DEDEAT Reference: ECm1/C/LN1/M/03-2024

Draft Basic Assessment Report

Proposed New Housing Development along Heatherbank Road in Theescombe, Port Elizabeth, Eastern Cape

Prepared for:

Mr Christopher Lovemore
Christopher Lovemore Family Trust

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ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) DETAILS

Details of the EAP:

Mr Roy De Kock, BlueLeaf Environmental (Pty) Ltd
Physical address: 38 Tulip Avenue, Sunridge Park, Port Elizabeth, 6054
Contact Person: Mr Roy De Kock, +27 76 281 9660, roy@blueleafenviro.co.za

Expertise of the EAP:

Roy has over 17 years' experience in environmental consulting and specialist services in South Africa. Various projects throughout Africa have also been undertaken. Projects include baseline studies, impact assessments and compliance auditing for various large-scale projects including numerous wind farms, roads (National and Provincial), and infrastructure development projects. Blue Leaf also offers a wide range of in-house specialities including but not limited to Ecological and Botanical assessments, Biodiversity studies, Plant and Animal Search and Rescue, Fauna and Flora permits, Aquatic Assessments, Agricultural and Soil Assessments and Environmental and Venomous animals training workshops.

Roy holds a BSc Honours in Geology and an MSc in Botany from the Nelson Mandela University in Port Elizabeth. He is currently busy with his PhD (Doctorate degree) in Botany and Soil Science. He has over 17 years' experience in the environmental consulting focussing on Ecological and Agricultural Assessments, Geological and Geotechnical analysis, Environmental Management Plans, mining applications and various environmental impact studies.

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ECONOMIC DEVELOPMENT,
ENVIRONMENTAL AFFAIRS & TOURISM

BASIC ASSESSMENT REPORT

(For official use only)

File Reference Number:	
NEAS Number:	
Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014 as amended, promulgated in terms of the National Environmental Management Act, 1998(Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 as amended and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for. This report is current as of 1 OCTOBER 2022. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority **unless indicated otherwise by the Department**.
7. No faxed or e-mailed reports will be accepted **unless indicated otherwise by the Department**.
8. The report must be compiled by an independent environmental assessment practitioner (EAP). The EAP must satisfy conditions 11 below.

9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

11.1 The Environmental Assessment Practitioner (EAP) must be registered in terms of S24H Regulations with the Registration Authority EAPASA as from 8 August 2022.

11.2. S24H (14) states that "only a person registered as an Environmental Assessment practitioner may perform tasks in connection with an application for an environmental authorisation contemplated in

(a)Chapter 5 of the Act read with the Environmental impact Assessment Regulations.

(b)Section 24G of the Act

(c) Chapter 5 of the National Environmental Management Waste Act 2008 (Act No 59 of 2008) read with the Environmental Impact Assessment Regulations

11.3. Tasks in regulation 14 may only be conducted by an EAP that is registered

11.4. Regulations 20 of S24H indicates the offences and penalties as indicated below:

"*20. Offences and penalties*

(1) A person is guilty of an offence if that person-

(a) contravenes regulation 14 of the Regulations; or

(b) pretends to be a registered environmental assessment practitioner or registered candidate environmental assessment practitioner.

(2) A person convicted of an offence in terms of subregulation (1) is liable to the penalties contemplated in section 49B(3) of the Act.". Section 49B(3) of the Act states:

"A person convicted of an offence in terms of section 49A(1)(h), (l), (m), (n), (o) or (p) is liable to a fine or to imprisonment for a period not exceeding one year, or to both a fine and such imprisonment.".

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	YES	

If YES, please complete form XX for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail

INTRODUCTION

BlueLeaf Environmental (Pty) Ltd (Blue Leaf) has been appointed by the Christopher Lovemore Family Trust to undertake a Basic Environmental Assessment as regulated by the National Environmental Management Act (No. 107 of 1998) (NEMA as amended) for a proposed new housing development and associated infrastructure. The proposed new housing development consists of 29 units with plot sizes ranging between 300-700 square metre (sqm) in size on 2.1 hectares (ha) of land located along Heatherbank Road on Erf 4087 within Theescombe, Port Elizabeth (Figure 1.1). The site is currently being utilized as part of an equestrian ranch with vegetation being mostly grassveld.

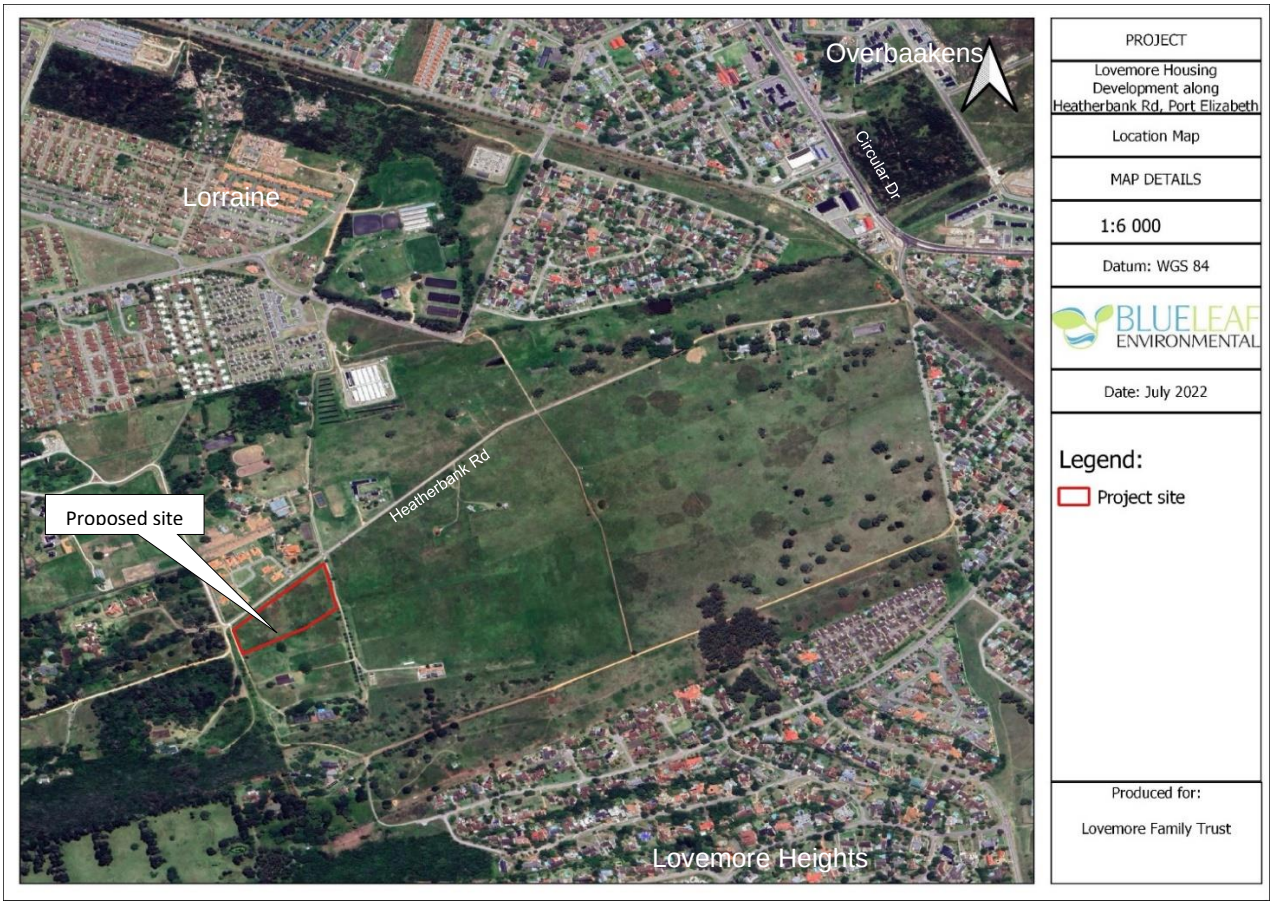


Figure 1. Locality Map of the Proposed Development in Port Elizabeth.

PROJECT OVERVIEW

The proposed development will include the transformation of the entire 1.72 hectares (ha) of Erf 4087 for residential housing. The site is currently covered by natural vegetation (short grass) and is currently used as an equestrian ranch (Figure 2). Within the 1.72 ha, the site will be cleared for the development of 29 housing units that will cover a footprint of 1.29 ha, with an additional 0.13 ha used as open space (Figure 3). The remaining 0.3 ha will be used for the development of a road with the entire area being fenced off. Houses will not be constructed by the developer, but the plots will be demarcated and sold as separate plots. The purchaser will construct their own dwelling within a given set of parameters. The gate, main fence and road will however be constructed by the Developer.

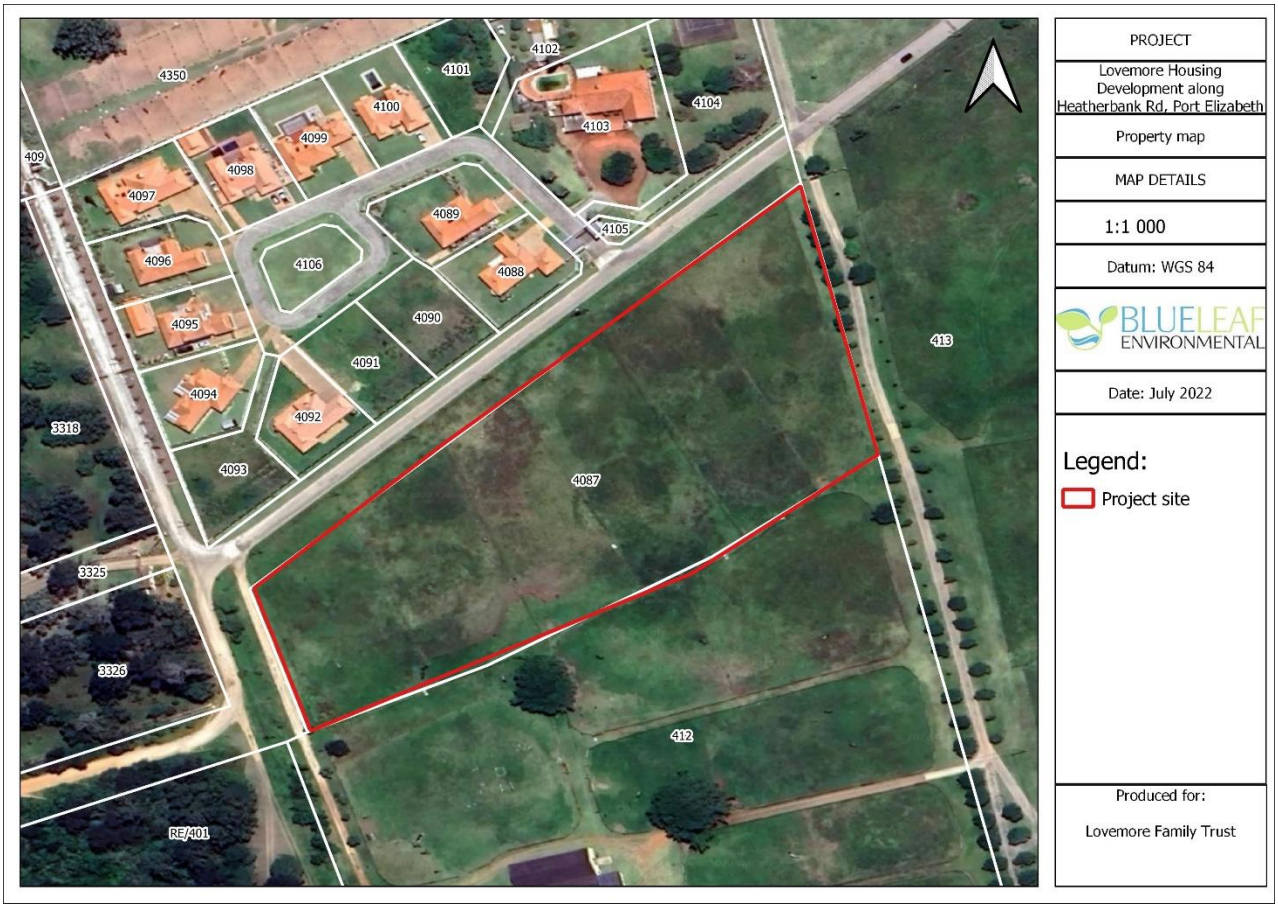


Figure 2. Map showing the erf and surrounding plots.

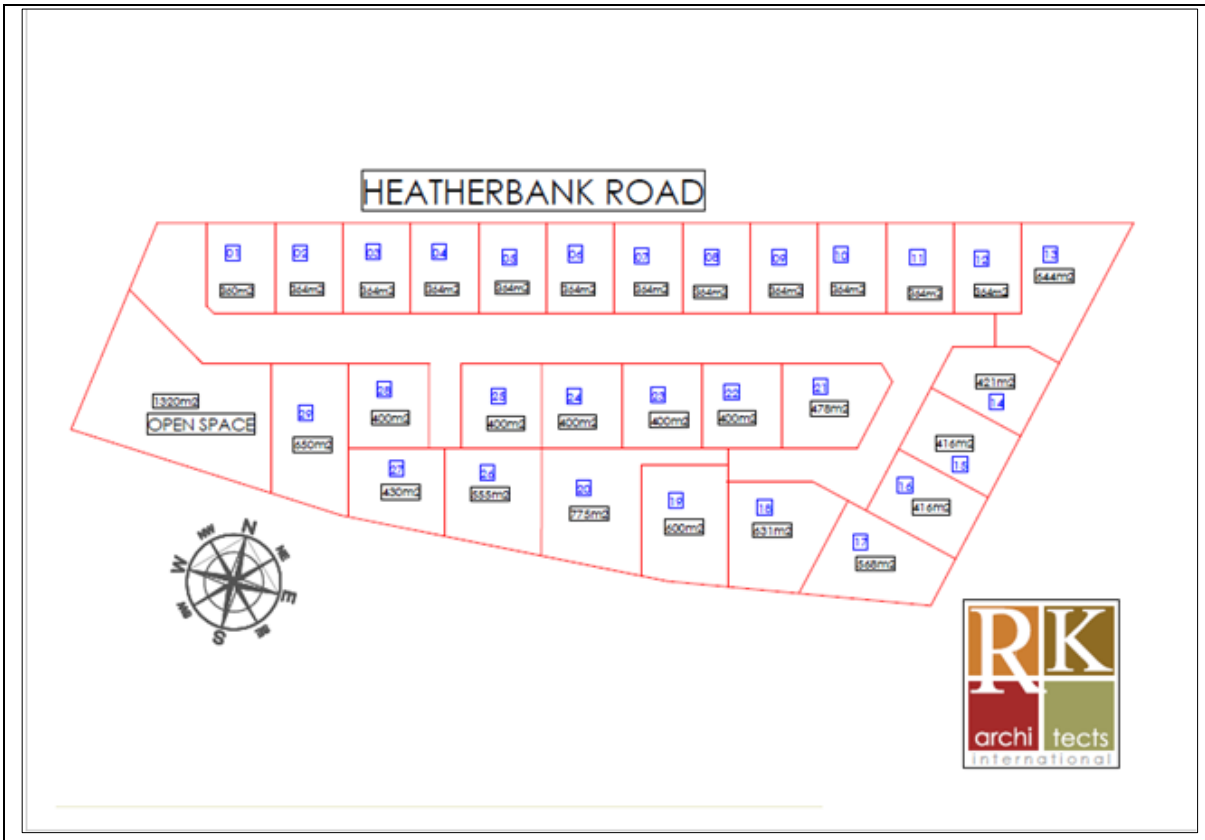


Figure 3: Proposed layout of the proposed new housing development on Erf 4087

PROJECT PHASES

The project phases can be categorized into the Planning and Design Phase (Pre-Construction), Construction Phase and Operational Activities.

Planning and Design (Pre-Construction) Phase

The Planning and Design Phase will consist of planning for the proposed development and will include, amongst others, the following activities:

- Purchasing of construction materials;
- Obtaining relevant municipal approvals and service connections; and
- Demarcation of development area.

Construction Phase

Site preparation and construction entails the following:

- Site camp establishment, which includes the placement of a standard shipping container for material storage;
- Clearance of approximately 1.72 hectares of vegetation with a bulldozer;
- Site works including water, sewer, electrical connections and access roads;
- Construction of twenty-nine (29) residential units will NOT be done. Plots will be sold and purchaser will construct their own dwelling as per the project EMPr and complex rules.

Construction materials utilized will be those typically associated with road and infrastructure construction and will include amongst others, concrete, brink, timber, bitumen and tile. There will be one main entrance road within the complex with an estimated width of 3.5m.

Operational Phase

At the completion of construction phase, the empty plots will be sold individually. The complex will be managed by a property agent or body corporate.

INFRASTRUCTURE AND SERVICES

The following infrastructure and essential services will be provided for:

Water Supply

It is envisaged that approximately 500 litres of water will be required on a daily basis (15 kilolitres per month) during the construction phase of the development. During the operational phase it is estimated that 29 occupied units would require up to a maximum of 6 kilolitres of water on a daily basis (180 kilolitres per month). The proposed water supply will be provided via existing municipal connections. Additional water during the operational phase may be stored by the unit owners in rainwater harvesting tanks (e.g., Jojo tanks) that will intercept rainwater from the buildings.

Solid waste

The construction and operational phase of the proposed activity will result in the generation of general and hazardous waste. The construction phase will generate general solid waste (rubble, cement bags, general domestic waste etc.) which will be disposed by the appointed contractor at a registered landfill site (e.g., Arlington landfill). Construction phase activities will generate hazardous waste such as empty chemical containers and oil rags. These will be disposed of by the contractor at the nearest permitted landfill site. The operational phase will generate general domestic waste from each of the residential units. The waste will then be disposed of via the municipal collection services on a weekly or bi-weekly basis.

Effluent waste

During the construction phase, liquid effluent will be handled via the implementation of portable/temporary toilets for construction staff. The facilities will be serviced by an external service provider to remove the waste to a sewage treatment facility. The operational phase of the proposed development will generate effluent comprised of wash water, cleaning and sewage. All effluent produced on a daily basis will be channeled into the municipal sewer system.

Energy sources

Electricity will be sourced from the national grid via the existing electricity infrastructure available in the area. Residents will be permitted to consider renewable energy sources like solar PV and gas.

Stormwater Infrastructure

Adequate stormwater infrastructure should be implemented to ensure that the erosion risk is not increased to detrimental levels within the study area.

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means 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
(f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Locality/Site Alternative:

The location for the activity has been selected primarily because the property is owned by the applicant (Christopher Lovemore Family Trust) and is zoned for residential development. This location has no fatal flaws and will allow the applicant to utilize the property for residential purposes as per the municipal zoning. It will also be in keeping with the surrounding areas which also consist of a number of residential developments including townhouse complexes. For these reasons, location alternatives have not been considered in the Basic Assessment and the preferred alternative is the only location alternative assessed.

Activity Alternative:

In order to achieve the purpose of developing a housing complex on the applicant's property, the clearance of potentially indigenous vegetation, will be necessary. These activities will allow the applicant to gain income from the sale of plots and will provide residential homes to a number of people to move to the area.

An alternative that was considered during planning was the complete development of the site including residential dwellings. This alternative was not considered further in this Basic Assessment for the following reasons:

Developer construct houses and sell complete units	Developer sells plots and landowners construct their own houses
Construction phase will be shorter and unfragmented.	Construction phase will be fragmented and depend on sales of plots over time.

Construction impacts will occur over a short timeframe which will increase the overall risks	Construction impacts will be fragmented and extended over a large time fraim (depending on plot sales). This will reduce the overall construction risk.
Traffic will significantly increase over construction phase, resulting in large trucks and other plant damaging Heatherbank Road within a short timeframe.	Construction traffic will not increase significantly but will rather be diluted over a longer timeframe.
Construction risk will be carried by the Developer	Construction risk will be divided between all the landowners but quality will still be managed through implementing a general EMPr and Estate construction rules and guidelines for all development.

There are no other reasonable or feasible activity alternatives associated with this project.

Technology Alternative:

As the activity is related to the construction of a housing complex and its associated infrastructure, the most appropriate construction methods will be used based on what is available in terms of equipment and materials. During the construction and operational phases, water will be obtained from an existing municipal supply and electricity from the existing Eskom connections. Sewage will also be reticulated into the municipal sewer system, while stormwater will be diverted into the surrounding environment. No particular technology will be applicable to the operational phase other than general gardening and maintenance tools required for the upkeep of the complex and open spaces. Where possible, standard practices regarding energy efficiency during the operational phase will be followed e.g., the use of energy-saving light bulbs and solar pumps. Rainwater collection tanks may also be installed by homeowners to supplement water for gardens and swimming pools. For these reasons, no additional technology alternatives have been assessed in this Basic Assessment.

Design or Layout Alternative:

No layout alternatives have been considered due to the site area being small and the only site available for development to take place. A layout alternative in this case, was therefore not deemed necessary.

Operational Alternative:

The operational phase of the project will consist of activities related to operating and managing of the Housing project, which has the primary role of providing a safe, secure and well-maintained gated community for people to reside. This will be the only operational alternative relevant to the project and, therefore, this basic assessment has not considered any other operational alternatives.

Preferred Alternative:

There are no preferred alternatives.

No-Go Alternative:

This alternative assumes that the status quo will remain unchanged, and the proposed development site will remain as natural vegetation. While this alternative will mitigate the construction-related impacts associated with the proposed development, the employment opportunities, housing provision, as well as the economic benefit and contribution to the local economy, would be lost under the "No-Go" alternative. The employment opportunities associated with the construction phase, as well as the operational phase of the proposed development will also be lost if the "No-Go" alternative is applied.

Paragraphs 3 – 13 below should be completed for each alternative.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.
List alternative sites if applicable.

Alternative:	**Latitude (S):**		**Longitude (E):**	
Alternative S1[1] (preferred or only site alternative)	33°	59.175‘	25°	31.238‘
~~Alternative S2 (if any)~~				
~~Alternative S3 (if any)~~				

~~In the case of linear activities:~~

~~Alternative:~~	**~~Latitude (S):~~**		**~~Longitude (E):~~**	
~~Alternative S1 (preferred or only route alternative)~~				
~~• Starting point of the activity~~	~~o~~	~~‘~~	~~o~~	~~‘~~
~~• Middle point of the activity~~	~~o~~	~~‘~~	~~o~~	~~‘~~
~~• End point of the activity~~	~~o~~	~~‘~~	~~o~~	~~‘~~
~~Alternative S2 (if any)~~				
~~• Starting point of the activity~~	~~o~~	~~‘~~	~~o~~	~~‘~~
~~• Middle point of the activity~~	~~o~~	~~‘~~	~~o~~	~~‘~~
~~• End point of the activity~~	~~o~~	~~‘~~	~~o~~	~~‘~~
~~Alternative S3 (if any)~~				
~~• Starting point of the activity~~	~~o~~	~~‘~~	~~o~~	~~‘~~
~~• Middle point of the activity~~	~~o~~	~~‘~~	~~o~~	~~‘~~
~~• End point of the activity~~	~~o~~	~~‘~~	~~o~~	~~‘~~

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Alternative A1[2] (preferred activity alternative)	17 200 m^2
~~Alternative A2 (if any)~~	~~m^2~~

[1] “Alternative S..” refer to site alternatives.
[2] “Alternative A..” refer to activity, process, technology or other alternatives.

~~Alternative A3 (if any)~~	~~m²~~

~~or, for linear activities:~~

~~**Alternative:**~~	~~**Length of the activity:**~~
~~Alternative A1 (preferred activity alternative)~~	~~m~~
~~Alternative A2 (if any)~~	~~m~~
~~Alternative A3 (if any)~~	~~m~~

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**
Alternative A1 (preferred activity alternative)	17 200 m²
~~Alternative A2 (if any)~~	~~m²~~
~~Alternative A3 (if any)~~	~~m²~~

5. SITE ACCESS

Does ready access to the site exist?	YES
If NO, what is the distance over which a new access road will be built	m

Describe the type of access road planned:

There is an existing road (Heatherbank Road,) that provides direct access to the site. Each house within the development will be linked to a single access gate via new internal surfaced roads.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

6. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

6.1 the scale of the plan which must be at least a scale of 1:500;

6.2 the property boundaries and numbers of all the properties within 50 metres of the site;

6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;

6.4 the exact position of each element of the application as well as any other structures on the site;

6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;

6.6 all trees and shrubs taller than 1.8 metres;

6.7 walls and fencing including details of the height and construction material;

6.8 servitudes indicating the purpose of the servitude;

6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):

- rivers;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or invested with alien species);

6.9 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and

6.10 the positions from where photographs of the site were taken.

7. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form**.** It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R60m
What is the expected yearly income that will be generated by or as a result of the activity?	R3m
Will the activity contribute to service infrastructure?	YES ■
Is the activity a public amenity?	■ NO
How many new employment opportunities will be created in the development phase of the activity?	50
What is the expected value of the employment opportunities during the development phase?	R4m
What percentage of this will accrue to previously disadvantaged individuals?	80%
How many permanent new employment opportunities will be created during the operational phase of the activity?	30

What is the expected current value of the employment opportunities during the first 10 years?	R30m
What percentage of this will accrue to previously disadvantaged individuals?	95%

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

The need for the proposed development is largely based on the demand for affordable, safe and secure housing in the Nelson Mandela Bay Municipality. The demand for housing is continually growing and the specific need for middle-class housing in Port Elizabeth is rapidly increasing because of economic shifts in the area. A housing complex creates a safer environment for residents as it will consist of a wall surrounding the complex, electric fencing, security patrol and individuals residing within the complex could form part of a neighbourhood watch.

The property is currently zoned for residential development and thus, by establishing housing on the property, the municipal land will be realized.

Indicate any benefits that the activity will have for society in general:

In addition to the provision of middle-class housing, this project would assist in the economic development of the Nelson Mandela Bay Municipality by stimulating investment in fixed infrastructure, creating additional business for local shops and services in the area as well as provide the municipality with additional revenue in the form of rates and taxes.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

The proposed development will result in temporary employment opportunities during the construction phase with minimal employment in the operational phase. New residents could also be of benefit to local shops, vendors, services, schools and other businesses within the area.

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
National Environmental Management Act (Act No. 107 of 1998)	Department of Forestry, Fisheries and the Environment (DFFE) and the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism	1998
National Environmental Management Act (Act No. 107 of 1998), Environmental Impact Assessment Regulations		2017
National Environmental Management: Waste Act (Act No. 59 of 2008)		2008
National Environmental Management: Biodiversity Act (Act No. 10 of 2004)		2004
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) Alien and Invasive Species Regulations		2014
National Environmental Management: Air Quality Act (Act No. 39 of 2004)		2004

Environmental Conservation Act (Act No. 73 of 1989)		1989
National Heritage Resources Act (Act No. 25 of 1999)	South African Heritage Resources Agency (SAHRA) and the Eastern Cape Provincial Heritage Resource Authority (ECPHRA)	1999
Hazardous Substances Act (Act No. 15 of 1973)	Department of Health (DoH)	1973
Occupational Health and Safety Act (Act No. 85 of 1993)	Department of Labour (DoL)	1993
National Road Traffic Act (Act No. 93 of 1996)	Department of Transport (DoT)	1996
National Forests Act (Act No. 84 of 1998)	Department of Agriculture, Forestry and Fisheries (DAFF)	1998
National Veld and Forest Fires Act (Act No. 101 of 1998)		1998
Conservation of Agricultural Resources Act (Act No. 43 of 1983)		1983
Nature Conservation Ordinance (19 of 1974)	Eastern Cape Department of Economic Development, Environmental Affairs and Tourism).	1974
Municipal By-Laws	Nelson Mandela Bay Municipality	Various
The South African Vegetation Map (Mucina and Rutherford)	South African National Biodiversity Institute (SANBI)	2006
The Eastern Cape Biodiversity Conservation Plan (ECBCP)	South African National Biodiversity Institute (SANBI)	2019
Nelson Mandela Bay Conservation Assessment and Plan	Eastern Cape Department of Economic Development, Environmental Affairs and Tourism).	2009

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES
If yes, what estimated quantity will be produced per month?	0.1 m^3
How will the construction solid waste be disposed of (describe)?	

The construction phase will generate general very little solid waste (rubble, steel, wood, tiling and other general domestic waste). The building rubble from construction of the orad, fences and access gate will be disposed of by the contractor at a registered waste disposal site. Where possible, the construction material will be re-used or recycled, but if and when it is determined that the waste cannot be used, it will be transported to the nearest registered waste disposal site.

Where will the construction solid waste be disposed of (describe)?

The construction phase general solid waste that cannot be reused or recycled will be disposed by the appointed Contractor at a general landfill site (e.g. Arlington Landfill).

Will the activity produce solid waste during its operational phase?	YES [■]
If yes, what estimated quantity will be produced per month?	2 m^3

How will the solid waste be disposed of (describe)?

The operational phase will generate general domestic waste from each of the residential units. The waste will then be disposed of via the municipal collection services on a weekly basis.

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

Not applicable. All solid waste from the operational phase will feed into the municipal waste stream.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	[■] NO

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?	[■] NO

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	[■] NO
If yes, what estimated quantity will be produced per month?	0 m^3
Will the activity produce any effluent that will be treated and/or disposed of on site?	[■] NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES [■]

If yes, provide the particulars of the facility:

Facility name:	Nelson Mandela Bay Municipality System		
Contact person:	MS. Nozuko Ralarala		
Postal address:	PO Box 116, Port Elizabeth		
Postal code:	6000		
Telephone:	041 506 1911	Cell:	
E-mail:	nralarala@mandelametro.gov.za	Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Owners of each household may choose to reticulate wash water (e.g. from washing cars, laundry etc.) to be used for irrigation of gardens and landscapes areas surrounding the houses.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	YES	
If yes, is it controlled by any legislation of any sphere of government?		NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

It is most likely that dust will be generated during the construction phase especially during strong winds. In addition, vehicle exhaust emissions from construction vehicles may occur. However, both of these construction-related emissions will be short-lived and can be adequately controlled using simple management measures.

11(d) Generation of noise

Will the activity generate noise?	YES	
If yes, is it controlled by any legislation of any sphere of government?		NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

The construction phase of the proposed development will result in elevated noise levels related to the use of machinery, vehicles and contractors on site. Since the surrounding area is predominantly residential houses, there may be some sensitive receptors to elevated noise levels. Provided that construction activities occur within normal working hours, disturbance by elevated noise levels is likely to be minimal. During the operational phase, minimal noise will be generated by private residents and vehicles and noise rating levels for residential areas will be applicable to this project. The noise levels should not exceed 45 decibels (dB) during the day time hours and 35 dB at night time.

12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

municipal	~~water board~~	~~groundwater~~	~~river, stream, dam or lake~~	~~other~~	~~the activity will not use water~~

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:	50 000 litres	
Does the activity require a water use permit from the Department of Water Affairs?		NO

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Where possible, energy saving technology (e.g., recycling of waste, re-use of materials etc.) will be implemented. In addition to this, insulation will be used in the roofing and light emitting-diode (LED) light bulbs will be used for the complex and building lighting. External lighting and any lighting that will be required along the walkways and parking bays will be energy efficient (e.g., solar and/or motion activated).

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Electricity use will also be supplemented with solar systems predominantly utilized for water heating services.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g. A):	

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section?

	NO

~~If YES, please complete form XX for each specialist thus appointed:~~

All specialist reports must be contained in Appendix D.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	~~1:50 – 1:20~~	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~1:7,5 – 1:5~~	~~Steeper than 1:5~~

~~**Alternative S2 (if any):**~~

~~Flat~~	~~1:50 – 1:20~~	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~1:7,5 – 1:5~~	~~Steeper than 1:5~~

~~**Alternative S3 (if any):**~~

~~Flat~~	~~1:50 – 1:20~~	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~1:7,5 – 1:5~~	~~Steeper than 1:5~~

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

~~2.1 Ridgeline~~
~~2.2 Plateau~~
~~2.3 Side slope of hill/mountain~~
~~2.4 Closed valley~~
~~2.5 Open valley~~

2.6 Plain
~~2.7 Undulating plain / low hills~~
~~2.8 Dune~~
~~2.9 Seafront~~

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:		**~~Alternative S2 (if any):~~**		**~~Alternative S3 (if any):~~**	
Shallow water table (less than 1.5m deep)	[redacted]	NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dolomite, sinkhole or doline areas		NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Seasonally wet soils (often close to water bodies)		NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Unstable rocky slopes or steep slopes with loose soil		NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dispersive soils (soils that dissolve in water)		NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Soils with high clay content (clay fraction more than 40%)		NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Any other unstable soil or geological feature		NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
An area sensitive to erosion		NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

4.1 Natural veld – good condition [E]
4.2 Natural veld – scattered aliens [E]
4.3 Natural veld with heavy alien infestation [E]
4.4 Veld dominated by alien species [E]
4.5 Gardens
4.6 Sport field
4.7 Cultivated land
4.8 Paved surface
4.9 Building or other structure
4.10 Bare soil

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld – good condition[E]	Natural veld with scattered aliens[E]	Natural veld with heavy alien infestation[E]	Veld dominated by alien species[E]	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area
5.2 Low density residential
5.3 Medium density residential
5.4 High density residential
5.5 Informal residential
5.6 Retail commercial & warehousing
5.7 Light industrial
5.8 Medium industrial [AN]
5.9 Heavy industrial [AN]
5.10 Power station
5.11 Office/consulting room
5.12 Military or police base/station/compound
5.13 Spoil heap or slimes dam[A]
5.14 Quarry, sand or borrow pit
5.15 Dam or reservoir
5.16 Hospital/medical centre
5.17 School
5.18 Tertiary education facility
5.19 Church

~~5.20 Old age home~~
~~5.21 Sewage treatment plant[A]~~
~~5.22 Train station or shunting yard [N]~~
~~5.23 Railway line [N]~~
~~5.24 Major road (4 lanes or more) [N]~~
~~5.25 Airport [N]~~
~~5.26 Harbour~~
~~5.27 Sport facilities~~
~~5.28 Golf course~~
~~5.29 Polo fields~~
~~5.30 Filling station [H]~~
~~5.31 Landfill or waste treatment site~~
~~5.32 Plantation~~
~~5.33 Agriculture~~
~~5.34 River, stream or wetland~~
~~5.35 Nature conservation area~~
~~5.36 Mountain, koppie or ridge~~
~~5.37 Museum~~
~~5.38 Historical building~~
~~5.39 Protected Area~~
~~5.40 Graveyard~~
~~5.41 Archaeological site~~
~~5.42 Other land uses (describe)~~

If any of the boxes marked with an "[N] "are ticked, how will this impact / be impacted upon by the proposed activity.
N/A

If any of the boxes marked with an "[An]" are ticked, how will this impact / be impacted upon by the proposed activity.
~~If YES, specify and explain:~~

~~If YES, specify:~~

If any of the boxes marked with an "[H]" are ticked, how will this impact / be impacted upon by the proposed activity.
~~If YES, specify and explain:~~

~~If YES, specify:~~

6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including		NO
Archaeological or palaeontological sites, on or close (within 20m) to the site?		Uncertain
~~If YES, explain:~~		
If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.		
Briefly explain the findings of the specialist:	No archaeological sites/materials were observed during the investigation of the proposed study area. Although it is unlikely that archaeological remains will be found in situ, there is always a possibility that human remains and/or other archaeological and historical material may be uncovered during the development. The main impact on possible archaeological sites/remains will be the physical disturbance of the material and its context. Should such material be exposed then work must cease in the immediate area and it must be reported to the archaeologist at the Albany Museum in Makhanda (Grahamstown) (Tel: 046 622 2312) or to the Eastern Cape Provincial Heritage Resources Authority (Tel.: 043 745 0888), so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to remove/collect such material (See Appendix B of the Specialist report for a list of possible archaeological sites that maybe found in the area). The applicant must finance the costs should additional investigations be required.	
Will any building or structure older than 60 years be affected in any way?		NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?		NO

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

(a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
  (i) the site where the activity to which the application relates is or is to be undertaken; and

(ii) any alternative site mentioned in the application;

(b) giving written notice to—

(i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;

(ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;

(iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;

(iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;

(v) the municipality which has jurisdiction in the area;

(vi) any organ of state having jurisdiction in respect of any aspect of the activity; and

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

(c) placing an advertisement in—

(i) one local newspaper; or

(ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;

(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and

(e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—

(i) illiteracy;

(ii) disability; or

(iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

(a) indicate the details of the application which is subjected to public participation; and

(b) state—

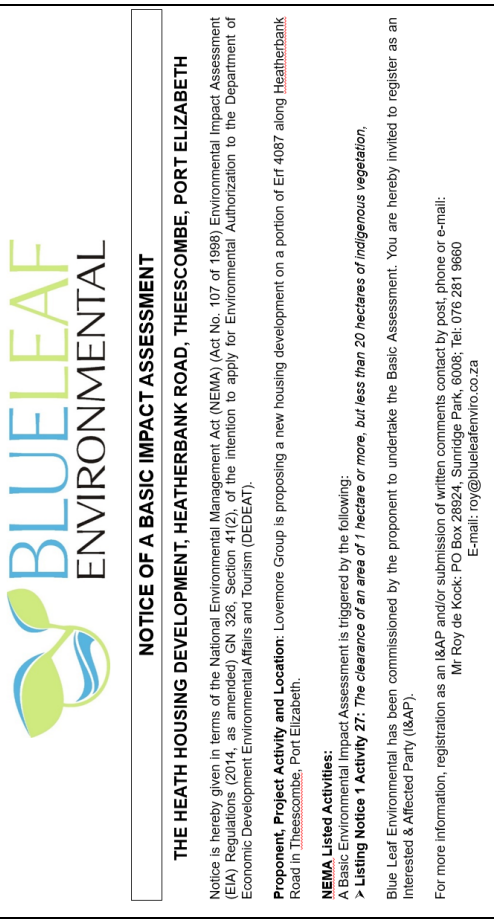
(i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;

(ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;

(iii) the nature and location of the activity to which the application relates;

(iv) where further information on the application or activity can be obtained; and

(iv) the manner in which and the person to whom representations in respect of the application may be made.



Landowner notifications: The Applicant is the landowner.

Surrounding landowners were notified of the BAR and public review as per the proof below.

Stakeholders and registered I&APs were notified of the BAR and public review as per the proof below.

Proof of Stakeholder and Landowner Notifications

To be included into the Final BAR.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

A newspaper advertisement will be placed in The Herald, a local and provincial publication that is distributed throughout the Nelson Mandela Metropolitan Municipality and wider Eastern Cape area. The advertisement will be used to notify the general public of the proposed project and the availability of the draft BAR for public review. Proof of placement of the newspaper advertisement will be included in the final BAR.
Copy of Newspaper Advert:

BLUELEAF ENVIRONMENTAL

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT AND INVITATION TO REGISTER AS AN I&AP

Notice is hereby given in terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1998) EIA Regulations (2014, as amended) GN326, Section 41(2), of the intention to apply for Environmental Authorization to DEDEAT.

Proponent, Project Activities and Location: Lovemore Group is proposing a new housing development on a portion of Erf 4087 along Heatherbank Road in Theescombe, Port Elizabeth.

NEMA Listed Activities:
A Full Scoping and Environmental Impact Assessment is triggered by the following:

- ***Listing Notice 1 Activity 27:*** *The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation,*

BlueLeaf Environmental has been commissioned by the proponent to undertake the Basic Assessment. Youare hereby invited to register as an Interested & Affected Party (I&AP).

For more information, registration as an I&AP and/or submission of written comments contact by post, phone or e-mail:
Mr Roy de Kock: PO Box 28924, Sunridge Park, 6008; Tel: 076 281 9660;
E-mail:roy@blueleafenviro.co.za

Proof of Newspaper Adver placed:

To be included in the Final BAR

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least 30 (thirty) calendar days before the submission of the application.

List of authorities informed:

#	Name (Dept / Company)	Contact personnel	Email	Cellphone	Company/Work number
1	Department of Agriculture, Forestry and Fisheries (DAFF)	Babalwa Layini	babalwal@daff.gov.za	083 654 1177	041 407 4050
2	Eastern Cape Provincial Heritage Resources Authority (ECPHRA)	Sello Mokhanya	smokhanya@ecphra.org.za		043 745 0888
3	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)	Andries Struwig	andries.struwig@dedea.gov.za		041 508 5808
4	DEDEAT Waste & Air Quality	Chris Julius	chris.julius@dedea.gov.za		041 508 5805
5	Department of Water and Sanitation (DWS)	Marisa Bloem	bloemM@dws.gov.za		041 501 0717
6	Nelson Mandela Bay Mayor	Eugene Johnson	pamayor@mandelametro.gov.za		041 506 3267
7	Nelson Mandela Bay Municipal Manager	Mthulisi Msimanga	mm@mandelametro.gov.za		041 506 3209
8	Nelson Mandela Bay Environmental Health	Jill Miller	jmiller@mandelametro.gov.za		041 506 5047
9	Ward 1 Councillor	André van der Westhuizen	driesvdw@absamail.co.za	081 3900 329	041 5831732 / 9
10	Eastern Cape Department of Roads and Public Works (DRPW)	Peter Lotter	peter.lotter@dpw.ecape.gov.za		041 403 6029
11	Eastern Cape Parks and Tourism Agency (ECPTA)	Brian Reeves	brian.reeves@ecpta.co.za	082 313 7487	041 364 2570
12	Wildlife and Environment Society of South Africa (WESSA)	Eckart Schumann	eckarts@mweb.co.za	083 299 2092	041 586 0632
13	BirdLife South Africa (Eastern Cape)	Leslie Blandy	les.blandy@gmail.com	082 388 8877	
14	NMBM Ratepayers Association	Kobus Gerber	nmbratepayersoffice@gmail.com		041 819 0084
15	Algoa Bay German Shepard Club	Brett Cunningham	algoabaygsd@gmail.com	082 795 3929	
16	Wildline	Arnold Slabbert	wildline@yebo.co.za	082 332 3660	

List of authorities from whom comments have been received:

None to date. This will be updated in the final BAR.

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the competent authority.

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application at least 30 (thirty) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?	NO

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014 as amended, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List of registered I&Aps:

#	Name (Dept / Company)	Contact personnel	Email	Cellphone	Company/Work number
1	Capeco	John Baeyens	[redacted]		
2	Hollard	Charl Swart			
3	Featherton Estate	Sam Marriner			
4	Heatherbank Manor	Odette Wright			
5		Neil Emslie			

List the main issues raised by interested and affected parties.

Issue 1:

Telephonic issue was raised by Mr John Bayerns on how the developer will address heavy traffic, high traffic numbers, and road surface damage along Heatherbank Road during construction phase.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report):

Response 1:

The developer indicated that will not construct the houses himself but will be selling empty plots to the public instead. Each buyer will construct their own building according to the required building regulation. This will result in minimal movement at any time of heavy construction vehicles as not all plots will be constructed at the same time.

2.IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

Alternative (preferred alternative)

Direct impacts:

- Compliance with relevant environmental legislation and policy
- Stormwater runoff
- Waste management
- Visual aesthetics
- Increased traffic
- Stormwater management
- General waste management
- Visual aesthetics of the area
- Dust control
- Noise
- Construction traffic and Road Impacts
- Disturbance to
- Soil Erosion
- General Waste
- Pollution
- Impacts on Health, Safety and Fire Risk
- Stockpiling
- Loss of vegetation
- Loss of non-identified plant SCC
- Spread of AIS

Indirect impacts:

- Waste management
- Faunal species

Cumulative impacts:

- Compliance with relevant environmental legislation and policy
- Stormwater runoff
- Increased traffic
- Spread of AIS

Table 1: Issues identified and assessed for the Proposed Housing Development along Heatherbank Road in Theescombe, Port Elizabeth.

Applicability to Phase			
Theme	**Planning and Design**	**Construction**	**Operation**
Legislation and Policy	Yes Failure to comply with relevant legislation and policies.	Yes Failure of the contractor to implement mitigation measures in EA and EMPr	N/A
Stormwater	Yes Inappropriate stormwater design	Yes Failure to implement effective stormwater control measures	Yes Monitoring and Maintenance of stormwater management measures.
General waste	Yes Failure to plan for the storage and disposal of general waste	Yes Littering on site Construction phase of the activity will produce construction waste	Yes Inappropriate waste storage and disposal.
Visual aesthetics	Yes Inappropriate architectural design	Yes Visual disturbance	N/A
Increased traffic	Yes		

	Inadequate planning for the increased traffic		
Dust	N/A	Yes Dust generated from construction activities	N/A
Noise	N/A	Yes Noise disturbance during construction	N/A
Traffic	N/A	Yes Increase in traffic volumes to construction site (e.g., heavy construction vehicles	N/A
Fauna	N/A	Yes Fauna may be impacted by construction activities.	N/A
Vegetation	N/A	Yes Permanent loss of natural vegetation	N/A
	N/A	Yes Loss of non-identified plant SCC	N/A
	N/A	Yes Spread of AIS	N/A
Soil stockpiling	N/A	Yes Exposed soils are easily susceptible to erosion Stockpiling: Incorrect storage of topsoil	N/A
Health and Safety	N/A	Yes Use of construction machinery during the construction phase potential risk to the health and safety of construction workers	N/A

PLANNING AND DESIGN PHASE IMPACTS

Activities associated with the design and pre-construction phase pertains mostly to planning and design around the proposed development.

Table 2: Description of impacts and mitigation measures identified for the Planning and Design Phase

ISSUE	DESCRIPTION OF IMPACT	SIGNIFICANCE PRE-MITIGATION	MITIGATION MEASURES	SIGNIFICANCE POST-MITIGATION
Compliance with relevant environmental legislation and policy	Failure to comply with existing policies and legal obligations can lead to the project conflicting with local, provincial and national policies, legislation etc. This can result in legal non-compliances, fines, delays in construction activity, overall project failure and undue disturbance to the natural environment.	**MODERATE NEGATIVE**	• All relevant legislation and policy must beconsulted, and the proponent must ensure that the project is compliant with such legislation and policy. • The relevant legislation and policies must includebut not restricted to the following: NEMA, NWA, Local and District Spatial Development Frameworks, Eastern Cape Biodiversity Conservation Plan (ECBCP), and Local Municipal bylaws.	**LOW NEGATIVE**
Stormwater runoff	Inappropriate stormwater design may lead to an increased risk of erosion on site.	**MODERATE NEGATIVE**	• Appropriate stormwater structures must be designed and implemented. • Impermeable surfaces can be minimized through permeable surface technology, such as grassed gardens, verges and permeable paving etc. • A Stormwater Management Plan (SMP) must be developed to advise and guide stormwater construction.	**LOW NEGATIVE**
Waste management	Failure to plan for the storage anddisposal of waste may lead to increased litter, pollution of the environment, unsanitary conditions, and health risks.	**LOWNEGATIVE**	• A proper waste management plan for handlingonsite waste must be designed. • An appropriate area where waste can be storedbefore disposal must be identified. • Waste will be removed from site via municipal waste removal services. • Consider recycling alternatives.	**LOW NEGATIVE**
Visual aesthetics	Inappropriate architectural design maylead to visual and aesthetic impacts.	**HIGH NEGATIVE**	• The architectural design should be as unobtrusive and aesthetically pleasing as possible in terms of colour and building material used. • Remove stockpiles before completing construction • Proposed external lighting restrictions and guidelines.	**MODERATE NEGATIVE**
Increased traffic	Inadequate planning for the increased traffic entering the site could result in traffic congestion during the construction phase.	**MODERATE NEGATIVE**	• Appropriate planning must take place for the increased traffic to site: signage, speed limits, etc. • Construction plant should avoid moving around during peak traffic hours	**LOW NEGATIVE**

CONSTRUCTION PHASE IMPACTS

These impacts pertain to the clearance of the study area, the levelling of the property where necessary, the construction of residential units and the associated infrastructure including the roads, service connections, sewer connections, and the construction of stormwater infrastructure.

Table 3: Description of impacts and mitigation measures identified for the Construction Phase

ISSUE	DESCRIPTION OF IMPACT	SIGNIFICANCE PRE-MITIGATION	MITIGATION MEASURES	SIGNIFICANCE POST- MITIGATION
Compliance with relevant environmental legislation and policy	Failure of the contractor to implement mitigation measures specified in the EMPr and EA could result in fines, overall project failure or delays in construction and undue disturbance to the natural environment.	**MODERATE NEGATIVE**	• The developer must employ an independent Environmental Control Officer (ECO) for the duration of the construction phase to ensure that construction is implemented according to conditions of the EA, EMPr and WUL.	**LOW NEGATIVE**
Stormwater management	Inadequate stormwater infrastructure will lead to an increase in erosion risk.	**MODERATE NEGATIVE**	• Stormwater infrastructure must be implemented to capture stormwater and promote infiltration. • The construction site must be managed (with silt traps and erosion berms etc.) to prevent pollution of environments surrounding the project site. • The project area must be monitored by an ECO on a regular basis during construction. • A Stormwater Management Plan (SMP) must be implemented to advise and guide stormwater construction.	**LOW NEGATIVE**
General waste management	Littering on site may attract vermin and pollute the surrounding areas.	**MODERATE NEGATIVE**	• There must be sufficient solid waste binsavailable for the temporary storage of waste. • No waste must be buried or burned on site. • Waste must be collected on a regular basis and disposed of at a licensed landfill site. • Consider recycling options	**LOW NEGATIVE**
Visual aesthetics of the area	The proposed project site will be transformed as a result of construction vehicles, large machinery and workers moving throughout the area.	**LOW NEGATIVE**	• All construction activity should take place during daylight working hours (i.e., 7am – 5pm). • All construction activity and equipment must be limited to the demarcated areas. • Storage of construction materials, stockpiles and waste must be positioned	**LOW NEGATIVE**

	The development of the proposed residential development and associated infrastructure will visually transform the aesthetics of the site.	**HIGH NEGATIVE**	to avoid visibility from the adjacent roads. • Building rubble and construction materials to be stored neatly. • Erosion, waste and dust to be mitigated as per the abovementioned mitigation measures. • No visually intrusive practices (e.g., night lighting) will be allowed on site or in the surrounding areas. • Good housing-keeping to be implemented on site and waste to be collected on a regular basis.	**HIGH NEGATIVE**
Dust control	Any levelling required for the construction at this site will increase the potential for dust. During the construction phase of the activity, materials will be moved to and from the project site and this could result in dust pollution not only from the materials, but also from the construction vehicles which will be operating on site. The effects of dust will be exacerbated during high wind conditions.	**MODERATE NEGATIVE**	• During windy periods un-surfaced and un-vegetated areas must be dampened down to reduce dust. • Construction work to be halted during periods of strong winds. • The maximum amount of vegetation cover must be maintained on site to prevent dust. • Vehicles carrying dusty materials must be securely and properly covered before they leave the site. • Excavations and other clearing activities must only take place during agreed working times and permitting weather conditions to avoid drifting of sand and dust into neighboring areas. • Any complaints or claims emanating from dust issues must be attended to immediately by the Contractor.	**LOW NEGATIVE**
Noise	It can be expected that there will be an increase in noise levels during the site preparation and construction phase of the development and may become a nuisance for surrounding residents. The increase in noise will be associated with the operation of construction vehicles, equipment and laborers.	**LOW NEGATIVE**	• During construction, activities which include the movement of construction vehicles, and the operation of machinery should be restricted to normal working hours (7am – 5pm weekdays, 7am – 1pm on Saturdays and no work on Sundays or public holidays). • A complaints register must be kept on site and any complaints must be recorded and reported to the ECO. • Construction equipment must be kept in good working order and, where appropriate, fitted with silencers which are kept in good working order. • As construction workers operate in a noisy	**LOW NEGATIVE**

			environment, it must be ensured that their working conditions comply with the requirements of the Occupational Health and Safety Act (Act No 85 of 1993). • Where necessary, ear protection gear must be worn.	
Construction traffic and Road Impacts	There will be an increase in traffic volumes including heavy construction vehicles along approach roads which may result in vehicle/ pedestrian collisions and degrade the road condition.	**LOW NEGATIVE**	• Residents must be made aware of the presence of construction vehicles through highly visible signage. • Avoid transportation of construction materials during peak hours. • Speed must be limited to 30km/hr on site. • Overloading of vehicles must not occur. • Whenever possible, construction vehicles should be limited to low-volume periods. • Road condition should be recorded prior to construction vehicles making use of the roads and any damage caused by construction vehicles should be repaired immediately. • Appropriate speed limits must be put in place. • All construction vehicles should be parked onsite not to block traffic.	**LOW NEGATIVE**
Disturbance to Faunal species	Large indigenous fauna such as large birds as well as small indigenous fauna such as snakes, lizards and frogs present on site may be impacted upon by construction activities.	**LOW NEGATIVE**	• No fauna on site may be intentionally harmed or killed. • All personnel should be made aware of the need to protect fauna on site. • All open excavations must be barricaded or fenced. • Excavations must be checked daily for trapped fauna and trapped animals be rescued and released. • Injured fauna should be referred to an appropriate rehabilitation facility.	**LOW NEGATIVE**
Soil Erosion	Exposed soils are easily susceptible to erosion by water runoff and wind during periods of heavy rainfall or strong winds. The non-cohesive nature of the *in-situ* material coupled with the lack of vegetation creates a potential for soil erosion at the proposed site. This may result in increased surface water flow as opposed to water absorption and subsequently contribute to soil erosion.	**MODERATE NEGATIVE**	• Clearing of vegetation to only be undertaken immediately preceding construction. • Temporary stabilization measures (e.g silt traps) should be implemented until the site is fully rehabilitated. • Appropriate erosion control measures must be implemented to ensure that no erosion is taking place. At the first	**LOW NEGATIVE**

			sign of erosion, the necessary remedial action must be taken. • Care must be taken to ensure that runoff is well dispersed so as to limit erosion. • A site-specific stormwater management plan should be implemented and managed to eliminate the potential of surface erosion. • All temporarily impacted areas must be rehabilitated with indigenous vegetation as soon as construction in the particular area or phase of work is complete, I.e., rehabilitation is on-going throughout construction.	
General Waste Pollution	The construction phase of the activity will produce construction waste in the form of cleared vegetation, building rubble, excavated soil, excess concrete as well as general waste (e.g., litter from workers on site). The incorrect management of these wastes may result in pollution of the surrounding natural areas.	**LOW NEGATIVE**	• Vegetation that is cleared from the site (and is not replanted or relocated as per the recommendations) must be removed to a registered garden refuse site. • Staff must be trained to implement waste control and to identify hazardous waste. • Construction material must be reused or recycled wherever possible. • Other waste to be removed to a licensed landfill site. • General good housekeeping must be implemented. No litter to remain on site. • Disposal certificates must be obtained for all waste disposals. • Spills must be avoided during transportation of waste material. • Sufficient and appropriate weather-and scavenger-proof bins must be made available on site.	**LOW NEGATIVE**
Impacts on Health, Safety and Fire Risk	The use of construction machinery during the construction phase poses a potential risk to the health and safety of people working at the construction site. The movement of construction vehicles also increases the risk of road accidents. The risk of accidents, fires and explosions must be mitigated effectively.	**LOW NEGATIVE**	• All relevant Health and Safety legislation as required in South Africa should be strictly adhered to, including but not limited to the Occupational Health and Safety Act, 1993 (No. 85 of 1993). • Smoking should be prohibited in the vicinity of flammable substances. • All traffic mitigation measures to be implemented as listed above • Ensure availability of fire	**LOW NEGATIVE**

			extinguishers • All employees must be aware of emergency/contingency plans to ensure an understanding of the hazards and procedures required during and emergency situation.	
Soil stockpiling	Incorrect storage of viable topsoil will result in the topsoil becoming sterile.	**LOW NEGATIVE**	• Stockpile cannot be stored for a period longer than 12months. • Stockpile heap cannot be higher than 2m as the weight of the soil may lead to seeds becoming sterile. • Topsoil should only be moved once to prevent seeds from becoming sterile. • No construction vehicles to ride over topsoil • Subsoil and topsoil should always be kept separate.	**LOW NEGATIVE**
Loss of vegetation	Clearing of natural vegetation will result in a range of issues including increasing the risk of erosion, reducing natural vegetation, loss of non-identified plant SCC, and increasing the risk of alien vegetation spreading.	**HIGH NEGATIVE**	• The construction footprint must be surveyed and demarcated prior to construction commencing. All contractors must be made aware of this demarcation. • All areas outside the demarcated footprint will be considered as No-Go areas. • No construction activities (temporary or permanent) will be allowed in these No-Go areas. • Temporary infrastructure such as the site camp, laydown areas and storage areas must be placed in areas already transformed and within the construction footprint. • No on-site fires will be permitted.	**MODERATE NEGATIVE**
Loss of non-identified plant SCC		**MODERATE NEGATIVE**	• Permits must be obtained to remove any plant SCC identified during the construction process. If none are identified, no permits will be required. • Relocate or replant as many SCC as possible into the surrounding areas. • No plant harvesting by construction staff will be allowed.	**LOW NEGATIVE**
Spread of AIS		**MODERATE NEGATIVE**	• Develop and implement an Alien Vegetation Management Plan to mitigate the establishment and spread of undesirable alien plant species during construction.	**LOW NEGATIVE**

			• All visible alien plants must be removed prior to top-and subsoil removal. Removal must occur through appropriate methods such as hand pulling, application of chemicals, cutting, etc. as in accordance with the NEMBA: Alien Invasive Species Regulations.	

OPERATIONAL PHASE IMPACTS

These impacts pertain to the operation of a residential housing complex, which will include the use of various municipal services (e.g; water, sewage, and electricity), the traffic associated with residents moving to and from the complex, the generation of domestic waste and effluent that will be added to the existing municipal systems and the operation of suitable stormwater management.

Table 4: Operational Phase impacts associated with the proposed development together with the relevant mitigation measures and resultant impact significance.

ISSUE	DESCRIPTION OF IMPACT	SIGNIFICANCE PRE-MITIGATION	MITIGATION MEASURES	SIGNIFICANCE POST- MITIGATION
Stormwater runoff	Ensure that all stormwater infrastructure has been maintained and that it works properly.	**MODERATE NEGATIVE**	• Stormwater management infrastructure must be properly maintained and monitored regularly. • If the stormwater management measures put in place are deemed insufficient, a qualified engineer must be approached to assist with additional stormwater attenuation mechanisms and remediation.	**LOW NEGATIVE**
Waste management	Inappropriate waste storage (general waste) and disposal practices may lead to litter, pollution, attraction of pests (flies, vermin) and general health risks.	**MODERATE NEGATIVE**	• All waste to be removed from site via municipal waste removal service regularly. • In addition, an adequate backup system for waste managementshould be in place in case of service delivery strikes. • Consider recycling options.	**LOW NEGATIVE**
Utilization of Water Resources	The proposed development will rely entirely on water from the municipal supply to meet the daily consumption demands as estimated by the developer. This will place additional pressure on the current drought situation in the area.	**HIGH NEGATIVE**	• Excessive use of water to be avoided wherever possible. • To ensure that all water reticulation infrastructure is maintained regularly to avoid leaks. • Rainwater harvesting must be implemented to collect rainwater from the building drains and gutters. • Make use of water saving products such as water saving toilets with a dual-	**MODERATE NEGATIVE**

			flush valve, water saving taps with spray cartridges, water-saver shower heads and timed turn-off taps. • Monitor water consumption to ensure water is utilized within the volumes made available by any relevant municipal drought regulations.	
Electricity Usage	The proposed development will result in increased electricity usage due to increase in lighting and heating requirements. The overall electricity requirements will however be minimal.	**HIGH-NEGATIVE**	• Energy-saving strategies must be practiced such as using renewable energy (solar-energy) wherever possible. • Utilize gas for cooking and heating. • LED lighting must be implemented to reduce electricity consumption.	**MODERATE NEGATIVE**
Invasives and Alien Species Management	There is a risk of alien invasive species spreading into surrounding areas. The lack of alien vegetation management may result in large scale alien plant invasion. However, should the property management implement an effective alien vegetation management plan both within the complex and, potentially within the surrounding areas, this could result in significantly positive improvement to alien species management.	**MODERATE NEGATIVE**	• Areas disturbed with alien plants must be actively rehabilitated with indigenous vegetation or plants. • Alien plant growth/regrowth within the complex and/or surrounding areas should also be monitored, and any such species should be removed on an ongoing basis.	**LOW NEGATIVE**

DECOMMISSIONING PHASE

It is unlikely that the proposed residential development will be decommissioned as it is envisaged to remain into the long-term future. Should decommissioning of the development take place in the distant future, the impacts relevant to decommissioning would be similar to those listed for the construction phase above.

The identified impacts associated with the proposed development, as well as the proposed mitigation measures, are provided below.

Table 5: Summary of significant impacts (all impacts that are HIGH Pre-mitigation).

Theme	Impact Summary	Significance Pre-Mitigation	Significance Post Mitigation
PLANNING AND DESIGN			
Visual Aesthetics	Inappropriate architectural design may lead to visual and aesthetic impacts.	**HIGH NEGATIVE**	**MODERATE NEGATIVE**
CONSTRUCTION			
Visual Aesthetics of the area	The development of the proposed residential development and associated infrastructure will visually transform the aesthetics of the site.	**HIGH NEGATIVE**	**HIGH NEGATIVE**
Loss of vegetation	Clearing of natural vegetation will result in an increasing the risk of erosion, reducing natural vegetation, loss of non-identified plant SCC, and increasing the risk of alien vegetation spreading.	**HUGH NEGATIVE**	**MODERATE NEGATIVE**

OPERATIONAL			
Utilization of Water Resources	The proposed development will rely entirely on water from the municipal supply to meet the daily consumption demands as estimated by the developer. This will place additional pressure on the current drought situation in the area.	**HIGH NEGATIVE**	**MODERATE NEGATIVE**
Electricity Usage	The proposed development will result in increased electricity usage due to increase in lighting and heating requirements. The overall electricity requirements will however be minimal.	**HIGH NEGATIVE**	**MODERATE NEGATIVE**

3. CLIMATE CHANGE ASSESSMENT

Climate change issues must be considered as part of the EIA process Please consider the Climate Change guideline. EAP must determine:
a)The potential impact of climate change on society and the economy, whether the impact is negative or positive, considering that society needs to be at the centre of the proposed development;
b)The potential alternatives of the proposed development, alternatives that will have less impact on climate change (environment and generation of waste included), the society and economy;
c)whether, and to what extent, the proposed development will result in the release of greenhouse gas (GHG) emissions;
d)whether the proposed development is necessary to achieve long term decarbonisation goals;
e)the impact of the development on social, economic, natural and built environment that are crucial for climate change, adaptation and resilience;
f) the projected impact of climate change on proposed development; and surrounding environment, and implications for the development.
g)Explanation of how the impacts is likely to be exacerbated or minimised as result of climate change and what measures are likely to be implemented to accommodate and manage (adapt to) the anticipated worst scenario where applicable
h) whether, and to what extent, the impacts identified in (a) -(g) can be mitigated.

4. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

The proposed site is considered relative degraded with most impacts (pre-mitigation) considered as low and moderate. The table below shows that most of the impacts can be successfully reduced through mitigation throughout all phases:

Phase	# of impacts	Pre-mitigation			Post-mitigation		
		Low	Medium	High	Low	Medium	High
P&D	5	1	3	1	3	2	0
Construction	16	7	7	2	14	1	1
Operations	5	0	3	2	3	2	0

Only 1 of the 5 Planning and Design (P&D) impacts are high pre-mitigation and is reduced through mitigation to zero. Most impacts in this phase is reduced to low negative.

The 2 high pre-mitigation impacts are both reduced to medium and low after mitigation in the construction phase. This is the phase with the most impacts (16). Fourteen of these impacts will be reduced to low negative.

The operations phase has 2 high pre-mitigation impacts that will be reduced to low, post-mitigation while one of the medium negative impacts are also reduced to low negative.

Alternative A (preferred alternative)

There are only 1 alternative, namely the preferred alternative. Impacts are as discussed above. No other alternatives were assessed.

No-go alternative (compulsory)

This refers to the current status quo and the risks and impacts associated with it. If the project does not proceed, none of the impacts, positive or negative will occur. It also means that the existing impacts, like the slow transformation of fynbos to grassland will continue.

SECTION E. RECOMMENDATIONS OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES
Is an EMPr attached?	YES

The EMPr must be attached as Appendix F.

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

N/A

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

This chapter of the BAR provides a summary of the findings of the proposed Housing Development and a comparative assessment of the positive and negative implications of the proposed project and identified alternatives. In addition, this chapter provides the EAPs opinion as to whether the activity should or should not be authorized as well as the reason(s) for the opinion.

EAP'S RECOMMENDATIONS

All mitigation measures which have been outlined in this report, as well as in the EMPr must be fully adhered to.

DESCRIPTION OF THE PROPOSED ACTIVITY

The Christopher Lovemore Trust proposes the development of a new housing complex and associated infrastructure. The townhouse complex, consisting of 29 units will be built on 1.72 ha of land located along Heatherbank Road on Erf 4087 within Theescombe, Port Elizabeth. Each housing unit will range between 300 and 700 square meter (sqm) in size. The entire complex will not be constructed in a single construction event. Rather, the Developer will fence the site, build all internal access roads as well as an access gate to the complex as well as all the relevant service infrastructure (water lines, sewage lines and electricity cables). Plot will be sold individually, and the Purchaser will then construct their dwelling as per preset guidelines and the recommendations of the EMPr.

SUMMARY OF KEY ENVIRONMENTAL FINDINGS

The proposed site is considered relative degraded with most impacts (pre-mitigation) considered as low and moderate. Only 1 of the 5 Planning and Design (P&D) impacts are high pre-mitigation and is reduced through mitigation to zero. Most impacts in this phase is reduced to low negative.

The 2 high pre-mitigation impacts are both reduced to medium and low after mitigation in the construction phase. This is the phase with the most impacts (16). Fourteen of these impacts will be reduced to low negative.

GENERAL MITIGATIONS SUMMARY

Below is a summary of all the general mitigation for the proposed new "The Heath" housing development in Theesecombe:

Planning & Design Phase

Compliance with relevant environmental legislation and policy

- The developer must employ an independent Environmental Control Officer (ECO) for the duration of the construction phase to ensure that construction is implemented according to conditions of the EA, EMPr and WUL.

Stormwater management

- Appropriate stormwater structures must be designed and implemented.
- Impermeable surfaces can be minimized through permeable surface technology, such as grassed gardens, verges and permeable paving etc.

Waste management

- A proper waste management plan for handling onsite waste must be designed.
- An appropriate area where waste can be stored before disposal must be identified.
- Waste will be removed from site via municipal waste removal services.
- Consider recycling alternatives.

Visual aesthetics

- The architectural design should be as unobtrusive and aesthetically pleasing as possible in terms of colour and building material used.
- Vegetation should be considered in the design to mitigate visual intrusion impacts.

Increased traffic

- Appropriate planning must take place for the increased traffic to site: signage, speed limits, etc.
- Construction plant should avoid moving around during peak traffic hours

Construction Phase

Compliance with relevant environmental legislation and policy

- The developer must employ an independent Environmental Control Officer (ECO) for the duration of the construction phase to ensure that construction is implemented according to conditions of the EA, EMPr and WUL.

Stormwater management

- Stormwater infrastructure must be implemented to capture stormwater and promote infiltration.
- The construction site must be managed (with silt traps and erosion berms etc.) to prevent pollution of environments surrounding the project site.
- The project area must be monitored by an ECO on a regular basis during construction
-

Waste management

- There must be sufficient solid waste bins available for the temporary storage of waste.
- No waste must be buried or burned on site.
- Waste must be collected on a regular basis and disposed of at a licensed landfill site.
- Consider recycling options

Visual aesthetics of the area

- All construction activity should take place during daylight working hours (i.e., 7am – 5pm).
- All construction activity and equipment must be limited to the demarcated areas.
- Storage of construction materials, stockpiles and waste must be positioned to avoid visibility from the adjacent roads.
- Building rubble and construction materials to be stored neatly.
- Erosion, waste and dust to be mitigated as per the abovementioned mitigation measures.

- No visually intrusive practices (e.g., night lighting) will be allowed on site or in the surrounding areas.
- Good housing-keeping to be implemented on site and waste to be collected

Dust control

- During windy periods un-surfaced and un- vegetated areas must be dampened down to reduce dust.
- Construction work to be halted during periods of strong winds.
- The maximum amount of vegetation cover must be maintained on site to prevent dust.
- Vehicles carrying dusty materials must be securely and properly covered before they leave the site.
- Excavations and other clearing activities must only take place during agreed working times and permitting weather conditions to avoid drifting of sand and dust into neighboring areas.
- Any complaints or claims emanating from dust issues must be attended to immediately by the Contractor.

Noise

- During construction, activities which include the movement of construction vehicles and the operation of machinery should be restricted to normal working hours (7am – 5pm weekdays, 7am – 1pm on Saturdays and no work on Sundays or public holidays).
- A complaints register must be kept on site and any complaints must be recorded and reported to the ECO.
- Construction equipment must be kept in good working order and, where appropriate, fitted with silencers which are kept in good working order.
- As construction workers operate in a noisy environment, it must be ensured that their working conditions comply with the requirements of the Occupational Health and Safety Act (Act No 85 of 1993).
- Where necessary, ear protection gear must be worn.

Construction traffic and Road Impacts

- Residents must be made aware of the presence of construction vehicles through highly visible signage.
- Avoid transportation of construction materials during peak hours.
- Speed must be limited to 30km/hr on site.
- Overloading of vehicles must not occur.
- Whenever possible, construction vehicles should be limited to low-volume periods.
- Road condition should be recorded prior to construction vehicles making use of the roads and any damage caused by construction vehicles should be repaired immediately.
- Appropriate speed limits must be put in place.
- All construction vehicles should be parked onsite not to block traffic.

Disturbance to Fauna

- No fauna on site may be intentionally harmed or killed.
- All personnel should be made aware of the need to protect fauna on site.
- All open excavations must be barricaded or fenced.
- Excavations must be checked daily for trapped fauna and trapped animals be rescued and released.
- Injured fauna should be referred to an appropriate rehabilitation facility.

Soil Erosion

- Clearing of vegetation to only be undertaken immediately preceding construction.
- Temporary stabilization measures (e.g silt traps) should be implemented until the site is fully rehabilitated.
- Appropriate erosion control measures must be implemented to ensure that no erosion is taking place. At the first sign of erosion, the necessary remedial action must be taken.
- Care must be taken to ensure that runoff is well dispersed so as to limit erosion.

- A site-specific stormwater management plan should be implemented and managed to eliminate the potential of surface erosion.
- All temporarily impacted areas must be rehabilitated with indigenous vegetation as soon as construction in the particular area or phase of work is complete, I.e., rehabilitation is on-going throughout construction.

General Waste Pollution
- Vegetation that is cleared from the site (and is not replanted or relocated as per the recommendations) must be removed to a registered garden refuse site.
- Staff must be trained to implement waste control and to identify hazardous waste.
- Construction material must be reused or recycled wherever possible.
- Other waste to be removed to a licensed landfill site.
- General good housekeeping must be implemented. No litter to remain on site.
- Disposal certificates must be obtained for all waste disposals.
- Spills must be avoided during transportation of waste material.
- Sufficient and appropriate weather-and scavenger-proof bins must be made available on site.

Impacts on Health, Safety and Fire Risk
- All relevant Health and Safety legislation as required in South Africa should be strictly adhered to, including but not limited to the Occupational Health and Safety Act, 1993 (No. 85 of 1993).
- Smoking should be prohibited in the vicinity of flammable substances.
- All traffic mitigation measures to be implemented as listed above
- Ensure availability of fire extinguishers
- All employees must be aware of emergency/contingency plans to ensure an understanding of the hazards and procedures required during and emergency situation.

Stockpiling
- Stockpile cannot be stored for a period longer than 12months.
- Stockpile heap cannot be higher than 2m as the weight of the soil may lead to seeds becoming sterile.
- Topsoil should only be moved once to prevent seeds from becoming sterile.
- No construction vehicles to ride over topsoil
- Subsoil and topsoil should always be kept separate.

Operational Phase

Stormwater runoff
- Stormwater management infrastructure must be properly maintained and monitored regularly.
- If the stormwater management measures put in place are deemed insufficient, a qualified engineer must be approached to assist with additional stormwater attenuation mechanisms and remediation.

Waste management
- All waste to be removed from site via municipal waste removal service regularly.
- In addition, an adequate backup system for waste management should be in place in case of service delivery strikes.
- Consider recycling options.

Utilization of Water Resources
- Excessive use of water to be avoided wherever possible.
- To ensure that all water reticulation infrastructure is maintained regularly to avoid leaks.
- Rainwater harvesting must be implemented to collect rainwater from the building drains and gutters.
- Make use of water saving products such as water saving toilets with a dual-flush valve, water saving taps with spray cartridges, water-saver shower heads and timed turn-off taps.

- Monitor water consumption to ensure water is utilized within the volumes made available by any relevant municipal drought regulations.

Electricity Usage

- Energy-saving strategies must be practiced such as using renewable energy (solar-energy) wherever possible.
- Utilize gas for cooking and heating.
- LED lighting must be implemented to reduce electricity consumption.

Impact on Service Availability

- As per mitigation measures for utilization of water, electricity usage and solid waste generation above.

Invasives and Alien Species Management

- Areas disturbed with alien plants must be actively rehabilitated with indigenous vegetation or plants.
- Alien plant growth/regrowth within the complex and/or surrounding areas should also be monitored, and any such species should be removed on an ongoing basis.

SPECIALIST FINDINGS

Below is a summary of all the specialist studies, themes selected by the DFFE Screening Tool:

Specialist summaries:

Aquatic	The study area is located within the South Eastern Coastal Belt Ecoregion, is classified as Water Management Area 16 (Fishriver to Tsitsikamma) and quaternary catchment M20A as the development falls within the Bakens River catchment. There is no existing wetlands, rivers, streams, drainage areas or riparian vegetation existing on the site. The site is heavily transformed, with no existing bodies of water and retains little ecological functioning, with the dominant function being surface water draining. The site is considered low sensitivity for aquatic biodiversity and has been issued with a compliance statement.
Avifaunal	The proposed study area is not located in any of South Africa's Important Bird and Biodiversity Areas. The South African Bird Atlas Project identified eight Species of Conservation Concern (SCC) that may occur within the project area, however the probability of the species occurring on site is low owing to the low suitability of the project area which is mostly transformed from it's expected vegetation type. The project area is mostly cleared, lacks any water bodies and consisting of agricultural land whereas most of the SCC require dense woodland habitats or permanent/semi-permanent water bodies. Although the Screening Tool identified the project area as medium sensitivity, the site conditions do not allow for high probability of SCC or protected species to occur and thus has been issued with a compliance statement for avifaunal biodiversity.
Socio-Economic	The project site falls within the relatively densely populated "Category A" classified Nelson Mandela Bay Municipality (NMBM). The population is relatively young in age (average age 26 years old), Xhosa, Afrikaans or English-speaking individuals with most having an education of up to grade 12 and a small percentage achieving higher education (6.8%). A large proportion of the NMBM population is unemployed and most households earn less than R9600/month, resulting in much of the population living in poverty. NMBM has two ports and various tourism and recreational opportunities but is backlogged in terms of various infrastructure developments. Despite the various characteristics of NMBM, the scale of the proposed project is small and relatively uniform with the surrounding areas and thus a compliance statement has been issued.
Visual	The project site is located near the Bakens River Catchment and visibility is only high within the first 5km of the proposed site. North of the proposed site there is a high sensitivity visual receptor where there is pre-existing residential area but

	visual sensitivity is low to the south and east. The only view corridor exists along the main Heatherbank Road which runs along the adjacent northern edge of the site and also acts as access to the site. There is no natural vegetation on site, the topography is mostly flat and the surrounding land use is mostly agricultural with some urban settlements. The visual sensitivity is thus categorized as low owing to a low to moderate VAC (visual absorption capacity) since most of the proposed site is only visible to immediate surrounding areas. Thus, the visual sensitivity has been issued with a compliance statement.
Faunal	The project site is cleared of vegetation and none of the sensitive fauna identified by the Screening Report were observed within the study site. There are common species like rodents and other small mammals, but no protected species occur on the proposed because of the land being mostly cleared. The project site is considered moderate sensitivity and has been issued with a compliance statement for faunal sensitivity.
Plant and Terrestrial Biodiversity	The site visit confirmed that the site is transformed with little natural vegetation remaining. Both terrestrial biodiversity and plant species and vegetation is considered as moderate. This is because of the following: 1. Little remains of the original vegetation type. The site is highly transformed. 2. No plant SCC were observed. There is also a low risk of any non-identified plant SCC found on site during construction. 3. The site is dominated by unlisted plant AIS. 4. Ecological functions is mostly intact with no remnants of the original endangered Algo Sandstone Fynbos on site. The current land-use will result in a continual degradation of the terrestrial biodiversity environment.
Heritage	It is recommended that the proposed housing development and associated infrastructure on a portion of Erf 4087 in Theescombe, Gqeberha (Port Elizabeth), Nelson Mandela Bay Municipality, Eastern Cape Province be exempted from a full Phase 1 Archaeological Heritage Impact Assessment. The proposed development area appears to be of low archaeological sensitivity, and it is therefore unlikely that any significant archaeological remains will be found on the property. The proposed development may therefore proceed as planned.

Specialist mitigations

Below is a summary of all the mitigations proposed by the specialist, themes selected by the DFFE Screening Tool:

Aquatic biodiversity

- There is recommendation for stormwater infrastructure as well as a stormwater management plan to be put into place.

Avifaunal

- There are some species which may occur in the area not listed as SCC but are CITES protected. Should these species be found in the project area, it is required and recommended that a permit be acquired for the activity disturbing their environment and a permit acquired to remove the species.

Socio-Economic

- No recommended mitigations

Visual

- It is recommended however that stockpiles be removed before operational phase of the development, that development and architectural guidelines be followed to allow development to be integrated into the surroundings and not stand out and for external lighting to follow restrictions and guidelines.

Faunal

- It is recommended that during the project development that no harm come to any faunal species and that species are handled appropriately by qualified personnel where necessary.

Plant and Terrestrial Biodiversity

Legal compliance:

- If any plant SCC are ever found on site, the relevant plant removal/relocation permits must be obtained from the competent authorities to remove any protected plant species.

Vegetation clearing for construction::

- The construction footprint must be surveyed and demarcated prior to construction commencing. All contractors must be made aware of this demarcation.
- All areas outside the demarcated footprint will be considered as No-Go areas.
- No construction activities (temporary or permanent) will be allowed in these No-Go areas.
- Temporary infrastructure such as the site camp, laydown areas and storage areas must be placed in areas already transformed and within the construction footprint.
- No on-site fires will be permitted.

Loss of non-identified plant SCC:

- Permits must be obtained to remove any plant SCC identified during the construction process. If none are identified, no permits will be required.
- Relocate or replant as many SCC as possible into the surrounding areas.
- No plant harvesting by construction staff will be allowed.

Spread of alien and invasive plant species:

- Develop and implement an Alien Vegetation Management Plan to mitigate the establishment and spread of undesirable alien plant species during construction.
- All visible alien plants must be removed prior to top-and subsoil removal. Removal must occur through appropriate methods such as hand pulling, application of chemicals, cutting, etc. as in accordance with the NEMBA: Alien Invasive Species Regulations.

Stormwater management

- During the Planning phase, appropriate stormwater structures must be designed to minimise erosion.

EAP's OPINION

It is the opinion of the EAP that no fatal flaws are associated with the proposed development and that all impacts can be adequately mitigated to reduce the risk or significance of the impacts to an acceptable level. Due to the type of project proposed, the significance of the benefits associated with the proposed development outweighs the significance of the negative aspects, most of which will be low following the correct implementation of mitigation measures. It is the opinion of the EAP that this Basic Assessment Report contains sufficient information to allow the DEDEAT to make an informed decision. It is therefore recommended that the application for Environmental Authorization should be approved on condition that the recommendations stated herein are effectively implemented.

PERIOD OF ENVIRONMENTAL AUTHORIZATION

The environmental authorization (EA) for the construction of the proposed development is required for a period of six (6) years. This will allow sufficient time for the applicant to undertake the procurement process to appoint a contractor, to furnish the appointed contractor with the details of the EA and the conditions included in the EMPr, to complete the construction of the proposed development and to

undertake the necessary rehabilitation of the site. An ECO must be appointed for the duration of the construction period and must submit monthly monitoring reports to the DEDEAT.

The operational phase of the proposed development is expected to continue into the long-term future. The EA for the operational phase should thus be authorized without an expiry date provided the proponent adheres to the recommendations included in this report as well as the conditions of the EMPr.

SECTION F: APPENDICES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information – Impact Assessment Tables

– Background Information Document (BID)