

**THE PROPOSED DEVELOPMENT OF RESIDENTIAL APARTMENTS AND  
ASSOCIATED INFRASTRUCTURE ON RE/3420, SEA VISTA, ST FRANCIS  
BAY, EASTERN CAPE**

**DRAFT BASIC ASSESSMENT REPORT  
DEDEAT REF NO.: EC08/C/LN1&3/M/55-2022**

**30 DAY PUBLIC PARTICIPATION PROCESS: 14/11/2022 – 14/12/2022**



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# 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.**

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## Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 as amended and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for. This report is current as of **1 OCTOBER 2022**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority **unless indicated otherwise by the Department**.
7. No faxed or e-mailed reports will be accepted **unless indicated otherwise by the Department**.
8. The report must be compiled by an independent environmental assessment practitioner (EAP). The EAP must satisfy conditions 11 below.
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
- 11.1 The Environmental Assessment Practitioner (EAP) must be registered in terms of S24H Regulations with the Registration Authority EAPASA as from 8 August 2022.
- 11.2. S24H (14) states that "only a person registered as an Environmental Assessment practitioner may perform tasks in connection with an application for an environmental authorisation contemplated in (a)Chapter 5 of the Act read with the Environmental impact Assessment Regulations.

(b) Section 24G of the Act

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

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

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

*“20. Offences and penalties*

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

*(a) contravenes regulation 14 of the Regulations; or*

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

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

*Section 49B(3) of the Act states:*

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

# SECTION A: ACTIVITY INFORMATION

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

YES

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

Any specialist reports must be contained in Appendix D.

## 1. ACTIVITY DESCRIPTION

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

### Location & Development Description:

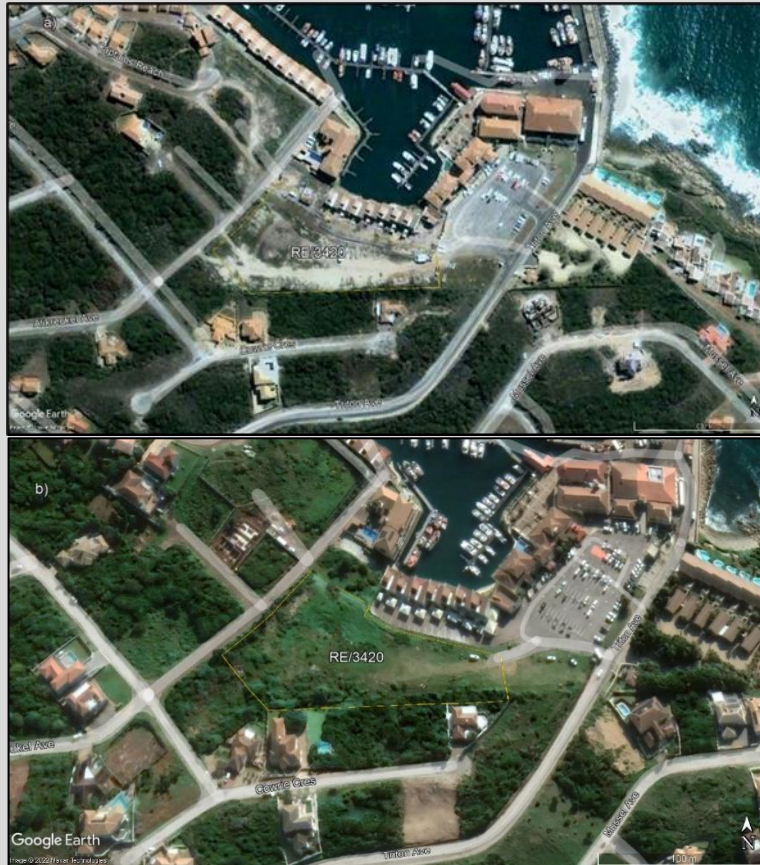
The proposed apartments will be developed on RE/3420 Sea Vista, a suburb of St Francis Bay, Eastern Cape (GPS coordinates: 34°11'7.82"S| 24°51'3.87"E).



Figure 1: Locality map of RE/3420, Sea Vista, St Francis Bay (1:2500)

RE/3420 is 7693m<sup>2</sup> of vacant land and is currently zoned for "Special Zone" use (refer to Appendix I for zoning certificate). The proposed development will be the construction of four (4) apartment blocks consisting of four (4) floors (including ground floor) each with a total of 36 units, a reception area, 81 parking bays, and paved pathways leading to future extension plans of a clubhouse and pool area.

With inspection of GIS imagery, it is clear to see that the proposed development site was previously disturbed as Google Earth imagery dating back to 2006 shows the property was cleared of vegetation and possibly gravelled for use as a boat yard for the Port St Francis Harbour. This activity was previously approved by the Kouga Municipality as part of an extension to the Port St Francis Harbour Development in 2008 (refer to Appendix I).



**Figure 2: Google Earth imagery of the site cleared of vegetation during (a) 2006 and the site in present day (b) 2022**

There are several large depressions on the property and the geotechnical specialist advised that these depressions indicate historical filling/dumping of soil and rubble. Civil works will need to be designed by the appointed civil engineer; however, the geotechnical specialist has provided certain recommendations following on-site testing. These recommendations are indicated later in this report and in the specialist report attached as Appendix D.

### **Biodiversity:**

The site is transformed and consists of mostly anthropogenic grassland with scattered alien invasive vegetation. The biodiversity specialist identified species typical of St Francis Dune Thicket restricted to the southern boundary of RE/3420 where a remnant strip of this vegetation approximately 1m wide (but extending onto some adjacent properties) can be found - most of these species typically form part of the thicket component of St Francis Dune Thicket and no species typical of the fynbos component were encountered on site. The biodiversity findings are discussed later in this report and can be found in the specialist report attached in Appendix D.

### **Access:**

Access to the property is via an existing access road off Triton Avenue. Proposed vehicle access for the development will be continued on from the existing access road.

**Bulk services:**

New service infrastructure will be required, including the necessary links to municipal bulk services, including water supply lines, sewerage mains, stormwater infrastructure and electricity supply lines.

**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.

**A) Property and site alternatives**

The preferred site/A1 is located at GPS co-ordinates: 34°11'7.82"S| 24°51'3.87"E. There are no other property or site alternatives being assessed as the applicant/landowner has the intention to utilise their property for the proposed development.

**B) Activity alternatives**

There are no activity alternatives. The EIA was commissioned for the sole purpose of investigating the development of the proposed residential apartments.

**C) Design or layout alternatives**

Preferred design/layout: block and tower design with varying height levels – this design was chosen as opposed to designing the apartments without varying levels. The varying levels provide a decreased visual impact and allow the neighbouring dwellings to the south of the proposed development to still have a sea view. The tower and block design does assist in breaking up the massing of the structure and is aesthetically aligned with the existing Port built environment.

**D) Technology alternatives**

Consideration will be given to water and energy saving devices, where applicable, and measures such as rainwater harvesting, the use of local timber and locally supplied concrete for flooring all form part of implementing green building principles to the design of the development.

It is recommended that the developer makes use of energy efficiency measures and green energy projects to reduce energy consumption where possible.

No other technology alternatives are deemed relevant or appropriate for this project.

#### **E) Operational alternatives**

The operational aspects relate to the daily operations of the proposed development. General management operations include waste management, storm water management, landscape management and incident management. These management operations have been addressed in the EMPr (attached as Appendix F).

#### **F) No-Go option:**

This alternative assumes that the residential development will not be constructed as proposed, and the status quo will remain in place. By not developing the land, it is likely that the property would become subject to land invasions and continued unauthorised dumping, contributing to the degradation of the land and the possible spillage of criminal activities into the surrounding area.

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

### 3. ACTIVITY POSITION

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

List alternative sites if applicable.

**Alternative:**

Alternative S1<sup>1</sup> (preferred or only site alternative)

Alternative S2 (if any)

Alternative S3 (if any)

**Latitude (S):**

**Longitude (E):**

34°	11.129'	24°	51.068'
0	'	0	'
0	'	0	'

**In the case of linear activities:**

**Alternative:**

Alternative S1 (preferred or only route alternative)

- Starting point of the activity

- Middle point of the activity

- End point of the activity

**Latitude (S):**

**Longitude (E):**

0	'	0	'
0	'	0	'
0	'	0	'

Alternative S2 (if any)

- Starting point of the activity

- Middle point of the activity

- End point of the activity

0	'	0	'
0	'	0	'
0	'	0	'

Alternative S3 (if any)

- Starting point of the activity

- Middle point of the activity

- End point of the activity

0	'	0	'
0	'	0	'
0	'	0	'

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.

<sup>1</sup> "Alternative S.." refer to site alternatives.



**4. PHYSICAL SIZE OF THE ACTIVITY**

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

**Alternative:**

Alternative A1<sup>2</sup> (preferred activity alternative)  
 The entire property will need earth and civil works; therefore, the total property size has been indicated as the physical size of the activity. The four apartment blocks will occupy 1684m<sup>2</sup> of the total property.

Alternative A2 (if any)

Alternative A3 (if any)

or, for linear activities:

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the activity:**

7693m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

**Length of the activity:**

m
m
m

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

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the site/servitude:**

m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

**5. SITE ACCESS**

Does ready access to the site exist?

If NO, what is the distance over which a new access road will be built

YES	NO
m	

Describe the type of access road planned:

<sup>2</sup> "Alternative A.." refer to activity, process, technology or other alternatives.

Access to the property is via an existing access road off Triton Avenue. Proposed vehicle access for the development will be continued on from the existing access road and will be approximately 193m long.



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 - Attached as Appendix A

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

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):

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

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

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

**7. SITE PHOTOGRAPHS – Attached as Appendix B**

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 – Attached as Appendix C**

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

**9. ACTIVITY MOTIVATION**

**9(a) Socio-economic value of the activity**

What is the expected capital value of the activity on completion?

R66 million

What is the expected yearly income that will be generated by or as a result of the activity?

R99 million - this is a sales project. Last mentioned reflected turnover

Will the activity contribute to service infrastructure?

NO

Is the activity a public amenity?

NO

How many new employment opportunities will be created in the development phase of the activity?

Approx. 100

What is the expected value of the employment opportunities during the development phase?

Approx. R7,2 million per year / development duration

What percentage of this will accrue to previously disadvantaged individuals?	Approx. 80%
How many permanent new employment opportunities will be created during the operational phase of the activity?	Approx. 40
What is the expected current value of the employment opportunities during the first 10 years?	R24 million over a 10-year period
What percentage of this will accrue to previously disadvantaged individuals?	90%

**9(b) Need and desirability of the activity**

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

Extract from the DEA Guideline on Need and Desirability:

*The need for and the desirability of a proposed development forms a key component of any EIA application. The consideration of proposed developments in context of the various spatial planning tools and policy applicable to the study area forms an integral part of the present environmental processes. The “need and desirability” will be determined by considering the broader community’s needs and interests as reflected in a credible IDP, SDF and EMF for the area, and as determined by the EIA. It is essential that national policies and strategies supports growth in the economy. It is also essential and that these policies takes cognisance of strategic concerns such as climate change, food security, as well as the sustainability in supply of natural resources and the status of our ecosystem services. In other words, to achieve our Constitutional goal of a better quality of life for all now and in future, through equitable access to resources and shared prosperity, it is essential that society improves on the efficiency and responsibility with which we use resources, and improve on the level of integration of social, economic, ecological and governance systems [DEA (2017), Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa ISBN: 978-0-9802694-4-4]*

The proposed development is in line with the following municipal planning documents and policies -

**1. The Integrated Development Plan of the local municipality: Kouga Municipality IDP 2021/2022**

Population size:

Since 2011 to 2016 the Community Survey has shown that the population of the Kouga Municipality had grown by 14 383, despite it being one of the smallest regions in the Sarah Baartman District.

*Kouga Municipality is the most populous region representing approximately 24% of the total population in the district.*

*The Kouga Municipality also has the fastest annual growth rate in the district. Between 2001 -2011, the population has increased at an average of 3,22% per annum compared to annual growth rate of 1.1% in the district and 0.3% in the province. The KLM is characterised by vast differences in population density from one area to the next. These variations have an impact on the cost-of-service delivery while migration to the urban nodes places additional pressure on the existing infrastructure of these high-density areas.*

(pg. 69 of the KM IDP 2021/2022)

Economic growth:

*The Kouga had a GDP of R10.5 billion in 2016 and contributed 31% to the Sarah Baartman District Municipality GDP of R34.2 billion in 2016. In 2016, the Kouga Municipality achieved an annual growth rate of 0.38% over a short term and 4.39% over a longer term. For the period 2006 to 2016 the average annual growth rate of 4.39% was the highest relative to its peers in terms of growth in constant 2010 prices.*

*It is expected that Kouga Municipality will grow at an average annual rate of 2.11% from 2016 to 2021.*

According to a 2016 survey, the construction sector accounted for 12% GVA (Gross Value Added) of the Kouga Municipality. This sector is the fourth largest sector to contribute towards the municipality's GVA.

Human Settlements:

*The Kouga Municipality is 85.8% urban with 14.5% being farm settlements. Most of the population occupies a formal dwelling. There are approximately 22508 formal and 5292 informal households. Access to affordable and suitable accommodation remains one of the greatest challenges facing the Kouga area.*

Whilst the Kouga Municipality is focusing on providing RDP housing, it is also important for the private sector to play a role in providing accommodation within the growing municipality.

## **2. Kouga Municipality Spatial Development Framework 2021:**

The SDF states that St Francis Bay is one of three nodes where development pressure is the highest in the municipality.

*“The St Francis Bay / Cape St Francis coastal towns are characterised by low density, upmarket residential developments with strict architectural and aesthetic control. The area has a small and limited commercial and industrial component and largely depends on the bigger sentra like Humansdorp and Jeffreys Bay for this purpose. The higher density, low income residential area of Sea Vista is experiencing high population growth rates and influx with a need for additional and future land.”*

There are specific architectural guidelines for development in the harbour area. This development falls within this niche.

## **3. Motivation for the preferred site and activity:**

- The activity is permitted in terms of the property's existing land use rights.
- 100 temporary employment opportunities will arise during the construction of the project and approximately 40 permanent employment opportunities will arise during the operational phase.
- Materials for the development will be locally sourced as much as possible.
- Technology alternatives to be incorporated into the design of the proposed activity are eco-friendly and ensure environmental sustainability.
- The activity will be in line with urban edge.
- Location factors favour this land use.
- The development is in keeping with the existing and planned sense of place and character of the area.

- As per the Kouga Municipality SDF 2021, there seems to be a high demand for residential developments as the population growth is rising in the municipality and there is limited land available to develop to meet the growing demand.

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

Environmentally sustainable technology should be incorporated into the proposed activity as this will ensure that the activity will reduce strain to municipal service supply.

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

The proposed activity will meet a growing demand for affordable residential housing in Sea Vista. In addition, the proposed development will provide both temporary and permanent employment opportunities to the local community.

## 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:

<b>Title of legislation, policy or guideline:</b>	<b>Administering authority:</b>	<b>Date:</b>
Constitution of the Republic of South Africa. (Act 108 of 1996)	All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.	Relevant Consideration
Environmental Conservation Act (Act 73 of 1989)	Department of Economic Development, Environmental Affairs & Tourism	Relevant Consideration
National Environmental Management Act (Act 107 of 1998)	Department of Economic Development, Environmental Affairs & Tourism	Authorization – 2023
National Environmental Management: Biodiversity Act (Act 10 of 2004)	Department of Economic Development, Environmental Affairs & Tourism	Relevant Consideration
National Environmental Management: Integrated Coastal Management Act (Act 24 of 2008)	Department of Forestry, Fisheries, and the Environment (DFFE), Branch Oceans & Coasts (O&C)/ Department of Economic Development, Environmental Affairs & Tourism	Comment/ Relevant Consideration
National Environmental Management: Protected Areas Act (Act 57 of 2003)	Department of Economic Development, Environmental Affairs & Tourism	Relevant Consideration

National Water Act (Act 36 of 1998)	Department of Water and Sanitation	Relevant Consideration
Water Services Act (Act 108 of 1997)	Department of Water and Sanitation	Relevant Consideration
Sea Shore Act (Act 21 Of 1935)	Department of Forestry, Fisheries, and the Environment (DFFE), Branch Oceans & Coasts (O&C)/ Department of Economic Development, Environmental Affairs & Tourism	Relevant Consideration
Conservation Of Agricultural Resources Act (Act 43 of 1983)	Department of Agriculture, Forestry and Fisheries	Relevant Consideration
National Heritage Resources Act (Act 25 of 1999)	Eastern Cape Provincial Heritage Resources Authority	Comment/ Relevant Consideration

## 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	<input type="checkbox"/>
-----	--------------------------

If yes, what estimated quantity will be produced per month? An estimate could not be made as a contractor has not been appointed at this stage.

Unknown m <sup>3</sup>	<input type="checkbox"/>
------------------------	--------------------------

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

Construction waste will be sorted into piles of recyclable, hazardous and general waste. All waste will be transported to the nearest landfill site which accepts the type of solid waste being disposed of.

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

Construction solid waste will be transported to the nearest registered landfill site for disposal.

Will the activity produce solid waste during its operational phase?

YES	<input type="checkbox"/>
Unknown m <sup>3</sup>	<input type="checkbox"/>

If yes, what estimated quantity will be produced per month?

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

Solid waste will be separated into recyclable and non-recyclable for disposal by the Kouga Municipality.

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

Solid waste will be collected by Kouga Municipality's waste collection services.

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

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

	NO
--	----

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

Is the activity that is being applied for a solid waste handling or treatment facility?

	NO
--	----

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

**11(b) Liquid effluent**

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

	NO
--	----

If yes, what estimated quantity will be produced per month?

m <sup>3</sup>
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Will the activity produce any effluent that will be treated and/or disposed of on site?

	NO
--	----

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

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

	NO
--	----

If yes, provide the particulars of the facility:

Facility name:

--

Contact person:

--

Postal address:

--

Postal code:

--

Telephone:

--

Cell:

--

E-mail:

--

Fax:

--

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

None

**11(c) Emissions into the atmosphere**

Will the activity release emissions into the atmosphere?

	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 emissions in terms of type and concentration:

n/a

**11(d) Generation of noise**

Will the activity generate noise?

YES	<input checked="" type="checkbox"/>
NO	<input type="checkbox"/>

If yes, is it controlled by any legislation of any sphere of government?

YES	<input checked="" type="checkbox"/>
NO	<input type="checkbox"/>

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:

During the construction phase, noise associated with normal construction activities i.e., vehicles, generators and plant equipment will be used on the site.

However, construction activities will be limited to normal working hours (weekdays between 7am and 5 pm). Noise levels are to be kept within the legislated limits for the area, in accordance with the requirements of the relevant national and local noise control statutes.

**12. WATER USE**

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

<input checked="" type="checkbox"/> municipal	<input type="checkbox"/> water board	<input type="checkbox"/> groundwater	<input type="checkbox"/> river, stream, dam or lake	<input checked="" type="checkbox"/> Other: rainwater harvesting	<input type="checkbox"/> the activity will not use water
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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:

litres	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/>

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

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.

A Service Level Agreement with the Kouga Municipality is still being addressed and will most likely only be finalized pending Environmental Authorisation. However, it must be noted that a previous plan was submitted and accepted by the Kouga Local Municipality in the past which may remain relevant to this development (see attached Appendix I for previous building plan approval).

### 13. ENERGY EFFICIENCY

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

In terms of energy efficiency, the proposed development may only be undertaken during normal working hours to reduce the use of artificial lighting (and noise). Additionally, the contractor will be advised to transport all construction materials on site at the same time where possible and the collection of waste material conducted simultaneously with other activities to reduce the amount fuel usage for such transportation. Waste management methods (i.e., recycling and reusing), as well as water and biodiversity conservation measures, and sourcing of local materials are recommended and are included in the EMPr (Appendix F).

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

Consideration will be given to water and energy saving devices, where applicable, and measures such as rainwater harvesting, the use of local timber and locally supplied concrete for flooring all form part of implementing green building principles to the design of the development.

It is recommended that the developer makes use of energy efficiency measures and green energy projects to reduce energy consumption where possible.

## 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):

1

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	
-----	--

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

All specialist reports must be contained in Appendix D.

**1. GRADIENT OF THE SITE**

Indicate the general gradient of the site.

**Alternative S1:**

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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**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
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**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
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**2. LOCATION IN LANDSCAPE**

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

- 2.1 Ridgeline
- 2.2 Plateau
- 2.3 Side slope of hill/mountain
- 2.4 Closed valley
- 2.5 Open valley
- 2.6 Plain
- 2.7 Undulating plain / low hills
- 2.8 Dune
- 2.9 Seafront

The general topography of the proposed development site and immediate surrounding areas is composite of plains and low hills. The proposed development site is on a gentle gradient and will not disturb any major landforms.

**3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE**

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

**Alternative S1:**

**Alternative S2 (if any):**

**Alternative S3 (if any):**

Shallow water table (less than 1.5m deep)

	NO
--	----

YES	NO
-----	----

YES	NO
-----	----

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

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

#### GEOTECHNICAL ASSESSMENT FINDINGS:

##### 1. Terrain Mapping:

Due to the broadly consistent profile and conditions, the entire site was mapped as "Terrain 1" which included potentially highly compressible soils (S2) and uncontrolled fill material (P).

##### 2. Bearing capacity and settlement:

Observations made in test pits and analysis of test results indicated potentially highly compressible uncontrolled fill material (S2/P class) with variable thickness ranging from 0.5m to >3.0m which was underlain by generally medium dense sandy soil with a maximum safe bearing capacity in the order of 100-150kPa with an estimated 5-10mm potential settlement (S1 class). The proposed 3 or 4-storey buildings would therefore have to be founded at greater depth (on deep foundations) or on engineered soil mattress (soil improvement and/or replacement).

##### 3. Heave:

The investigations indicated no clay on the site.

#### 4. Groundwater

Groundwater was not encountered in any of the test pits.

#### 5. Surface drainage and soil permeability

The site had a positive gradient fall towards the north and the insitu soils had a medium to high permeability (estimated at  $8 \times 10^{-3}$  m/s).

#### 6. Natural slope stability

No slope stability issues were identified or expected from the site. The existing retaining wall along the northern boundary appeared to be in good condition.

#### 7. Excavation classification and stability

Excavations to a depth of approximately 3m were classified as “Soft” in terms of SABS1200D. Excavations below 3m on the eastern side of the site were classified as “hard” requiring power-assisted tools, such as hydraulic rock breakers. “Hard excavations on the western side were expected at depths below 4m, but this would have to be confirmed by drilling. Sidewalls of excavations in sandy overburden were expected to be highly unstable at angles greater than  $45^\circ$  in the short term and  $26^\circ$  in the medium to long term.

## 4. GROUNDCOVER

Indicate the types of groundcover present on the site:

- 4.1 Natural veld – good condition <sup>E</sup>
- 4.2 Natural veld – scattered aliens <sup>E</sup>
- 4.3 Natural veld with heavy alien infestation <sup>E</sup>
- 4.4 Veld dominated by alien species <sup>E</sup>
- 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 <sup>E</sup>	Natural veld with scattered aliens <sup>E</sup>	Natural veld with heavy alien infestation <sup>E</sup>	Veld dominated by alien species <sup>E</sup> Grassland dominated by alien invasive plant species, with	Gardens
--	---	--	---	---------

			spontaneous establishment of indigenous vegetation	
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.

**TERRESTRIAL BIODIVERSITY FINDINGS:**

Google Earth satellite imagery showed that most vegetation on Erf 3420 was cleared and subsequently subjected to topsoil disturbance around 2006. During the 15 years since then, there appears to have been some rehabilitation of the site through grass planting followed by spontaneous establishment of some indigenous plant species. The field survey confirmed the above, with most of the site now transformed to an anthropogenic grassland and effectively no St Francis Dune Thicket remaining on Erf 3420. The extant grassland vegetation is dominated by a mix of alien-invasive (e.g., *Lagurus ovatus*, *Pennisetum clandestinum*) and indigenous (*Cynodon dactylon*, *Eragrostis curvula*, *Stenotaphrum secundatum*, *Sporobolus africanus*) grasses typical of disturbed areas (Fish et al., 2015). Exotic weeds also occur in this grassland, especially the herbs *Medicago polymorpha* and *Plantago major*, but also the shrubs *Acacia cyclops*, *Acacia saligna*, *Foeniculum vulgare*, *Melilotus albus* and *Ricinus communis*, the latter two of which are declared invaders. A few indigenous weedy herbs (e.g., *Aizoon rigidum*, *Arctotheca prostrata*, *Mesembryanthemum aitonis*) and shrubs (*Helichrysum teretifolium*, *Osteospermum moniliferum*, *Senecio ilicifolis*, *Solanum linnaeanum*) occur sporadically throughout the grassland. Species typical of St Francis Dune Thicket are restricted to the southern boundary of Erf 3420 where a remnant strip of this vegetation approximately 1 m wide (but extending onto some adjacent properties) can be found. The most common species here include the grass *Ehrharta villosa*, the restio *Restio eleocharis*, the herbs *Anchusa capensis*, *Hypoestes aristata*, *Pelargonium capitatum*, *Senecio elegans* and *Tetragonia decumbens*, the dwarf shrub *Hermannia althaeoides*, the tall shrubs *Cussonia thyrsoiflora*, *Grewia occidentalis*, *Osteospermum moniliferum*, *Salvia aurea*, *Searsia glauca* and *Searsia crenata*, and the climbers *Cynanchum obtusifolium*, *Rhoicissus digitata*, *Rhynchosia caribea* and *Secamone alpini*. Note that most of these species typically form part of the thicket component of St Francis Dune Thicket and that no species typical of the fynbos component were encountered on site.

The transformed nature of the site means that there is a low likelihood of plant SCC occurring on site. No SCC were recorded during the field survey, and due to the high spatial resolution of the field sampling, it can be stated with high confidence that the site hosts no SCC populations.

While no plant SCC were recorded, two species protected under the Cape Environmental and Nature Conservation Ordinance (1974) occur on site: the climber *Cynanchum obtusifolium*, which occurs in the dune thicket along the southern boundary, and the annual succulent *Mesembryanthemum aitonis*, which occurs in the secondary shrubland in the southwestern portion of the site. Both species are likely to be impacted by the proposed development

**AQUATIC BIODIVERSITY FINDINGS:**

No freshwater aquatic ecosystems as identified by the NFEPA or NWM5 occur within 500 m (i.e., the regulated zone of a watercourse as defined by the National Water Act (36 of 1998)) of Erf 3420 (Figure 3). The nearest aquatic ecosystems are depression wetlands that occur about 1.5 km east of the property, while the Krom Estuary lies about 4 km to the north.

The field survey confirmed that no freshwater aquatic ecosystems occur on Erf 3420 or in its immediate vicinity, with the site hosting exclusively terrestrial ecosystems, most of which occurs in a transformed state.

## 5. LAND USE CHARACTER OF SURROUNDING AREA

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

- 5.1 Natural area
- 5.2 Low density residential
- 5.3 Medium density residential
- 5.4 High density residential
- 5.5 Informal residential
- 5.6 Retail commercial & warehousing
- 5.7 Light industrial
- 5.8 Medium industrial <sup>AN</sup>
- 5.9 Heavy industrial <sup>AN</sup>
- 5.10 Power station
- 5.11 Office/consulting room
- 5.12 Military or police base/station/compound
- 5.13 Spoil heap or slimes dam<sup>A</sup>
- 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<sup>A</sup>
- 5.22 Train station or shunting yard <sup>N</sup>
- 5.23 Railway line <sup>N</sup>
- 5.24 Major road (4 lanes or more) <sup>N</sup>
- 5.25 Airport <sup>N</sup>
- 5.26 Harbour
- 5.27 Sport facilities
- 5.28 Golf course
- 5.29 Polo fields
- 5.30 Filling station <sup>H</sup>
- 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) Holiday accommodation

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

N/A

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

If YES, specify:

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:

If YES, specify:

N/A

## 6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including

Archaeological or palaeontological sites, on or close (within 20m) to the site?

NO

Uncertain

If YES, explain:

N/A

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:

A specialist investigation was carried out by Eastern Cape Heritage Consultants cc in January 2022. The specialist found the following:

1. the site has been historically disturbed and it is uncertain if any in situ archaeological remains will be exposed during the development.
2. the property is situated within 100 metres from the high-water mark of the coast and is therefore situated in an archaeological sensitive zone and it is possible that shell middens and other archaeological sites/materials (including human remains) may be found when the construction of the residential development takes place.

Specialist recommendations can be found in Appendix D.

Will any building or structure older than 60 years be affected in any way?

NO

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

NO

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



## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT

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

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
  - (i) the site where the activity to which the application relates is or is to be undertaken; and
  - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
  - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  - (v) the municipality which has jurisdiction in the area;
  - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
  - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
  - (i) one local newspaper; or
  - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
  - (i) illiteracy;
  - (ii) disability; or
  - (iii) any other disadvantage.

### 2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

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

- (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
- (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
- (iii) the nature and location of the activity to which the application relates;
- (iv) where further information on the application or activity can be obtained; and
- (iv) the manner in which and the person to whom representations in respect of the application may be made.

### **3. PLACEMENT OF ADVERTISEMENTS AND NOTICES**

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

Advertisements and notices must make provision for all alternatives.

### **4. DETERMINATION OF APPROPRIATE MEASURES**

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

### **5. COMMENTS AND RESPONSE REPORT**

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

### **6. AUTHORITY PARTICIPATION**

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

List of authorities informed:

1. Eastern Cape Department of Economic Development, Environmental Affairs and Tourism.
2. The Department of Forestry, Fisheries, and the Environment (DFFE) Oceans and Coasts.
3. Eastern Cape Department of Agriculture, Forestry and Fisheries.
4. Department of Water and Sanitation Eastern Cape.

List of authorities from whom comments have been received:

The Department of Forestry, Fisheries, and the Environment (DFFE) Oceans and Coasts

All documents relating to Public Participation are attached in Appendix G.

## 7. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

Has any comment been received from stakeholders?

YES  NO

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

General queries regarding the project proposal were received. Please consult appendix G.

## SECTION D: IMPACT ASSESSMENT

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

### 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

General queries regarding the project proposal were received.

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 EAP had provided querying I&APs with the pre-application basic assessment report and relevant appendices.

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

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

#### Impact Assessment Methods

Criteria are ascribed for each predicted impact. These include the intensity (size or degree scale), which also includes the type of impact, being either a positive or negative impact; the duration (temporal scale); and the extent (spatial scale), as well as the probability (likelihood). The methodology is quantitative, whereby professional judgement is used to identify a rating for each criterion based on a seven-point scale (Table 1) and the significance is auto-generated using a spreadsheet through application of the calculations.

For each predicted impact, certain criteria are applied to establish the likely **significance** of the impact, firstly in the case of no mitigation being applied and then with the most effective mitigation measure(s) in place.

These criteria include the **intensity** (size or degree scale), which also includes the **nature** of impact, being either a positive or negative impact; the **duration** (temporal scale); and the **extent** (spatial scale). These numerical ratings are used in an equation whereby the **consequence** of the impact can be calculated. Consequence is calculated as follows:

$$\text{Consequence} = \text{type} \times (\text{intensity} + \text{duration} + \text{extent})$$

To calculate the significance of an impact, the **probability** (or likelihood) of that impact occurring is applied to the consequence.

**Significance = consequence x probability**

Depending on the numerical result, the impact would fall into a significance category as negligible, minor, moderate or major, and the type would be either positive or negative.

**Table 1:** Assessment criteria for the evaluation of impacts

Criteria	Numeric Rating	Category	Description
Duration	1	<b>Immediate</b>	Impact will self-remedy immediately
	2	<b>Brief</b>	Impact will not last longer than 1 year
	3	<b>Short term</b>	Impact will last between 1 and 5 years
	4	<b>Medium term</b>	Impact will last between 5 and 10 years
	5	<b>Long term</b>	Impact will last between 10 and 15 years
	6	<b>On-going</b>	Impact will last between 15 and 20 years
	7	<b>Permanent</b>	Impact may be permanent, or in excess of 20years
Extent	1	<b>Very limited</b>	Limited to specific isolated parts of the site
	2	<b>Limited</b>	Limited to the site and its immediate surroundings
	3	<b>Local</b>	Extending across the site and to nearby settlements
	4	<b>Municipal area</b>	Impacts felt at a municipal level
	5	<b>Regional</b>	Impacts felt at a regional level
	6	<b>National</b>	Impacts felt at a national level
	7	<b>International</b>	Impacts felt at an international level
Intensity	1	<b>Negligible</b>	Natural and/ or social functions and/ or processes are negligibly altered
	2	<b>Very low</b>	Natural and/ or social functions and/ or processes are slightly altered
	3	<b>Low</b>	Natural and/ or social functions and/ or processes are somewhat altered
	4	<b>Moderate</b>	Natural and/ or social functions and/ or processes are moderately altered
	5	<b>High</b>	Natural and/ or social functions and/ or processes are notably altered
	6	<b>Very high</b>	Natural and/ or social functions and/ or processes are majorly altered
	7	<b>Extremely high</b>	Natural and/ or social functions and/ or processes are severely altered
Probability	1	<b>Highly unlikely / None</b>	Expected never to happen
	2	<b>Rare / improbable</b>	Conceivable, but only in extreme circumstances, and/or might occur for this project although this has rarely been known to result elsewhere
	3	<b>Unlikely</b>	Has not happened yet but could happen once in the lifetime of the project, therefore there is a possibility that the impact will occur
	4	<b>Probable</b>	Has occurred here or elsewhere and could therefore occur
	5	<b>Likely</b>	The impact may occur
	6	<b>Almost certain / Highly probable</b>	It is most likely that the impact will occur
	7	<b>Certain / Definite</b>	There are sound scientific reasons to expect that the impact will definitely occur

When assessing impacts, broader considerations are also considered. These include the level of confidence in the assessment rating; the reversibility of the impact; and the irreplaceability of the resource as set out in (Table 2, Table 3, and Table 4), respectively.

**Table 2:** Definition of confidence ratings.

Category	Description
Low	Judgement is based on intuition
Medium	Determination is based on common sense and general knowledge
High	Substantive supportive data exists to verify the assessment

**Table 3:** Definition of reversibility ratings.

Category	Description
Low	The affected environment will not be able to recover from the impact - permanently modified
Medium	The affected environment will only recover from the impact with significant intervention
High	The affected environment will be able to recover from the impact

**Table 4:** Definition of irreplaceability ratings.

Category	Description
Low	The resource is not damaged irreparably or is not scarce
Medium	The resource is damaged irreparably but is represented elsewhere

1.

Project Phase	Construction	
Impact	Clearance of terrestrial vegetation for the construction of the residential apartments and associated infrastructure	
Description of impact	Habitat loss for terrestrial wildlife, mortalities to various species unable to evade the disturbance, loss of viable propagules (eggs and seeds)	
Mitigable	Low	Mitigation does not exist; or mitigation will slightly reduce the significance of impacts
Potential mitigation	<p>As per the biodiversity compliance statement:</p> <ul style="list-style-type: none"> <li>In accordance with Schedule 4 of the Cape Environmental and Nature Conservation Ordinance (1974), a permit for the destruction of all protected plant species listed in Table 4 of the compliance statement (<i>C. obtusifolium</i>, <i>M. aitonis</i>) must be procured from the Province of the Eastern Cape: Department of Economic Development, Environmental Affairs and Tourism before construction commences.</li> <li>In accordance with the National Environmental Management: Biodiversity Act (2004) (NEMBA), all Category 1b alien invasive plant species listed in Table 5 of the compliance statement (<i>A. cyclops</i>, <i>A. saligna</i>) must be eradicated from the site and a plan for their ongoing control should be included in the environmental management plan of the development. NEMBA Category 2 weeds listed in Table 5 (<i>R. communis</i>) may be kept on site if a permit is obtained, but it is recommended that these invaders are also eradicated and controlled on site.</li> <li>During the construction phase of the proposed development, disturbance to patches of dune thicket along the southern boundary (on site and on adjacent properties) should be minimised where possible as this vegetation could provide a stepping-stone habitat for birds and small mammals within the broader landscape.</li> </ul>	
Assessment	Without mitigation	With mitigation
Nature	Negative	Negative

<b>Duration</b>	Permanent	Impact may be permanent, or in excess of 20 years	Permanent	Impact may be permanent, or in excess of 20 years
<b>Extent</b>	Very limited	Limited to specific isolated parts of the site	Very limited	Limited to specific isolated parts of the site
<b>Intensity</b>	Low	Natural and/ or social functions and/ or processes are somewhat altered	Very low	Natural and/ or social functions and/ or processes are slightly altered
<b>Probability</b>	Almost certain / Highly probable	It is most likely that the impact will occur	Rare / improbable	Conceivable, but only in extreme circumstances, and/or might occur for this project although this has rarely been known to result elsewhere
<b>Confidence</b>	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
<b>Reversibility</b>	Low	The affected environment will not be able to recover from the impact - permanently modified	Medium	The affected environment will only recover from the impact with significant intervention
<b>Resource irreplaceability</b>	Medium	The resource is damaged irreparably but is represented elsewhere	Low	The resource is not damaged irreparably or is not scarce
<b>Significance</b>	<b>Minor - negative</b>		<b>Negligible - negative</b>	
<b>Comment on significance</b>	The previous clearing of vegetation and disturbance of topsoil at the site, together with the absence of plant SCC (high confidence) translates to a <b>LOW</b> site sensitivity.			
<b>Cumulative impacts</b>	As much of the surrounding landscape has already been developed (particularly the seaward margin adjacent to the site), the site does not play a major role in facilitating landscape connectivity.			

2.

<b>Project Phase</b>	<b>Construction</b>			
<b>Impact</b>	<b>Clearance of terrestrial vegetation for the construction of the residential apartments and associated infrastructure</b>			
<b>Description of impact</b>	<b>Dust pollution due to high wind conditions experienced once vegetation has been removed</b>			
<b>Mitigable</b>	Medium	Mitigation exists and will notably reduce significance of impacts		
<b>Potential mitigation</b>	<ul style="list-style-type: none"> <li>• It is not advised to clear the whole site all at once if construction is going to be undertaken in stages.</li> <li>• Access points and other cleared surfaces must be dampened whenever necessary and especially in dry and windy conditions to avoid excessive dust.</li> <li>• Topsoil and spoil material stockpiles must be dampened and covered with tarpaulin to protect stockpiles against aeolian effects.</li> </ul>			
<b>Assessment</b>	<b>Without mitigation</b>		<b>With mitigation</b>	
<b>Nature</b>	Negative		Negative	
<b>Duration</b>	Short term	Impact will last between 1 and 5 years	Short term	Impact will last between 1 and 5 years
<b>Extent</b>	Limited	Limited to the site and its immediate surroundings	Limited	Limited to the site and its immediate surroundings
<b>Intensity</b>	Low	Natural and/ or social functions and/ or processes are somewhat altered	Negligible	Natural and/ or social functions and/ or processes are negligibly altered
<b>Probability</b>	Likely	The impact may occur	Probable	The impact has occurred here or elsewhere and could therefore occur

<b>Confidence</b>	Medium	Determination is based on common sense and general knowledge	Medium	Determination is based on common sense and general knowledge
<b>Reversibility</b>	Medium	The affected environment will only recover from the impact with significant intervention	High	The affected environment will be able to recover from the impact
<b>Resource irreplaceability</b>	Low	The resource is not damaged irreparably or is not scarce	Low	The resource is not damaged irreparably or is not scarce
<b>Significance</b>	<b>Minor - negative</b>		<b>Negligible - negative</b>	
<b>Comment on significance</b>	Dust pollution on the site can be negligibly negative if the contractor is swift to action prevention methods, especially if windy conditions are expected.			
<b>Cumulative impacts</b>	Cumulative impacts would result if dust pollution is not adequately prevented and windy conditions blow soil material onto neighbouring properties.			

3.

<b>Project Phase</b>	<b>Design/Construction</b>		
<b>Impact</b>	<b>Geotechnical constraints</b>		
<b>Description of impact</b>	<b>Highly compressible soils and uncontrolled fill material</b>		
<b>Mitigable</b>	High	Mitigation exists and will considerably reduce significance of impacts	
<b>Potential mitigation</b>	<p><b>As per the Geotechnical Assessment:</b></p> <p>The proposed 3 or 4-storey buildings would therefore have to be founded at greater depth (on deep foundations) or on engineered soil mattress (soil improvement and/or replacement).</p> <p><b>Earthworks and civils:</b></p> <ul style="list-style-type: none"> <li>• Civil works should be designed and constructed in accordance with SABS 1200 and/or any site-specific specifications provided by the civil engineer.</li> <li>• It is recommended that 150mm of organic-rich topsoil is stripped from below surface on the development areas (roads, platforms, etc) and stockpiled separately on site for landscaping purposes or carted away. Tree roots should also be grubbed from these areas.</li> <li>• Any localised depressions (that may also contain wet soils) encountered during site clearance should be excavated and backfilled if necessary with suitable compacted fill to reinstate ground to the required levels.</li> <li>• Fill material containing deleterious materials such as rubbish or large boulders, blocks of rubble should be cut to spoil.</li> <li>• Insitu soil material obtained from excavations for road box cuts, foundations and services trenches should be stockpiled for low-loading structural applications such as platforming, roadbed filling, general filling over pipe cradles and against foundations.</li> <li>• Soil containing high organic content (typically dark brown topsoil) should be cut to spoil or as directed by the engineer.</li> <li>• Caution should be taken when working near the existing retaining wall on the northern side of the site, as excavations may disturb any reinforcement behind the wall or cause a surcharge loading on the wall.</li> <li>• Recommendations for roadway design include the cutting of the roadbed to the required line and level, followed by compaction of the road bed to 100% MDD to identify soft spots, which should be removed and replaced with suitable imported compactable fill, such as G7 or G9.</li> <li>• The recommended road layerworks for light traffic include 150mm of G6/7 SSG (compacted to 93%MDD), followed by 150-180mm G4/5 subbase (compacted to 95%MDD), followed by 150-180mm G1/2 base course and HMA, or alternatively 60mm concrete or clay brick pavers.</li> <li>• Good site landscaping and a piped underground stormwater management system is recommended to collect, divert and control the discharge of stormwater from</li> </ul>		



	<p>structures, hard surfaces and roads to prevent excessive ingress into subsoils or erosion on site, which could affect the stability of structures and roads, causing settlement or other stability problems.</p> <p><b>Foundations:</b></p> <ul style="list-style-type: none"> <li>• Foundations for structures should be designed and constructed in accordance with SANS 10400-H or any site-specific specification issued by the structural engineers.</li> <li>• Site testing indicates the presence of potentially problematic soils, mainly including deposits of uncontrolled fill (possibly up to 4m thick in places), which could result in settlement of structures if improperly founded on this material. The impact of this is the requirement for mitigation measures, possibly involving significant excavation and replacement of unsuitable soil with engineered fill (e.g. imported material or stabilised soil ex-insitu), or deep foundations (e.g. piles).</li> <li>• The recommended method for multistorey structures (i.e. 3-4 storey) is bored cast insitu pile foundations (e.g. temporary cased rota piles), socketed through boulder horizons and into the underlying bedrock at depths to be determined by further investigations (e.g. drilling).</li> <li>• Detached Type 1 masonry buildings (single/double storey with foundation pressure less than 150kPa) can be founded on a raft foundation a recompacted soil mattress, the thickness of which can be determined on site depending on applied loads. The soil mattress can consist of recompacted insitu soils or suitable existing fill, possibly with basal geogrid reinforcement.</li> <li>• Allowance should also be made for import of some high quality fill materials for final layer works, such as G5 crushed rock, or any other materials to facilitate preparation of the final founding medium. A-grade concrete slabs/surface beds should be supported on suitable fill, compacted to 95%MDD and reinforced with steel mesh.</li> </ul>			
<b>Assessment</b>	<b>Without mitigation</b>		<b>With mitigation</b>	
<b>Nature</b>	Negative		Positive	
<b>Duration</b>	Permanent	Impact may be permanent, or in excess of 20 years	Brief	Impact will not last longer than 1 year
<b>Extent</b>	Very limited	Limited to specific isolated parts of the site	Very limited	Limited to specific isolated parts of the site
<b>Intensity</b>	Extremely high	Natural and/ or social functions and/ or processes are severely altered	Negligible	Natural and/ or social functions and/ or processes are negligibly altered
<b>Probability</b>	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur
<b>Confidence</b>	High	Substantive supportive data exists to verify the assessment	High	Substantive supportive data exists to verify the assessment
<b>Reversibility</b>	Low	The affected environment will not be able to recover from the impact - permanently modified	Medium	The affected environment will only recover from the impact with significant intervention
<b>Resource irreplaceability</b>	Low	The resource is not damaged irreparably or is not scarce	Low	The resource is not damaged irreparably or is not scarce
<b>Significance</b>	<b>Moderate - negative</b>		<b>Negligible - positive</b>	
<b>Comment on significance</b>	Due to the highly compressible soils and uncontrolled fill material, specific engineering inputs are required to reduce the negative geotechnical restraints on the site.			
<b>Cumulative impacts</b>	Without mitigation, the geotechnical restraints on the site could result in significant destruction to the development site, including insufficient stormwater management. Developing on unstable ground conditions could lead to excessive building settlement and may result in loss of life should buildings collapse.			

4.

<b>Project Phase</b>	<b>Construction</b>			
<b>Impact</b>	<b>Noise pollution</b>			
<b>Description of impact</b>	<b>Noise caused by machinery and staff</b>			
<b>Mitigable</b>	Low	Mitigation does not exist; or mitigation will slightly reduce the significance of impacts		
<b>Potential mitigation</b>	<ul style="list-style-type: none"> <li>• <b>Construction activities must only take place during normal working times between 07:00-17:00 on weekdays.</b></li> <li>• <b>Machinery may be fitted with silences to dampen noise.</b></li> <li>• <b>Staff must be reminded that they are working within a residential area and noise levels must be kept low.</b></li> </ul>			
<b>Assessment</b>	<b>Without mitigation</b>		<b>With mitigation</b>	
<b>Nature</b>	Negative		Negative	
<b>Duration</b>	Short term	Impact will last between 1 and 5 years	Short term	Impact will last between 1 and 5 years
<b>Extent</b>	Local	Extending across the site and to nearby settlements	Limited	Limited to the site and its immediate surroundings
<b>Intensity</b>	Very high	Natural and/ or social functions and/ or processes are majorly altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered
<b>Probability</b>	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Almost certain / Highly probable	It is most likely that the impact will occur
<b>Confidence</b>	Medium	Determination is based on common sense and general knowledge	Medium	Determination is based on common sense and general knowledge
<b>Reversibility</b>	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention
<b>Resource irreplaceability</b>	Low	The resource is not damaged irreparably or is not scarce	Low	The resource is not damaged irreparably or is not scarce
<b>Significance</b>	<b>Moderate - negative</b>		<b>Minor - negative</b>	
<b>Comment on significance</b>	Some extent of noise pollution during construction is expected; however, with mitigation the impact will be reduced.			
<b>Cumulative impacts</b>	A development of this size will result in noise pollution/ nuisance for the local community during construction.			

5.

<b>Project Phase</b>	<b>Construction</b>			
<b>Impact</b>	<b>Archaeological and paleontological finds</b>			
<b>Description of impact</b>	<b>The uncovering of archaeological and/or paleontological artefacts</b>			
<b>Mitigable</b>	Low	Mitigation does not exist; or mitigation will slightly reduce the significance of impacts		
<b>Potential mitigation</b>	<ul style="list-style-type: none"> <li>• <b>A heritage specialist must be employed for the duration of vegetation clearing and earthmoving activities.</b></li> <li>• <b>No structures older than sixty years or parts thereof are allowed to be demolished altered or extended without a permit from Eastern Cape Provincial Heritage Resources Authority.</b></li> </ul>			

	<ul style="list-style-type: none"> <li>• If any archaeological sites/materials are exposed, mitigation regarding the finds must be conducted with the Eastern Cape Provincial Heritage Resources Authority regarding the destiny of the material. <ul style="list-style-type: none"> <li>- Examples of heritage resources are as follow:</li> <li>- Human remains</li> <li>- Coins/Gold/Silver</li> <li>- Fossils</li> <li>- Fossils shell middens/ marine shell heaps</li> <li>- Pottery/ceramics</li> </ul> </li> </ul>			
<b>Assessment</b>	<b>Without mitigation</b>		<b>With mitigation</b>	
<b>Nature</b>	Negative		Positive	
<b>Duration</b>	Short term	Impact will last between 1 and 5 years	Short term	Impact will last between 1 and 5 years
<b>Extent</b>	Limited	Limited to the site and its immediate surroundings	Limited	Limited to the site and its immediate surroundings
<b>Intensity</b>	High	Natural and/ or social functions and/ or processes are notably altered	Negligible	Natural and/ or social functions and/ or processes are negligibly altered
<b>Probability</b>	Unlikely	Has not happened yet but could happen once in the lifetime of the project, therefore there is a possibility that the impact will occur	Unlikely	Has not happened yet but could happen once in the lifetime of the project, therefore there is a possibility that the impact will occur
<b>Confidence</b>	Medium	Determination is based on common sense and general knowledge	Medium	Determination is based on common sense and general knowledge
<b>Reversibility</b>	Low	The affected environment will not be able to recover from the impact - permanently modified	Medium	The affected environment will only recover from the impact with significant intervention
<b>Resource irreplaceability</b>	High	The resource is irreparably damaged and is not represented elsewhere	Low	The resource is not damaged irreparably or is not scarce
<b>Significance</b>	<b>Negligible - negative</b>		<b>Negligible - positive</b>	
<b>Comment on significance</b>	The impact is considered negligibly negative without mitigation as the site was previously altered; however, there is still possibility of uncovering archaeological artefacts; therefore, mitigation measures must be followed.			
<b>Cumulative impacts</b>	None			

6.

<b>Project Phase</b>	<b>Design/Construction</b>	
<b>Impact</b>	<b>Visual impact/ Sense of place</b>	
<b>Description of impact</b>	<b>Construction and operation of the proposed block and tower type development with height restriction 22mamsl for tower and 19m for remaining build.</b>	
<b>Mitigable</b>	High	The mitigation will reduce the significance of the visual and landscape impacts
<b>Potential mitigation</b>	<b>As per the Visual Impact Assessment (appendix D):</b> <ul style="list-style-type: none"> <li>• The following specifications of the original authorisation should inform design constraints. <ul style="list-style-type: none"> <li>○ Tower blocks with 150sqm slab not exceeding 22mamsl.</li> <li>○ Remaining build not exceeding 19mamsl.</li> </ul> </li> <li>• Tiled roofing with similar colour to the existing Port Build.</li> </ul>	

	<ul style="list-style-type: none"> <li>Walls painted with textured paints that are earth colours similar to the existing Port.</li> <li>Maximise roof overhang to allow for shading of walls with shadows creating a darker hue.</li> <li>As specified in the report, the management of retaining walls needs to be carefully considered. The retaining walls should be either reflect natural stone, stone gabions (not light-coloured rock) or made from sand coloured retaining block.</li> <li>Covered shade parking for the vehicle parking areas with the shading a mid-grey colour.</li> <li>Lights at night can extend the visual presence of the proposed landscape modification. Light spillage should be carefully controlled and the generic mitigations in the Annexure should be implemented to ensure that light spillage is effectively managed.</li> <li>A detailed landscaping plan by a registered landscape practitioner needs to be provided to ensure that massing effects of the blocks are reduced. Medium sized trees need to be incorporated into the design as seen from the parking lot areas, between the blocks as well as to the west of the build.</li> </ul> <p>*The below ratings may differ slightly to the ratings specified in the specialist report as the impact assessment used by the EAP was adjusted to ensure that the terminology and ratings are in-line with those of the specialist report.</p>			
<b>Assessment</b>	<b>Without mitigation</b>		<b>With mitigation</b>	
<b>Nature</b>	Negative		Positive	
<b>Duration</b>	Permanent	Impact may be permanent, or in excess of 20 years	Short term	Impact will last between 1 and 5 years
<b>Extent</b>	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
<b>Intensity</b>	High	Natural and/ or social functions and/ or processes are notably altered	Low	Natural and/ or social functions and/ or processes are somewhat altered
<b>Probability</b>	Almost certain / Highly probable	It is most likely that the impact will occur	Almost certain / Highly probable	It is most likely that the impact will occur
<b>Confidence</b>	High	Substantive supportive data exists to verify the assessment	High	Substantive supportive data exists to verify the assessment
<b>Reversibility</b>	Low	The affected environment will not be able to recover from the impact - permanently modified	Low	The affected environment will not be able to recover from the impact - permanently modified
<b>Resource irreplaceability</b>	Not relevant		Not relevant	
<b>Significance</b>	<b>Moderate - negative</b>		<b>Moderate - positive</b>	
<b>Comment on significance</b>	<p>Without mitigation: Exceeding existing height restriction defined in the original authorisation is likely to result in loss of sense of place for the erven located behind the development site along Cowie Crescent.</p> <p>With mitigation: Building within the proposed height restrictions would effectively allow partial views over the build, adding value to the local tourism and economy from the maximisation of the build footprint with an authorised/ urban context.</p>			
<b>Cumulative impacts</b>	<p>Without mitigation: Negative cumulative effects could take place as skyline intrusion could take place as the houses along Cowie Crescent also request for amendment to the existing 8.5m above mean ground level height restriction. This restriction has allowed a suitable coastal development sense of place where buildings do not result in significance intrusion into the skyline.</p> <p>With mitigation: Negative cumulative visual effects would be limited as the threat from 'knock-on' effects from skyline intrusion would be limited as the existing height restriction status quo would remain.</p>			

7.

<b>Project Phase</b>	<b>Construction</b>			
<b>Impact</b>	<b>Employment</b>			
<b>Description of impact</b>	<b>Empowerment of the local community members living in the area relating to temporary employment opportunities</b>			
<b>Mitigable</b>	High	Mitigation only exists to ensure that the positive impact is followed through.		
<b>Potential mitigation</b>	<ul style="list-style-type: none"> <li>• <b>Use existing social structures and communication channels to ensure social representation.</b></li> </ul>			
<b>Assessment</b>	<b>Without mitigation</b>		<b>With mitigation</b>	
<b>Nature</b>	Negative		Positive	
<b>Duration</b>	Short term	Impact will last between 1 and 5 years	Short term	Impact will last between 1 and 5 years
<b>Extent</b>	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
<b>Intensity</b>	Low	Natural and/ or social functions and/ or processes are somewhat altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered
<b>Probability</b>	Probable	The impact has occurred here or elsewhere and could therefore occur	Almost certain / Highly probable	It is most likely that the impact will occur
<b>Confidence</b>	Medium	Determination is based on common sense and general knowledge	Medium	Determination is based on common sense and general knowledge
<b>Reversibility</b>	Not relevant		Not relevant	
<b>Resource irreplaceability</b>	Not relevant		Not relevant	
<b>Significance</b>	<b>Minor - negative</b>		<b>Minor - positive</b>	
<b>Comment on significance</b>	As the impact would be positive for the local community to be employed during construction, mitigation is recommended to ensure this occurs.			
<b>Cumulative impacts</b>	Minor upliftment for the local community during construction.			

**IMPACTS FORESEEN DURING THE OPERATION PHASE:**

1.

<b>Project Phase</b>	<b>Operation</b>			
<b>Impact</b>	<b>Visual impact/ Sense of place</b>			
<b>Description of impact</b>	<b>Construction and operation of the proposed block and tower type development with height restriction 22mamsl for tower and 19m for remaining build.</b>			
<b>Mitigable</b>	High	The mitigation will reduce the significance of the visual and landscape impacts		
<b>Potential mitigation</b>	<p><b>As per the Visual Impact Assessment (appendix D):</b></p> <ul style="list-style-type: none"> <li>• The following specifications of the original authorisation should inform design constraints. <ul style="list-style-type: none"> <li>○ Tower blocks with 150sqm slab not exceeding 22mamsl.</li> <li>○ Remaining build not exceeding 19mamsl.</li> </ul> </li> <li>• Tiled roofing with similar colour to the existing Port Build.</li> <li>• Walls painted with textured paints that are earth colours similar to the existing Port.</li> <li>• Maximise roof overhang to allow for shading of walls with shadows creating a darker hue.</li> <li>• As specified in the report, the management of retaining walls needs to be carefully considered. The retaining walls should be either reflect natural stone, stone gabions (not light-coloured rock) or made from sand coloured retaining block.</li> <li>• Covered shade parking for the vehicle parking areas with the shading a mid-grey colour.</li> </ul>			

	<ul style="list-style-type: none"> <li>Lights at night can extend the visual presence of the proposed landscape modification. Light spillage should be carefully controlled and the generic mitigations in the Annexure should be implemented to ensure that light spillage is effectively managed.</li> <li>A detailed landscaping plan by a registered landscape practitioner needs to be provided to ensure that massing effects of the blocks are reduced. Medium sized trees need to be incorporated into the design as seen from the parking lot areas, between the blocks as well as to the west of the build.</li> </ul> <p>*The below ratings may differ slightly to the ratings specified in the specialist report as the impact assessment used by the EAP was adjusted to ensure that the terminology and ratings are in-line with those of the specialist report.</p>			
<b>Assessment</b>	<b>Without mitigation</b>		<b>With mitigation</b>	
<b>Nature</b>	Negative		Positive	
<b>Duration</b>	Permanent	Impact may be permanent, or in excess of 20 years	Short term	Impact will last between 1 and 5 years
<b>Extent</b>	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
<b>Intensity</b>	High	Natural and/ or social functions and/ or processes are notably altered	Low	Natural and/ or social functions and/ or processes are somewhat altered
<b>Probability</b>	Almost certain / Highly probable	It is most likely that the impact will occur	Almost certain / Highly probable	It is most likely that the impact will occur
<b>Confidence</b>	High	Substantive supportive data exists to verify the assessment	High	Substantive supportive data exists to verify the assessment
<b>Reversibility</b>	Low	The affected environment will not be able to recover from the impact - permanently modified	Low	The affected environment will not be able to recover from the impact - permanently modified
<b>Resource irreplaceability</b>	Not relevant		Not relevant	
<b>Significance</b>	<b>Moderate - negative</b>		<b>Moderate - positive</b>	
<b>Comment on significance</b>	<p>Without mitigation: Exceeding existing height restriction defined in the original authorisation is likely to result in loss of sense of place for the erven located behind the development site along Cowie Crescent.</p> <p>With mitigation: Building within the proposed height restrictions would effectively allow partial views over the build, adding value to the local tourism and economy from the maximisation of the build footprint with an authorised/ urban context.</p>			
<b>Cumulative impacts</b>	<p>Without mitigation: Negative cumulative effects could take place as skyline intrusion could take place as the houses along Cowie Crescent also request for amendment to the existing 8.5m above mean ground level height restriction. This restriction has allowed a suitable coastal development sense of place where buildings do not result in significance intrusion into the skyline.</p> <p>With mitigation: Negative cumulative visual effects would be limited as the threat from 'knock-on' effects from skyline intrusion would be limited as the existing height restriction status quo would remain.</p>			

2.

<b>Project Phase</b>	<b>Operation</b>	
<b>Impact</b>	<b>Employment</b>	
<b>Description of impact</b>	<b>Empowerment of the local community members living in the area relating to permanent employment opportunities</b>	
<b>Mitigable</b>	High	Mitigation only exists to ensure that the positive impact is followed through.
<b>Potential mitigation</b>	<ul style="list-style-type: none"> <li>Use existing social structures and communication channels to ensure social representation.</li> </ul>	

Assessment	Without mitigation		With mitigation	
<b>Nature</b>	Negative		Positive	
<b>Duration</b>	Permanent	Impact may be permanent, or in excess of 20 years	Permanent	Impact may be permanent, or in excess of 20 years
<b>Extent</b>	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
<b>Intensity</b>	Low	Natural and/ or social functions and/ or processes are somewhat altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered
<b>Probability</b>	Likely	The impact may occur	Almost certain / Highly probable	It is most likely that the impact will occur
<b>Confidence</b>	Medium	Determination is based on common sense and general knowledge	Medium	Determination is based on common sense and general knowledge
<b>Reversibility</b>	Not relevant		Not relevant	
<b>Resource irreplaceability</b>	Not relevant		Not relevant	
<b>Significance</b>	<b>Minor - negative</b>		<b>Moderate - positive</b>	
<b>Comment on significance</b>	As the impact would be positive for the local community to be employed during the operation, mitigation is recommended to ensure this occurs.			
<b>Cumulative impacts</b>	Minor upliftment for the local community during operation.			

Decommissioning is not foreseen for this development.

### 3. CLIMATE CHANGE ASSESSMENT

Climate change issues must be considered as part of the EIA process. 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;**

The proposed development of a residential development will have a low - medium negative contribution to climate change.

**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;**

The proposed development includes the use of solar panels for the generation of electricity and rainwater capture and filtration system. This would result in a decreased reliance on the already severely strained electricity grid and bulk services required from the local municipality.

In addition, the applicant is encouraged to participate in recycling and reuse of waste products produced during both the construction and operational phases to decrease the volume of waste heading to landfill sites.

**c)whether, and to what extent, the proposed development will result in the release of greenhouse gas (GHG) emissions;**

According to an article published by Mengpin Ge, Johannes Friedrich and Leandro Vigna in February 2020 and updated in June 2022, on the World Resources Institute webpage, regarding Greenhouse Gas Emissions by Countries and Sectors: the energy sector was found to be the biggest source of greenhouse gas emissions. *“The energy sector includes transportation, electricity and heat, buildings, manufacturing and construction, fugitive emissions and other fuel combustion.”*

The proposed development will contribute to GHG emissions in the form of electricity and heat, construction and a minor volume of emissions released by construction vehicles. Viewed in isolation, the proposed will result in medium release of GHG without mitigation measures of green building.

**d)whether the proposed development is necessary to achieve long term decarbonisation goals;**

Consideration will be given to water and energy saving devices, where applicable, and measures such as rainwater harvesting, the use of local timber and locally supplied concrete for flooring. These aspects all form part of implementing green building principles to the design of the development.

It is recommended that the developer makes use of energy efficiency measures and green energy projects to reduce energy consumption where possible, such as: lightweight steel, performance glass to reduce heat loading, all lighting to be LED.

It is recommended that an Accredited Professional from the Green Building Council South Africa is appointed for the proposed development to ensure that the development is designed, constructed, and operated in the most sustainable way.

**e)the impact of the development on social, economic, natural and built environment that are crucial for climate change, adaptation and resilience;**

In terms of energy efficiency, the proposed development may only be undertaken during normal working hours to reduce the use of artificial lighting (and noise). Additionally, the contractor will be advised to transport all construction materials on site at the same time where possible and the collection of waste material conducted simultaneously with other activities to reduce the amount fuel usage for such transportation. Waste management methods (i.e., on-site waste sorting and



recycling, and garden waste recycling), as well as water and biodiversity conservation measures, and sourcing of local materials are recommended.

**f) the projected impact of climate change on proposed development; and surrounding environment, and implications for the development.**

As the proposed development is situated in a coastal zone, there is inherent risk of coastal hazards due to climate change. However, according to the Climate Change Coastal Vulnerability Assessment map provided by Coastal Viewer; the proposed site is located in an area with a very low long-term erosion risk. Monitoring of changes in the coastal environment is of utmost importance.

**g) Explanation of how the impacts is 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**

Coastal hazards will increase in negative impacts over the years due to climate change. This poses a risk to coastal development. Coastal impacts will affect areas differently depending on the coast line type. The proposed development is supported due to its location in the landscape – the site is located in an area of very low long term coastal erosion risk. There is an existing built environment to the north of the proposed development (the Port St Francis Harbour) which offers a buffer between the coast and the proposed development site.

Nevertheless, monitoring of changes in the coastal environment is encouraged: *“the likelihood is that coastal erosion processes, including shoreline erosion / accretion, cliff retreat and dune migration will vary considerably with anticipated global climate change into the future and monitoring of changes in the coastal environment will be important.”* (Geohazards in Coastal Areas, R. Wigley, Council for Geoscience, 2011)

**h) whether, and to what extent, the impacts identified in (a) -(g) can be mitigated.**

Mitigation exists in the form of ensuring green building practices are followed for the design, construction and operation of the proposed development. It is recommended that an Accredited Professional from the Green Building Council South Africa is appointed to inform the design and function of the proposed development.

#### 4. ENVIRONMENTAL IMPACT STATEMENT

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

**Alternative A (preferred alternative)**

**1. Clearance of vegetation:**

The site is transformed and consists of mostly anthropogenic grassland with scattered alien invasive vegetation. The biodiversity specialist identified species typical of St Francis Dune Thicket restricted to the southern boundary of RE/3420 where a remnant strip of this vegetation approximately 1m wide (but extending onto some adjacent properties) can be found - most of these species typically form part of the thicket component of St Francis Dune Thicket and no species typical of the fynbos component were encountered on site.

While no plant SCC were recorded, two species protected under the Cape Environmental and Nature Conservation Ordinance (1974) occur on site: the climber *Cynanchum obtusifolium*, which occurs in

the dune thicket along the southern boundary, and the annual succulent *Mesembryanthemum aitonis*, which occurs in the secondary shrubland in the southwestern portion of the site. Both species are likely to be impacted by the proposed development and a permit is required for their removal.

The previous clearing of vegetation and disturbance of topsoil at the site, together with the absence of plant SCC (high confidence) translates to a LOW site sensitivity.

As much of the surrounding landscape has already been developed (particularly the seaward margin adjacent to the site), the site does not play a major role in facilitating landscape connectivity.

## **2. Dust pollution:**

Dust pollution on the site can be negligibly negative if the contractor is swift to action prevention methods, especially if windy conditions are expected.

Cumulative impacts would result if dust pollution is not adequately prevented, and windy conditions blow soil material onto neighbouring properties.

## **3. Geotechnical restraints:**

Due to the highly compressible soils and uncontrolled fill material, specific engineering inputs are required to reduce the negative geotechnical restraints on the site.

Without mitigation, the geotechnical restraints on the site could result in significant destruction to the development site, including insufficient stormwater management. Developing on unstable ground conditions could lead to excessive building settlement and may result in loss of life should buildings collapse.

## **4. Noise pollution:**

Some extent of noise pollution during construction is expected; however, with mitigation the impact will be reduced. A development of this size will result in noise pollution/ nuisance for the local community during construction. Construction activities must only take place during normal working times between 07:00-17:00 on weekdays.

## **5. Heritage impacts:**

The impact is considered negligibly negative without mitigation as the site was previously altered; however, there is still possibility of uncovering archaeological artefacts; therefore, mitigation measures must be followed. A heritage specialist must be employed for the duration of vegetation clearing and earthmoving activities.

## **6. Visual impact:**

Without mitigation: Exceeding existing height restriction defined in the original authorisation is likely to result in loss of sense of place for the erven located behind the development site along Cowie Crescent.  
With mitigation: Building within the proposed height restrictions would effectively allow partial views over the build, adding value to the local tourism and economy from the maximisation of the build footprint with an authorised/ urban context.

Without mitigation: Negative cumulative effects could take place as skyline intrusion could take place as the houses along Cowie Crescent also request for amendment to the existing 8.5m above mean ground level height restriction. This restriction has allowed a suitable coastal development sense of place where buildings do not result in significance intrusion into the skyline.

With mitigation: Negative cumulative visual effects would be limited as the threat from 'knock-on' effects from skyline intrusion would be limited as the existing height restriction status quo would remain.

**Vulnerability to coastal dynamic:** The coastal location of the proposed development indicates that it is inherently exposed to risks associated with natural and dynamic coastal processes. These risks provide significant impacts to the sustainability of any development within coastal areas. With inspection of coastal GIS mapping for South Africa; the Climate Change Coastal Vulnerability Assessment shows that in terms of long-term erosion, the property is in an area with very low coastal erosion risk.

The development is protected from coastal processes and long-term climate change coastal vulnerability because there is a buffer of existing development and quite some distance between the property boundary and the high-water mark.

**Green technology in design and operation:** the preferred alternative will incorporate the use of green building methods in the design, construction and operation of the proposed development in order to provide an environmentally sustainable development that still meets the needs of society.

### **Alternative A2 (not supported)**

An alternative in this case relates to design alternatives:

1. Design/layout alternatives – block and tower design without varying height levels. The lack of varying levels would provide an increased visual impact which would totally obstruct the views of the ocean that neighbours south of the proposed development site would have in the preferred alternative. In addition, it would not provide a break in the massing of the structure and would not aesthetically align with the surrounding built environment of Port St Francis.

This alternative is supported by the visual specialist and the EAP as it does not ensure that the visual/sense of place is retained, and it completely obstructs the views that neighbouring properties would experience.

### **No-go alternative (compulsory)**

This alternative assumes that the residential development will not be constructed as proposed, and the status quo will remain in place. By not developing the land, it is likely that the property would become subject to land invasions and continued unauthorised dumping, contributing to the degradation of the land and the possible spillage of criminal activities into the surrounding area.

## 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
YES	NO

Is an EMPr attached?

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:

A detailed list of recommendations will be provided in the final BAR; however, the following recommendations and mitigation measures have been identified:

1. The EMPr and specialist assessments are to be strictly adhered to by the developer.
2. The EA should have a validity period of 5 years to complete construction.
3. A permit must be obtained from CapeNature prior to the removal of protected plant species found on the site.
4. Dust suppression is required during the construction phase.
5. An engineer must be appointed and provide method statements to the appointed ECO regarding geotechnical and stormwater management.
6. Construction activities must only take place during normal working times between 07:00-17:00 on weekdays.
7. A heritage specialist must be employed for the duration of vegetation clearing and earthmoving activities.
8. The mitigation measures provided by the visual specialist must be implemented into the design of the development.
9. It is recommended that an Accredited Professional from the Green Building Council South Africa is appointed to inform the design, construction and operation of the development to ensure sustainable methods are applied.

## **SECTION F: APPENDICES**

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Public Participation

Appendix H: Screening Tool and Site Sensitivity Verification Report

Appendix I: Previous municipal building approval and zoning certificate