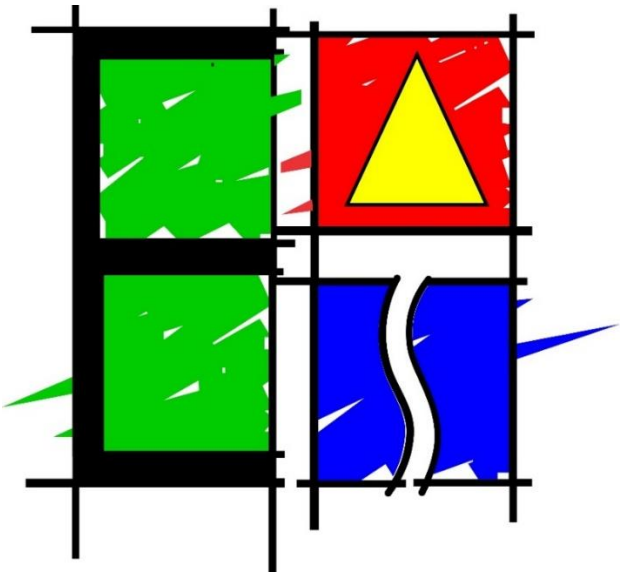
APPLICATION FOR ENVIRONMENTAL AUTHORISATION

FINAL BASIC ASSESSMENT REPORT

PROPOSED DEVELOPMENT OF ERVEN 984 AND 1134, PARSONS VLEI EXT 10 FOR STORAGE, WAREHOUSING, AND RELATED FACILITIES



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Engineering Advice & Services (Pty) Ltd

Report Prepared for:

Lurco Trading 128 (Pty) Ltd

DEDEAT Ref: **ECm1/C/LN1&3/M/46-2025**

October 2025

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FINAL BASIC ASSESSMENT REPORT

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

11.1 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

11.2. 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.".

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ABBREVIATIONS

ASAPA	Association of South African Professional Archaeologists
BP	Borrow Pit
CARA	Conservation of Agricultural Resources Act 43 of 1983
CBA	Critical Biodiversity Area
CRM	Cultural Resource Management
DEA	Department of Environmental Affairs (National)
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism
DEMC	Desired Ecological Management Class
DMR	Department of Mineral Resources
DWAF	Department of Water Affairs and Forestry (former department name)
DWAS	Department of Water Affairs and Sanitation
EA	Environmental Authorisation
EAS	Engineering Advice and Services
ECO	Environmental Control Officer
ECDOT	Eastern Cape Department of Transport
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EIS	Ecological Importance and Sensitivity
ELO	Environmental Liaison Officer
EMC	Ecological Management Class
EMP	Environmental Management Plan
EMPr	Environmental Management Programme
ER	Environmental Representative
ESS	Ecosystem Services
IAP's	Interested and Affected Parties
IEM	Integrated Environmental Management
LHS	Left Hand Side
LM	Local Municipality
LoM	Life of Mine
masl	meters above sea level
MIA	Mining Infrastructure Area
MPRDA	Mineral and Petroleum Resources Development Act 28 of 2002
NBA	National Biodiversity Assessment
NEMA	National Environmental Management Act 107 of 1998
NEMBA	National Environmental Management: Biodiversity Act 10 of 2004

NFA	National Forest Act 84 of 1998
NOMR	New Order Mining Right
PEMC	Present Ecological Management Class
PES	Present Ecological State
RDL	Red Data List
RHS	Right Hand Side
RoD	Record of Decision
RoM	Run of Mine
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
SARTM	South African Rural Traffic Model
SDF	Spatial Development Framework
SoER	State of the Environment Report
SSC	Species of Special Concern
TOPS	Threatened of Protected Species
ToR	Terms of Reference
+ve	Positive
-ve	Negative

GLOSSARY

Corridors: Have important functions as strips of a particular type of landscape differing from adjacent land on both sides. Habitat, ecosystems or undeveloped areas that physically connect habitat patches. Smaller, intervening patches of surviving habitat can also serve as "stepping stones" that link fragmented ecosystems by ensuring that certain ecological processes are maintained within and between groups of habitat fragments.

Degraded habitat/land: Land that has been impacted upon by human activities (including introduction of invasive alien plants, light to moderate overgrazing, accelerated soil erosion, dumping of waste), but still retains a degree of its original structure and species composition (although some species loss would have occurred) and where ecological processes still occur (albeit in an altered way). Degraded land is capable of being restored to a near-natural state with appropriate ecological management.

ECO/ESO: Environmental Control/Site Officer – person responsible for the Day-to-Day Environmental Management on-site during construction.

Ecological Processes: Ecological processes typically only function well where natural vegetation remains, and in particular where the remaining vegetation is well-connected with other nearby patches of natural vegetation. Loss and fragmentation of natural habitat severely threatens the integrity of ecological processes. Where basic processes are intact, ecosystems are likely to recover more easily from disturbances or inappropriate actions if the actions themselves are not permanent. Conversely, the more interference there has been with basic processes, the greater the severity (and longevity) of effects. Natural processes are complex and interdependent, and it is not possible to predict all the consequences of loss of biodiversity or ecosystem integrity. When a region's natural or historic level of diversity and integrity is maintained, higher levels of system productivity are supported in the long run and the overall effects of disturbances may be dampened.

Ecosystem status: Ecosystem status of terrestrial ecosystems is based on the degree of habitat loss that has occurred in each ecosystem, relative to two thresholds: one for maintaining healthy ecosystem functioning, and one for conserving the majority of species associated with the ecosystem. As natural habitat is lost in an ecosystem, its functioning is increasingly compromised, leading eventually to the collapse of the ecosystem and to loss of species associated with that ecosystem.

Ecosystem: All of the organisms of a particular habitat, such as a lake or forest, together with the physical environment in which they live.

Endangered: Endangered terrestrial ecosystems have lost significant amounts (more than **60 %** lost) of their original natural habitat, so their functioning is compromised.

Endemic:	A plant or animal species, or a vegetation type, which is naturally restricted to a particular defined region. It is often confused with indigenous, which means 'native, occurring naturally in a defined area'.
Environment:	The external circumstances, conditions and objects that affect the existence and development of an individual, organism or group. These circumstances include biophysical, social, economic, historical and cultural aspects.
Environmental Impact Assessment (EIA):	A study of the environmental consequences of a proposed course of action.
Exotic:	Non-indigenous; introduced from elsewhere, may also be a *weed* or alien *invasive* species. Exotic species may be invasive or non-invasive.
Fragmentation (habitat):	Causes land transformation, an important current process in landscapes as more and more development occur.
Habitat:	The home of a plant or animal species. Generally, those features of an area inhabited by animal or plant which are essential to its survival.
Indigenous:	Native; occurring naturally in a defined area.
Indigenous Vegetation:	Refers to vegetation consisting of indigenous plant species occurring naturally in an area, regardless of the level of alien infestation and where the topsoil has not been lawfully disturbed during the preceding ten years.
Least threatened terrestrial ecosystems:	These ecosystems have lost only a small proportion (more than 80 % remains) of their original natural habitat, and are largely intact (although they may be degraded to varying degrees, for example by invasive alien species, overgrazing, or overharvesting from the wild).
Method statement (construction):	A method statement is prepared for each task on a particular site by the contractor; the group of work method statements are then packaged and included in the overall *Construction Plan.*
Off-sets:	Compensation for biodiversity loss resulting from authorized changes in land use. Can include assigning stewardship or protected area status to remaining conservation-worthy land or making a financial bequest for purposes of biodiversity conservation.
Riparian:	Pertaining to, situated on or associated with a river bank.
River corridors:	River corridors perform a number of ecological functions such as modulating stream flow, storing water, removing harmful materials from water, and providing habitat for aquatic and terrestrial plants and animals. These corridors also have vegetation and soil characteristics distinctly different from surrounding uplands and support higher levels of species diversity, species densities, and rates of biological productivity than most other landscape elements. Rivers provide for migration and exchange between inland and coastal biotas.
Scoping:	A procedure to consult with stakeholders to determine issues and concerns and for determining the extent of and approach to the EIS, used to focus the EIA.
Scoping Report	A written report describing the issues identified to date for inclusion in an EIA.

Transformation:	In ecology, transformation refers to adverse changes to biodiversity, typically habitats or ecosystems, through processes such as cultivation, forestry, drainage of wetlands, urban development or invasion by alien plants or animals. Transformation results in habitat fragmentation – the breaking up of a continuous habitat, ecosystem, or land-use type into smaller fragments.
Transformed Habitat/Land:	Land that has been significantly impacted upon by human activities (such as cultivation, urban development, mining, landscaping, severe overgrazing), and where the original structure, species composition and functioning of ecological processes have been irreversibly altered. Transformed habitats are not capable of being restored to their original states.
Tributary/ Drainage line:	A small stream or river flowing into a larger one.
Untransformed habitat/land:	Land that has not been significantly impacted upon as a result of human interferences/disturbances. These are ecosystems that are in a near-pristine condition in terms of structure, species composition and functioning of ecological processes.
Vulnerable:	Vulnerable terrestrial ecosystems have lost some (more than 60 % remains) of their original natural habitat, and their functioning will be compromised if they continue to lose natural habitat.
Weed:	An indigenous or non-indigenous plant that grows and reproduces aggressively, usually a ruderal pioneer of disturbed areas. Weeds may be unwanted because they are unsightly, or they limit the growth of other plants by blocking light or using up nutrients from the soil. They can also harbor and spread plant pathogens.
Wetlands:	A collective term used to describe lands that are sometimes or always covered by shallow water or have saturated soils, and where plants adapted for life in wet conditions usually grow.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	**YES**	NO

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:

Lurco Trading 128 (Pty) Ltd has appointed Engineering Advice and Services (EAS) to apply for environmental authorisation to develop Erven 984 and 1134 Parsons Vlei Extension (Ext) 10, situated south of Old Cape Road(R102), Ward 12 of Nelson Mandela Bay Municipality (NMBM)(Figure 1). Lurco Trading 128 (Pty) Ltd is the registered owner of both properties, which are currently vacant. The applicant intends to develop Erf 984 (±7.29 ha), which is zoned Industrial 1, for Storage, Warehousing and Related Facilities, as depicted in Figure 4. Erf 1134 (±3.31 ha) is earmarked for future development and will be submitted for environmental authorisation at this stage based on its current approved zoning, which includes Business Zone 1, Open Space Zone 2, Open Space Zone 3, and Transport Zone 2 as shown in Figure 5.

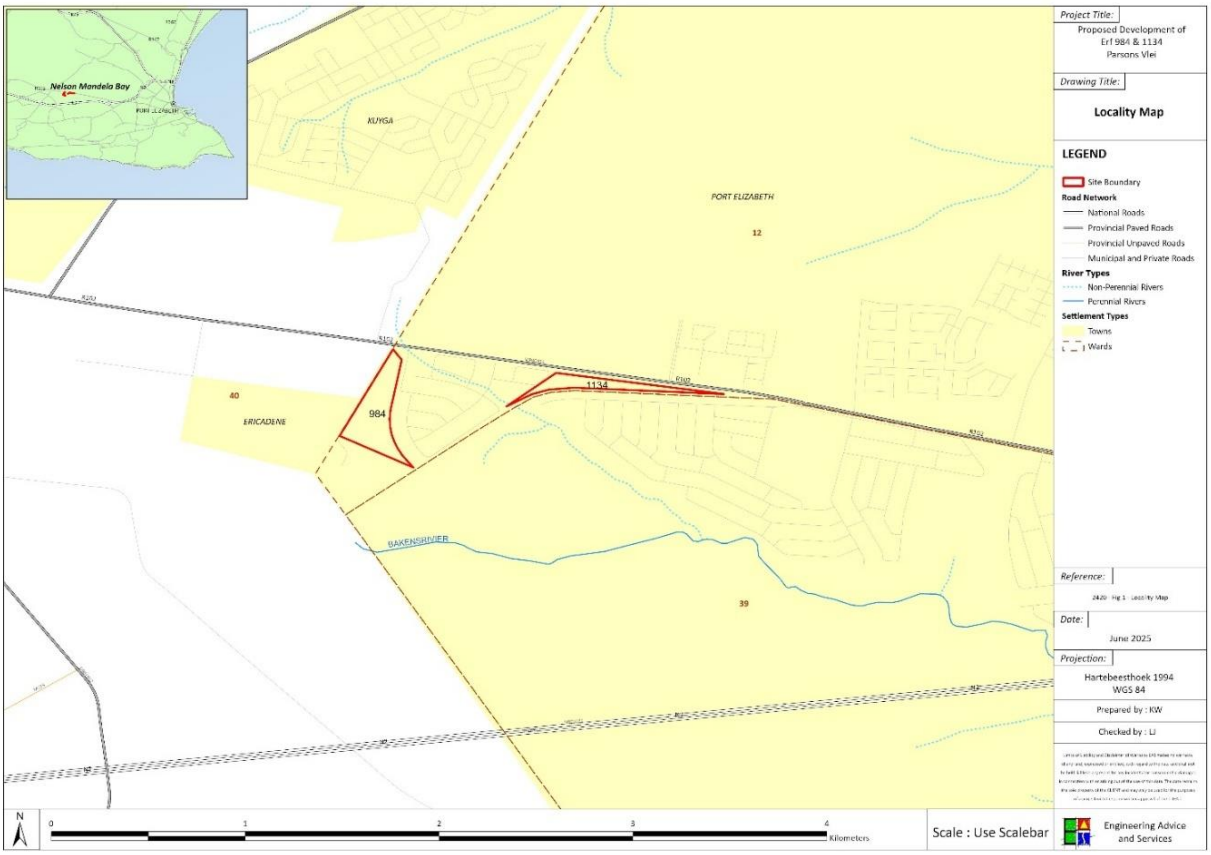

Figure 1. Locality Map of subject sites, south of Old Cape Road

1.1 Introduction

1.1.1 Project Location

The properties are situated approximately 600 meters apart. They are located in the south-western corner of the Parsons Vlei Allotment Area, north of Hunters Retreat. Parsons Vlei is part of the Western Suburbs of Port Elizabeth, and south of Old Cape Road. The subject sites are situated approximately 15 km away from Port Elizabeth City Centre, but well within the Urban Growth boundary (NMBM, 2011). The surrounding Allotment Areas are: Hunters Retreat to the southeast, Greenbushes to the west of the site, and the Farms PE Allotment Area is located to the southwest. Erf 984 is along Reserve Road, and Erf 1134 can be accessed via Romulus Crescent, as indicated below, but neither has direct access via Old Cape Road (Figure 2 and Figure 3).

Figure 2. Erf 984 surrounding developments

Figure 3. Erf 1134 surrounding developments

1.2 Proposed Activities

1.2.1 Development in Erf 984, Parsons Vlei Extension 10

Erf 984 is abutted by fully functional residential dwellings along Reserve Road, east of the site. Light industries such as storage facilities, transport warehouses, etc., are located further west and north west within the Greenbushes allotment area. The site concept layout, Figure 4 makes provisions for the development of warehouses and is zoned Industrial 1. The erf measures approximately 7.30 hectares. Uses permitted in this zone are Funeral Parlours, Industries, Business Purposes, Public Garages, Parking, Warehousing, Shops, Workshops, Builder's Yards, and Noxious Uses subject to regulation 3.15.2 of the Port Elizabeth Zoning Scheme. **No noxious uses are planned or will take place.**

The proposed development may entail the following construction of facilities as per the concept layout in Figure 4:

- Warehouses which include inbound and outbound operational areas
- Changing rooms and ablutions
- Canteen and warehouse offices
- Yard areas on each site of the warehouse
- A return and repack store
- A truck wash bay, guardhouse, fire tank and pump house, refuse area, workshop,
- Parking in terms vehicle bays and truck bays
- An office block with reception, waiting and meeting rooms and offices
- Entrance/exit
- Guardhouse, refuse area, entrance/exit
- Yard areas to north, east and south of warehouses

No areas of high sensitivity were identified in the Biodiversity Specialist Report, and no areas have been recommended to be retained, but a section of medium sensitivity vegetation was identified within the southernmost portion of the site. Refer to the biodiversity section for further discussion.

Figure 4. Site concept layout for Erf 984, Parsons Vlei Ext 10

1.2.2 Development in Erf 1134, Parsons Vlei Ext 10

Erf 1134 is currently vacant. The erf is abutted by fully functional residential properties along Deon Street to the south and to the west along Romulus Crescent (refer to Figure 5). Light industries such as storage facilities, transport warehouses, etc., are located further west and north west within the Greenbushes allotment area.

The applicant proposes the future development of Erf 1134. The erf measures approximately 3.31 hectares and is currently zoned as Business Zone 1, Open Space Zone 2, Open Space Zone 3, and Transport Zone 2, in accordance with municipal approvals granted in January 2025. Additionally, Erf 1134 was subdivided into eight land units. The applicant proposes to develop Erf 1134 in the future within the confines of the land use rights. The south-western part of Erf 1134 will be retained as Open Space Zone 3 since that section is within a Critical Biodiversity Area (CBA) according to the NMBM Bioregional Plan Status (2015). This concept layout (as shown in Figure 5) represents the current proposal being submitted for

environmental authorisation. However, as the erf will only be developed at a later stage, a final site development plan will be submitted for approval if it differs from what is currently proposed.

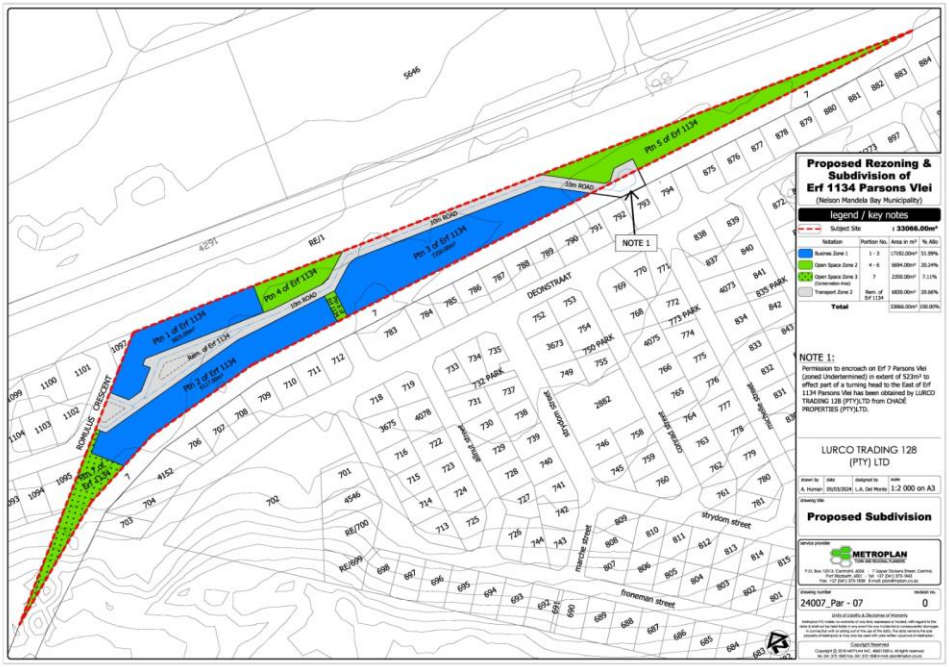

Figure 5. Zoning and hybrid subdivision for Erf 1134, Parsons Vlei Ext 10

1.3 Receiving Environment

1.3.1 Critical Biodiversity Areas

According to the NMBM Bioregional Plan (2015), the south-southwestern part of Erf 1134 falls within a CBA (the current proposed layout plan for Erf 1134 retains this area as Open Space), as shown in **Figure 6**. The latest Eastern Cape Biodiversity Conservation Plan (2019) does not cover the Nelson Mandela Bay Metropolitan as the municipality has its own Bioregional Plan.

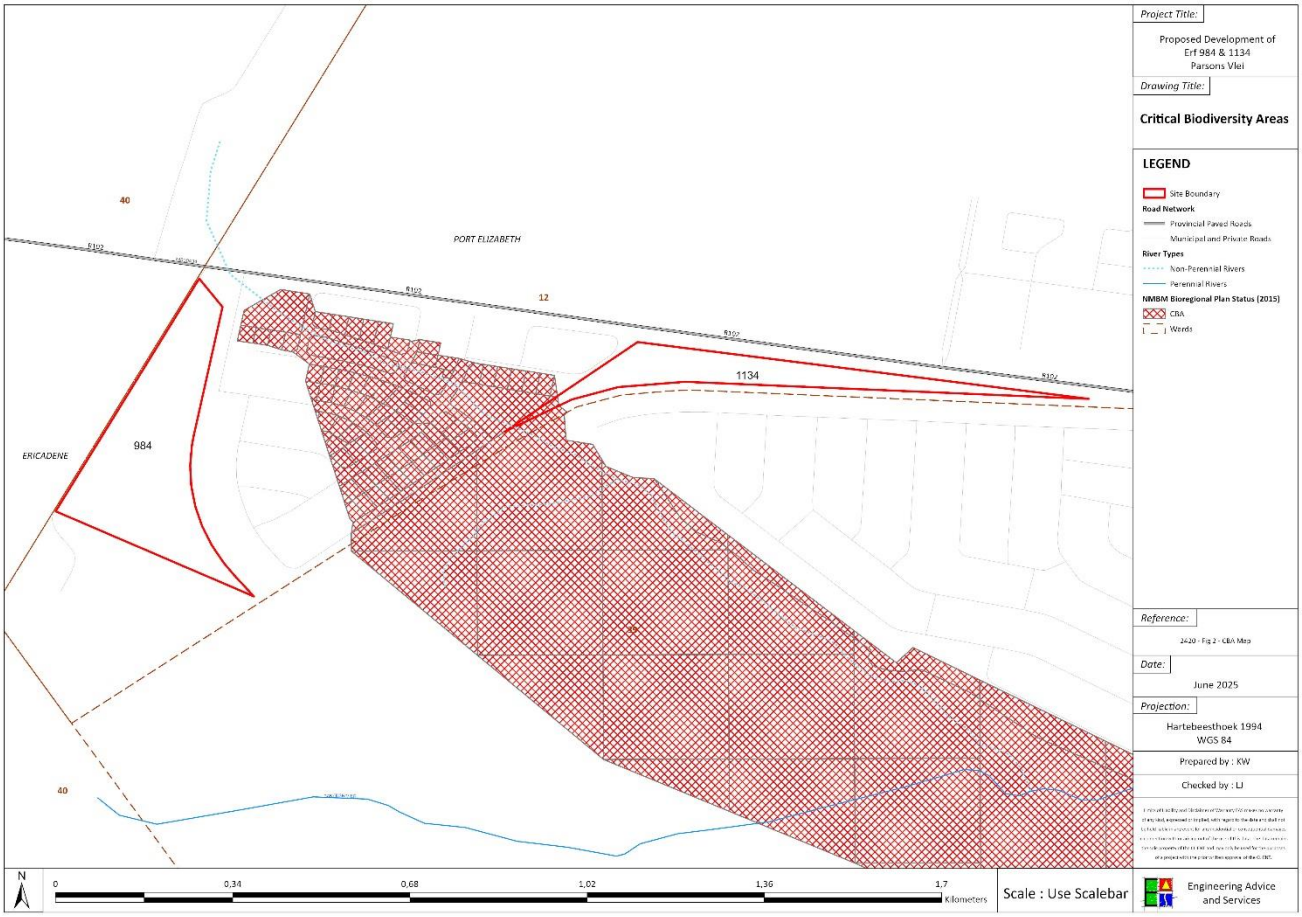

Figure 6. CBA Map for Erven 984 and 1134, Parsons Vlei

1.3.2 Terrestrial Biodiversity

Please refer to **Appendix D1** (Biodiversity Impact Assessment Report) **and D3** (Terrestrial Biodiversity Site Sensitivity Verification Report) for a full description of the sites' terrestrial biodiversity.

The vegetation of the proposed development sites comprises Algoa Sandstone Fynbos (Mucina & Rutherford, 2006). In its natural state, this vegetation type is listed as Critically Endangered (National VegMap, 2018). In the NMBM Bioregional Plan, the site is indicated to be within Rowallan Park Grassy Fynbos and has a conservation status of Vulnerable (refer to **Appendix A** for sensitivity maps**)**.

A Terrestrial Biodiversity Assessment was conducted in 2020, and a follow-up site verification was conducted in July 2025. The specialist found that the sites are significantly transformed with moderate to dense alien invasion (*Acacia saligna*) and a secondary grassland vegetation with only a few sporadic elements that would suggest the historical occurrence of Sand Fynbos. The small remnant patch (<1 Ha) of degraded Sand Fynbos on Erf 984 is also limited in conservation value and would not be considered to be of value to retain as it is ecologically disconnected from any viable Sand Fynbos habitat, and the species composition is such that only a few species typical of the unit remain.

Several range-restricted species of conservation concern are known to occur in the surrounding area and the vegetation types; however, none were observed on site. No protected species, including protected trees listed in terms of the National Forests Act (NFA) (Act 84 of 1998), were noted within the site; however, it is recommended that a rapid search and rescue be conducted before site clearing. The faunal habitats and microhabitats present on the project sites are not unique and are widespread in the general area. The sites are unlikely to provide significant faunal habitat due to the surrounding developments and human activities. The overall impacts of the development on birds and bats, other than displacement during site clearing, are likely to be of low to moderate significance. The DEA Screening Tool flagged several bird species (Aves) of high sensitivity and one reptile/insect species of medium sensitivity as potentially occurring on site. However, none of these species was observed during the site assessment.

1.3.3 Climate

The development sites are located in Parsons Vlei on the western outskirts of Gqeberha, within the western portion of Algoa Bay. The Nelson Mandela Bay receives an average annual rainfall of 453 mm, with rainfall occurring throughout the year, where the lowest rainfall occurs in January and the greatest in October (meteoblue.com). The climate in this area is warm and temperate (meteoblue.com). Nelson Mandela Bay experiences rain even during the driest months. According to climate-and-weather.com, the warmest month is January with an average maximum temperature of 25°C, and the coldest month is July with an average maximum temperature of 19°C. This climate is considered to be Cfa according to the Köppen-Geiger climate classification. The temperate climate of the city means it is not prone to extreme climatic vulnerability. Nelson Mandela Bay is recognised as being part of the Sunshine Coast, a coastline that experiences most sunshine in South Africa, about 320 out of 365 days a year (southafrica.net).

1.3.4 Topography

Erf 984 is a relatively flat erf and does not slope towards any prominent direction (**Figure 7**). This is most likely a result of historical agricultural practices on the property, and the surrounding properties (which are not situated close to a drainage line) are also relatively flat. The topography of the site is ideal for development and should not necessitate extreme amounts of soil and material removal and/or infill.

Erf 1134 is also relatively flat, but the western edge does slope slightly towards the non-perennial drainage line (**Figure 8**). This south-western part of the erf is where the proposed open space area will be located as a result of this section falling within a CBA (NMBM BP, 2015). The site is situated directly next to Old Cape Road, which could be one of the factors for the site's topography and levels of disturbance.

Figure 7. Elevation profile of Erf 984

Figure 8. Elevation profile of Erf 1134

1.3.5 Rivers and Wetlands

The sites have a very high aquatic biodiversity sensitivity according to the Screening Tool Report. The Screening Tool indicates an Aquatic Ecological Support Area (ESA 1). However, the sites are NOT identified in the gazetted NMBM Bioregional Plan (2015) as an ESA. The tip of the western boundary of Erf 1134 is identified in the NMBM Bioregional Plan (2015) as a non-perennial drainage line (**Figure 9**). This area will not be affected as it will be left as open space. The Baakens River is located to the south of the sites. Proposed development of Erf 984 may have indirect impacts on the watercourse during rainfall events due to underground runoff, but with mitigation measures, the impact should be negligible. There is a small unchanneled valley-bottom wetland and a non-perennial drainage line located southwest of Erf 1134. However, it is over 100 m away, and there is a built environment between the area that will be developed for this feature.

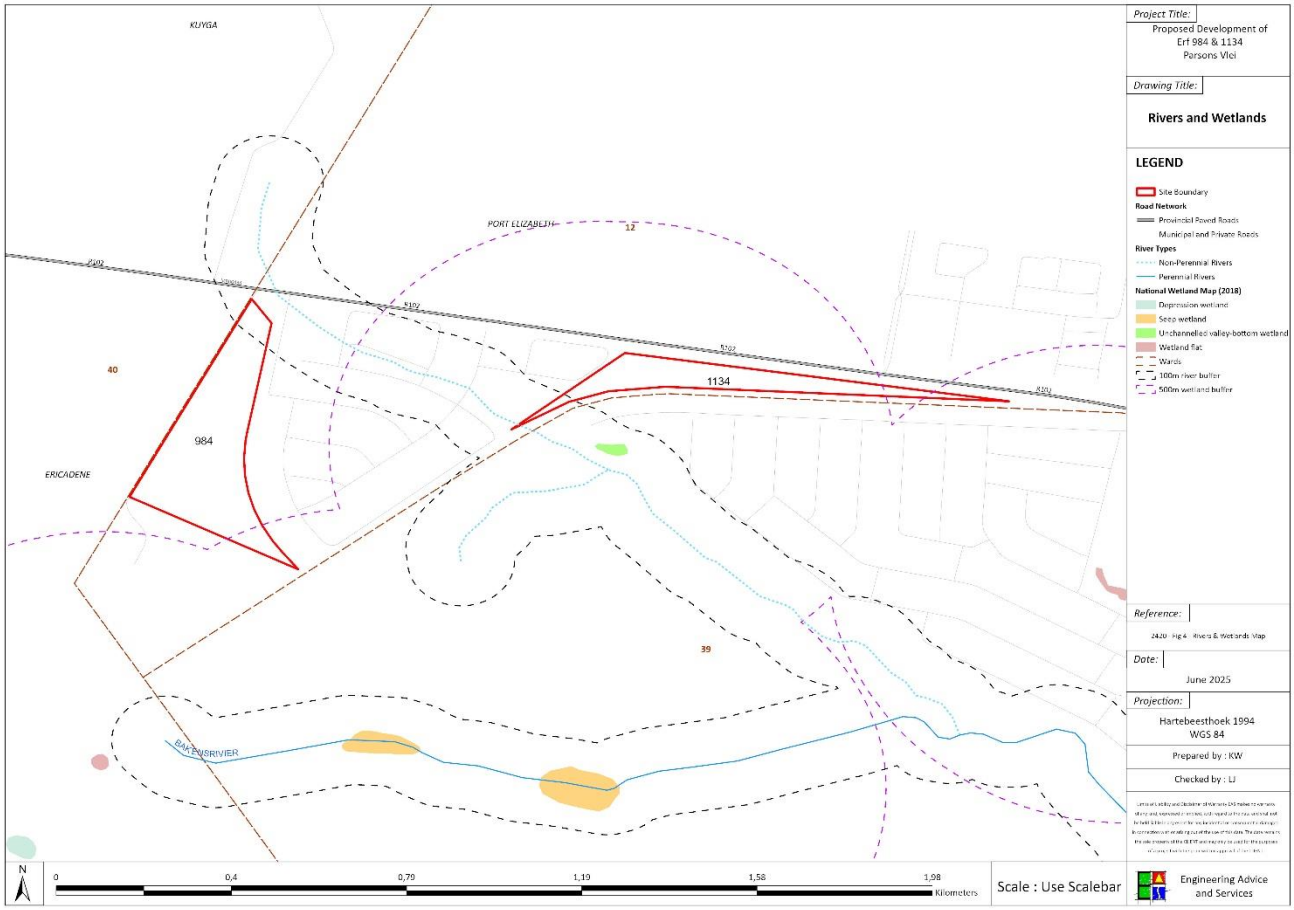

Figure 9. River and wetlands map

1.4 Access

A TIA will be completed before the commencement of construction.

Erf 984 – Access to Erf 984 is proposed via Reserve Road directly opposite Pandora Avenue. Although Pandora Road is located only 240m from Old Cape Road, restricting access on Reserve Road to this single location is better than creating an additional access on a road that will ultimately function as a class 3 arterial in terms of the NMBM long-term road network proposals. Each access point will be configured and designed in accordance with the approved Traffic Impact Assessment.

It is more than likely that there is a minimum of 20 m between the road edge and access control. Should access control be provided from Reserve Road, any access control shall be positioned a minimum of 20m from the Reserve Road boundary. It is further proposed that any fencing or boundary walls be constructed with a splay as indicated to maximise sight distances. The egress should be configured with the stop line set back a minimum of 5m in order to extend the sight-distance triangle even further back.

Erf 1134 – In terms of the approved rezoning of Erf 1134, access can only be gained from the existing road, Romulus Crescent, on its western boundary. Access to Romulus Crescent can be gained from Pandora Avenue via Fortuna Way.

1.5 Screening Tool Report

According to the screening report generated by the Online DFFE Screening Tool, the following themes' sensitivities have been identified.

Table 1. Screening Tool Report Identified Sensitivities for Erven 984 and 1134

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme		X		
Animal Species Theme		X		
Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme		X		
Defence Theme			X	
Palaeontology Theme		X		
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

The Site Sensitivity Verification Report attached as **Appendix G5** indicates which specialists were deemed to be required for this application and also states the reasons for not including certain specialists.

1.6 Current State of Site

Erf 984 and 1134 are vacant sites, situated along Old Cape Road in Parsons Vlei Ext 10. They are located in an area experiencing increasing urban development, with both erven surrounded by land currently being developed to the north, east, and west. The surrounding land use is mixed with established residential dwellings adjacent to both erven and light

industrial activities further west and north west in the Greenbushes allotment area. Both sites have disturbance limited to paths and footpaths, with some illegal waste dumping and concrete waste observed. Both sites are relatively flat, but Erf 1134 slopes gently toward a non-perennial drainage line on its western boundary.

The specialist found both sites to be significantly transformed and heavily invaded by alien invasives (*Acacia saligna*/ Port Jackson Willow) and largely covered by secondary grassland vegetation. A pocket was identified on Erf 984 (<1 Ha) of degraded natural vegetation with more distinctive fynbos species, characteristic of Algoa Sandstone Fynbos. However, this patch was determined to have limited conservation value and, if left in its current state, informal cattle grazing and alien vegetation will likely cause further deterioration. Furthermore, the remnant pocket has not significantly changed since the original assessment was conducted in 2020. Overall, the sites are unlikely to provide suitable permanent or sustainable habitat for any flagged fauna species of conservation concern and no flagged plant species of conservation concern were recorded nor are likely to occur.

Erf 984

Erf 1134

1.7 Summary of Previously Granted Environmental Authorisation

An Environmental Authorisation was previously granted by the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), dated 26 September 2008, in terms of the National Environmental Management Act, Act 107 of 1998 and the EIA Regulations, 2006 for the proposed development of Erf 984 for the purposes of establishing an industrial park and Erf 1134 rezoning from Undetermined to Business 1 and Industrial 2. The DEDEAT Ref: EC,1/386/M/07-128. The following activities were approved under the 2006 EIA Regulations: R386 Activity (1k), (12), (15), (16), and (18). The Environmental Authorisation lapsed as the activities were not completed within the stipulated timeframes as indicated in the Environmental Authorisation (**Appendix G**).

Additionally, an Environmental Authorisation was previously granted by the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), dated 13 June 2022, in terms of Section 24 of the National Environmental Management Act, Act 107 of 1998 to undertake a listed activity as scheduled in the Environmental Impact Assessment Regulations, 2014, as amended, for the proposed development of Erf 1134 and 984, Parsons Vlei Ext 10, within the Nelson Mandela Bay Municipality. The DEDEAT Ref is ECm1/C/LN1&3/M/61-2021. The following activities were approved under the 2014 EIA Regulations: GN R.327 Activity (27) and GN R.324 Activity (12). The Environmental Authorisation lapsed as the activities were not completed within the stipulated timeframes as indicated in the Environmental Authorisation (**Appendix G**). Hence, the new Basic Assessment Application.

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.

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

2.1 Design and layout alternatives

As per GNR 982, Appendix 1(2)(b), alternatives for the proposed development are to be identified and considered. Chapter 1 of the EIA Regulations (2014, as amended) provides an interpretation of the word "*alternatives*", which is to mean -

"*in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to the -*

a) Property on which or location where the activity is proposed to be undertaken;

b) Type of activity to be undertaken;

c) Design or layout of the activity;

d) Technology to be in the activity; or

e) Operational aspects of the activity.

And includes the option of not implementing the activity."

Based on the above, the following alternatives are presented for the intended development. The determining factors for the types of structures and associated infrastructure which will be constructed were aspects such as policy guidelines, natural and manmade characteristics of the site, socio-economic status of the community, accessibility and the connectivity the site has with the surrounding roads infrastructure, availability of municipal services, as well as specific servitudes. These were all taken into account to achieve the best use of the site, considering the application of Integrated Environmental Management, where socio-economic and biodiversity factors were considered during the pre-planning phase. This assisted (in this section specifically) in the evaluation of how these factors might impact the different phases of the project and how these could be alleviated by introducing alternatives.

2.1.1 Layout Alternatives

Please refer to **Figure 4** and **Figure 5** – only one layout has been presented for each Erven. The EAP was presented with the proposed SDPs upon appointment. A Biodiversity Specialist was appointed to determine site sensitivities and any no-go areas, which would inevitably impact the SDP and likely lead to the development of layout alternatives in order to avoid the no-go areas as per the mitigation hierarchy guidelines. Once the specialist conducted his assessment of the site, it was indicated that the identified sensitive areas or "no-go" areas are in line with the Open Space Zones on the proposed SPD (Erf 1134).

(a) The property on which or the location where it is proposed to undertake the activity

Only Erf 984 and Erf 1134 were considered for the proposed development. The preferred location for the activity has been chosen primarily because the properties are owned by the applicant. The sites are located within the Urban Growth Boundary and are part of a strategic growth area. Their proximity to major transport routes (Old Cape Road, N2, and associated arterials) and nearby economic nodes such as Industrial Greenbushes makes the proposed locations suitable for the developments.

(b) The type of activity to be undertaken

Erf 984 – The site layout makes provisions for the development of warehouses and is zoned Industrial 1. The proposed development may entail the construction of facilities such as:

- Warehouses which include inbound and outbound operational areas
- Changing rooms and ablutions
- Canteen and warehouse offices
- Yard areas on each site of the warehouse
- A return and repack store
- A truck wash bay, guardhouse, fire tank and pump house, refuse area, workshop,
- Parking in terms vehicle bays and truck bays
- An office block with reception, waiting and meeting rooms and offices
- Entrance/exit
- Guardhouse, refuse area, entrance/exit
- Yard areas to north, east and south of warehouse

Erf 1134 – The applicant proposes the future development of Erf 1134. The erf is currently zoned as Business Zone 1, Open Space Zone 2, Open Space Zone 3, and Transport Zone 2, in accordance with municipal approvals granted in January 2025. The applicant proposes to develop Erf 1134 in the future development within the confines of the land use rights, while retaining the open space area in the western corner

The intended developments are aligned with the broader spatial planning objectives for the area, supporting the expansion of the Greenbushes Industrial Area and Rowallan Park and are expected to support local economic development and job creation.

(c) The design or layout of the activity

One layout is being considered for each of the sites. No new layout alternative layouts were assessed as part of this current application; it is worthwhile to mention that previous layout alternatives were investigated during earlier planning phases for both Erf 984 and Erf 1134, Parsons Vlei.

(d) The technology to be used in the activity

The Applicant is advised to incorporate the following into the Site Development Plan to reduce water demand:

- Water-efficient fixtures in all the buildings, such as low-flow toilet cisterns, low-flow showerheads, low-flow taps, or taps with auto shut-off mechanisms;
- The provision of rainwater tanks to be provided for each industrial and business site,
- The design of all business units requires the incorporation of approved grease traps and oil separator systems.

- The SDP is to incorporate the installation and use of alternative energy sources where possible, such as solar geysers, solar panels, compact fluorescent or LED lighting. Other methods of energy and water saving which could be considered include:
  - A truck workshop can have large water tanks for rainwater harvesting, allowing the stored water to be used for the washing of the trucks and site irrigation within the vicinity.
  - Stormwater harvesting can be incorporated into the site's design, with attenuation ponds collecting water, to be a source for grey water irrigation (should planning permit).
- The design of the warehouse roof and vertical sheeting monitors, which can maximise the amount of natural light penetrating the warehouse envelope.
- The buildings can be oriented and incorporate design elements such as strip windows on sun-facing facades in order to reduce the building's heat gain, resulting in less energy used in the cooling systems.
- The facilities could make use of in-house recycling systems to reduce the recycling process, creating smaller packages and therefore being more energy efficient in the waste management of the warehouse.
- The main roofing could be insulated, reducing the heat gain and loss of the buildings.
- Artificial lighting could use LED technology rather than standard lighting fixtures to reduce electricity consumption.
- Solar power could be incorporated.
- The development design to incorporate the installation and use of alternative energy sources where possible, such as solar geysers, solar panels, compact fluorescent or LED lighting.

(e) The operational aspects of the activity

Erf 984 and Erf 1134 Parsons Vlei will be developed in line with their zoning permitted uses as described throughout this report, and the operational phase will consist of activities in line with those uses. This Basic Assessment has not considered any other operational alternatives.

(f) The option of not implementing the activity, i.e., No Go Alternative (not recommended)

The EIA Process is obligated to assess the status quo (i.e., the "no-go" alternative) of the development. The no-go alternative provides the assessment with a baseline against which predicted impacts resulting from the proposed development can be compared. The No-Go Alternative would retain the status quo and the sites would remain untransformed. By implementing the no-go alternative, the sites would stay vacant and undeveloped, which would not have any environmental impacts that are normally associated with the construction and operations of the proposed developments. The low environmental sensitivity of the sites as a whole, considering its surroundings and current ecological state, indicates that impacts expected on the biophysical environment can be mitigated, especially by retaining the open space as proposed for Erf 1134. According to the Biodiversity Specialist Report, the sites have little to no potential of recovering the Algoa Sandstone Fynbos Veg Type if left unattended. The no-go alternative will imply that the proposed development, and thus the conservation of open space, by implementing the open space and rehabilitation of the small section of CBA and rezoning will not be required. Should the proposed development not commence, the sites will most likely undergo further degradation by alien invasive species.

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.

	Latitude (S):		**Longitude (E):**	
Alternative:				
ERF 984	33^{0}	56.022'S	25^{0}	26.524'E
ERF 1134	33^{o}	55.945'S	25^{o}	27.114'E
Alternative S2 (if any)	o	'	o	'
Alternative S3 (if any)	o	'	o	'

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	'

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[1] (preferred activity alternative)	
ERF 984, Parsons Vlei	7.29 Ha (72900 m^2) • Industrial 1
ERF 1134, Parsons Vlei	3.31 Ha (33100 m^2) • Business Zone 1 – 17192 m^2 • Open Space Zone 2 – 6694 m^2 • Open Space Zone 3 – 2350 m^2 • Transport Zone 2 – 6830 m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

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)	m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

[1] "Alternative A.." refer to activity, process, technology or other alternatives.

5 Site Access

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

Access Proposals

A TIA will be completed before the commencement of construction.

Erf 984 - Access to Erf 984 is proposed via Reserve Road directly opposite Pandora Avenue. Although Pandora Road is located only 240m from Cape Road, it is considered that restricting access on Reserve Road to this single location is better than creating an additional access on a road that will ultimately function as a class 3 arterial in terms of the NMBM long-term road network proposals. Each access point will be configured and designed according to the approved Traffic Impact Assessment.

Erf 1134 - In terms of the approved rezoning of Erf 1134, access can only be gained from the existing road (Romulus Crescent) on its western boundary. Access to Romulus Crescent can be gained from Pandora Avenue via Fortuna Way.

It is noted that these roads are all residential access roads and have accordingly not been designed or constructed to accommodate heavy vehicle traffic apart from service vehicles.

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;

Refer to (Preliminary) Facility Illustrations (Appendix C)

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;

Refer to (Preliminary) Facility Illustrations (Appendix C)

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);

Refer to maps (Appendix A)

6.10 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

6.11 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

(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R175 000 000.00	
What is the expected yearly income that will be generated by or as a result of the activity?	R 14 5000 000.00	
Will the activity contribute to service infrastructure?	**YES**	NO
Is the activity a public amenity?	YES	**NO**
How many new employment opportunities will be created in the development phase of the activity?	170	
What is the expected value of the employment opportunities during the development phase?	R110 000 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	35%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	110	
What is the expected current value of the employment opportunities during the first 10 years?	R200 000 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	35%	

(b) Need and desirability of the activity

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

Western Suburbs Local Spatial Development Framework

The proposed project sites are situated along Old Cape Road on the western outskirts of the Nelson Mandela Bay Metro. The sites are well linked to the greater metropolitan area. Old Cape Road links to the N2 freeway via Seaview Road; other prominent roads include Diaz Arterial, Walker Drive, Kragga Kamma Road, and Kabega Road. These roads also provide important internal circulation functions within the Western Suburbs Local Spatial Development Framework (WSLSDF). The viewpoint is that the connection within and to Western outskirts is characterised by the envisioned upgrading plans of the NMBM to properly plan and service nearby residential areas. Intensification of mixed-use developments around the urban nodes and major transportation routes in the immediate vicinity is encouraged (MSDF, 2015)

The two sites are less than a kilometre away from the industrial Green Bushes. Erf 984, Parsons Vlei, will provide an ideal service for the industrial Green Bushes by providing warehouses and storage areas. The Rent-A-Store warehousing also proves that the proposed development in Erf 984 joins the fabric of land uses. Warehousing is an essential component in the logistics and industrial sectors. The site is positioned well in view of the surrounding areas and projected development facilities, including current and prospective developments. The WSLSDF is maintained to enable the Nelson Mandela Bay Municipality (NMBM) to meet the human settlement agenda by creating a framework within which the associated Spatial Community Units/SCU's can meet the needs of the residents by restructuring the current urban area in an integrated, coordinated and holistic manner (NMBM, 2011).

The envisioned WSLSDF was identified by the (NMBM, 2011) as a priority for numerous reasons. This includes the development pressures within the Hunter's Retreat, Parsons Vlei, Greenbushes, Kuyga and Kabega Park areas due to their favourable location for growth. A plan is postulated to be formulated as a matter of urgency to cater for new development trends in the western suburbs (NMBM, 2011). This includes identifying vacant land that could be used to stimulate growth in the area and recommending suitable future land uses, accommodating pressure for new development, including commercial and industrial, in order to improve the quality of life of residents. These proposed developments on Erf 984 and Erf 1134, Parsons Vlei, fit the envisioned WSLSDF plans.

Erf 1134 is located within Sustainable Community Unit /SCU 11, which is vacant land in the south that is envisioned to provide an opportunity for planning residential developments in the WSLSDF (NMBM, 2011). The SCU Planning Guidelines have identified 6 functional elements which enable effective functionality for mixed-use development in the area. In order to understand the functioning of each individual element, SCU evaluates how the needs of its residents are met (a measure of sustainability). The Western Suburbs are foreseen to need to provide additional employment opportunities to the current and future residents, as it is envisioned for expansion (NMBM, 2011). The eastern area of the subject sites leading to Old Cape Road is the better serviced area because of its urban nature and its denser population. The western area lacks services because of its rural nature, with most of the area being vacant land or residential (NMBM, 2011).

The priority is to increase socio-economic growth in the western suburbs. That notion provides the understanding that not all land uses have equal potential to generate employment opportunities; hence, mixed-use development is encouraged (NMBM, 2011). Therefore, strategies are encouraged to focus on reassuring development uses in appropriate locations. The existing potential employment has been established by the WSLSDF by determining all the land which is appropriately zoned for an employment-generating land use, but is currently vacant. These employment opportunities are encouraged along transportation routes or at nodes of activity where the residents would have easy and effective access (NMBM, 2011). The two sites are less than a kilometre away from the industrial Greenbushes area. Erf 984 will provide an ideal service in line with the industrial functionality of Greenbushes. The extension of the Greenbushes industrial area will make provision for the current demand as well as for the future demand for industrial and warehousing space in office, residential areas, i.e., mixed-use developments.

Figure 10. Extract of Western Suburbs LSDF

The sites are less than 4km from what the MSDF recognises as a secondary regional node, the Rowallan Park Complex (NMBM, 2015). The MSDF defines a regional node as developments that are more or less central to places of residence, i.e., "town centres" with a bigger sphere of influence and have the potential to stimulate growth, which may lead to integration with the core socio-economic areas. Secondary regional nodes are seen as potential nodes that are envisaged to stimulate development, meaning the proposed development sites will form part of future envisioned nodes that will stimulate growth

and development in the Metro. The MSDF proposes that secondary regional nodes in the Municipality must be encouraged, especially when they are connected to primary regional nodes (NMBM, 2015)

Pressure to develop land on the urban periphery and in the peri-urban areas of the NMBM is increasing. Development of Erf 1134, Parsons Vlei will promote densification inside the urban growth boundary, and it will make optimum use of existing resources in established urban areas, such as bulk service infrastructure, roads and public facilities. Considering Erf 984, the development of warehousing and industrial land uses will also address the needs of the residents with differing skill levels.

Erf 984 is situated on the peri-urban fringe of residential development. Only recently have the industrial developments and Wedgewood and Hopewell residential estates focused investment and speculative interest in the area. This has led to land use planning applications being submitted in order to enable warehousing, industrial and in limited cases, residential purposes. In mixed-use areas, you can find housing, restaurants, services, schools, cultural facilities, parks, and more. This connectivity reduces the need for private vehicles, thus increasing the viability of public transport, walking, and bicycling. The development of the Industrial Greenbushes as an anchor that will stimulate developments in the immediate vicinity, i.e. opportunity to promote intensification of residential densities and light industries. The sites are in close proximity to public transit-friendly neighbourhoods that benefit local economies.

Accessibility and Connectivity

In this section, access is defined as the degree of absence of barriers, including distance, transportation, and other physical challenges, in accessing goods and services when needed. Connectivity is the relationship among people and objects across the barrier of space. These are influenced by the allocation of resources, equity, and investments in communities.

Accessibility must be a primary consideration in planning any city. All parts of the city must be well connected and accessible through public transport, as well as for the movement of goods and people, in order to allow the city to function economically and socially and to enable greater integration. At the SCU level, the connection of the SCU to other parts of the city is vital, especially by public transport. This is particularly necessary for poor communities that have fewer private vehicles. Accessibility to other parts of the city will increase the range of social, recreational, cultural and work opportunities available to a community. A pedestrian focus in planning is important as most people do not own vehicles, and other transport options are costly. It is for this reason that the concept of the Planning Guide emphasises the need to provide the requirements for daily life within walking distance of households.

Old Cape Road is the only main East-West linkage in this SCU, with Seaview Road as a link to the N2 in the South, as well as Bay West Boulevard. The proposed Diaz Road extension will provide an additional East–West link in the North. The two sites are in an LSDF area that is well linked to the greater metropolitan area, with major transportation routes being the connection. The sites join the Old Cape Road that links to the N2 freeway via Seaview Road; other prominent roads include Diaz Arterial, Walker Drive, Kragga Kamma Road and Kabega Road. These roads also provide important internal circulation functions within the WSLSDF. The connection of the sites will further be enhanced by the N2 interchanges associated with the Bay West City development, Redhouse-Chelsea and Walker Drive Extensions. If consideration is given to the potential

additional development and population that will become residents in the LSDF area, the current mindset that Greenbushes is too far out of town will be eroded over time.

Macro job creation on a city-wide level is spatially indicated on the adjoining plan, i.e. primarily with the large economic land uses. These include major industrial areas such as Markman, Swartkops, the proposed Coega IDZ, Greenbushes Industrial area, Neave Industrial area, Uitenhage Industrial area and major business areas.

The standpoint is that urban corridors and their spatial qualities are of utmost importance to create successful urban developments that have access and connectivity and encourage an integrated approach that addresses urban development, land use, movement, transport infrastructure and services, public amenities and urban conservation.

The position of the subject site in relation to the surrounding road network makes this site ideal for the intended development. The site joins the N2, a road that joins two provinces, the Eastern Cape and Western Cape, with multiple towns and municipalities in between, including the City of Cape Town. The Gqeberha harbour and the route to and from the Chief Dawid airport have an impact on the utilisation of the N2, and the municipality and its residents are benefiting economically from movement activities along this route

The two sites are in a Local Spatial Development Framework/LSDF area that is well linked to the greater metropolitan area, with major transportation routes being the connection the (MSDF, 2015) describes. The access roads of the sites join Old Cape Road, which links to the N2 freeway via Seaview Road. Other prominent roads include Diaz Arterial, Walker Drive, Kragga Kamma Road and Kabega Road. These roads also provide important internal circulation functions within the Western Surburbs Local Spatial Development Framework/WSLSDF. The connection of the sites will further be enhanced by the N2 interchanges associated with the Bay West City development, Redhouse-Chelsea and Walker Drive Extensions. If consideration is given to the potential additional development and population that will become residents in the LSDF area, the current mindset that Greenbushes is too far out of town will be eroded over time.

The two sites are less than a kilometer away from the industrial Green Bushes. Erf 984, Parsons Vlei will provide an ideal service for the industrial Green Bushes. The Rent-A-Store warehousing also proves that the proposed development joins the fabric of land uses. Warehousing is an essential component in the logistics and industrial sectors. During the first COVID-19 national lockdown, most retailers had to close shop which had adverse economic impacts on the country and the livelihoods of millions of South Africans. Some companies were able to move to online portals to sell their products. The buying and selling of goods and services amongst other things are known as e-commerce (electronic commerce). Directly related to the expansion of e-commerce and its related activities is warehousing. The effectiveness of e-commerce was realized well before the national lockdown was implemented, but many businesses were forced in this direction and most retail and related services will have to adapt, if not already, considering the direction in which retail is developing when taking technology and the advancements thereof into consideration. Hitherto e-commerce is a fast-expanding sector, but the current situation of the pandemic will augment that growth which will increase the demand for available warehousing space.

The expansion of the Greenbushes industrial area and secondary regional node, Rowallan Park, will make provision for the current demand as well as for the future demand for industrial and warehousing land in office, residential areas, i.e., mixed-use developments. In essence, the desirability of mixed-use development is intended for convenience, by shortening travel distances between different developments which would contribute to each other. Mixed-use developments have the potential to blend office space, leisure and entertainment, and residential living space together, creating an all-in-one space that's built for convenience. The viewpoint is that urban corridors and their spatial qualities are of utmost importance to create successful urban developments that have access and connectivity. Intensification of mixed-use developments around the node and major transportation routes in the immediate vicinity is encouraged (MSDF, 2015).

This section on need and desirability is compiled in accordance with the requirements of the Guideline of Need & Desirability (DEA, 2017) published in terms of Section 24J of NEMA. The guidelines indicates that the following main subjects are addressed when assessing the need and desirability of a project:

- aligning the project with relevant planning and legislation policies
- ensuring ecologically sustainable development and use of natural resources
- promotion of justifiable economic and social development

As per the DEA (2017), Guideline on Need and Desirability, Department of Environmental Affairs;" In order to properly interpret the EIA Regulations' requirement to consider "need and desirability", it is necessary to turn to the principles contained in NEMA, which serve as a guide for the interpretation, administration and implementation of NEMA and the EIA Regulations. With regard to the issue of "need", it is important to note that this "need" is not the same as the "general purpose and requirements"10 of the activity. While the "general purpose and requirements" of the activity might to some extent relate to the specific requirements, intentions and reasons that the applicant has for proposing the specific activity, the "need" relates to the interests and needs of the broader public. In this regard, the NEMA principles specifically inter alia require that environmental management must:

- "place people and their needs at the forefront of its concern" and equitably serve their interests;
- "be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option;
- pursue environmental justice "so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person";
- ensure that decisions take "into account the interests, needs and values of all interested and affected parties"; and
- ensure that the environment is "held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage".

"SECURING ECOLOGICALLY SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES"

1. How will this development (and its separate elements/aspects) impact the ecological integrity of the area?

1.1 How were the following ecological integrity considerations taken into account?:

1.1.1 Threatened Ecosystems,

1.1.2 Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure,

1.1.3 Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs"),

1.1.4 Conservation targets,

1.1.5 Ecological drivers of the ecosystem,

1.1.6 Environmental Management Framework,

1.1.7 Spatial Development Framework, and

1.1.8 Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).

Impacts on Ecological Integrity

The proposed development is expected to have a limited impact on the ecological integrity of the area, with most negative effects associated with the construction phase being mitigable through appropriate management. The sites are mostly transformed and infested with alien invasive species. Erf 1134 contains a small section within a CBA, which will be retained as open space for potential rehabilitation. Erf 984 includes a pocket of semi-intact vegetation indicative of Critically Endangered Algoa Sandstone Fynbos, but does not have high conservation value.

Additional construction-related ecological impacts include the potential spread of alien invasive species, temporary disruption of ecological processes, and potential impacts to the non-perennial drainage line on Erf 1134. These are all considered medium negative impacts prior to mitigation, but can be reduced to low through the implementation of the Environmental Management Programme (EMPr). Operational phase impacts are fewer and include the risk of alien plant re-establishment, maintenance of open space biodiversity, and stormwater runoff due to increased impervious surfaces. With proper implementation of mitigation measures, these impacts are expected to remain low in intensity and significance.

Threatened Ecosystems

The site falls within the Algoa Sandstone Fynbos vegetation type, which is listed as Critically Endangered (SANBI VegMap, 2018). However, much of this vegetation on-site has been degraded or lost. A search-and-rescue operation is recommended prior to site clearing.

Sensitive, Vulnerable, Highly Dynamic or Stressed Ecosystems

No wetlands, estuaries, or coastal habitats occur within the development footprint. A non-perennial drainage line lies along the western boundary of Erf 1134, and this feature has been excluded from development through the allocation of Open Space Zone 3. The Baakens River is located approximately to the south of Erf 984 and Erf 1134. Proposed development of Erf 984 may have indirect impacts on the watercourse during rainfall events due to underground runoff.

Critical Biodiversity Areas and Ecological Support Areas

According to the NMBM Bioregional Plan (2015), the south-southwestern part of Erf 1134 falls within a CBA. According to the proposed layout plan for Erf 1134, this area will be retained as Open Space Zone 3.

Conservation Targets

The retention of the CBA portion on Erf 1134 contributes to biodiversity targets by protecting remnant natural features. Due to the degraded nature of the vegetation, the ecological value of the remainder of the sites is limited, and development in these areas will not compromise regional conservation targets.

Ecological Drivers of the Ecosystem

The most significant ecological drivers include: alien vegetation invasion, surface water drainage (particularly along the western edge of Erf 1134, where there is a non-perennial drainage line), edge effects and habitat fragmentation due to surrounding developments, and soil erosion and disturbance. These drivers were considered in the planning of the development layout, and relevant mitigation measures have been addressed to limit further disruption of these processes.

Environmental Management Framework

The NMB Bioregional Plan (2015) functions as a planning tool to guide development in ecologically sensitive areas.

Spatial Development Framework

The NMB Spatial Development Framework (MSDF, 2015) identifies this area as part of a strategic urban expansion zone.

Global and International Responsibilities

The site is not located within or near any RAMSAR sites or World Heritage Sites.

1.2 How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?

The proposed development of Erven 984 and 1134 may have a mixed impact on local ecosystems and biological diversity. Mainly, it will lead to the loss of some degraded vegetation, particularly on Erf 984, where a small patch of semi-intact Algoa Sandstone Fynbos is present. Clearing of existing vegetation, including invasive species, could disrupt habitats and ecological processes, while soil compaction and erosion from construction can degrade soil health and affect plant growth.

However, impacts on ecosystems and biodiversity can be largely avoided or minimised through mitigation measures. The section of Erf 1134 that falls within a CBA has been retained as Open Space Zone 3 to preserve an ecological corridor and protect the nearby drainage line. Further measures include a search-and-rescue operation prior to clearing, stormwater and erosion control, and the removal of invasive alien species

1.3 How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?

The development of Erven 984 and 1134 in Parsons Vlei poses several risks of polluting and degrading the biophysical environment during both the Construction Phase and Operational Phase. During construction, activities such as vegetation clearing, earthworks, vehicle movement, and infrastructure installation may result in soil erosion, dust and noise pollution, and the disturbance of existing drainage patterns. Increased impervious surfaces (e.g., paved roads, rooftops) can intensify stormwater runoff, potentially transporting sediment, nutrients, and pollutants into nearby features such as the non-perennial drainage line along Erf 1134, impacting local water quality and ecological function. Additionally, noise and air pollution from construction machinery and increased vehicle traffic during the Construction Phase can disturb local wildlife and degrade air quality in the area.

Avoidance and Minimisation Measures

To avoid and reduce these impacts, the development layout has excluded ecologically sensitive areas from disturbance, particularly the CBA on Erf 1134, which has been retained as Open Space Zone 3. To minimise pollution and degradation, the EMPr includes stormwater management, dust suppression techniques, erosion control with silt fences and sediment traps, and strict construction waste protocols. Comprehensive waste management plans will handle construction debris and waste generated during the operation phase of the project efficiently. These measures will limit sedimentation, protect nearby drainage features, and reduce air and noise pollution. Alien vegetation removal and post-construction rehabilitation will help restore some ecological function and reduce long-term degradation. Soil rehabilitation efforts will restore and stabilise disturbed areas, while pollution response plans will address any accidental spills promptly.

1.4 What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimise, reuse, and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste?

The development in Parsons Vlei will generate several types of waste, including construction debris, packaging materials, organic waste, and commercial refuse.

Construction Waste

The development will result in the generation of waste during the construction phase. Construction activities such as site preparation, building construction, and infrastructure installation will produce significant amounts of construction and demolition waste, including concrete, bricks, wood, metal, packaging materials, and soil resulting from excavation. Waste from packaging materials like plastics, cardboard, and pallets is used during the transportation and storage of construction

supplies. Organic waste that will be generated from landscaping activities, including plant cuttings, soil, and other organic materials.

Operational Waste

The operational phase waste can come from domestic refuse, packaging waste, recyclable materials, and potentially small amounts of hazardous materials. These ongoing operational activities may produce green waste and other materials. This could cause pollution to the surrounding areas if proper waste management is not implemented.

Avoidance and Minimisation Measures

The development will aim to minimise waste generation in the following ways: promote recycling and reuse, and ensure the safe treatment and disposal of any unavoidable waste. To mitigate the generation of waste, efforts will be made during the planning stages to explore measures aimed at waste avoidance. This includes choosing building design and material selection to minimise waste generation from the outset. Strategies such as using modular construction techniques, pre-fabricated components, and lean construction principles should be considered to reduce the amount of construction and demolition waste generated during construction. Additionally, suppliers will be encouraged to use minimal packaging and to provide materials in bulk to reduce packaging waste.

Minimise, reuse, and recycle on-site materials

Where waste cannot be avoided, measures to minimise and recycle include the use of separate skips for construction debris, the regular removal of waste from the site, and encouraging recycling of suitable materials. A waste register will be maintained to track disposal volumes and destinations.

For waste that is unavoidable, safe treatment and disposal will involve transporting all residual construction and operational waste to a licensed landfill site (Arlington), with secure, capped litter bins provided on-site and emptied regularly. Hazardous materials will be stored in bunded, impervious containment areas, inspected regularly, and managed in line with spill response protocols. During the operational phase, waste will be collected weekly by a registered service provider and stored in secure, impermeable, animal-proof bins with a designated refuse yard to ensure proper handling and disposal

1.5 How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?

The erven have been classified as having a low Archaeological and Cultural Heritage sensitivity theme by the DFFE online screening tool. The sites were previously approved for development, whereby it was assumed that no specimens of archaeological concern were previously identified on the site. However, a Phase 1 Archaeological Heritage Impact Assessment will be completed before construction commences.

In general, the area for the proposed development appears to be of low archaeological sensitivity, and it is unlikely that any archaeological remains of significance will be found in situ or exposed during these activities. There are no known graves or historical buildings older than 60 years on the proposed site.

1.6 How will this development use and/or impact non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?

Not directly applicable to the proposed project.

1.7 How will this development use and/or impact renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?

1.7.1 Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life)

1.7.2 Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources this the proposed development alternative?)

1.7.3 Do the proposed location, type and scale of development promote a reduced dependency on resources?

Not directly applicable to the proposed project.

1.8 How was a risk-averse and cautious approach applied in terms of ecological impacts?

1.8.1 What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?

1.8.2 What is the level of risk associated with the limits of current knowledge?

1.8.3 Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?

A risk-averse and cautious approach was adopted throughout the planning and design of the development to ensure that ecological impacts were avoided or minimised, even in the face of certain data limitations. The limits of current knowledge include the fact that the biodiversity assessment was based on a once-off site visit, which may not have captured seasonally dependent species, particularly geophytes or cryptic fauna.

In response to this uncertainty, a search-and-rescue operation is recommended before vegetation clearing to ensure species of concern can be identified and relocated if necessary.

1.9 How will the ecological impacts resulting from this development impact people's environmental rights in terms following

1.9.1 Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?

1.9.2 Positive impacts: e.g., improved access to resources, improved amenities, improved air or water quality, etc. What measures were taken to enhance positive impacts?

Negative Impacts

Construction activities may degrade air and water quality, leading to potential health issues from pollution and dust generation, and cause noise and visual disturbances that affect quality of life. The project could alter local water and soil resources, potentially affecting residents' access to clean water for those using groundwater. The transformation of vacant land might reduce open space and recreational opportunities, impacting community amenity. To mitigate these issues, measures include implementing dust control, managing stormwater effectively, and using noise reduction strategies during construction. Comprehensive waste management and pollution control plans are in place to handle unavoidable impacts.

Positive Impacts

The development will have long-term positive impacts on environmental rights by enhancing access to basic services, employment opportunities. Alien invasive species clearance and rehabilitation of retained open space will contribute to improved ecosystem function and potentially better air and water quality in the long term. Waste will be properly managed during both construction and operation, and stormwater infrastructure will reduce the risk of flooding and runoff pollution, thereby supporting the right to a clean and healthy environment.

1.10 Describe the linkages and dependencies between human wellbeing, livelihoods, and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socioeconomic impacts (e.g. on livelihoods, loss of heritage sites, opportunity costs, etc.)?

The development area provides ecosystem services that support human wellbeing and local socio-economic conditions, including biodiversity-related benefits, regulation of stormwater, air quality, and recreational open space. While most of the site is degraded or transformed, the CBA on Erf 1134 and the nearby non-perennial drainage line likely provide a number of ecosystem services (e.g., contribute to ecological connectivity, erosion control, and potential water filtration functions) which indirectly support environmental quality in surrounding residential areas.

Impacts on these ecosystem services may translate into environmental, social or economic consequences. For example, the loss of vegetation could reduce natural stormwater absorption, increasing the risk of localised flooding or siltation, with potential knock-on effects. Disturbance of open space and habitat loss could also impact residents' perception of environmental quality. With mitigation measures, these issues should be largely minimised or avoided.

However, the proposed development includes positive socio-economic contributions (such as job creation, economic stimulation, and the rehabilitation of retained open space that are infested with alien invasive plants), which will improve the long-term quality of the local environment. Thus, while some ecosystem service impacts may occur, the design and mitigation measures have been structured to avoid significant socio-economic trade-offs. The impacts associated with the proposed development are addressed in the **Impact Evaluation Section** with recommended mitigation measures during the Construction Phase and Operational Phase.

1.11 Based on all of the above, how will this development positively or negatively impact ecological integrity objectives/targets/considerations of the area?

The development is expected to have a limited negative impact on the ecological integrity objectives. Overall, the development aligns with the spatial and environmental management frameworks applicable to the area and is not expected to undermine long-term ecological integrity targets, provided that mitigation, monitoring, and maintenance actions are implemented as planned.

1.12 Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?

No alternative options were considered for this project. Ecological considerations were taken into account for the design and layout of the proposed development to ensure the best practicable environmental option was achieved. The layout has been designed to avoid areas of potential ecological sensitivity. Mitigation measures have been incorporated into construction and operational management plans to minimise ecological impacts.

1.13 Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and existing and other planned developments in the area?

The overall cumulative impact is relatively low. Refer to the **Impact Evaluation Section** for greater detail.

"PROMOTING JUSTIFIABLE ECONOMIC AND SOCIAL DEVELOPMENT"

2.1 What is the socio-economic context of the area, based on, amongst other considerations, the following considerations:

2.1.1 The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area,

2.1.2 Spatial priorities and desired spatial patterns (e.g. need for integration of segregated communities, need to upgrade informal settlements, need for densification, etc.),

2.1.3 Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and

2.1.4 Municipal Economic Development Strategy ("LED Strategy").

The proposed development sites are located in Ward 12 of the Nelson Mandela Bay Metropolitan Municipality, on the western outskirts of Gqeberha, in an area that is undergoing spatial transformation and growth.

Integrated Development Plan (IDP) and Strategic Plans: The IDP for Nelson Mandela Bay Municipality outlines the vision, objectives, and strategies for sustainable development in the municipality. It identifies the need for balanced growth, economic development, and improved quality of life for residents. Key objectives include reducing unemployment and promoting inclusive economic development, supporting mixed-use development in growth areas with existing infrastructure, to promote spatial integration and reduce urban inequality. The proposed development is aligned with the IDP's objectives by supporting local economic development through the creation of warehousing, business, and light industrial facilities in a growing western urban node. These activities will contribute to job creation and improved access to economic opportunities in Ward 12, which currently has high unemployment and service demand.

Spatial Priorities and Desired Patterns: The Nelson Mandela Bay Spatial Development Framework (MSDF, 2015) supports development in Parsons Vlei, Greenbushes, and Rowallan Park as areas targeted for structured growth and economic investment. The western areas of Nelson Mandela Bay (including Parsons Vlei) have been identified in the MSDF as urban expansion areas, with emphasis on:

- Integrating peri-urban communities with the urban core,
- Intensifying land use in well-located areas to prevent urban sprawl,
- Promoting economic nodes in historically underutilised areas to reduce spatial inequality.

The proposed developments on Erf 984 and Erf 1134 support these spatial goals. The sites are accessible from Old Cape Road, a key mobility route, in close proximity to both residential and industrial zones, which reduces the need for long-distance commuting.

Spatial Characteristics: The area is located within the urban edge and is surrounded by mixed land use (residential, light industry and vacant/undeveloped parcels). The erven sit between residential zones and expanding industrial land, making them suitable for the proposed development purposes.

Municipal Economic Development Strategy (LED Strategy): The LED Strategy for NMBM aims to stimulate economic growth, create job opportunities, and enhance local businesses. It focuses on supporting diverse economic activities,

encouraging investment, and improving infrastructure to foster a conducive environment for business development. The proposed developments will directly contribute to these goals by enabling the establishment of warehousing and related facilities, which will support local job creation, entrepreneurship, and skills development, particularly for residents in adjacent wards who face high unemployment.

2.2 Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?

2.2.1 Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?

2.3 How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?

2.4 Will the development result in equitable (intra- and inter-generational) impact distribution, in the short and long-term? Will the impact be socially and economically sustainable in the short- and long-term?

2.5 In terms of location, describe how the placement of the proposed development will:

2.5.1 result in the creation of residential and employment opportunities in close proximity to or integrated with each other,

2.5.2 reduce the need for transport of people and goods,

2.5.3 result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms of public transport),

2.5.4 compliment other uses in the area,

2.5.5 be in line with the planning for the area,

2.5.6 for urban-related development, make use of underutilised land available with the urban edge,

2.5.7 optimise the use of existing resources and infrastructure,

2.5.8 opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement),

2.5.9 discourage "urban sprawl" and contributes to compaction/densification,

2.5.10 contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs,

2.5.11 encourage environmentally sustainable land development practices and processes,

2.5.12 take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.),

2.5.13 the investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential),

2.5.14 impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and

2.5.15 in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?

2.6 How was a risk-averse and cautious approach applied in terms of socio-economic impacts?

2.6.1 What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?

2.6.2 What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?

2.6.3 Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?

2.7 How will the socio-economic impacts resulting from this development impact people's environmental rights in terms following:

2.7.1 Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?

2.7.2 Positive impacts. What measures were taken to enhance positive impacts?

2.8 Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio-economic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.).

2.9 What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?

2.10 What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)? Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?

2.11 What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?

2.12 What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?

Socio-Economic Impacts

The proposed development of Erven 984 and 1134 in Parsons Vlei is expected to generate a range of positive socio-economic impacts. These include: the creation of employment opportunities, economic stimulation, and more efficient land use within a growing urban area.

The project aligns with local socio-economic objectives set out in the NMBM IDP (2022/23–2026/27) and Local Economic Development (LED) Strategy, by promoting job creation, private sector investment, and spatial integration. The development also supports long-term sustainability by integrating with the spatial priorities of the NMBM MSDF (2015), which identifies Parsons Vlei and Greenbushes as strategic expansion areas.

The development will complement local LED and skills development initiatives by enabling employment during both the construction and operational phases. This will benefit local communities, particularly those in Ward 12, where unemployment remains high. The project will also address basic physical and social needs by providing improved access to services, formalised infrastructure, and safer, regulated public spaces.

The location of the development within the urban edge and in proximity to existing mixed use areas contributes to spatial integration and the reduction of transport demand. This is reinforced with access to main routes (e.g., Old Cape Road).

The project supports equitable development by directing investment to a growing node with high socio-economic potential and enabling access to economic opportunities for nearby communities. No heritage sites or cultural landscapes will be disturbed, and visual, noise, or health-related nuisances will be managed through the implementation of the EMPr.

A risk-averse approach was adopted to manage socio-economic uncertainties. The risk of negative social outcomes (e.g., waste, noise etc.) has been mitigated through EMPr measures. The anticipated positive impacts outweigh any potential negative impacts.

In terms of human-environment linkages, the development's socio-economic benefits are supported by ecosystem services. By protecting the CBA on Erf 1134 and managing stormwater impacts, the project avoids degrading these services, ensuring that economic growth does not undermine environmental sustainability.

Overall, the project represents the best practicable environmental option from a socio-economic perspective, supporting sustainable development principles, local planning frameworks, and community wellbeing while avoiding unjust or irreversible harm.

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

The proposed developments are examples of what scholars in human geography consider a two-fold benefit of mixed-use development. Its aim is to enable residents and businesses to access facilities and services which can be easily available in close vicinity to their locations, just like the intended use of Erf 1134 and Erf 984. The investigation of urban densification in Nelson Mandela Bay by Urban Dynamics, in 2007, maintains that residential densities and mixed use are structured and formulated by the surrounding character of the neighbourhoods they serve. Development of Erf 1134, Parsons Vlei will promote densification inside the urban growth boundary, and it will make optimum use of existing resources in established urban areas, such as the service infrastructure of regional nodes along Old Cape and N2 roads and public facilities.

The priority of the LSDF is to increase socio-economic growth in the western suburbs. The WSLSDF strategy aims to be more effective by restructuring urban form where the residential developments are focused around centres of employment. It also notes the differing income characteristics, both on an individual level and between residential areas, and there are varying degrees of servicing residents. Surrounding residential developments such as the Kuyga extension, Greenbushes, Westbrook, and Parsons Vlei form part of the proposed developments of the west and contribute to existing mixed-use and residential development, yielding residential connectivity. The development of warehousing and industrial land uses will also address the needs of the residents with differing skill levels. The extension to the Greenbushes industrial area is maintained as a mechanism to create this employment (MSDF, 2015). Urban corridors consist of a combination of structuring elements which are significant in maximising the objectives of restructuring land uses and the creation of economic opportunities by intensifying various activities.

With the indication that warehousing and storage developments are part of a growing industry in South Africa, the development of the proposed erven for these purposes will boost further development. The development will tie in with the surrounding economic and industrial nodes and create a flowing connection between business nodes west of Cape Road, along Old Cape Road and the N2 road. The accessibility and connectivity of the erven proposed for development are ideal for logistical purposes, as it is directly connected to numerous major roads. Warehousing and businesses related to these facilities are associated with the advancement of e-commerce. E-commerce has the potential to be a major economic booster to the South African economy, which was proven during the COVID-19 national lockdown. Building the right infrastructure in the proper locations allows the expansion envisioned by the WSLSDF for economic growth and causes a ripple effect, positively impacting the surrounding communities and society as a whole. In a neighbourhood mostly in its developing stages, an economic boost that comes with these facilities should be a welcome addition.

The proposed development will function to attract positive performing environments that are able to draw business and economic developments to the area and encourage more development. With a GDP of R 128 billion in 2018, the Nelson Mandela Bay contributed 34.07% to the Eastern Cape Province's GDP of R 377 billion. The average annual growth rate of Eastern Cape Province and South Africa was expected to grow at 1.15% and 1.16% respectively, pre-COVID-19. As

a result of COVID-19 and the impacts the pandemic had on the economies all over the world, it can be assumed that these numbers are now much lower. All sectors are still recovering as people were retrenched, and job opportunities are scarce. It is imminent for mixed-use developments to keep growing in order to support the livelihood of society and, hence, the need for jobs and economic stability.

The African Development Bank estimates that there is a major shortage of, among other things, warehousing and infrastructure in African countries, and that these shortages are slowing, if not stunting, economic growth. Warehousing is a fundamental part of the supply chain, which is crucial for economic development and growth. South Africa has the second-largest economy on the African continent, indicating that the supply chain should have a major role in the economic growth of the country. There is a need for high-quality warehousing that meets international standards, and with China as an example of how a country can leverage high-quality and improved facilities to stimulate trade, positively impacting economic development, job availability and affluence, it demonstrates the practicality of improving and generating these facilities. The availability of high-quality warehousing with storage facilities within the Metropolitan area could appeal to international companies seeking to establish themselves in the NMBM area. The availability of properties where warehousing and similar infrastructure can be established could also draw interest for investment.

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

The location of the sites is advantageous due to their accessibility and connectivity to the Metro as a whole. The proximity of the erven to Industrial Green Bushes Area and Kuyga extension, residential Greenbushes, Westbrook and Parsons Vlei is encouraged as a high priority by the WSLSDF in order to enhance the accessibility of the western community to the Metro, not only from a convenience perspective, but more importantly from a job opportunity perspective. The new Makro in Parsons Vlei can be considered as part of the catalysts attracting the whole of the metro to the western suburbs. The roads that connect to these erven ensure that the intended uses will be easily accessible and connected to the communities, not only for retail and rental opportunities, but also for job opportunities. The site is connected to the city with the inland smaller industrial towns of Uitenhage and Despatch through connectivity with other road networks. During the construction phase of the development, approximately 80 jobs will be created, of which 35% will be from the local community of previously disadvantaged individuals. This will develop individuals' skills, which could mutually benefit the local community as a whole. Approximately 110 permanent jobs will be created during the operational phase of the development, not taking into account the number of new permanent jobs that will be created in local small businesses associated with the project, which could also boost the expansion of mixed-use developments in the vicinity of the site. The local economy and community will be boosted as a result of the development by possibly increasing household incomes and by creating more business opportunities.

Warehousing facilities will increase business opportunities in the area and could lead to the establishment of another connective business node along the west of Cape Road, as envisioned by the WSLSDF. The opening up of more business

opportunities in an upcoming neighbourhood, by the increased availability of facilities for the operation of businesses, could have a positive impact on the subsistence of more individuals which is generally linked to a better standard of living. In addition, the construction of these facilities will have a positive impact on the local economy by employing local labour and SMMEs during the construction phases.

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:
GNR 327: LN 1(Activity 27) The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— (i) The undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)	07 April 2017
GN R 324.LN 3 (Activity 12) The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. **(a) Eastern Cape**	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)	07 April 2017

Title of legislation, policy or guideline:	Administering authority:	Date:
(i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; (ii) Within critical biodiversity areas identified in bioregional plans; (iii) Within the littoral active zone or 100 metres inland from the high-water mark of the sea, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; (iv) Outside urban areas, within 100 metres inland from an estuarine functional zone; or (v) On land, where, at the time of the coming into effect of this Notice or thereafter, such land was zoned open space, conservation or had an equivalent zoning.		
National Heritage Resources Act 25 of 1999 The proposed site for development activities and materials is not older than 60 years. An application will not need to be submitted for a permit from SAHRA. Permits may be required if archaeological resources are uncovered during construction activities.	South African Heritage Resources Agency	1999
National Water Act No 36 of 1998 (*21*) ***Not applicable***	Department of Water and Sanitation (DWS)	1998
Eastern Cape Nature and Environmental Conservation Ordinance 19 of 1974 and Provincial Nature Conservation Ordinance 19 of 1974 ***Not applicable***	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)	1974
National Forests Act 84 of 1998 with Amendments ***Not applicable.*** No NFA-protected trees were identified on site; therefore, permits will not be required.	Department of Agriculture, Forestry and Fisheries	1998

Title of legislation, policy or guideline:	Administering authority:	Date:
Conservation of Agricultural Resources Act 43 of 1993 ***Not applicable***	Department of Agriculture, Forestry and Fisheries	1983
The Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA) ***Not applicable***	Department of Rural Development and Land Reform (DRDLR)	2013

GUIDELINES:	
Guideline for the Review of Specialist Input in the EIA Process (June 2005)	This guideline was considered to assist in ensuring efficient and effective, quality specialist involvement. The guidelines assisted in creating a more efficient process, specifically considering planning, motivations, and reviewing of specialist documents.
Guideline for Environmental Management Plans (June 2005)	This guideline was consulted to ensure the Environmental Management Programme is sufficient and addresses all requirements.
Guideline on Alternatives (March 2013)	This guideline assisted in the process of considering different possible alternatives for the proposed project, as well as which information would be required in order to process the outcome of the alternatives considered regarding sustainability in terms of the social, economic, and ecological needs of the public.
Guideline on Generic Terms of Reference for EAPs and Project Schedules (March 2013)	This guideline was consulted during the determination of the project terms of reference and development of the project schedule, as well as the correctness and accuracy thereof, ensuring as much information would be included as necessary. This assisted in ensuring that timeframes would be complied with and all necessary information would be gathered in a timely manner by applying good time management measures.
Guideline for determining the scope of specialist involvement in EIA processes (June 2005)	This guideline was also considered to assist in ensuring efficient and effective, quality specialist involvement. The guidelines assisted in creating a more efficient process, specifically considering planning, motivations, and reviewing specialist documents.
Guideline for involving visual and aesthetic specialists in the EIA process, June 2005	This guideline was consulted in determining whether a visual and aesthetic specialist would be necessary to assess any related impacts in this field, as well as considering alternatives and recommendations for this aspect.

DEA (2017), Guideline on Need and Desirability, Department of Environmental Affairs	This guideline was considered during the thought process and the compilation of the need and desirability section in the report. It assisted in maintaining methods of best practice on how to meet the conclusive requirements as set out by legislation.

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**	NO
If yes, what estimated quantity will be produced per month?	Approximately 40 m^3	

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

Waste bins will be provided by the appointed contractor(s) throughout the construction site. Separate skips/bins are made available for the construction debris. All waste bins should be taken to the construction camp at the end of each working day, and the bins should be clearly identified as the points of waste disposal. Solid waste that is unsuitable for re-use for construction will be transported and disposed of at the nearest registered landfill site.

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

The construction waste will be disposed of at the nearest registered waste disposal facility (Arlington Landfill Site).

Will the activity produce solid waste during its operational phase?	**YES**	NO
If yes, what estimated quantity will be produced per month?	Approximately 15 m^3	

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

It is recommended that a refuse yard be set up where all waste will be collected and stored before it is collected by a suitable service provider who will dispose of the waste at an approved and registered waste disposal facility.

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

The waste will be disposed of at the nearest approved, registered waste disposal facility at a known scheduled time (Arlington Landfill Site).

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?	YES	**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?	YES	**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?	YES	**NO**
If yes, what estimated quantity will be produced per month?		
Will the activity produce any effluent that will be treated and/or disposed of on-site?	YES	**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.

The activity will produce normal sewage, which will be disposed of via the municipal system. The effluent of the proposed development at Erven 984 and 1134 Parsons Vlei will be treated at the Fishwater Flats Treatment Works (FWFTW).

Will the activity produce effluent that will be treated and/or disposed of at another facility?	**YES**	NO

If yes, provide the particulars of the facility:

Facility name:	Fishwater Flats Treatment Works (FWFTW)
Contact person:	Matthew Hills
Postal address:	Fishwater Ln, Deal Party, Gqeberha,

Postal code:	6209		
Telephone:	041 506 2856	Cell:	NA
E-mail:	mhills@mandelametro.gov.za	Fax:	NA

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

It is recommended that the Developer make provision for rainwater harvesting on Erven 984 and 1134, Parsons Vlei. The effluent of the proposed residential development will be treated at the Fishwater Flats Treatment Works. The Developer is advised to incorporate the following into the Site Development Plan to reduce water demand:

- Water-efficient fixtures in all the buildings, such as low-flow toilet cisterns, low-flow showerheads, low-flow taps, or taps with auto shut-off mechanisms;
- The provision of rainwater tanks to be provided for each industrial and business site,
- The design of all business units requires to incorporation of approved grease traps and oil separator systems.
- A truck workshop can have large water tanks for rainwater harvesting, allowing the stored water to be used for the washing of the trucks and site irrigation within the vicinity.
- Stormwater harvesting can be incorporated into the site's design, with attenuation ponds collecting water, to be a source for grey water irrigation (should planning permit).

11(c) Emissions into the atmosphere

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

An Air Quality Emissions License will not be required for this activity. The dust liberation and emissions will be limited during the construction phase. Most of the dust liberation will be due to excavations and the movement of construction vehicles. Mitigation measures are provided in the **Impact Evaluation Section** of this report and are carried through in the EMPr.

11(d) Generation of noise

Will the activity generate noise?	**YES**	NO
If yes, is it controlled by any legislation of any sphere of government?	YES	**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 proposed activity will generate noise during the construction phase when heavy plant and machinery will be operating on site. Disturbance to neighbouring landowners will be kept as low as possible. The applicant will be required to adhere to applicable noise limits during construction. Mitigation measures for noise are provided in the **Impact Evaluation Section** of this report and are carried through to the EMPr. Noise during the operation phase will be limited to normal road traffic noise and movement of vehicles.

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:

	N/A

Does the activity require a water use permit from the Department of Water Affairs?	YES	**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:

It is advised that construction materials should be transported at the same time, where possible, and waste material collection should be done simultaneously with other activities in order to reduce fuel consumption. All SANS 10-400 XA Regulations will be adhered to, therefore conforming to legislation.

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

The Applicant is advised to incorporate the following into the Site Development Plan to reduce water demand:

- Water-efficient fixtures in all the buildings, such as low-flow toilet cisterns, low-flow showerheads, low-flow taps, or taps with auto shut-off mechanisms;
- The provision of rainwater tanks to be provided for each industrial and business site, The design of all business units requires to incorporate of approved grease traps and oil separator systems.

The SDP is to incorporate the installation and use of alternative energy sources where possible, such as solar geysers, solar panels, compact fluorescent or LED lighting. Other methods of energy and water saving which could be considered include:

- A truck workshop can have large water tanks for rainwater harvesting, allowing the stored water to be used for the washing of the trucks and site irrigation within the vicinity.
- Stormwater harvesting can be incorporated into the site's design, with attenuation ponds collecting water, to be a source for grey water irrigation (should planning permit).
- The design of the warehouse roof and vertical sheeting monitors, which can maximise the amount of natural light penetrating the warehouse envelope.
- The buildings can be oriented and incorporate design elements such as strip windows on sun-facing facades in order to reduce the building's heat gain, resulting in less energy used in the cooling systems.
- The facilities could make use of in-house recycling systems to reduce the recycling process, creating smaller packages and therefore being more energy efficient in the waste management of the warehouse.
- The main roofing could be insulated, reducing the heat gain and loss of the buildings.
- Artificial lighting could use LED technology rather than standard lighting fixtures to reduce electricity consumption.
- Solar power could be incorporated.

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): N/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?

YES	NO

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

All specialist reports must be contained in Appendix D.

14 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

15 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

16 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)	YES	**NO**	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	**NO**	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	**NO**	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	**NO**	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	**NO**	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	**NO**	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	**NO**	YES	NO	YES	NO
An area sensitive to erosion	YES	**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).

17 Groundcover

Indicate the types of groundcovers 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**	**Veld dominated by alien species**	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.

17.1 Terrestrial Biodiversity Assessment

A specialist report was conducted by Mr Jamie Pote in August 2020 and was reviewed in July 2025 by Mr Jamie Pote (Botanical Specialist). The review findings of July 2025 were consistent with the findings of August 2020 (see **Appendix D**).

Terrestrial Biodiversity Assessment

The table below contains a summary of the following applicable regional Systematic Planning Framework features:

- Vegetation Types and Conservation Status
- Critically Endangered and Endangered Ecosystems (NBA)
- Vulnerable Ecosystems (NBA)
- Subtropical Thicket Ecosystem Planning (STEP)
- Critical Biodiversity Areas (NMBM BP)
- Ecological Support Areas (None)
- Protected Areas and Protected Area buffers (SAPAD)
- Strategic Water Source Area (SWSA)
- River and Wetland Freshwater Ecosystem Priority Areas (FEPAs)
- Within 500/100/32 m of Perennial and Non-perennial Rivers and Natural/Artificial Wetlands

Feature	Description	Implications/Comment
Affected Vegetation Types (National Vegetation Map of South Africa, 2018)	Algoa Sandstone Fynbos	Critically Endangered
Critically Endangered and Endangered Ecosystems (National) NEMBA, NBA 2018	Algoa Sandstone Fynbos	Critically Endangered
Vulnerable Ecosystems (National)	Rowallan Park Grassy Fynbos	The vegetation type is Vulnerable, the vegetation on site is confirmed to be primarily secondary in nature and not of the vegetation type indicated. Highly invaded. A small remnant, degraded portion is present along the southern boundary of Erf 984.
Critical Biodiversity Areas	CBA and riverine corridor	A small section of the west boundary of Erf 1134 is identified in the gazetted NMB Bioregional Plan (2015) as a Critical Biodiversity Area
Forests	None present	N/A
Strategic Water Source Area	None	N/A
International Bird Areas	None	N/A
Protected Areas within 5 km	None present	N/A.
National Parks within 10 km	None	N/A.
Within 500 m of Rivers and Wetlands	Baakens River located to the south of Erf 984.	Proposed development may have indirect impacts on the watercourse during rainfall events due to runoff.
Within 100 m of River or Wetland	None	N/A

Feature	Description	Implications/Comment
Within 32 m of a watercourse/wetland	None affected	N/A
Surrounding Land Uses	Residential erven/Open Space	Area to the north, east and west is predominantly surrounded by land either developed or in the process of being developed. The area to the south is currently undeveloped

Vegetation of Southern Africa (SA VEGMAP, 2018)

The primary vegetation unit affected by the proposed development (Mucina & Rutherford, 2012) is the Algoa Sandstone Fynbos This vegetation type occurs in the Eastern Cape Province: Coastal flats at Port Elizabeth from Van Stadens River in the west to Southdene-Summerstrand in the east, located mostly some kilometres from the coast and close to the coast at only Maitland River Mouth and urbanised Summerstrand. Altitude is 20–300 m.

Vegetation & Landscape Features are Flat to slightly undulating plain supporting grassy shrubland (mainly graminoid fynbos). Grasses become dominant, especially in wet habitats. In the south, this fynbos unit borders on AT 9 Albany Coastal Belt and AZs 1 Algoa Dune Strandveld and forms transitional mosaics with both. It also borders on patches of FOz 6 Southern Coastal Forest in this area. In terms of geology and soils, the acidic lithosol soils are derived from Ordovician sandstones of the Table Mountain Group (Cape Supergroup). Land types are mainly Db and Ha.

Important Taxa – Tall Shrubs: *Protea eximia, P. neriifolia, P. repens.* Low Shrubs: *Agathosma hirta, A. ovata, Erica zeyheriana, Euryops ericifolius, Helichrysum appendiculatum, H. teretifolium, Leucadendron salignum, L. spissifolium subsp. phillipsii, Leucospermum cuneiforme, Protea cynaroides, P. foliosa, Tephrosia capensis*. Succulent Herb: *Crassula pellucida subsp. marginalis.* Graminoids: *Andropogon eucomus, Brachiaria serrata, Cymbopogon pospischilii, Cynodon dactylon, Digitaria eriantha, Ehrharta calycina, Eustachys paspaloides, Ischyrolepis capensis, Pentaschistis heptamera, P. pallida, Thamnochortus cinereus, Themeda triandra, Tristachya leucothrix.)*

Endemic Taxa – (WWetlands) Low Shrubs: *Agathosma gonaquensis*, *Cyclopia pubescens*W, *Erica etheliae*. Geophytic Herb: *Holothrix longicornu*.

Conservation Endangered. Target 23%. About 2% conserved in the Van Stadens Wild Flower Reserve, the Island Nature Reserve, as well as in several private nature reserves. More than 50% transformed (cultivation, urban sprawl of the Nelson Mandela Metropolitan Area). Several Australian Acacia species occur as invasive aliens, but only to a limited extent. Erosion is moderate and very low

***IMPLICATIONS*:** *The site is covered by dense alien infestation. Currently heavily invaded with Black Wattle with pockets of intact and semi-intact vegetation, primarily Grassy Fynbos. There is almost no natural vegetation typical of the vegetation unit due to periodic fires and grazing from livestock. No protected species were noted on site.*

The respective measures and actions have been undertaken:

An initial site visit and report was conducted on 17 January 2020, following which an additional site visit was conducted on 29 July 2025 to verify the findings of the report conducted in 2020. The recent review of the site investigations confirmed that the site is dominated by dense alien infestation, particularly Black Wattle, with pockets of intact and semi-intact vegetation, primarily Grassy Fynbos. The alien invasion is making the site low-medium sensitivity, and there is almost no natural vegetation typical of the vegetation unit due to periodic fires and grazing from livestock. No protected species were noted on site. No animal species of specific significance were noted to be on site during the site visit, although the grassy vegetation on the site may provide transient habitat for a range of small mammals, birds, reptiles and amphibians. The site is classified as having a medium sensitivity due to the status of the vegetation type (critically endangered), and the potential of the site to recover the vegetation type is through the establishment of the open space.

The table below provides a description of the on-site natural biophysical features:

Feature	**Implication**
Topography and drainage	
The site is generally flat, sloping towards the west. A very small section of the west boundary of Erf 1134 is identified in the gazetted NMB Bioregional Plan (2015) as a Riverine corridor along the drainage line. Proposed development may have indirect impacts on the watercourse during rainfall events due to runoff. No other drainage lines exist.	The site is suited for the proposed development because no waterbodies will be affected. The Riverine corridor along the drainage line will not be affected as it is on the open space.
Vegetation	
The majority of the surrounding vegetation is transformed from its original unit and now comprises dense alien invasion, particularly Port Jackson on Erf 984, and Erf 1134 is also invaded but mainly comprises grassy vegetation.	The sites are suitable for the proposed project. Should the site be cleared of aliens, it would most likely regenerate to a limited extent, but is unlikely to attain a completely pre-disturbance state. No species of special concern were noted within the site. No protected species were noted on site.
Indigenous Flora	
No Species of Special Concern noted to be present	Permits for removal of protected flora and fauna are unlikely to be required.
Forest	
None	N/A
Indigenous and protected trees	

Feature	Implication
None	N/A
Fauna	
The sites are unlikely to provide significant faunal habitat due to the surrounding development's human activities, proximity to a busy road (Old Cape Road) and the recent burning on erf 1134.	It is not expected that species of conservational are likely to be significantly affected. Any fauna on the site will most likely migrate to surrounding areas during construction.
Alien Invasive Species	
Acacia meansii (Black Wattle) and *Acacia saligna* (Port Jackson) are in a dense infestation with various ruderal weeds and grasses also in abundance. Indications are that the site has become heavily invaded over the last few years, possibly with a series of intense fires, which are likely to have affected the natural seed bank and ecology	All alien invasive species are to be removed before construction commences and should be monitored during and after construction.
Drainage Lines and Rivers	
None Affected.	The site has a non-perennial drainage line that will be demarcated as an open space. No other drainage lines or rivers close by.
Wetlands	
A small unchanneled valley-bottom wetland and non-perennial rivers are located south west of Erf 1134, Parsons Vlei. No natural water features were noted within the site (wetlands or watercourses).	None affected, because the area will be private open space

18 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 a 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:

N/A

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:

N/A

19 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	YES	**NO**
Archaeological or palaeontological sites, on or close (within 20m) to the site?	NO	

If YES, explain:	N/A

(ii) 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:	<u>Archaeological</u> The sites were previously approved for development, whereby it was assumed that no specimens of archaeological concern were previously identified on the site. However, a Phase 1 Archaeological Heritage Impact Assessment will be completed before construction commences.

Will any building or structure older than 60 years be affected in any way?	YES	**NO**
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	**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

20 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;

Included in **Appendix E**.

(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;

Proof of notification of landowners and occupiers of the surrounding properties is included in **Appendix E**.

(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;

A newspaper notice was placed in The Herald on **30 June 2025** (Attached in **Appendix E**)

(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.

21 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.

22 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.

23 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.

24 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.

25 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 and I&APs informed:

NAME	OCCUPATION/AFFILIATION	TELEPHONE NUMBER POSTAL ADDRESS	EMAIL ADDRESS
LANDOWNERS, CLIENTS & ASSOCIATES			
Mr Claude Jansen Van Rensburg	Lurco Trading 128 (Pty) Ltd	**041 484 4461** 45 Cawood Street, North End, Gqeberha, 6001	rajb@newlyngroup.com
GOVERNMENT I&AP'S			
Andries Struwig (Assistant Director)	Eastern Cape Department: Economic Development, Environmental Affairs & Tourism (DEDEAT)	**041 508 5800** Private Bag X5001,	Andries.Struwig@dedea.gov.za

NAME	OCCUPATION/AFFILIATION	TELEPHONE NUMBER POSTAL ADDRESS	EMAIL ADDRESS
Jeff Govender (Regional Director)		Greenacres, Port Elizabeth, 6057	dayalan.govender@dedae.gov.za
Charmaine Struwig			Charmaine.Mostert@dedea.gov.za
M C Mafani	EC Department of Transport (ECDoT)	Private Bag X 0023, Bhisho, 5605, Eastern Cape	mzi.mafani@ectransport.gov.za
Monde Manga			Monde.Manga@ectransport.gov.za
Ayanda MaMncwabe Mama	Eastern Cape Provincial Heritage Resources Authority (ECPHRA)	**043 492 1370 (t)** No. 5 Eales Street, Qonce, 5600	amncwabe@gmail.com ayanda.mncwabe-mama@ecsrac.gov.za
Natasha Higgitt	South African Heritage Resources Agency (SAHRA) – Development Applications Unit	South African Heritage Resources Agency, 111 Harrington Street, Cape Town, 8000	nhiggitt@sahra.org.za
Nokukhanya Khumalo		**021 462 4502 (t)** South African Heritage Resources Agency P.O. Box 4637 Cape Town 8001	nkhumalo@sahra.org.za
Adv. Lungisa Malgas (Chief Executive Officer)	South African Heritage Resources Agency (SAHRA)	**021 462 4502** P.O. Box 4637, Cape Town, 8000	lmalgas@sahra.org.za
Bahlekile Keikelame	Department of Land Reform and Rural Development (DLRRD)	**082 377 8295/ 043 700 7000**	Bahlekile.keikelame@drdlr.gov.za

NAME	OCCUPATION/AFFILIATION	TELEPHONE NUMBER POSTAL ADDRESS	EMAIL ADDRESS
Bongikhanya Dayimani (HOD)	Eastern Cape Department: Rural Development & Agrarian Reform (DRDAR)	Dukumbana Building, Independence Avenue, Bhisho, 5605	bongikhaya.dayimani@drdar.gov.za
Wiseman Goqwana			wiseman.goqwana@drdar.gov.za
Dr Vusi Rozani (Acting Director: Saarah Barrtman District Office)		**041-402 6201** 64 Govan Mbeki Ave, Port Elizabeth	vusi.rozani@ecagriculture.gov.za
Nomfundo Mxenge		**(0)41 401 6212** *64 Govan Mbeki Ave, Port Elizabeth*	Nomfundo.mxenge@drdar.gov.za
Mzukisi Maneli	Department: Water & Sanitation (DWS)	**041 501 0740** Private Bag X6041, Port Elizabeth 6000	manelim@dws.gov.za
Portia Makhanya (Chief Director)		**043 604 5400** Private Bag X7485 KING WILLIAM'S TOWN 5600	MakhanyaP@dws.gov.za
Siyabonga Ngcobo		**066 549 1955/ 041 501 0732** 140 Govan Mbeki Avenue, Starport Building 7th Floor, Central, Gqeberha, 6000	NgcoboS@dws.gov.za
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NEIGHBOURING LANDOWNERS FROM PREVIOUS EA APPLICATION			
ERF 984		Information is available at the request of relevant authorities and will not be distributed in the public domain.	
Qualitec Development Trust	139		
Mogamat Nasier Carloo	156		
Mogamat Nasier Carloo	157		
Parsonsvlei	350		
Nelson Mande Municipality	1026		
Palesa Amelia Matsuso	1025		
Khululwa Bloko	1024		

NAME	OCCUPATION/AFFILIATION	TELEPHONE NUMBER POSTAL ADDRESS	EMAIL ADDRESS
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Qhamani Bruce Ndotshayisa	1022		
Derek Jerome Theunissen	1021		
Solomon Vuyani Nikani	1020		
Nokululama Signoria Mntwini	1019		
Jangoblox	1018		
Anela Bathabile Gqaza	1017		
Linda Angel Peta	1016		
Sindiswa Mdladlamba	990		
Watts Family Trust	989		
Nelson Mandela Municipality	985		
ERF 1134			
Open land	455		
Nxele, MN	703		
Magwa, ME	704		
	4152		
Nel, D	706		
Peter, PN	707		
Casling, DS	708		
April, NM	709		
Warren, G	710		
Claassen, TW	711		
Spies, WP	712		
Snyman, JM	782		

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Merrick, RC	785		
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Nieuwenhuis, PA	787		
Kota, NE	788		
van Niekerk, DN	789		
Mostert, C	790		
Mantjies, TJ	791		
Mtshali, BB	792		
Tshayi, P	793		
Finn, DB	794		
Burton, JA	875		
Geyer, LW	876		
Jikani, NE	877		
Vabaza, M	878		
Petzer, WJ	879		
Ngquse, TG	880		
Starbuck, Y	881		
Ngcayi, QQ	882		
Mgudlandlu, ZP	883		
Korkie, AJ	884		
NMBM Properties	885		
Nelson Mandela Municipality	1097		
Soloman, KL	1101		
Van Der Westhuizen, CR	1102		
REGISTERED INTERESTED I&AP FROM PREVIOUS EA APPLICATION			
Henry Primo			
Jeremy Dobbin			
Mpho Jonas			

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Elie			
Nolitha Nonqwuza			
Zukiswa Tshingane			
Janet Cameron			
Nkululeko Mali			
Lisina Njajula			
George Warren			
CURRENT REGISTERED INTERESTED I&AP			
Antonie Swart	Director – Algoa Steel	0413721098 6 Old Cape Road, Greenbushes, PE, 6001	antonie@algoasteel.co.za
Lindela Eric Mzini		0825534877 9 Argus Avenue, Parsonsvlei - Rowallan Park, 6025	Zukiswamzini68@gmail.com
L Ntando			
OTHER I&APS			
S Blauw			
T Njokweni			
D Jacobs			
M Mtati			
P Matuso			
H Oliver			
B Hoko			
T Soga			
L Saliso			
L Masombezi			
M Mketho			

List of authorities from whom comments have been received:

Date of comment	Received from:	Comment:	Response:	Date of Response:
30/06/2025	Nokukhanya Khumalo – SAHRA	Contact the Eastern Cape Provincial Heritage Resources directly for any comments on developments located above the Maritime high-water mark and located within the Eastern Cape province. The SAHRA is legally unable to provide comments in the EC unless the development is below the maritime high-water mark and river inlets, and/or a National Heritage Site.		
28/07/2025	Ayanda Mncwabe-Mama – ECPHRA	ECPHRA reviewed the BID for the proposed development. They requested submission of a Notice of Intent to Develop (NID), a full Heritage Impact Assessment (including Phase 1 AIA and PIA), and proof of payment for application fees. Final comment pending these inputs.		
25/08/2025	Kurt Wicht – EAS	Electronic submission of Application Form and cover letter via Dropbox link	Application deemed incomplete. Issues identified: Appendix 6 files could not be opened due to naming length, and a CIPC document was requested to support the declaration in Appendix 14.	28/08/2025
09/09/2025	Kurt Wicht – EAS	Amended and resubmitted application (09/09/2025)	DEDEAT confirmed successful registration of the application	09/09/2025
23/09/2025	Kurt Wicht – EAS	Submitted DBAR to DEDEAT & I&APs for public consultation	DEDEAT confirmed receipt and assigned Ms Twala as case officer	23/09/2025
24/10/2025	Kurt Wicht – EAS	Notified DEDEAT comment period on DBAR ends on 24/10/2025	No response	N/A

26 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?	**YES**	NO

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

PRE-APPLICATION IAP REGISTRATION COMMENTS

*aim of the pre-application registration period is to ensure all IAP's are registered to enable all potentially affected persons to have access to the draft BAR to comment comprehensively once the draft BAR has been consulted.

Date of Comment	Received from:	Comment:	Response:	Date of Response:
04/07/2025	Antonie Swart – Director at Algoa Steel	Registered as an I&AP.	Registered.	N/A
07/07/2025	L. Ntando	Registered as an I&AP. Included the following comments in the registration form: - Concern about machinery noise during construction and from delivery trucks during the operational phase - Industrial development affecting residential property values - Developer should prioritise local residents/youth for work opportunities and skill development	Acknowledged receipt of comment form and registered I&AP. Noted concerns and addressed concerns in the Draft Basic Assessment Report Public Participation Phase.	15/07/2025
18/07/2025	Lindela Eric Mzini	Registered as an I&AP. Included the following comments in the registration form: - Enquired about core purpose of the development - Employment opportunities will arise from the development - Concern over machinery noise - Dust and soil vibration due to construction - Snakes and reptiles entering the surrounding homes due to construction disturbance - Protection available to surrounding homes	Registered.	N/A

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.

27 Issues raised by interested and affected parties

As required by the DFFE, the Comment and Response Report is attached as Appendix E.

List the main issues raised by interested and affected parties.

Land use	Crime	Traffic	Noise	General disturbance	Stormwater	Property values
			Machinery and truck noise			Industrial development may devalue houses
			Machinery noise	Snakes and reptiles		

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):

The issues raised by the I&APS were submitted via registration forms during the notification phase of the Public Participation Process. While the practitioner did not respond to each comment individually, all comments were reviewed and considered and have been addressed in the relevant sections of the BAR.

28 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.

All potential environmental, socio-economic, and heritage impacts are considered that could occur as a result of the proposed project activities which include all phases of the proposed project (planning, construction & operational phases – no decommissioning and/or closure is applicable). The impacts that are identified could have a positive or negative effect

and are rated intrinsically. The evaluation process regarding the impacts and their ratings are done according to the following sequence:

1) is to identify all potential impacts,
2) identification and consideration of mitigation measures by implementing the use of "mitigation hierarchy" which is a framework for managing the risks and potential negative impacts of development projects when considering the potential environmental, socio-economic, and heritage impacts. Preventative measures are considered first and remediation measures are considered last. Offsets are a last resort consideration for possible remediation measures,
3) Reviewing the significance of the identified impact before as well as after the implementation of mitigative measures, and lastly
4) Consolidation of the impacts.

Resources used to identify the potential environmental, socio-economic, and heritage impacts associated with the proposed project activities include the following:

- Professional judgment and field observations,
- Desktop study,
- Spatial tools,
- Specialist studies and reports as well as open communication with specialists,
- Making use of available Biodiversity plans,
- Spatial Development Frameworks available covering the proposed project area,
- The public participation process and comments from I&AP's,
- Google Maps,
- The online DFFE Screening tool,
- Considering environmental planning guidelines,
- Screening Report,
- The study of relevant scientific and professional literature,

29 Impact Evaluation

The methodology implemented in the assessment of impacts for this project is developed to meet the requirements of the EIA Regulations (2014), as amended and Guidelines 3 to 5 which were published in support of the 2006 EIA Regulations. The EIA Guideline and Information Document Series (March, 2013) published in terms of Section 24J of NEMA by the Western Cape Department of Environmental Affairs & Development Planning are also consulted. For both, specific to this section Guideline 5 – Assessment of Alternatives and Impacts (DEAT,2006) and Part 5 – Guideline on Alternatives (DEA&DP, 2013). As per the abovementioned guidelines the following are considered:

- The **nature** of the impact. Description of the impact (positive, negative, direct, indirect, or cumulative);

- The **magnitude** of the impact (severe, moderate, low);
- The **extent** and location of the impact in terms of the area covered, volume distribution, etc. (site specific, local, regional, national);
- **Phase** during which the impact will occur (construction, operation and/or decommissioning);
- The **duration** of the impact (short term, long term, intermittent or permanent – which could be described as continuous in terms of the life of the operations of the activities);
- The extent to which the impact can be **reversed** or not (reversible, partly reversible, irreversible);
- The **probability** of the impact actually occurring (unlikely, probable, highly probable, definite).
- The **significance** of the impact (very low, low, medium, medium-high, high)

Once the impacts are identified and predicted, the identification and consideration of mitigation measures by implementing the use of "mitigation hierarchy", which is a framework for managing the risks and potential negative impacts of development projects when considering the potential environmental, socio-economic, and heritage impacts, is implemented. Preventative measures are considered first and remediation measures considered last. Offsets are a last resort consideration for possible remediation measures.

After concluding the possible mitigation measures, the significance of the impact on a local, regional or global level is evaluated. The evaluation of the significance of impacts distinguishes between the impact rating before mitigation (significance before) is implemented/considered and the significance rating after (significance after) the recommended mitigation measures are considered.

Impacts of **very low significance** are impacts which have been identified as a framework, even though these impacts might have little to no effect on the surrounding environment, it is still important they be considered. This should indicate that due diligence was practiced during the impact assessment process.

Impacts rated as **low significance**, are impacts where the project activities will result in short-term changes to the biophysical, socio-economic, and/or cultural heritage environment. The impacts will mostly be restricted to the immediate environment of the project activities and should recover to their natural state within a shorter period of time (usually 0 – 5 years).

Impacts of **medium significance** will mostly result in a moderate short to medium-term change in the biophysical, socio-economic, and/or cultural heritage environment. The results of these impacts could reach a wider area which could be experienced at a regional level. Some minor indirect impacts could arise from the project activities and the system might be able to recover to a certain extent, but it is unlikely that recovery will be a full recovery to its natural or original state. The recovery period will take place over a longer period of time (5 – 15 years).

Impacts with a **high significance** rating are impacts where the activities will have major long-term effects on the biophysical, socio-economic, and/or cultural heritage environment and will result in effects experienced at a larger regional, national or international level (although extent does not always account for the significance rating, especially impacts with a local extent, but could still be rated high negative). Secondary, cumulative and/or indirect impacts will most likely be associated with the

proposed project activities. It is possible for the system to recover over a period of longer than 15 years, but it is unlikely that the recovery will be in its natural or original state. The impacts are considered long-term and will result in changes to the lifestyle of the affected population.

The identified environmental impacts associated with the proposed clearing of vegetation are described and evaluated below relative to the no-go option. Impacts are arranged by environmental themes to ensure that all aspects of the environment have undergone scrutiny and no potential impacts, and thus mitigation measures, are left out. Where no impacts have been identified for a specific theme, it is still listed. These themes include the following:

- Biodiversity
- Soil
- Surface Water & Groundwater
- Stormwater
- Geology
- Waste
- Visual
- Air Quality
- Noise
- Health& Safety
- Archaeological & Palaeontological
- Traffic Impacts
- Socio-Economic & Cultural

29.1 Construction Phase Impacts

29.1.1 Terrestrial Biodiversity

Potential impact and risk:	**Permanent or temporary loss of vegetation cover as a result of site clearings**	
Nature of impact:	**Direct Negative Impact** The proposed development will result in the permanent or temporary total loss of approximately 9.69 Ha of degraded indigenous vegetation, comprised of grasses and alien vegetation. The clearing will be done on Erf 984, which is approximately 7.29 Ha Industrial 1, and Erf 1134, which is approximately 2.40 Ha (Business Zone 1 and Transport Zone 2).	
	Without mitigation	**With mitigation**
Intensity	High	High
Extent and duration of impact:	Site-specific, long-term	Site-specific, long-term
Probability of occurrence:	Definite	Definite
Significance	Medium -	Medium -
Degree to which the impact can be reversed:	Partly reversible	
Degree to which impact may cause irreplaceable loss of resources	Moderate to low	
Degree to which impact can be mitigated	Moderate	
Proposed mitigation:	- Site clearing of vegetation must be limited to the development footprints, and the areas to be cleared must be demarcated before any clearing commences. - Topsoil that is cleared from the sites should be used to rehabilitate degraded portions damaged during construction. - The section on Erf 1134, which is located within the CBA (NMBM BP, 2015), must be retained and not be disturbed unless removal of alien vegetation is required. - Search and rescue must be carried out, and any species of special concern that are removed from the sites prior to vegetation clearing must be transplanted into the portions of the sites where rehabilitation is required, i.e., the Open Space on Erf 1134. - The retained and rehabilitated vegetation must be cleared of invasive alien species by conducting regular follow-up clearing operations. - Topsoil must be stripped and stockpiled separately during site preparation and replaced over the degraded areas. - Any site camps and laydown areas requiring clearing must be located within already disturbed areas.	
Cumulative impact post mitigation:	- Loss of biodiversity, even though the sites have been degraded and dominated by alien invasive vegetation. The alien plants can still be considered as potential habitats for faunal species, especially transient animals. Therefore, this habitat will be lost, and with the surrounding erven being developed, this could lead to a cumulative loss of habitat in the area. - The open space proposed on Erf 1134 will preserve and conserve vegetation; therefore, the cumulative impacts of vegetation transplanting and conservation will yield more output and growth than if the site were cleared of vegetation entirely. - The open space will provide a tranquil space for the residents and fauna. Biodiversity of green spaces and aesthetically pleasing landscapes provide a sense of calm and a sense of place.	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

Potential impact and risk:	Loss of species of special concern during pre-construction site clearing activities	
Nature of impact:	**Direct Negative Impact** Site preparation is needed for construction activities; therefore, vegetation will be cleared on both sites. The likelihood of finding any species of special concern within the sites is moderate to low, as indicated in the specialist terrestrial biodiversity report. Several PNCO species were present on Erf 984 within the proposed development footprint; however, none were identified on Erf 1134.	
	Without mitigation	**With mitigation**
Intensity	High	Medium
Extent and duration of impact:	Site-specific, short-term	Site-specific, short-term
Probability of occurrence:	Definite	Probable
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Partly reversible	
Degree to which impact may cause irreplaceable loss of resources	Low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Respective permits must be obtained timeously before vegetation clearing commences - A rapid flora Search and Rescue is to be conducted by a botanical specialist before construction commences - Flora to be rescued should include both species of special concern requiring removal for relocation, as well as species that would be suitable for use in rehabilitation and that are amenable to transplanting. - Rescued plants should be replanted into a nearby disturbed area of similar habitat, such as the green belt. - Permits from DEDEAT must be kept on site and in the possession of the flora search and rescue team at all times. - Once the flora search and rescue is complete, a certificate of clearance must be issued by the botanist and copies supplied to DEDEAT	
Cumulative impact post mitigation:	- Due to the limited extent and degraded nature of the vegetation on both sites, and having no representation of species of special concern occurring, the search and rescue of species will aid in species increase and establishment in areas that are not likely to be developed. - The western suburbs are highly transformed from urbanisation and other land transformations and are thus threatened. A few remnant patches are found fragmented around Nelson Mandela Bay. Post-mitigation encourages habitat connection.	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Medium	Low

Potential impact and risk:	Invasion of Alien Invasive Species	
Nature of impact:	**Direct Negative Impact** Current degradation of sites is indicative of alien plant infestation. Erf 984 is described as heavily invaded by Port Jackson Willow. Alien vegetation will likely cause further deterioration of the small semi-intact pocket of Algoa Sandstone Fynbos, where invasion transforms natural vegetation to a secondary grassy vegetation, without the distinct fynbos characteristics. Erf 1134 vegetation on site has low biodiversity, predominantly covered in grassy vegetation and scattered alien vegetation. The possibility of alien invasive species establishing in these areas is likely.	
	Without mitigation	**With mitigation**

Intensity	Medium	Low
Extent and duration of impact:	Site-specific, medium-term	Site-specific, medium-term
Probability of occurrence:	Improbable	Improbable
Significance	Medium	Low
Degree to which the impact can be reversed:	High	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Alien vegetation management must be initiated at the beginning of the construction phase and must extend into any remaining areas into the operation phase of the project. - Alien trees must be removed from the site as per NEMBA requirements. - After clearing is completed, an appropriate cover crop should be planted where any weeds or exotic species are removed from disturbed areas, should construction not commence immediately.	
Cumulative impact post mitigation:	- The clearing of alien species fundamentally changes the functioning and structure of the ecosystem for the best environmental outcome. - Alien invasive plants and shrubs increase evapotranspiration and thereby decrease surface water runoff and reduce stream flow. The removal of alien species increases the chances of the non-perennial stream of the Baakens to thrive from a biodiversity perspective.	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	High	Low

Potential impact and risk:	**Removal of Alien Invasive Species**	
Nature of impact:	**Direct Positive Impact** The exotics that are listed as Category 1 and 2 invasive weeds in terms of CARA (Conservation of Agricultural Resources Act 43 of 1983) will be removed when vegetation is cleared during construction. By the clearance of vegetation from the sites, all exotics will also be removed. The site is currently infested with multiple alien invasive species, which have become a concern for the Algoa Sandstone Fynbos Vegetation type. A "green belt" will be established along the southern border of Erf 1134 to serve as an ecological corridor and will be rehabilitated and cleared of alien invasive species. The totality of the site will also be cleared, and the alien vegetation eradicated.	
	Without mitigation	**With mitigation**
Intensity	Medium	Medium
Extent and duration of impact:	Site-specific, medium-term	Site-specific, medium-term
Probability of occurrence:	Definite	Definite
Significance	N/A	Low +
Degree to which the impact can be reversed:	High	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	N/A	
Proposed mitigation:	- When vegetation clearing is being undertaken, care must be taken to remove any alien species from the vegetative material. - Any alien vegetation material is to be removed from the site and disposed of at a registered waste disposal facility.	

	- An ongoing maintenance and monitoring of alien vegetation invasion on the sites can result in the natural vegetation returning over time. - An effective fire management plan to control fynbos fires and an alien management plan to eliminate alien species triggering fires. - The non-occurrence of alien species, especially nitrogen fixers such as *Acacia spp*, means nutrient concentration in groundwater is not altered. - The non-occurrence of alien species results in fewer possibilities of intense fires that cause soil erosion. - An effective alien management that works concurrently with a fire management plan to curb fynbos fires induced by alien infestation.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	N/A	N/A

Potential impact and risk:	**Disruption to Ecological Processes**	
Nature of impact:	**Indirect Negative Impact** Proposed development activity may result in disturbances to ecological processes. Ecological processes typically only function well where natural vegetation remains, and in particular where the remaining vegetation is well-connected with other nearby patches of natural vegetation. Erf 984 has a degraded semi-intact natural vegetation pocket with more distinctive Algoa Sandstone fynbos species. This pocket is surrounded by degraded vegetation and is isolated from sites that might have a more intact rating. It is unlikely that this pocket will remain intact should it be retained. Erf 1134 has an open space southwest falling with an ecological corridor, and is thus classified as a CBA according to the NMBMBP. Constructions may disturb these ecological features.	
	Without mitigation	**With mitigation**
Intensity	Medium	Low
Extent and duration of impact:	Site-specific, long-term	Site-specific, medium-term
Probability of occurrence:	Probable	Probable
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Medium	
Degree to which impact may cause irreplaceable loss of resources	Low	
Degree to which impact can be mitigated	Medium	
Proposed mitigation:	- Watercourses must be avoided as far as practical. - A "No Go" Area / Open Space zone should be retained on the Southwest corner of Erf 1134 to retain the ecological corridor of the drainage line. - Ensure the upkeep of the open space and the regular inspection and removal of alien vegetation from the sites. - A comprehensive rehabilitation plan (including an alien invasive vegetation management plan).	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

Potential impact and risk:	Loss of Faunal Habitat and CBA	
Nature of impact:	**Indirect Negative Impact** The construction phase activities will result in the loss of habitat for faunal species as a result of site clearing. The sites already have low to moderate levels of transformation due to alien infestation. The terrestrial biodiversity specialist assessed that faunal species may be present as transient visitors. Site investigation on Erf 1134 indicated fires that could have repelled fauna from the site. The burnt area is not fragmented from the small section of the south-west boundary identified in the gazetted NMB Bioregional Plan (2015) as a Critical Biodiversity Area associated with a degraded ephemeral drainage line of the Baakens River.	
	Without mitigation	**With mitigation**
Intensity	Severe	Medium
Extent and duration of impact:	Site-specific, short-term	Site-specific, short-term
Probability of occurrence:	Definite	Probable
Significance	High -	Medium -
Degree to which the impact can be reversed:	Low	
Degree to which impact may cause irreplaceable loss of resources	Low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Blanket clearing of vegetation must be limited to the development footprint, and the area to be cleared must be demarcated before any clearing commences. - Fauna search and rescue by a qualified reptile handler should be undertaken before site clearing commences. - The development should take note of any important microhabitats within/near the development footprint, and if outside of the development footprint, should be marked as an area to avoid. If within the development footprint, a suitable specialist should relocate as much of the microhabitat as possible during search and rescue. - Ensure the proper management of the open space area and that it does not get polluted by any potentially contaminated run-off from the property. - Permits from DEDEAT must be kept on site and in the possession of the fauna search and rescue team at all times. - The rehabilitation post-construction allows fauna to establish a habitat. - The establishment of an open space protects fauna from adverse human activity. - Faunal species present as transient visitors will balance the ecosystem structure and functioning. - The demarcation of the open space from developments will likely form a habitat and attract transient fauna, which will have a positive impact.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Medium	Low

Potential impact and risk:	Loss of Faunal Species of Special Concern
Nature of impact:	**Direct Negative Impact** The sites are unlikely to provide significant faunal habitat due to the surrounding developments and human activities. Activities associated with bush clearing and ploughing, killing of perceived dangerous fauna, may lead to increased mortalities among faunal species. No species of special concern were noted on site. The risk of species of special concern is low, and it is unlikely that there will be any impact on populations of such species because of the activity and the proximity of sites

	to Old Cape Road. It is not expected that a large amount of fauna should be found on site. However, species such as reptiles, insects, etc., will most likely be found.	
	Without mitigation	**With mitigation**
Intensity	Medium	Low
Extent and duration of impact:	Site-specific, short-term	Site-specific, short-term
Probability of occurrence:	Probable	Possible
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Low	
Degree to which impact may cause irreplaceable loss of resources	Low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Permits from DEDEAT must be kept on site and in the possession of the fauna search and rescue team at all times. - Faunal search and rescue by a qualified reptile handler to be undertaken before bush clearing by a competent person, especially for reptiles and amphibians. - Once the fauna search and rescue are complete, a certificate of clearance must be issued by the faunal specialist and copies supplied to DEDEAT. - The development should take note of any important microhabitats within/near the development footprint, and if outside of the development footprint, should be marked as an area to avoid. If within the development footprint, a suitable specialist should relocate as much of the microhabitat as possible during search and rescue. - Nesting sites should be carefully assessed by a suitable specialist (should any be identified before site clearing). - Trenches and excavations must not be left open for long periods. Where required, 45-degree angle side walls must be installed to allow any trapped animals to exit the trenches. Trenches should be excavated in sections and filled before opening up new areas. - Unnecessary disturbance to vegetation and fauna via heavy machinery must be avoided during the construction phase. - Construction staff must stay within demarcated work areas and the site boundary, and no shortcuts through fences and/or open space areas must be allowed.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.1.2 Soil

Potential impact and risk:	**Susceptibility of some areas to erosion as a result of construction-related disturbances**	
Nature of impact:	**Indirect Negative Impact** Removal of vegetation cover and soil disturbance may result in some areas being susceptible to soil erosion.	
	Without mitigation	**With mitigation**
Intensity	Low	Very Low
Extent and duration of impact:	Site-specific, medium-term	Site-specific, medium-term
Probability of occurrence:	Probable	Possible
Significance	Medium -	Very low -

Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Suitable measures must be implemented in areas that are susceptible to erosion, including but not limited to gabions and runoff diversion berms (if necessary). - Cleared areas must be rehabilitated and a suitable cover crop planted once construction is completed. - If establishment of development does not occur soon after preparation of the site, a suitable cover crop to be established as a temporary measure. - Stockpiled material should be covered when stockpiling will be for extended periods during the construction phase. - Barriers should be erected along the site boundaries, such as a board fence, wind fence, sediment fence, or similar barrier, which can control air currents and windblown soil to avoid disturbance to motorists on adjacent roads.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.1.3 Surface and Groundwater

Potential impact and risk:	**Impacts on surface water or groundwater resources**	
Nature of impact:	**Indirect Negative Impact** The Baakens River is located approximately to the south of Erf 984. A small section of the southwest boundary of Erf 1134 is identified in the gazetted NMB Bioregional Plan (2015) as a riverine corridor along the drainage line of the Baakens River. Should flooding occur, which could lead to top layer erosion, the silted runoff could possibly enter the drainage line located close to Erf 1134. No other surface water impacts are expected since the development is not directly linked (more than 32m) to Erf 984, and Erf 1134 will be zoned for open space. No groundwater resources should be affected by the proposed development, as the development activities will mostly be aboveground, except for surface-level digging related to foundations and other infrastructure.	
	Without mitigation	**With mitigation**
Intensity	Medium	Low
Extent and duration of impact:	Site-specific, medium-term	Site-specific, medium-term
Probability of occurrence:	Possible	Possible
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Suitable demarcation of open space with a water body in Erf 1134. - Open space must be left undeveloped. - Stormwater management plans must not disturb the open space.	

	- An effective stormwater management plan that will preserve the natural features of open spaces to be implemented. - Management of alien invasive species. - Avoid exposing bare soil for long periods. - Ensure that stockpiles are properly covered at all times.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.1.4 Stormwater and Flooding

Potential impact and risk:	**Increased impervious area and stormwater management during construction**	
Nature of impact:	**Direct Negative Impact** The permeability of the sites will be decreased by earthmoving machinery compacting soils, which requires careful stormwater management, should heavy rainfall and flooding occur during the construction phase.	
	Without mitigation	**With mitigation**
Intensity	Medium	Low
Extent and duration of impact:	Site-specific, short-term	Site-specific, short-term
Probability of occurrence:	Probable	Possible
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Correct planning and maintenance for stormwater drainage and engineering of development to keep water accumulation to a minimum. - Stormwater management must be planned and implemented at the commencement of bush clearing. - Areas that might be sensitive to erosion should be identified and stabilised. - Stockpiled topsoil must be replaced in areas damaged by the movement of heavy machinery. - Areas that might be sensitive to erosion should be identified and stabilised. - Stockpiled topsoil must be replaced in areas damaged by the movement of heavy machinery. - Drainage works may be required to prevent stormwater from draining into open space and prevent silt-laden surface water from draining into open space. - Drainage works may be required to prevent stormwater from draining into open space and prevent silt-laden surface water from draining into open space. - A construction phase stormwater management plan must be implemented.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.1.5 Geology

Potential impact and risk:	**Geological Impacts**
Nature of impact:	No impacts to the underlying geology of the sites are expected as the development will be mostly above ground, except for the foundations and possible paving layers, which would reach deeper than ground level.

29.1.6 Waste

Potential impact and risk:	**Accumulation of construction waste on the site**	
Nature of impact:	**Direct Negative Impact** Waste generated during the construction phase of the project could cause pollution to surrounding areas if proper waste management is not implemented.	
	Without mitigation	**With mitigation**
Intensity	Medium	Low
Extent and duration of impact:	Site-specific, duration of construction	Site-specific, duration of construction
Probability of occurrence:	Probable	Possible
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Excavated material should be reused on site where fill is required or disposed of at an appropriately licensed waste disposal facility. - Cleared vegetation can be chipped and incorporated into the topsoil - No waste must be burned on site. - Any waste that may be produced during the site preparation phase must be disposed of at an appropriately licensed waste disposal facility (Arlington). - A register to be maintained of waste disposed of at waste facilities. - No waste is to be stockpiled on site. - Adequate capped litter bins should be provided at the site for waste generated by the construction staff; these should be emptied regularly and waste disposed of at an appropriately licensed waste disposal facility. - Suitable portable sanitation facilities should be provided and maintained for the construction staff during the development. - All hazardous substances must be stored on impervious surfaces in a designated bunded area, able to contain 110% of the total volume of materials stored. - The bunded areas should be inspected regularly in order to be maintained correctly. - All spillages should be recorded and reported to the responsible person. - All earth-moving equipment should be serviced regularly, and leakages should be identified and immediately repaired. - Storage areas should only be accessible to authorised persons.	
Cumulative impact post mitigation:	N/A	

Rating of cumulative impacts	Without Mitigation	With Mitigation
	Low	Low

29.1.7 Visual

Potential impact and risk:	Visual Impacts as a result of construction	
Nature of impact:	**Direct Negative Impact** The removal of vegetation will leave bare sites previously covered by vegetation, regardless of the state of the vegetation. Construction sites are generally not visually attractive.	
	Without mitigation	**With mitigation**
Intensity	Low	Very Low
Extent and duration of impact:	Site-specific, duration of construction.	Site-specific, duration of construction.
Probability of occurrence:	Probable	Possible
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Clearing of vegetation should be done in a phased manner, and rehabilitation should take place systematically along with the clearing phases. - Stockpiles should be kept neat, and all waste should be cleared of vegetation daily. - Building guidelines should be followed correctly, and sites should be closed off from the public eye. - All areas not to be disturbed should be marked off as no-go zones. - Site camp should be kept as neat and clean as possible.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.1.8 Air Quality

Potential impact and risk:	Dust generation during the construction phase	
Nature of impact:	**Direct Negative Impact** Construction vehicles will be travelling within the site, transporting materials that may lead to dust generation. Unconsolidated bare soil will be present during the vegetation clearing, site preparation, and construction phases. These soils will be prone to wind erosion with associated generation of dust and windblown sand during high wind velocities.	
	Without mitigation	**With mitigation**
Intensity	Low	Very Low
Extent and duration of impact:	Site-specific, duration of construction.	Site-specific, duration of construction.

Probability of occurrence:	Probable	Possible
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Vegetation should be cleared in a phased manner to avoid large areas of unconsolidated soils. - Topsoil and soil stockpiles should be covered, wetted or otherwise stabilised to prevent wind erosion and dust generation. - Cover construction material, skips, and stockpiled soils if they are a source of dust. - A water cart or sufficient watering equipment should be available to wet soils during windy days if wind-blown sand and dust become a problem. - Heavy machinery and vehicles must not exceed a speed limit of 20 km/hr along the route of construction. - Construction vehicles should be aware of neighbouring properties and reduce dust emissions as much as possible, specifically during days of increased wind speeds.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

Potential impact and risk:	**Impacts on air quality (air pollution)**	
Nature of impact:	**Direct Negative Impact** Air emissions are generated during construction activities from the operation of machinery through exhaust emissions and the use of generators, as well as the generation of dust during these construction activities. The emissions include CO2, NOx, and fine particulate matter.	
	Without mitigation	**With mitigation**
Intensity	Low	Very Low
Extent and duration of impact:	Site-specific, duration of construction.	Site-specific, duration of construction.
Probability of occurrence:	Probable	Possible
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	

Proposed mitigation:	- All dust abatement techniques mentioned in the mitigation measures relating to dust generation should be considered. - The installation of construction enclosures to minimise dust movement. - Conducting regular inspections on vehicles used for the development to ensure that fuel usage is optimal. - Vehicles should not idle unnecessarily when not in use, and hauling trips should be kept as short as possible. - Use well-maintained machinery and vehicles that meet the applicable emission performance standards.	
Cumulative impact post mitigation:	Health impacts as a result of impacts on air quality. Several health problems arise from particulate pollution, including coughing, wheezing, and weaker lung functionality. The fine particulate matter emitted from diesel engine exhausts is classified as carcinogenic to humans, and most of the machinery used for construction runs on diesel as the main fuel source.	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.1.9 Noise

Potential impact and risk:	**Noise and vibration cause disturbance during the construction phase**	
Nature of impact:	**Direct Negative Impact** The use of machinery and the presence of additional labour on sites may result in greater than normal levels of noise and vibration as construction progresses.	
	Without mitigation	**With mitigation**
Intensity	Medium	Medium
Extent and duration of impact:	Site-specific, duration of construction.	Site-specific, duration of construction.
Probability of occurrence:	Probable	Probable
Significance	Low -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	Moderate	
Proposed mitigation:	- Noise generated as a result of construction activities must be within the limits assigned by the municipal bylaws. - Limit activities as far as possible to working hours (i.e., 07h00 – 17h00 weekdays and Saturdays). No works to occur on Sundays or Public Holidays. - Encourage labourers not to make unnecessary noise. - Signage with the contact details of the responsible person should be provided at the site for people with complaints in this regard. - All plant and equipment must meet acceptable noise level standards and be serviced regularly. - A complaints register should be kept to document complaints and the corrective action taken. - No loud music is to be allowed on site.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**

	Low	Low

29.1.10 Archaeological and Palaeontological

Potential impact and risk:	**Impacts on potential undiscovered palaeontological material, as well as heritage and historical remnants on site**	
Nature of impact:	**Direct Negative Impact** The preparation of the site for the proposed development could have an impact on above and below ground palaeontology as well as heritage and historical remnants. It is unlikely that such palaeontological material will be found on site, as most of the Erf 1134 has been previously cleared of vegetation through burning, and Erf 984 has clear evidence of transformation.	
	Without mitigation	**With mitigation**
Intensity	Low	Low
Extent and duration of impact:	Site-specific, duration of construction.	Site-specific, duration of construction.
Probability of occurrence:	Improbable	Improbable
Significance	Low -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Low	
Degree to which impact can be mitigated	Moderate	
Proposed mitigation:	- The appointed ECO should be alerted to the possibility of important fossil remains or graves being found either on the surface or exposed by fresh excavations during construction. - Should fossil remains be exposed during site preparation, the ECO should safeguard these, preferably in situ, and alert EC Provincial Heritage Resources Authority (ECPHRA), so that appropriate mitigation (e.g., recording, sampling, or collection) can be taken by a professional palaeontologist. - The specialist involved would require a collection permit from SAHRA. Fossil material must be curated in an approved repository (*e.g.,* museum or university collection) and all fieldwork and reports should meet the minimum standards for palaeontological impact studies developed by SAHRA. Sufficient time must be allowed to remove/collect such material.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.1.11 Socio-economic and Cultural

Potential impact and risk:	**Job creation during the construction phase**	
Nature of impact:	**Direct Positive Impact** Several temporary employment and skills development opportunities will be created during the construction phase for local communities, which may temporarily relieve unemployment.	
	Without mitigation	**With mitigation**

Intensity	Low	Low
Extent and duration of impact:	Local - Regional, duration of construction	Local - Regional, duration of construction
Probability of occurrence:	Probable	Probable
Significance	N/A	Low +
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	Impact can be enhanced	
Proposed mitigation:	- Source diverse local labour. - Small, Medium, and Micro-sized Enterprises (SMMEs) should be utilized during the development project.	
Cumulative impact post mitigation:	Persons employed during the construction phase of the project can learn new skills and improve living standards for themselves and their households. With the current unemployment rate in the Eastern Cape, job opportunities are scarce.	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	N/A	N/A

29.2 Operational Phase Impacts

29.2.1 Terrestrial Biodiversity

Potential impact and risk:	**Invasion alien species**	
Nature of impact:	**Direct Negative Impact.** Susceptibility of post-construction disturbed areas to invasion by exotic and alien species. Post-construction disturbed areas having no vegetation cover are often susceptible to invasion by weedy and alien species, which can not only become invasive but also prevent natural flora from becoming established, specifically affecting the proposed open spaces on Erf 1134.	
	Without mitigation	**With mitigation**
Intensity	Medium	Low
Extent and duration of impact:	Site-specific, medium-term	Site-specific, medium-term
Probability of occurrence:	Probable	Possible
Significance	Medium -	Low -
Degree to which the impact can be reversed:	High	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Alien trees must be continuously removed from the site as per NEMBA requirements. - A suitable weed management strategy is to be implemented in the operation phase. - The green belt should be regularly inspected, and alien vegetation should be removed upon sighting. - The implementation of a formalised rehabilitation and landscaping plan, utilising indigenous species and a water-wise approach. - An ongoing maintenance and monitoring of alien vegetation invasion on the sites can result in the natural vegetation returning over time. - An effective fire management plan to control fynbos fires and an alien management plan to eliminate alien species triggering fires.	
Cumulative impact post mitigation:	- The maintenance of clearing of alien species, especially nitrogen fixers such as *Acacia spp,* found on sites means nutrient concentration in groundwater is not altered. - The clearing of alien species results in fewer possibilities of intense fires that cause soil erosion.	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Medium	Low

Potential impact and risk:	**Loss of Faunal Habitat and CBA**	
Nature of impact:	**Indirect Negative Impact** During the operational phase, the development could cause permanent loss of potential faunal habitat in surrounding areas as well as areas within the sites if they are not properly managed, i.e., the open space area on Erf 1134.	
	Without mitigation	**With mitigation**
Intensity	Severe	Medium

Extent and duration of impact:	Site-specific, short-term	Site-specific, short-term
Probability of occurrence:	Definite	Probable
Significance	High -	Medium -
Degree to which the impact can be reversed:	Low	
Degree to which impact may cause irreplaceable loss of resources	Low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Ensure the proper management of the open space area and that it does not get polluted by any potentially contaminated run-off from the property. - The rehabilitation post-construction allows fauna to establish a habitat. - The establishment of an open space protects fauna from adverse human activity. - Faunal species present as transient visitors will balance the ecosystem structure and functioning. - The demarcation of the open space from developments will likely form a habitat and attract transient fauna, which will have a positive impact.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.2.2 Stormwater & flooding

Potential impact and risk:	**Increased impervious area and stormwater management**	
Nature of impact:	**Direct Negative Impact** The development of internal roads and proposed buildings will increase the impervious area. This could lead to localised flooding as a result of heightened stormwater run-off volume and velocity.	
	Without mitigation	**With mitigation**
Intensity	High	Low
Extent and duration of impact:	Site-specific, intermittent	Site-specific, intermittent
Probability of occurrence:	Probable	Possible
Significance	High -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Correct planning and maintenance for stormwater drainage and engineering of development to keep water accumulation to a minimum. - Stormwater management must be planned and implemented at the commencement of bush clearing.	

	- A stormwater management plan should be compiled by a professional engineer which will most likely be subject to the approval of the municipality.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.2.3 Waste

Potential impact and risk:	**Accumulation of operational waste on site**	
Nature of impact:	**Direct Negative Impact** Waste generated during the operational phase of the project could cause pollution to surrounding areas if proper waste management is not implemented.	
	Without mitigation	**With mitigation**
Intensity	Medium	Low
Extent and duration of impact:	Site-specific, long-term	Site-specific, long-term
Probability of occurrence:	Probable	Possible
Significance	Medium -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	High	
Proposed mitigation:	- Proper operational waste management systems should be in place for the operational phase of the project. - Waste should be collected weekly. - Waste must be stored in secure waste bins, which must be impermeable and animal safe. - Waste recycling and sorting of recyclable materials should be encouraged. - A responsible person should be appointed to ensure that staff make use of the bins provided and do not litter on site. - The sites should be cleaned on a regular basis, and any litter or waste which have not been properly disposed of should be collected and disposed of	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.2.4 Visual

Potential impact and risk:	**Visual Impacts caused by the buildings on the site**
Nature of impact:	**Direct Negative Impact** The sites are surrounded by properties with similar and corresponding land uses. Erf 1134 is proposed for a mixed-use development that covers open space and a business-related zone. This does not align with the surrounding residential properties and would most likely create

	a buffer between the existing properties and traffic on the Old Cape Road. Erf 984 is proposed for a more specialised purpose-related development in line with its current zoning.	
	Without mitigation	**With mitigation**
Intensity	Low	Low
Extent and duration of impact:	Local, long-term	Local, long-term
Probability of occurrence:	Probable	Probable
Significance	Low -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	Moderate	
Proposed mitigation:	- Ensure that the open space area is properly rehabilitated and managed. - Ensure that the site is kept neat at all times and that all waste mitigation measures are facilitated regularly. - The proposed developments should be well in line with its approved zoning.	
Cumulative impact post mitigation:	Low risk, because the visual and scenic continual assessments maintain the integrity and value of these natural and cultural landscapes, while maintaining the envisioned WSLSDP.	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.2.5 Noise

Potential impact and risk:	**Noise pollution**	
Nature of impact:	**Direct Negative Impact** The development will increase the number of vehicles using the surrounding roads as well as cause an influx of vehicular activity on the sites, which will most likely increase daily noise levels.	
	Without mitigation	**With mitigation**
Intensity	Moderate	Moderate
Extent and duration of impact:	Local, long-term	Local, long-term
Probability of occurrence:	Probable	Probable
Significance	Low -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	Low	
Proposed mitigation:	- A boundary wall should be sufficient to act as a buffer zone between the development proposed on Erven 984 and 1134 and the residential properties.	

	- The property boundary should be a solid wall on the side facing the neighbouring residential areas.	
Cumulative impact post mitigation:	N/A	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

29.2.6 Socio-economic & Cultural

Potential impact and risk:	**Stimulation of the local economy**	
Nature of impact:	**Indirect Positive Impact** Local individuals will have employment during the operational phase of the facility. The job opportunities will range from unskilled to skilled and will improve the dire employment rate. The development in itself could also spur the development of the surrounding areas (where allowed), and create more job opportunities.	
	Without mitigation	**With mitigation**
Intensity	Low	Low
Extent and duration of impact:	Local - Regional, duration of operation.	Local - Regional, duration of operation.
Probability of occurrence:	Probable	Probable
Significance	N/A	Low +
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Very low	
Degree to which impact can be mitigated	No mitigation	
Proposed mitigation:	- N/A	
Cumulative impact post mitigation:	- Persons employed during the operational phase of the project can learn new skills and improve living standards for themselves and their households. With the current unemployment rate in the Eastern Cape, job opportunities are scarce. - With the envisioned expansion of the WSLSDF, the development attracts SME businesses. - Economic growth enables consumers to consume more goods and services and enjoy better standards of living in a mixed-use community of the WSLSDF. - With higher output and positive economic growth, warehouses tend to employ more workers, creating more long-term employment long term as businesses will expand. - The major role of the stimulation of the economy is reducing levels of poverty, increasing life expectancy, and enabling more economic prosperity in the western suburbs and surroundings linked by transportation.	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	N/A	N/A

Potential impact and risk:	**Increased load on public roads**

Nature of impact:	**Indirect Negative Impact** The development of a facility for warehousing as a major factor will increase the number of heavy vehicles on the roads in the surrounding areas of Erf 984. While commuting to Erf 1134 increases traffic on the streets leading to Erf.	
	Without mitigation	**With mitigation**
Intensity	Medium	Medium
Extent and duration of impact:	Local, long-term	Local, long-term
Probability of occurrence:	Probable	Probable
Significance	Low -	Low -
Degree to which the impact can be reversed:	Reversable	
Degree to which impact may cause irreplaceable loss of resources	Low	
Degree to which impact can be mitigated	Low	
Proposed mitigation:	- The additional traffic generated by the development has little or no impact on the operation of the affected intersections in terms of capacity.	
Cumulative impact post mitigation:	- With the Western Suburbs envisioned for expansion and attracting more business and residents, it is unlikely this development will cause adverse or damaging conditions on the roads.	
Rating of cumulative impacts	**Without Mitigation**	**With Mitigation**
	Low	Low

30 Impact Summary

	PREFERRED ALTERNATIVE	
Construction Phase Impacts		
Impact	Before mitigation	After Mitigation
Permanent or temporary loss of vegetation cover as a result of site clearings	Medium -	Medium -
Loss of species of special concern during pre-construction site clearing activities	Medium -	Low -
Invasion of Alien Invasive Species	Medium	Low
Removal of Alien Invasive Species	N/A	Low +
Disruption to Ecological Processes	Medium -	Low -
Loss of Faunal Habitat and CBA	High -	Medium -
Loss of Faunal Species of Special Concern	Medium -	Low -
Susceptibility of some areas to erosion as a result of construction-related disturbances	Medium -	Very low -
Impacts on surface water or groundwater resources	Medium -	Low -
Increased impervious area and stormwater management during construction	Medium -	Low -
Geological Impacts	N/A	N/A
Accumulation of construction waste on the site	Medium -	Low -
Visual Impacts as a result of construction.	Medium -	Low -
Dust generation during the construction phase	Medium -	Low -
Impacts on air quality (air pollution)	Medium -	Low -
Noise and vibration cause disturbance during the construction phase	Low -	Low -
Impacts on potential undiscovered palaeontological material, as well as heritage and historical remnants on site	Low -	Low -
Job creation during the construction phase	N/A	Low +
Operational Phase Impacts		
Invasion Alien Invasive Species	Medium -	Low -
Loss of Faunal Habitat and CBA	High -	Medium -
Increased impervious area and stormwater management	High -	Low -
Accumulation of operational waste on site	Medium -	Low -
Visual Impacts caused by the buildings on the site	Low -	Low -
Noise pollution	Low -	Low -
Stimulation of the local economy	N/A	Low +
Increased load on public roads	Low -	Low -

31 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 are likely to be exacerbated or minimised as a 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.

The proposed development on Erven 984 and 1134 Parsons Vlei is not expected to contribute significantly to climate change.

Alternatives such as low-impact development techniques, energy-efficient designs, and the use of sustainable materials can be considered. These alternatives aim to minimise greenhouse gas emissions, manage stormwater more effectively, and reduce the overall environmental footprint.

The development will result in some greenhouse gas emissions, primarily from construction activities and ongoing energy use in the business and warehousing units. The extent of these emissions will depend on the materials used and the energy efficiency of the buildings. The development should incorporate energy-efficient designs, renewable energy sources, and sustainable practices to support regional or national targets.

The impact of climate change on the development itself could include increased flooding risks and heat stress, necessitating design adaptations such as elevated foundations, improved stormwater management systems, and cooling solutions. The development's effect on the social, economic, natural, and built environments must be carefully managed to enhance community resilience and reduce environmental impacts. Implementing green infrastructure and monitoring climate-related risks will help mitigate negative impacts.

32 Assumptions and limitations

Data Accuracy and Reliability: This impact assessment report relies on available data and information obtained from various sources, including scientific literature, government reports, and stakeholder consultations. While efforts have been made to ensure the accuracy and reliability of the data, there may be limitations inherent in the data quality, completeness, and currency. Any inaccuracies or uncertainties in the data could affect the robustness of the assessment findings and conclusions.

Modelling and Predictive Uncertainties: The assessment involves modelling future scenarios and predicting potential impacts based on current understanding of climate change dynamics, socio-economic trends, and environmental factors. However, predictive modelling inherently involves uncertainties and assumptions about future conditions, including climate projections, technological advancements, and human behaviour. As such, the accuracy and reliability of the projected impacts are subject to inherent uncertainties and may deviate from actual outcomes.

Scope and Boundaries: The assessment's scope is limited to evaluating the anticipated impacts of the proposed development on social, economic, natural, and built environments in the context of climate change adaptation and resilience. Certain factors, such as geopolitical changes, regulatory frameworks, and market dynamics, which may influence the project's long-term impacts, are beyond the scope of this assessment.

Temporal and Spatial Scale: The assessment focuses on assessing impacts at a specific temporal and spatial scale relevant to the proposed development and surrounding environment. However, many impacts and adaptation responses operate across varying temporal and spatial scales, and localized impacts may interact with broader regional or global-scale trends. The assessment may not capture all nuances and interactions at different scales.

Assumptions and Scenarios: The assessment makes certain assumptions about future conditions, socio-economic trends, and climate change scenarios to project potential impacts. These assumptions are based on current knowledge and understanding but may not fully account for unforeseen changes, abrupt events, or tipping points that could alter the trajectory of impacts.

Stakeholder Engagement and Perspectives: While efforts have been made to incorporate stakeholder perspectives and input into the assessment process, the representation and inclusivity of stakeholder engagement may be subject to limitations. Variations in stakeholder interests, priorities, and perspectives may influence the interpretation of impacts and the identification of adaptation measures.

Regulatory and Policy Frameworks: The assessment considers existing regulatory and policy frameworks related to impact assessment, environmental management, and land use planning. However, future changes in regulations, policies, or governance structures could impact the implementation of adaptation measures and the project's overall resilience.

Human and Behavioural Factors: The assessment acknowledges the influence of human behaviour, decision-making processes, and societal dynamics on impacts and adaptation responses. However, predicting human responses to climate change, impact mitigation and development interventions involves inherent uncertainties that may not be fully captured in the assessment.

33 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.

Alternative A (preferred alternative)

The only preferred alternative site considered for this project is discussed in detail in the Feasibility and Reasonable Alternatives section of this report. The assessment has identified a total of 26 impacts, of which 18 are construction phase impacts and 8 are operational phase impacts. Three of these impacts are positive impacts, and the remaining 23 are negative.

Construction Phase

Construction phase impacts mostly relate to the impacts the construction phase of the project will have on biodiversity. Considering the sensitivities of the sites, Erf 1134 has a small section that is located within a CBA area according to the NMBM Bioregional Plan (2015) and has been secluded from the development area in order to retain this section with a possibility of rehabilitation in terms of alien vegetation removal. The permanent loss of vegetation as a result of clearing would be considered a medium negative impact, especially with the presence of a pocket of semi-intact vegetation with species present indicative of the critically endangered Algoa Sandstone Fynbos vegetation type. The impact can be mitigated to a low negative rating by implementing the proposed mitigation measures. The possibility that some species of special concern can be lost during vegetation clearing is a medium negative impact if the proper mitigation measures are not facilitated, specifically referring to search and rescue, which should be undertaken close to the commencement of vegetation clearing. The possibility of alien invasive species spreading as a result of site clearing is a medium negative impact, which can be mitigated to a low negative impact and avoid the possibility of cumulative impacts occurring, which are related to the further spread and establishment of alien invasive species in the surrounding areas. Therefore, the removal of alien invasive species during site clearing can be considered a positive impact.

The disruption of ecological processes is expected during the construction phase of the project and has been allocated a medium negative rating before mitigation. The sites do not necessarily play important roles considering ecological processes, but are still part of a larger functional area and could connect sites. Erf 1134 is less than Erf 984 in extent.

The susceptibility of loose soils being subjected to erosion during high rainfall or high windspeeds has a medium negative rating before mitigation, but can be lowered to low negative should the correct measures be followed as per the EMPr. During high rainfall periods, the unconsolidated soils could lead to blockages of minor drainage infrastructure and wash into roads. This also creates difficulties with pavement management and weed control within pavement areas. The silted runoff could also lead to siltation within the drainage line, especially the drainage line located at Erf 1134, however, since it is proposed that the section close to the drainage line be retained and rehabilitated, should runoff drain towards the drainage line, the

retained vegetation could assist in attenuating some of the silt. Other mitigation measures to avoid any silted runoff reaching the drainage line have also been proposed and should lower the impact to a low negative. The above is closely related to stormwater management infrastructure and the implementation of proper stormwater management measures during the construction phase of the project. The increase in impervious areas due to soil consolidation can be mitigated to a low negative rating.

The accumulation of waste on site should be managed by ensuring that all recommended mitigation measures as per the BAR and EMPr are implemented, which will ensure the impact stays at a low negative level. Visual impacts during the construction phase of a project are expected and are inevitable; however, the intensity of the impact can be significantly lowered should the construction sites be kept neat and construction netting be erected.

The impacts on air quality during the construction phase of the project are rated as medium prior to the implementation of mitigation measures, during which dust and emissions from additional large construction vehicles could affect air quality. The mitigation measures proposed in terms of dust suppression as well as regular vehicle maintenance could lower the risk of the impact to a low negative. Noise during the construction phase, especially with the nearby residents of Erven 984 and 1134, could be bothersome. Considering that noise for any construction project is inevitable, the implementation of noise attenuation mitigation measures is important to lower the noise level generated.

The possibility of impacts occurring on archaeological and palaeontological artifacts is expected to be low. **A specialist will confirm this during the course of the project, before construction commences**. Construction phase job creation has a low positive impact and can be enhanced by ensuring small and medium enterprises are involved during this phase of the project. There have been many I&AP registrations that indicated the priority of interest covered this topic.

Operational Phase

The operational phase impacts identified are considerably less than the construction phase impacts. Considering biodiversity, the possibility of alien invasive species establishing in the open spaces and so spreading throughout neighbouring sites has been identified in order to propose mitigation measures which should lower the impact from medium negative to low negative, if not very low negative. Some cumulative impacts can be resultant should alien vegetation control not be prioritised during the operational phase, but none are expected should mitigation be properly implemented. The loss of faunal habitat and CBA could be an indirect negative impact. Specifically referring to the section of Erf 1134 located within the CBA area, but with the recommended mitigation measures, it is expected that the section should be well maintained, and any additional losses should be avoided.

Stormwater control and flooding during the operational phase of the project could pose risks as a result of the increased impervious areas. Without proper stormwater management, the risks of the impact could be regarded as highly negative, but can be significantly lowered with the implementation of the mitigation measures and a stormwater management plan. It would be a requirement from the municipality during the final planning stages of the project. The accumulation of waste can be mitigated to a low negative impact.

Since the types of developments planned for the project are in line with their approved zoning, it is not expected that the operational phase visual impacts will be high, but rather relatively low. Noise during the operational phase can be mitigated to a low negative. For Erf 1134, the noise is expected to relate mostly to everyday residential noise and possibly some retail, hence, mostly vehicular traffic. The socio-economic and cultural impacts expected relate to positive economic impacts. One traffic-related impact, considering the increased load on public roads, has been identified. The area is bound to be developed, and an increase in traffic is inevitable, but the traffic impact assessment has indicated that the increase will not have any substantial impacts.

No-go alternative (compulsory)

Under the status quo conditions, the potential for development and generating income and boosting the economy would not ensue. By implementing the no-go alternative, the sites will stay vacant. To enable a Municipality to fund the services, it is inter alia, dependent on income from rates and income from the consumption of services. The Municipal Property Rates Act (MPRA) is a national law that regulate the power of a municipality to value and rate immovable properties located within the boundaries of municipalities. The Act determines that the rating of property will be implemented impartially, fairly, equitably and without bias, and these principles also apply to the setting of criteria for exemptions, reductions, and rebates contemplated in Section 15 of the MPRA. Revenue from property rates is used to fund services that benefit the community as a whole as opposed to individual households. These include installing and maintaining streets, roads, sidewalks, lighting, and storm drainage facilities; and building and operating clinics, parks, recreational facilities and cemeteries. Since property rates fund the costs associated with the provision of general services, such as fire, library and roads and stormwater services, the development of vacant land by the improvements on the site will contribute to the available funds to provide the necessary services.

Neither of the sites is currently fenced, and both pose a risk of being illegally occupied. The sites show an indication that further alien vegetation invasion is a reality and that control measures should be implemented. Since neither of the sites is of particular high sensitivity considering biodiversity and vegetation present, the chances of the sites recovering without human intervention are low, especially Erf 1134. Further development of surrounding properties is expected, and these sites will most likely be relatively isolated from any neighbouring biodiversity or possible ecological corridors. The only highly sensitive area identified would be the section of Erf 1134 that is located on the edge of a river corridor and is located within a CBA.

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**	NO
Is an EMPr attached?	**YES**	NO

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:

Site Preparation

- Relevant landowners and land users must be notified timeously (two weeks minimum) prior to site preparation and vegetation clearing commencing.
- An ECO must be trained to monitor the clearing of the vegetation. If concentrations of archaeological materials and/or human remains are exposed, then all work must stop for an archaeologist to investigate.
- The manager/foreman should be informed before construction starts on the possible types of heritage sites and cultural material they may encounter, and the procedures to follow when they find sites. It is suggested that a person be trained (EO) to be on site to report to the site manager if sites are found.
- Sites have fulfilled the given requirement for an Archaeological Assessment; as a result, a formal compliance certification that declares that the sites met a set of conditions has been released. Therefore, no specific protocol has been developed for archaeology, and a compliance certificate confirms that the sites comply with development and regulatory requirements.
- Clearing should only take place within the required footprint of the sites.
- When site clearing is being undertaken, care must be taken to remove any seed-bearing alien species from the vegetative material.
- Topsoil should be removed and stockpiled in an appropriate manner:
    - Stockpiled separately from subsoil, monitored for and protected from erosion, and kept clear of exotic vegetation.
- Topsoil and soil stockpiles should be covered, wetted, or otherwise stabilised to prevent wind erosion and dust generation.

- Cleared vegetation should not be burned, but rather mulched and added to the soil. However, where it is necessary, any material not suitable for mulching should be disposed of at the closest registered dump site.
- The demarcation of a protected area, in order to secure the required habitat for translocated species.
- Exotic vegetation on site must be eradicated.
- A comprehensive Plant Search and Rescue must be conducted prior to vegetation clearance.
- Vegetation clearance and trampling should be avoided in areas demarcated as no-go areas.
- Employees must be prohibited from making fires and harvesting plants.

Construction

- Strict management of any hazardous chemicals and refuse during construction.
- No unnecessary construction-related activities, e.g., stockpiles, within the drainage lines or a minimum of 32m buffer to the Baakens drainage line.
- Prevention (and containment) of hydrocarbon spills from construction machinery & vehicles, particularly during re-fuelling operations.
- A water cart or sufficient watering equipment should be available to wet soils during windy days is wind-blown sand and dust becomes a problem.
- Open fires used for cooking must not be allowed on site.
- Cigarette butts must be disposed of in litter bins provided.
- Encourage labourers not to make unnecessary noise.
- Signage with the contact details of the responsible person should be provided at the site for residents with complaints in this regard.
- All plant and equipment must meet acceptable noise level standards and be audited during construction.
- A complaints register should be kept to document complaints and the corrective action taken.
- No loud music is to be allowed on site.
- Suitable portable sanitation facilities should be provided and maintained for the labourers during the project.
- Should any vehicles (bulldozers, tractors, etc.) need servicing, all servicing must be done over drip trays and/or impermeable surfaces to prevent pollution of the soils by hydrocarbons or oil.
- Vehicles should be checked for leaks to ensure no fuel, oil, or other similar pollutants are present.
- Sufficient portable chemical toilets or similar sanitation facilities should be provided and suitably maintained at the site for the duration of the project.
- All activities should be limited to the demarcated area.
- Access to the site must be controlled.
- Chemicals used for construction must be stored safely on site and surrounded by bunds. Chemical storage containers must be regularly inspected so that any leaks are detected early.

- Littering and contamination of water sources during construction must be prevented by effective construction camp management.
- Emergency plans must be in place in case of spillages onto road surfaces and water courses.
- No stockpiling should take place within a water course.
- All stockpiles must be protected from erosion, stored on flat areas where run-off will be minimised, and surrounded by bunds.
- Stockpiles must be located 50m away from watercourse channels.
- Erosion and sedimentation into channels must be minimised through the effective stabilisation (gabions and Reno mattresses) and the re-vegetation of any disturbed riverbanks.
- The construction camp and necessary ablution facilities meant for construction workers must be beyond the proposed buffers.

SECTION F: APPENDICES

The following appendices must be attached as appropriate:

Appendix A: Site plan(s) & Sensitivity Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

1. Biodiversity Impact Assessment Report (2020)
2. Terrestrial Biodiversity Site Sensitivity Verification Report Cover Letter (2025)
3. Terrestrial Biodiversity Site Sensitivity Verification Report (2025)

Appendix E: Comments and Responses Report

Appendix F: Environmental Management Programme (EMPr)

1. Construction Environmental Management Programme (CEMPr)
2. Operational Environmental Management Programme (OEMPr)

Appendix G: Other information

1. Copy or Environmental Authorization (2008)
2. Copy of Environmental Authorization (2022)
3. Rezoning Approval Erf 1134 Parsons Vlei (2025)
4. Rezoning Approval Erf 984 Parsons Vlei (2025)
5. Site Sensitivity Verification Report

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