess the expertise and qualifications necessary for accurately assessing and documenting the findings. • Any fossils of scientific value found within the excavation area should be regarded as of palaeontological interest. The palaeontologist should be responsible for recording and sampling these fossils. The costs associated with this activity should be borne by the developer as part of their responsibility for preserving and managing palaeontological resources. • If a new paleontological resource is discovered, it is the jurisdiction of the SAHRA to recover and store such resource. Hence, further exploration must be conducted by a professional palaeontologist.
Employment opportunities	• Employment of local labour and contracting of SMMEs.
OPERATIONAL PHASE	
Waste management	• Regular (weekly) waste collection service to be provided. • Implementation of waste management principles, reduce, re-use and recycle. • Regular inspections of the surrounding areas for signs of dumping and educating community members to inform the NMBM of such activities.
Freshwater utilization	• Water-wise practices should be considered such as use of rainwater for non-portable water requirements. • Leak monitoring, detection repairs be implemented.
Bulk services	• Consider use of alternative energy sources such as solar panels placed on the infrastructure roofs to power the facility. • The municipality must ensure sewer system is not overloaded. • Regular maintenance of the system required.
Stormwater management	• Once the storm water facilities have been completed, and fenced to prevent access by the public, the maintenance and monitoring will remain the responsibility of the municipality. These are some of the suggested Best Management Practices (BMPs) for the development o Public open space – Vegetation to be maintained such that flood water levels are not increased. o Storm water structures – Ponds frequently monitored and obstructions (debris) to inlet/outlet works, removed. o Open Channels – Channels to be regularly monitored to identify any erosion gullies or silt deposition. o Road Construction – No concentrated flow points are allowed onto road area. o Pipes – All pipes are to be frequently monitored and cleared of obstructions. • Develop a comprehensive stormwater management program which addresses management of stormwater detention ponds, the discharge outlets, inclusive of erosion protection measures and mitigation of such erosion occur. • Include periodical site inspection that inspects the effectiveness of the run-off control system and specifically records occurrence or not of any erosion on site or downstream. • Outlet structures at road culverts to be designed in a manner that dissipates flow energy. • Vegetation to be maintained in public open space such that flood water levels are not increased.

	• Ponds frequently monitored and obstructions (debris) to inlet and outlet works, removed. • Channels to be regularly monitored to identify any erosion gullies or silt deposition.
Management of forest patches	• No forest patches are to be developed or impacted on. These sites are to be appropriately zoned to Open Space III for conservation purposes and the protection thereof and must be incorporated into the NMBM's Metropolitan Open Space Management Plan/Bioregional Plan and managed as a conservation area. • The forest patches must be fenced off with a suitable fencing solution such as "Bettafence" to prevent dumping and destruction of the forest. • Regular inspections of the fenced areas are to be made to monitor whether dumping of rubble or refuse is occurring.
Increase in traffic levels in the area	• Upgrade intersections; provide additional facilities for public transport and vulnerable road users.
Employment opportunities	• N/A
Contribution to meeting housing need	• N/A

8. CONCLUSION AND RECOMMENDATIONS

8.1. CONCLUSION

The Scoping Report was undertaken according to the requirements of the NEMA, the amended EIA Regulations, and associated legislation. The scoping phase report was undertaken to present the proposed development to the Competent Authority and potential Interested & Affected Parties (I&APs) and to identify potential environmental issues. The potential impacts that have been identified during the Scoping Phase will be investigated during the EIA Phase of the project, with appropriate mitigation measures included in the EMPr.

The Draft Scoping Report is subjected to a 30-day comment period to allow comments and inputs from I&APs. The comments on the DSR will be comprehensively addressed and included in the report.

8.2. RECOMMENDATIONS

A number of potentially significant issues have been highlighted for further investigation in order to assess their significance, and to determine the need for the implementation of mitigation measures in order for the overall project to be environmentally sustainable. It is, therefore, recommended that comprehensive studies be conducted for the proposed project in the EIA Phase, as described in the Plan of Study for EIA.

The EAP recommends that the Scoping Report be approved by the Competent Authority, and that permission be granted to continue with the EIA Phase of the process.

8.3. FINAL COMPOSITE MAP

The environmental sensitivities/constraints of the site are illustrated in **Figure *18*** below.

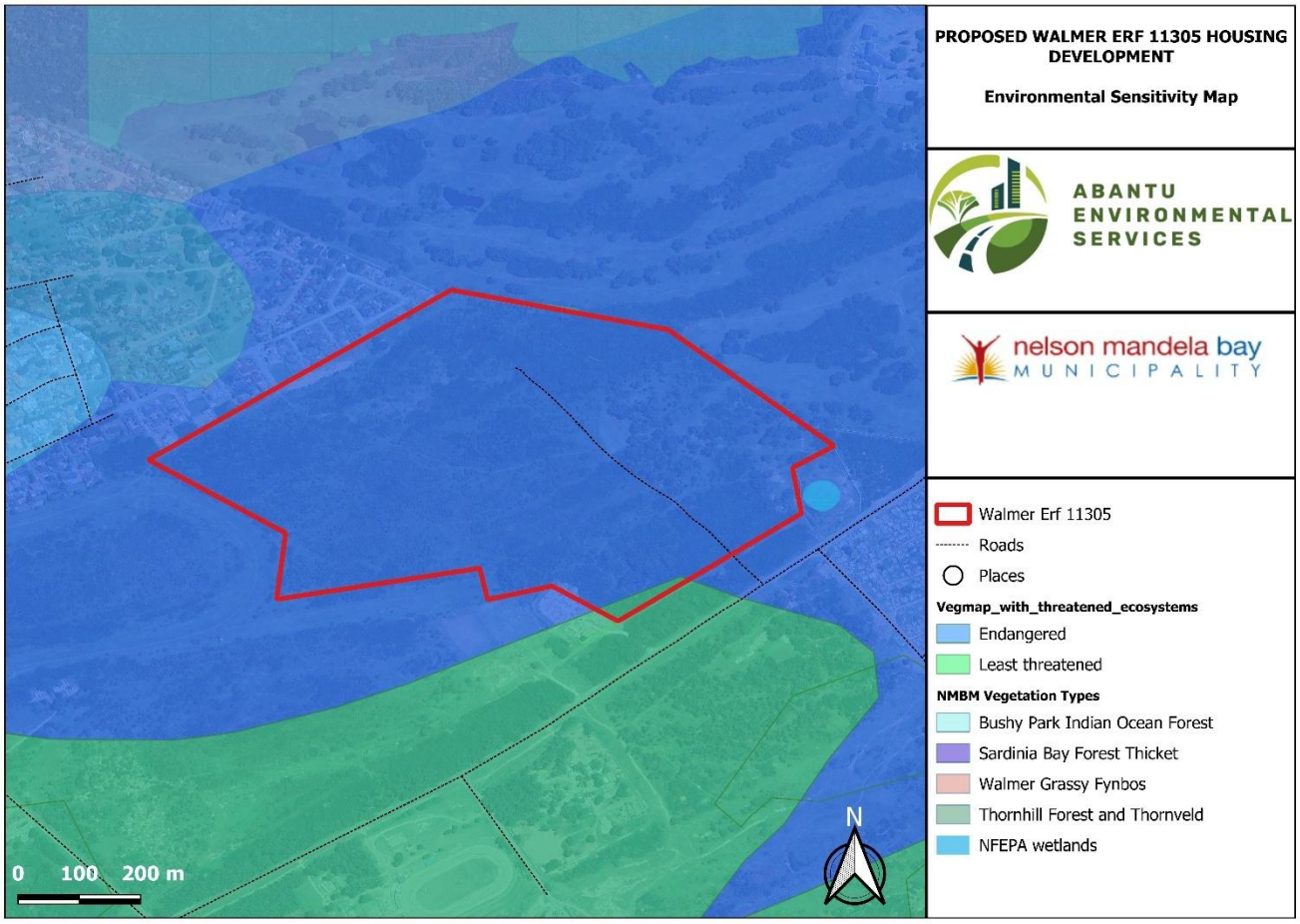


Figure 18: Final composite map

9. UNDERTAKING

The EAP herewith confirms:

(a) The correctness of the information provided in the reports;

(b) The inclusion of comments and inputs from stakeholders and I&AP's;

(c) The inclusion of inputs and recommendations from the specialist reports where relevant; and

(d) That the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein.

Signature of the environmental assessment practitioner:

ABANTU ENVIRONMENTAL SERVICES (PTY) LTD

Name of company:

Date: 18/02/2026

10. REFERENCES

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11. APPENDICES

APPENDIX A: ENVIRONMENTAL SCREENING AND SITE SENSITIVITY VERIFICATION REPORT

APPENDIX B: CV AND DECLARATION OF INDEPENDENCE BY THE EAP

APPENDIX C: SCREENING TOOL REPORT

APPENDIX D: LIST OF REGISTERED INTERESTED AND AFFECTED PARTIES (I&APS)

APPENDIX E: OTHER REPORTS