

## FINAL BASIC ASSESSMENT REPORT

Proposed refurbishment and construction of coastal infrastructure within the King Sabata Dalindyebo Local Municipality, Coffee Bay, Eastern Cape (BA1)

(For official use only)

**File Reference Number:**

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**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.
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).
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.

## SECTION A: ACTIVITY INFORMATION

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

YES	NO
X	

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

The proposed developments in Coffee Bay will involve the refurbishment and construction of coastal infrastructure along Coffee Bay Main Beach, as well as the refurbishment of existing public facilities adjacent to the Nenga River. This falls within a portion of primary and secondary dune formation that is present between the Nenga River in the south and a steep sandstone cliff form in the north (Sustainable Development Projects (SDP), 2021).

The position of the infrastructure components has been identified based on a combination of engineering, environmental and economic factors and will include the following infrastructure components.

#### 1.1. Dedicated parking areas

The proposed parking area will be located where the existing ablution facilities are situated. The existing ablution facilities will be decommissioned and relocated just north of the current location. Additionally, the existing road verge (opposite the Nenga River Lodge, just north of the repositioned ablution facilities) will be widened to include individual parking bays. The proposed parking area will include:

- The introduction of a grass block parking area (approximately 1,300 m<sup>2</sup>).
- The widening of the road verge to accommodate additional parking bays.
- A formalised walkway to access the picnic and braai area.
- The introduction of parking signage.
- Minor landscaping to compliment the receiving environment and address the flooding and stormwater concerns within the site.
- The introduction of bollards to restrict vehicular access onto the dune environment..

The dedicated parking area at Coffee Bay will make use of the following materials

- Terracrete blocks/concrete grass blocks.
  - Terracrete Grass Blocks are a versatile eco-surface hard lawn paving block that was introduced by Terraforce into the South African market in 2002.
  - They may be used for the lining of riverbanks, or areas that are subject to erosion as it promotes the growth and re-growth of grass. This provides an alternative to impermeable urban surfaces.
  - These surfaces provide a park-like or pastoral feel to areas which require hard paving ([www.remacon.co.za](http://www.remacon.co.za))
- Poly-timber waste receptacles.
  - These proposed waste receptacles are made from a poly-timber material. Poly-timber promotes reduces the consumption of raw materials and also reduces water and air pollution associated with landfilling.
  - The designs are functional with or without a lid. It will have the option of a flat lid, or lids with innovative access which will keep rain out.
- Elevated ramps which allow persons with disabilities to access the picnic area.

Refer to Appendix C for the facility illustrations and Appendix G (Annexure 1) for an example of the infrastructure proposed within the parking area.

## **1.2. Viewing decks**

A viewing deck, observation deck or observation platform refers to an elevated sightseeing structure ([our.wollongong.nsw.gov.au](http://our.wollongong.nsw.gov.au)). The three viewing decks which will be provided at Coffee Bay will be strategically located on the coastal dune cordon to allow pedestrians and beach goers scenic views of the beach and coastal dune vegetation. The placement of the viewing platforms will also take into consideration large trees on the coastal dune so as not to disturb them. Some pruning of trees may however be required to maximise views and to provide safe access to the viewing decks. The viewing platform will include:

- A formalized walkway to access the viewing decks (certain portions of the walkway will be fitted with balustrades/ hand rails).
- The introduction of three viewing decks at strategic locations along the dune cordon along Coffee Bay Main Beach.
- Provision of waste receptacles.
- Provision of seating (benches) and picnic facilities (picnic sets).
- The introduction of new welcome signs along the walkways and to the entrance to each viewing deck.

The proposed viewing decks will make use of the following materials:

- Poly-timber viewing deck.
- Poly-timber benches and picnic sets.
- Poly-timber waste receptacles.
- Poly-timber walkways.

Refer to Appendix C for the facility illustrations and Appendix G (Annexure 1) for an example of the infrastructure proposed for the viewing decks.

## **1.3. Picnic and braai areas**

The picnic and braai area involves the refurbishment of the facilities at the existing picnic site. It also aims to provide beach goers a safe area near the Coffee Bay Main Beach and adjacent Nenga River mouth where visitors can relax and enjoy the surrounding estuary and beach. The picnic area refurbishment will include:

- The removal of damaged and broken braai facilities.
- The removal of damaged and broken seating.
- The formalisation and provision of new braai facilities and seating.
- The introduction of grass block platforms and landscaping for picnic facilities.
- Securing of the picnic area with ClearVu Fencing on three sides and post and rail fencing on the south side of the picnic area adjacent to the Nenga River.
- Formalised walkways from the parking area to the picnic and braai area.
- The introduction of a playground (jungle gym, slides, and swings).
- Landscaping for the playground and picnic area This will also serve to address the flooding and stormwater concern which were raised by residents in the area.
- Demarcation of the wetland area to the northwest of the picnic site using a post and rail fence.
- Provision of waste receptacles.

The proposed picnic and braai area will make use of the following materials:

- Poly-timber walkway from the parking area to the picnic area
- Poly-timber waste receptacles.
- Poly-timber timber seating and picnic sets.
- Brick and concrete braai stands.
- Clear-vu fencing.
- Jungle gym (jungle gym, slides, and swings).

Refer to Appendix C for the facility illustrations and Appendix G (Annexure 1) for an example of the infrastructure proposed within the braai/ picnic areas.

#### **1.4. Decommissioning and repositioning of the existing ablution facilities**

The existing ablution infrastructure adjacent to the Nenga River mouth is in a state of disrepair and currently unutilised by visitors. A flood line assessment was conducted to determine the position of the existing infrastructure in relation to the 1:50 and 1:100 flood line levels and the findings indicated that the existing infrastructure is within both these flood line levels. It was, therefore, recommended that the existing facilities be decommissioned and relocated further north (out of the 1:50 and 1:100 flood lines).

The ablution facilities were repositioned further north and the Draft Basic Assessment was circulated for public participation from 16 November 2021 – 07 January 2022. Following the 30-day comment period, numerous concerns from Interested and Affected Parties (I&APs) were raised relating to the infrastructure layout proposed for Coffee Bay. To address these concerns DFFE requested an additional site meeting with the project team (ACER, MBB, Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), DFFE and the King Sabata Dalindyebo Local Municipality (KSDLM)) which was held on the 27 January 2022 to discuss and address all project concerns.

The appointed specialists were engaged to identify a suitable location for the new ablution facilities (bearing in mind the presence of the dune and the nearby artificial wetland) and it was thereafter agreed that the new facilities will be repositioned closer to the existing road and away from the dune and artificial wetland.

The two existing ablution facilities will be demolished and all construction rubble will be disposed at a municipal approved landfill site. The contents of the existing conservancy tanks will be removed with a honey sucker and disposed at an approved wastewater treatment plant. Thereafter, the conservancy tanks (including pipes etc.) will be excavated and disposed at a municipal approved waste facility and the existing site will be used as a parking area. To address the concern of waste and water reticulation, the new facilities will be fitted with two underground conservancy tanks (which will be emptied regularly by the KSDLM) and two above ground Jojo water storage tanks (which will be used to harvest rainwater for operational purposes).

The decommissioning and repositioning of the ablution facilities will include the following:

- The construction of two new ablution facilities (each facility will have a physical footprint of approximately 140 m<sup>2</sup>).
- The installation of two new Jojo water storage tanks.
- The installation of two underground conservancy tanks (located at the northern most point of the facility).
- Provision of waste receptacles.

The proposed construction of the new ablution facilities will make use of the following materials:

- Poly-timber waste receptacles.
- Poly-timber timber benches and picnic sets.
- Plastic Jojo water storage tank.
  - A heavy-duty Jojo (or similar approved) conservancy tank (including all ancillaries to drain the tank by means of a mobile vacuum waste collection vehicle).
  - A conservancy tank is used to dispose both black water and grey water.
  - Jojo conservancy tanks are chemical and corrosion resistant.
  - These underground tanks are used for the temporary storage of waste and will need to be pumped out by “honey suckers” once the tank is full.
- Bricks, blocks and concrete for the construction of the two new ablution facilities.

Refer to Appendix C for the facility illustrations and Appendix G (Annexure 1) for an example of the infrastructure proposed for the new ablution facilities.

#### **1.5. Walkways**

The proposed walkways will provide pedestrian access from the parking area to the Coffee Bay Main Beach, the picnic/ playground area, ablution facilities, and to the various viewing decks along the primary dune cordon.

Walkways to access the beach and proposed viewing decks will be positioned to minimise impacts on the coastal vegetation and will wind around large trees and areas of dense dune vegetation to minimise impacts on the receiving environment.

Walkways to access the beach and proposed viewing decks will be positioned to minimise impacts on coastal vegetation. Similarly, walkways will wind around large trees and areas of dense dune vegetation to minimise impacts on the receiving environment.

A judicious approach will be adopted in determining the placement and arrangement of the proposed walkways. The proposed walkways will include:

- A formalized walkway for pedestrians to access the Coffee Bay Main Beach, the picnic/playground area, the ablution facilities, and various viewing platforms along the beach.
- Signage and resting areas (benches) for pedestrians.
- Provision of waste receptacles.
- The replacement of the existing beach access staircase with a poly-timber staircase.

The proposed walkways will make use of the following materials:

- Poly-timber walkway.
  - The poly-timber walkway is suitable in wet and dry conditions and will withstand the harshest weather conditions.
  - It will have a texture similar to wood which becomes less tacky when wet.
  - This material does not require repainting and is non-toxic.
  - The material does not rot, warp, splinter, crack or fade significantly ([www.newlifeplastics.co.za](http://www.newlifeplastics.co.za)).
- Poly-timber benches.
  - The thick manufactured planks provide incredible strength and is both comfortable and long lasting ([www.greenplasticwood.co.za](http://www.greenplasticwood.co.za))
- Poly-timber waste receptacles.
  - These proposed waste receptacles are made from a poly-timber material. Poly-timber reduces the consumption of raw materials and also reduces water and air pollution associated with landfilling.
  - The designs are functional with or without a lid. It will have the option of a flat lid, or lids with innovative access which will keep rain out.

Refer to Appendix C for the facility illustrations and Appendix G (Annexure 1) for an example of the infrastructure proposed for the local fishing spot.

## **1.6. Wetland stabilisation**

As part of the proposed Coffee Bay development, the existing artificial wetland to the northwest of the picnic site will be stabilised by providing suitable drainage infrastructure under the existing access road and by providing a fence to prevent beach goers and visitors to the picnic site from disturbing the wetland vegetation. The wetland was identified as a source of water to the adjacent dune systems and will therefore be maintained and preserved. Activities to be undertaken for this component of the development include the following:

- The installation of a 600 Ø pipe culvert to facilitate water flow from the wetland system into the Nenga River estuary. This will prevent the ponding of water within the picnic site.
- The introduction of bollards to restrict vehicular access into the wetland system.
- Gabion structures to reinforce the banks along the road to protect the wetland system.

The proposed wetland stabilization will make use of the following materials:

- Concrete pipe culverts.
- Concrete bollards.

- Gabion baskets.

Refer to Appendix C for the facility illustrations and Appendix G (Annexure 1) for an example of the infrastructure proposed to stabilise the wetland.

### **1.7. Lifeguard tower**

Lifeguard towers are provided at most beaches to watch and supervise swimmers so as to prevent injury and/or death of swimmers while in the ocean. The existing lifeguard tower located along the Coffee Bay main beach is damaged and needs replacement. Further to this, the existing lifeguard tower is situated along the seaward (stoss) face of the primary dune (SDP, 2021).

The frontal dune form at the Coffee Bay Main Beach is in a state of erosion. The frontal stoss slope is undergoing significant undercutting, slumping and transgression. This erosion has resulted in the existing lifeguard tower (constructed about 4 – 5 years ago) being at risk of collapse due to the erosion and transgression of the dune system. Due to the erosion and transgression of the dune system, the new lifeguard tower is proposed to be positioned to the north of its current location and higher up on the dune cordon which is more stable and not susceptible to erosion.

The replacement of the existing lifeguard tower along the Coffee Bay Main beach will include the following:

- Proposed construction material:
  - Poly-timber lifeguard tower.
  - Anti-slip floor finish.
- A certificate of conformance must be issued on completion of the construction of the lifeguard tower.

### **1.8. Streetlights**

Currently, there are no streetlights within the Coffee Bay development node. This creates unsafe driving conditions, endangering pedestrians, animals and drivers. The proposed development will install street lighting within the node, which will improve vision and overall safety when driving at night.

The proposed streetlight installation will make use of the following materials:

- Wooden light poles (including low and medium voltage distribution).

A layout of the light installations are provided in Appendix A

### **1.9. Welcome signage**

Welcome signage will be erected at the entrance to the Coffee Bay development node. The purpose of the signage is to welcome visitors and/or tourists and provide an overview of the area.

The proposed welcome signage will make use of the following materials:

- Poly-timber sign boards.
- Wood and mortar.

Refer to Figure 1 below showing the locality map for Hole in the Wall and Figure 2 showing the proposed infrastructure layout.



## 2. FEASIBLE AND REASONABLE ALTERNATIVES

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

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

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

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



### 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.

#### 3.1. Parking area no. 01

**Alternative:**

**Latitude (S):**

**Longitude (E):**

Alternative S1<sup>1</sup> (preferred or only site alternative)  
 Alternative S2 (if any)  
 Alternative S3 (if any)

31°	59'	0.40''	29°	09'	01.38''
o	'	o	o	'	o
o	'	o	o	'	o

#### 3.2. Viewing deck

##### 3.2.1. Viewing deck No. 01

**Alternative:**

**Latitude (S):**

**Longitude (E):**

Alternative S1 (preferred or only site alternative)  
 Alternative S2 (if any)  
 Alternative S3 (if any)

31°	58'	54.11''	29°	09'	06.25''
o	'	o	o	'	o
o	'	o	o	'	o

##### 3.2.2. Viewing deck No. 02

**Alternative:**

**Latitude (S):**

**Longitude (E):**

Alternative S1 (preferred or only site alternative)  
 Alternative S2 (if any)  
 Alternative S3 (if any)

31°	58'	56.97''	29°	09'	04.32''
o	'	o	o	'	o
o	'	o	o	'	o

##### 3.2.3. Viewing deck No. 03

**Alternative:**

**Latitude (S):**

**Longitude (E):**

Alternative S1 (preferred or only site alternative)  
 Alternative S2 (if any)  
 Alternative S3 (if any)

31°	58'	58.56''	29°	09'	03.18''
o	'	o	o	'	o
o	'	o	o	'	o

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

**3.3. Dedicated picnic/ braai area**

**Latitude (S):**

**Longitude (E):**

**Alternative:**

Alternative S1 (preferred or only site alternative)  
 Alternative S2 (if any)  
 Alternative S3 (if any)

31°	59'	01.24"	29°	09'	01.18"
o	'		o	'	
o	'		o	'	

**3.4. New ablution facility**

**Latitude (S):**

**Longitude (E):**

**Alternative:**

Alternative S1 (preferred or only site alternative)  
 Alternative S2 (if any)  
 Alternative S3 (if any)

31°	58'	57.59"	29°	09'	02.47"
o	'		o	'	
o	'		o	'	

**3.5. Wetland stabilisation (bollards and gabion reinforcements)**

**Latitude (S):**

**Longitude (E):**

**Alternative:**

Alternative S1 (preferred or only site alternative)  
 Alternative S2 (if any)  
 Alternative S3 (if any)

31°	58'	58.98"	29°	09'	01.68"
o	'		o	'	
o	'		o	'	

**3.6. Lifeguard tower**

**Latitude (S):**

**Longitude (E):**

**Alternative:**

Alternative S1 (preferred or only site alternative)  
 Alternative S2 (if any)  
 Alternative S3 (if any)

31°	58'	56.88"	29°	09'	05.05"
o	'		o	'	
o	'		o	'	

In the case of linear activities:

**3.10. Wetland stabilisation (pipe culverts)**

**Alternative (pipe replacement):**

Alternative S1 (preferred or only route alternative)

**Latitude (S):**

**Longitude (E):**

- Starting point of the activity
- Middle point of the activity
- End point of the activity

31°	58′	57.26″	29°	09′	01.88″
31°	58′	57.70″	29°	09′	01.95″
31°	58′	58.40″	29°	09′	01.91″

Alternative S2 (if any)

- Starting point of the activity
- Middle point of the activity
- Alternative S3 (if any)

--	--	--	--	--	--

Starting point of the activity

o	′		o	′	
---	---	--	---	---	--

Middle point of the activity

o	′		o	′	
---	---	--	---	---	--

End point of the activity

o	′		o	′	
---	---	--	---	---	--

o	′		o	′	
---	---	--	---	---	--

o	′		o	′	
---	---	--	---	---	--

o	′		o	′	
---	---	--	---	---	--

**Alternative (from wetland to estuary):**

Alternative S1 (preferred or only route alternative)

Starting point of the activity

- Middle point of the activity
- End point of the activity

31°	58′	59.39″	29°	09′	01.49″
31°	59′	00.30″	29°	09′	01.09″
31°	59′	00.73″	29°	09′	00.66″

Alternative S2 (if any)

- Starting point of the activity
- Middle point of the activity
- Alternative S3 (if any)

o	′		o	′	
---	---	--	---	---	--

Starting point of the activity

o	′		o	′	
---	---	--	---	---	--

Middle point of the activity

o	′		o	′	
---	---	--	---	---	--

End point of the activity

o	′		o	′	
---	---	--	---	---	--

o	′		o	′	
---	---	--	---	---	--

o	′		o	′	
---	---	--	---	---	--

### 3.10. Dedicated walkways

**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):**

31°	58′	59.73″	29°	09′	01.86″
31°	58′	57.12″	29°	09′	04.07″
31°	58′	54.17″	29°	09′	06.22″

Alternative S2 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

o	′		o	′	
o	′		o	′	
o	′		o	′	

Alternative S3 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

o	′		o	′	
o	′		o	′	
o	′		o	′	

### 3.10. Additional parking bays

**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):**

31°	58′	54.97″	29°	09′	04.27″
31°	58′	55.92″	29°	09′	03.53″
31°	58′	56.78″	29°	09′	02.86″

Alternative S2 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

o	′		o	′	
o	′		o	′	
o	′		o	′	

Alternative S3 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

o	′		o	′	
o	′		o	′	
o	′		o	′	

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

## 4. PHYSICAL SIZE OF THE ACTIVITY

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

### 4.1. Parking areas

#### 4.1.1. Dedicated parking area

**Alternative:**

Alternative A1<sup>2</sup> (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the activity:**

870 m<sup>2</sup>

m<sup>2</sup>

m<sup>2</sup>

#### 4.1.2. Additional parking bays

**Alternative:**

Alternative A1<sup>3</sup> (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the activity:**

430 m<sup>2</sup>

m<sup>2</sup>

m<sup>2</sup>

### 4.2. Viewing decks

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the activity:**

12 m<sup>2</sup> x 3

= 36 m<sup>2</sup>

m<sup>2</sup>

m<sup>2</sup>

### 4.3. Picnic areas

#### 4.3.1. Bench seats

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the activity:**

3.3 m<sup>2</sup> x 15 units

= 50 m<sup>2</sup>

m<sup>2</sup>

m<sup>2</sup>

#### 4.3.2. Picnic benches

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the activity:**

5 m<sup>2</sup> x 15 units

= 75 m<sup>2</sup>

m<sup>2</sup>

m<sup>2</sup>

#### 4.3.3. 2x braai stands

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

**Size of the activity:**

2 m<sup>2</sup> x 13 units

= 26 m<sup>2</sup>

m<sup>2</sup>

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

<sup>3</sup> "Alternative A.." refer to activity, process, technology or other alternatives.

#### 4.4. Decommissioning and repositioning of existing ablution facilities

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the activity:**

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

#### 4.5. Dedicated walkways

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the activity:**

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

or, for linear activities:

#### 4.6. Wetland stabilisation

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Length of the activity:**

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

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

#### 4.6. Lifeguard tower

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Size of the site/servitude:**

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

**5. SITE ACCESS**

Does ready access to the site exist?

YES X	NO
m	

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

Describe the type of access road planned:

N/A – The proposed development will not construct any new access roads.

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

## 6. SITE OR ROUTE PLAN

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

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
  - rivers;
  - the 1:100 year flood line (where available or where it is required by DWA);
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.9 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.10 the positions from where photographs of the site were taken.



## **7. SITE PHOTOGRAPHS**

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

## **8. FACILITY ILLUSTRATION**

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

## 9. ACTIVITY MOTIVATION

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

What is the expected capital value of the activity on completion?	R 19,200,000.00	
What is the expected yearly income that will be generated by or as a result of the activity?	R, 2,000,000.00	
Will the activity contribute to service infrastructure?	YES x	NO
Is the activity a public amenity?	YES x	NO
How many new employment opportunities will be created in the development phase of the activity?	50	
What is the expected value of the employment opportunities during the development phase?	R 800,000.00	
What percentage of this will accrue to previously disadvantaged individuals?	30 %	
How many permanent new employment opportunities will be created during the operational phase of the activity?	20	
What is the expected current value of the employment opportunities during the first 10 years?	R 10,000,000.00	
What percentage of this will accrue to previously disadvantaged individuals?	30 %	

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

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

The proposed development involves the refurbishment and construction of coastal infrastructure in Coffee Bay, with the key objective being the promotion and development of sustainable coastal infrastructure. The proposed development will formalise coastal accessibility and coastal access whilst promoting and preserving the ecological integrity of the receiving environment.

The proposed development aims to:

- Create and implement programmes to ensure sustainable and equitable maintenance of the coastal environment.
- Minimize the adverse impacts on the environment and promote public safety.
- Provide facilities that promote access to the coastal public property.
- Improve coastal infrastructure to enhance equitable and fair access to the coast.

#### *DECLARATION OF COFFEE BAY AS A RESORT TOWN*

Coffee Bay is located along the Eastern Cape coastline, between East London and Port Edward and forms part of the Wild Coast. In terms of the Wild Coast Environmental Management Plan, (2013) which aims to establish a planning instrument to guide and facilitate development and promote the sustainable use of the Wild Coast the management plan states that the Hole-in the Wall and Coffee Bay areas may be considered for formal town establishment. This is subject to infrastructure development of the required scale and standard. For this to be realised, there must be tangible, credible infrastructure development plans in place before investment is invited. The proposed developments planned for Hole in the Wall aims to initiate infrastructure development in the area and to act as a catalytic development in terms of future investment to Hole in the Wall. The proposed infrastructure and capacity upgrades included in this development supports the vision of the Eastern Cape Provincial Development Plan where the main objectives of the Spatial Development Initiative (SDI) are:

- To generate sustainable economic growth and development in the Wild Coast area.
- To generate long-term and sustainable employment for local inhabitants.
- To maximize the mobilization of private investment, especially in the context of community development and to lessen demands on government funds for development projects.

- To exploit spin-off opportunities from tourism investments for the development of Small, Medium and Micro Enterprises (SMME's) and for the development of local communities

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

#### *PROMOTION OF SUSTAINABLE COASTAL ACCESS*

DFFE, through their Environmental Protection and Infrastructure Programmes (EPIP) Working for the Coast (Eastern Cape), is the project funder on behalf of the KSDLM (the applicant for this EA process and associated license and permit applications). Currently, DFFE is running the Working for the Coast Programme which was established with the aim of implementing various projects to promote access and accessibility to the coastline while ensuring South Africa's coastlines are conserved and protected. The proposed development aligns with the objectives of DFFE's programme of ensuring sustainable and equitable maintenance of coastline environments whilst improving socio-economic conditions of communities in coastal towns such as Hole in the Wall.

The coast is a special national asset which requires the planning and management for the long-term public interest. These management measures include the right to secure ecological sustainable development. In response to these planning and management initiatives, the DFFE tasked the National Coastal Access Strategy (NCAS, 2014) with the following goals, aims, and objectives to address key coastal issues:

- Improve pedestrian access above the high-water mark.
- Improve infrastructure for access.
- Prevent exclusive use.
- Address conflicting rights between public interest, private property owners and communal and traditional users.
- Minimise adverse impacts on the environment.
- Opportunities for public access must be provided at appropriate coastal locations in context of the environmental, financial, and social opportunities and constraints.
- Public access must be maintained, managed, and monitored to minimise adverse impacts on the environment and public safety and to resolve incompatible uses.

The NCAS (2014) has three key messages to coastal stakeholders in the three spheres of government which address key coastal issues in South Africa:

1. The designation and management of coastal access is locally contextual and most appropriately assigned to municipalities which can effectively respond to the complexity of providing and maintaining access.
2. Providing coastal access is a management issue that influences the state of the natural environment on the coast and concomitantly enables many of the potential social and economic benefits offered by the coast and its resources.
3. The social and economic value of appropriate coastal access makes it imperative that both national and provincial governments, as co-beneficiaries, also contribute to the sustainable provision of coastal access. Provinces, have an important role to play by undertaking or facilitating (by coordinating municipal action) a provincial scale assessment of existing coastal access.

As per the NCAS, (2014), the status quo for the Eastern Cape coastline is:

- There is low accessibility with limited coastal access.
- In addition to the lack of infrastructure, the Eastern Cape geographical landscape is characterized by hills and steep cliffs along the coast. This will require the need for design engineers to design a suitable access that is safe to be used by the public.
- Physical access to parts of the coastline is difficult.

The proposed refurbishment and construction of coastal infrastructure proposed by the KSDLM aims to fulfil the goals, aims and objectives of the IDP, NCAS and the Wild Coast Environmental Management Plan.

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

*LOCAL ECONOMIC DEVELOPMENT (LED) AND TOURISM*

According to the King Sabata Local Municipality IDP (2020-2021), one of the key development strategies identified is improving access to tourist areas and upgrading coastal infrastructure within the municipality, as an effort to bring about economic empowerment. This is obtained through:

- Increased tourist activity.
- Creation of employment opportunities.
- The promotion of community-based initiatives.

The proposed refurbishment and construction of coastal infrastructure at Coffee Bay will assist in promoting tourism and economic growth and allow for the provision of adequate and accessible infrastructure within the area.

## 10. Applicable legislation, policies and/or guidelines

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

<b>Title of legislation, policy or guideline:</b>	<b>Administering authority:</b>	<b>Date:</b>
Constitution of the Republic of South Africa	Republic of South Africa	1996
National Environmental Management Act (NEMA)	Republic of South Africa	1998
Environmental Impact Assessment Regulations	Republic of South Africa	2014, as amended
National Environmental Management Act: Wild Coast Environmental Management Plan	Republic of South Africa	1998
Integrated Coastal Management Act	Republic of South Africa	2008
National Environmental Management: Biodiversity Act	Republic of South Africa	2004
National Environmental Management: Protected Areas Act	Republic of South Africa	2003
National Water Act	Department of Human Settlements, Water and Sanitation	1998
National Heritage Resources Act	South African Heritage Resource Agency	1999
National Environmental Management: Waste Act	Republic of South Africa	2008
Eastern Cape Biodiversity Conservation Plan	Eastern Cape Provincial Government	-
Draft Eastern Cape Environmental Management Bill	Eastern Cape Provincial Government	2019
Transkei Environmental Conservation Decree	Eastern Cape Provincial Government	1992
Ciskei Nature Conservation	Eastern Cape Provincial Government	1987
Land Use and Planning Ordinance	Eastern Cape Provincial Government	1985
National Environmental Management: Wild Coast Environmental Management Plan (Provincial Gazette 3210 OF 2014)	Eastern Cape Department of Economic Development, Environmental Affairs and Tourism	2014
Environment Conservation Act, 1989 (Act No 73 of 1989)	Department of Environmental Affairs	1989
National Environmental Management: Air Quality Act, 2004 (Act No 39 of 2004)	District and local municipalities	2004
National Roads Traffic Act, 1996 (Act No 93 of 1996)	South African National Roads Agency Limited (national roads); Provincial Department of Transport	1996
Promotion of Access to Information Act, 2000 (Act No 2 of 2000)	Department of Justice and Constitutional Development	2000
Promotion of Administration Justice Act, 2000 (Act No 3 of 2000)	Department of Justice and Constitutional Development	2000
Infrastructure Development Act, 2014 (Act No. 23 of 2014)	Presidential Infrastructure Coordinating Commission	2014
Public Participation Guideline in Terms of the National Environmental Management Act, 1998 and Environmental Impact Assessment Regulations	Eastern Cape Economic Development, Environmental Affairs and Tourism	2017
Occupational Health and Safety Act (Act 85 of 1993)	Department of Labour	2003
The Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA)	District and local municipalities	2013
National Forest Act, 1998 (Act 84 of 1998)	Eastern Cape Department of Environment, Forestry and Fisheries	1998
Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983)	Department of Agriculture (Department of Agriculture, Land Reform and Rural Development)	1983
Hazardous Substance Act (No 15 of 1973) and Regulations	Department of Health	1973
Occupational Health and Safety Act (Act 85 of 1993)	Department of Labour	1993

## 11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

### 11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	NO
x	
5-10 m <sup>3</sup>	

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

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

The construction waste (rubble, construction material etc.) will be collected and temporarily stored on site in dedicated areas until final disposal at the Mqanduli Landfill Site.

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

The construction waste (rubble, construction material etc.) will be collected and temporarily stored on site in dedicated areas until final disposal at the Mqanduli Landfill Site.

Will the activity produce solid waste during its operational phase?

YES	NO
x	
2-5 m <sup>3</sup>	

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

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

The King Sabata Local Municipality will be responsible for regular, routine maintenance of the various waste receptacles installed on site (within the picnic/ braai areas, within the parking areas and the viewing decks) The Municipality will be responsible for the collection and disposal of all waste generated during the operational phase (waste will either be disposed at the Waste Transfer Station in Coffee Bay or at the Mqanduli Landfill Site)

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

Either the Waste Transfer Station in Coffee Bay or the Mqanduli Landfill Site

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

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

YES	NO
	x

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

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

YES	NO
	x

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?

<b>YES</b> x	<b>NO</b> x
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If yes, what estimated quantity will be produced per month?

To be determined during operations – 2x 6000l conservancy tanks will be fitted
--

Will the activity produce any effluent that will be treated and/or disposed of on site?

<b>Yes</b>	<b>NO</b> X
------------	----------------

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?

<b>YES</b>	<b>NO</b>
------------	-----------

If yes, provide the particulars of the facility:

Facility name:	Mthatha Wastewater Treatment Facility		
Contact person:	Nkosiyabo Noto		
Postal address:	Private Bag X6043, Mthatha		
Postal code:	5100		
Telephone:	047 501 6400 / 047 501 7000	Cell:	
E-mail:	<a href="mailto:ortambodm@ortambodm.org.za">ortambodm@ortambodm.org.za</a>	Fax:	047 531 2700

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

In addition to the portable water within the area, rainwater harvesting will be designed into the new ablution facilities. This will ensure that the ablutions have sufficient water for its operations, which will limit the stress placed on potable drinking water.

The proposed materials are designed to require minimum maintenance, which will reduce the amount of water needed for cleaning purposes.

Other water recycling initiatives will be designed during the operational phase, with emphasis being placed on water conservation and sustainability.

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

Will the activity release emissions into the atmosphere?

YES x	NO
YES x	NO
YES	NO

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

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:

During construction phase, the following air emissions may be expected:

- For the clearing of vegetation (brush cutters, construction vehicles);
- For the construction of dedicated parking areas (construction equipment, vehicles and plant);
- For the construction of the new ablution facility (construction equipment, vehicles and plant);
- For the decommissioning of the existing ablution facility (construction equipment, vehicles and plant);
- For the construction/ erection/ assembling of walkways/ viewing decks (construction machinery and other hand tools).

During the operational phase, the following air emissions may be expected:

- The use of picnic/ braai areas (smoke from fires/ braais).



**11(d) Generation of noise**

Will the activity generate noise?

YES x	NO
YES x	NO
YES	NO x

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

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 construction, the following activities may result in the generation of some noise:

- Removal of existing infrastructure (broken braai facilities, picnic tables, benches etc.);
- Construction of the new parking areas;
- Decommissioning of existing ablution facility and the construction of the new facility;
- Construction/ erection of the new infrastructure ( braai facilities, picnic tables, benches, viewing decks and walkways);

**12. WATER USE**

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

<b>Municipal</b> x	water board	groundwater	river, stream, dam or lake	<b>Other</b> <b>X</b> <b>(commercial source)</b>	the activity will not use water
-----------------------	-------------	-------------	----------------------------	--	---------------------------------

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

the volume that will be extracted per month:

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

litres	
<b>YES</b> x	<b>NO</b>

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

### 13. ENERGY EFFICIENCY

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

The proposed development (including the various components) aims at maintaining the “sense of place” of the area. Presently, the infrastructure at Coffee Bay is failing and dilapidated. The materials chosen for the new infrastructure (walkways, viewing decks, picnic and braai areas) have been chosen because of its low maintenance, energy efficiency and ability to withstand climate change.

The new ablution facilities will be fitted with water harvesting tanks to minimise the pressure placed on the municipal system. Needs. Further, in order to maintain the “sense of place” of the area, all the infrastructure and components will be designed to compliment the receiving environment. The development footprint has been placed in areas that are currently disturbed and by reducing the total possible footprint, the project will significantly reduce the amount of energy required for completion.

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

N/A – due to the location of the proposed development and the availability of resources, energy will be obtained conventionally (i.e. municipal sources or portably, using generators).

## SECTION B: SITE/AREA/PROPERTY DESCRIPTION

**Important notes:**

- 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):

- Paragraphs 1 - 6 below must be completed for each alternative.
- Has a specialist been consulted to assist with the completion of this section?

<b>YES</b>	<b>NO</b>
<b>x</b>	

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
<b>x</b>	<b>x</b>	<b>x</b>				

**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:

No.	Description	YES	NO
2.1	Ridgeline		
2.2	Plateau		
2.3	Side slope of hill/mountain	x	
2.4	Closed valley		
2.5	Open valley		
2.6	Plain	x	
2.7	Undulating plain / low hills	x	
2.8	Dune		
2.9	Seafront	x	

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

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

#### 4. GROUNDCOVER

Indicate the types of groundcover present on the site:

No.	Description	YES	NO
4.1	Natural veld – good condition <sup>E</sup>	X	
4.2	Natural veld – scattered aliens <sup>E</sup>	x	
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	x	

If any of the boxes marked with an “<sup>E</sup>” 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.

**NB: Please refer to the sub-sections below, which were obtained and compiled in conjunction with appointed specialists.**

##### 4.1. Terrestrial ecology

##### 4.1.1. Protected areas

In South Africa, the National Protected Area Expansion Strategy (NPAES) presents a 20-year plan for the expansion of protected areas. Based on the NPAES database, no areas have been identified as part of the NPAES within (or in proximity) to the study area at Coffee Bay (Exigent, 2021).

#### 4.1.2. Biodiversity sector plans

##### *Critical Biodiversity Areas*

The Eastern Cape Biodiversity Conservation Plan (ECBCP) provides areas of priority and conservation in the province. Priority areas are identified in terms of their biodiversity and are referred to as CBAs. According to Berliner et al (2007), a CBA is defined as “terrestrial and aquatic features in the landscape that are critical for conserving biodiversity and maintaining ecosystem functioning”. In terms of terrestrial features, the study area at Coffee Bay falls within a CBA1 zone (Figure 9). However, this CBA zone occurs within previously disturbed areas comprising of rural households, roads and other municipal infrastructure (Exigent, 2021).

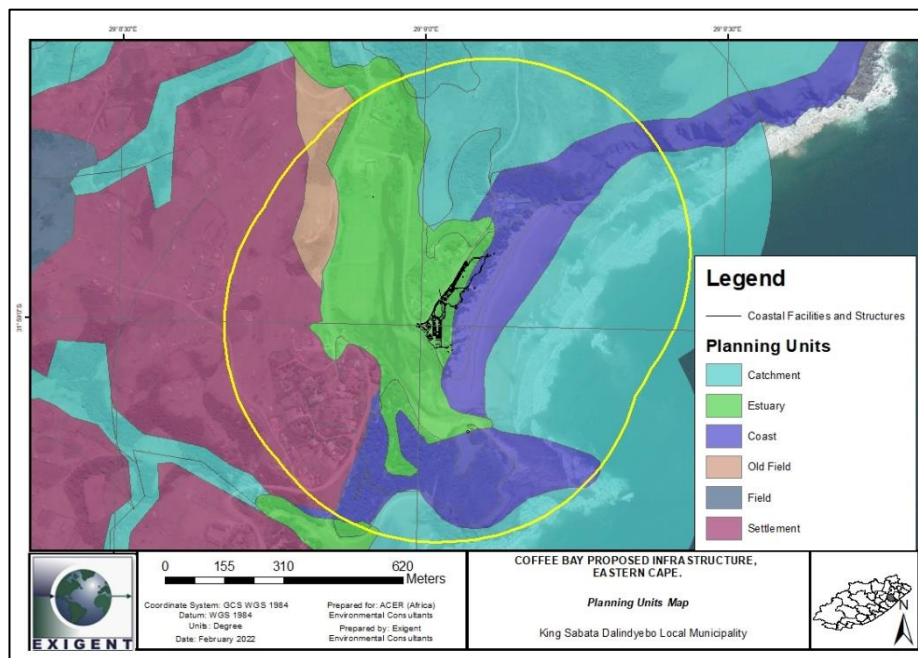
##### *Ecological Support Areas*

The ECBCP also outlines areas in terms of its ability to support life. These areas are referred to as ESAs and are important in protecting the critical conservation areas from edge effects. ESAs also provide ecological support through the presence of forage areas and movement corridors. The study area at Coffee Bay is classified as an ESA1.

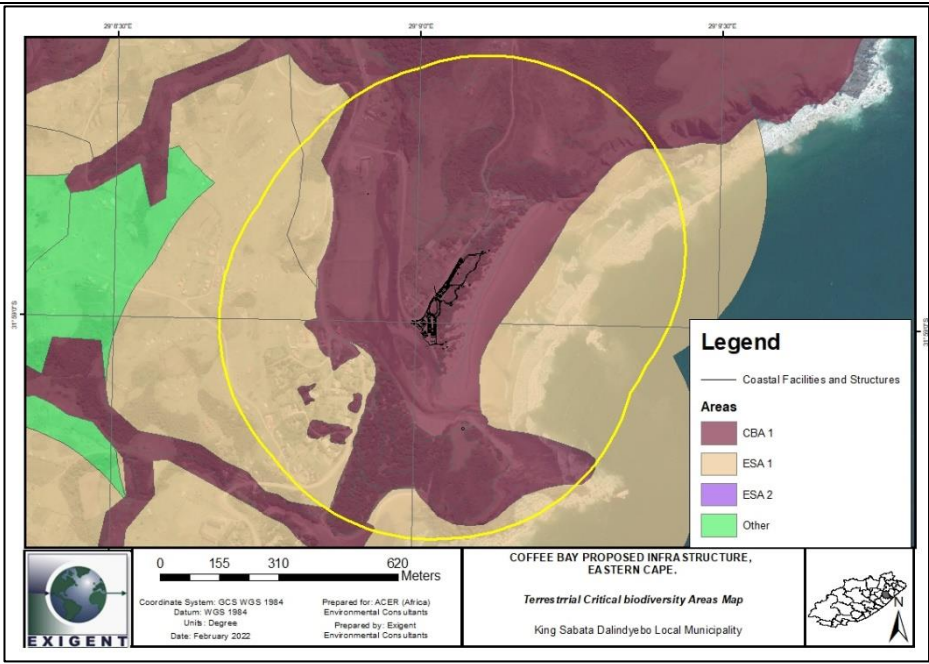
Table 1: Description for CBAs and ESAs

Category	Criteria	Criteria description
<b>TERRESTRIAL CBAs and ESAs</b>		
CBA1	Critical Patches	Critically Endangered and Endangered ecosystems (SA VEG MAPs), Remaining extent of Listed Threatened Ecosystems, National Forest Inventory including critically endangered/high priority forest patches and priority forest clusters
	Irreplaceable Sites	Irreplaceable Sites (selection frequency>80%) – planning units were selected to meet targets for: (1) vegetation types, (2) species points and (3) expert areas
	Special habitats	Bat roost sites and 500m radius
		Cape Vulture breeding colonies (1000m buffer) and roost sites (500m buffer).
Bearded Vulture nests (500m buffer).		
	Critical pinch-points in corridor network.	
CBA2	Forest	All other forests.
	MARXAN analysis	Best Design Sites (selection frequency<80%) - Planning Units selected to meet targets for: (1) vegetation types, (2) species points, (3) expert areas
	Special habitats	Selected cliffs buffered by 100m.
Cape Vulture immediate home range (5km buffer around nest and roost sites).		
Bearded Vulture home range (10km buffer).		
ESA1	Forest	CBA1 forest patch 500m buffer.
	Special habitats	Cliff buffers 500m.
	Ecological corridor	Other sites required to complete the ecological corridor network.
	Eastern Cape corridors	Best Design Corridor Sites - Planning units selected to meet 80% targets for vegetation types.
		Nodes used for corridor network analysis.
	Ecological infrastructure	Climate change refugia.
Coastal functional zone.		
Climate change resilience.		
ESA2	Where there is no natural habitat remaining in an area that would have been designated as a CBA 1, CBA 2 or ESA1, it is designated as an ESA 2	

Database	Importance	Criteria	Comment
National vegetation types	Forests	Least concern	Second most common vegetation unit
	Azonal vegetation	Least concern	Adjacent to the proposed area
	Indian Ocean Coastal Belt	Least concern	Majority of the proposed area
Provincial vegetation types	Scarp Forest	Least concern	Second most common vegetation unit
	Subtropical Dune Thicket	Least concern	Adjacent to the proposed area
	Transkei Coastal Belt	Least concern	Majority of the proposed area
	Subtropical Seashore vegetation	Least concern	Small area located seaward
Provincial CBA	Vegetation types and protection of species	CBA 1	Most of the proposed area is considered CBA 1
Provincial ESA	Vegetation types and protection of species	ESA 1	The wetlands and drainage lines within the proposed area fall within CBA 1 and ESA 1.







### 4.1.3. Vegetation types

According to the National vegetation data (NBA. 2018), there are five vegetation types present within the study area at Coffee Bay (Figure 3):

- Transkei Coastal Belt.
- Subtropical Seashore Vegetation.
- Subtropical Dune Thicket.
- Scarp Forest.
- Non-terrestrial (Estuarine Functional Zone).

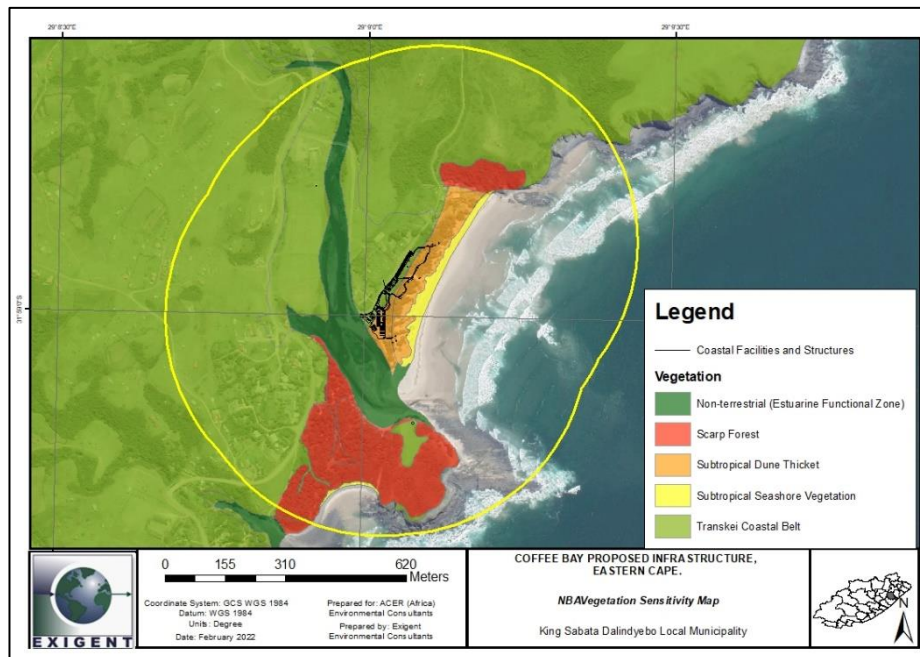


Figure 3: Showing the vegetation types present at Coffee Bay

#### 4.1.4. Terrestrial vegetation on site

According to the Terrestrial Biodiversity Impact Assessment (Exigent, 2021), the Coffee Bay study area has been divided into two terrestrial vegetation communities (Figure 4), namely:

- ❑ Coastal Dune Forest and dune slack.
- ❑ Scarp Forest.

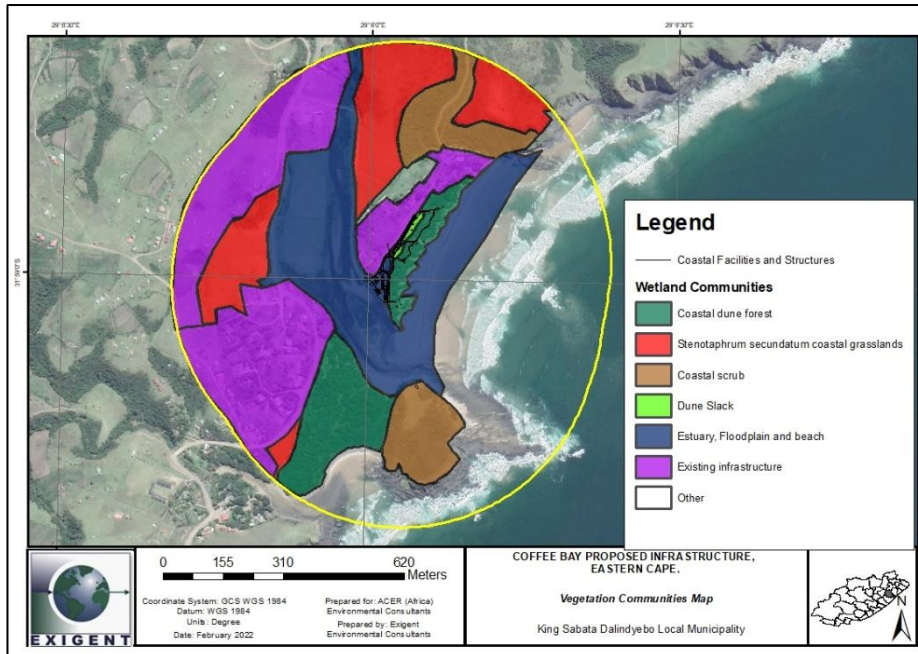


Figure 4: Vegetation communities at Coffee Bay

#### Coastal dune forest and dune slack

The Coastal Dune Forest occurs in the area between the beach and the road adjacent to the Nenga River Lodge and is dominated by *Mimusops caffra* and *Sideroxylon inerme* (Plate 1). There is a clear distinction between the dune vegetation on the seaward and leeward side. The leeward side is dominated with species such as: White Milkwood (*Sideroxylon inerme*), Coastal Red Milkwood (*Minusops caffra*) and numerous graminoids (*Stenotaphrum secundatum*; *Setaria nemfluensis*) and shrubs (*Chrysanthemoides monilifera*). The vegetation on the seaward side of the dune is limited to White Milkwood and cover dependant species (*Sporobolus virginicus*) (Exigent, 2021) (Plate 1).



Plate 1: Vegetation associated with the Coastal Grassland

*Scarp forest*

This vegetation type is prominent along the steeper slopes along the coastline. The scarp forest comprises of clumps of dense forests, thicket patches and young coastal dunes and beaches (Plate 2). Species composition within the forest include *Grewia occidentalis*, *Cestrum laevigatum* and *Crassula multicava*. (Exigent, 2021).



Plate 2: Vegetation associated with the Coastal Dune Forest

*Species of concern*

Species of special concern were identified by the National DFFE Web Based Environmental Screening Tool. Exigent (2021) looked at the habitat requirements of these species against the available habitat within the study area as well as the positioning of the proposed infrastructure on site. Upon investigation, it was concluded that these species are unlikely to be impacted as the proposed infrastructure will not impact on the habitat in which these species are located.

Protected plant species was encountered during the field survey, viz. White Milkwood (*Sideroxylon inerme*), Coastal Red Milkwood (*Minusops caffra*) are protected under the National Forest Act (Act No. 84 of 1998). Therefore, the developer will need to apply for a permit to cut, relocate or trim the species from the relevant competent authority. Although identified within the project area and close to the direct project footprint the layout of the proposed walkways and viewing decks have been positioned to minimise the impacts on these trees and to try and incorporate the larger trees into the design of the walkways (i.e., walkways will meander around larger trees to afford shade and improve sense of place within the coastal dune cordon).

## 4.2. Aquatic ecology

### 4.2.1. Biodiversity sector plans

#### Critical Biodiversity Areas

The ECBCP provides areas of priority and conservation in the province. In terms of freshwater features, the study area at Coffee Bay falls within a CBA2 zone (Figure 5). However, both CBA zones occur within previously disturbed areas comprising of rural households, roads and other municipal infrastructure (Exigent, 2021).

#### Ecological Support Areas

A portion of the study area at Coffee Bay is classified as an ESA1 (Table 2).

Table 2: Aquatic CBAs and ESAs at Hole in the Wall

Category	Criteria	Criteria description
<b>AQUATIC CBAs and ESAs</b>		
CBA1	Critical Rivers (mainstream)	Main stem rivers of high irreplaceability plus a 32-metre buffer. This includes fish sanctuaries and free flowing / flagship rivers.
	Critical Wetlands	Umzimvubu Wetland Complex, Karst/Limestone wetlands, additional oxbow wetlands, dune and dune bypass wetlands
	Critical Estuaries	Estuaries with a National Biodiversity Assessment (2011) ranking field "core = 1".
CBA2	Important Rivers (DWA main stem)	Main stem river lines plus 32 metre buffer that fall within fish corridors and other selected catchments (wetland clusters) to achieve connectivity, best design sites.
	Wetlands	All remaining wetlands.
	Estuaries	CBA 1 estuary buffer 100m. CBA 2 estuaries (all other estuaries).
ESA1	Rivers and River buffer	CBA1 rivers 1000m buffer. All other rivers plus 32m buffer.
	Catchments	All catchments that drain into CBA 1 and CBA 2 rivers.
	Wetland buffers	100m buffer around all wetlands. Wetland clusters that overlap given 500m buffer.
	Modelled wetlands	Modelled stream channel and valley bottoms plus a 32m buffer.
	Estuary buffers	CBA 2 estuary buffer 100m. ESA estuary buffer 100m.
	Strategic Water Source Areas	Strategic surface water source areas based on the CSIR national MAR calculation. Identified at the level of sub-SQ4
	Ground water source areas	Karst-Limestone landscape.

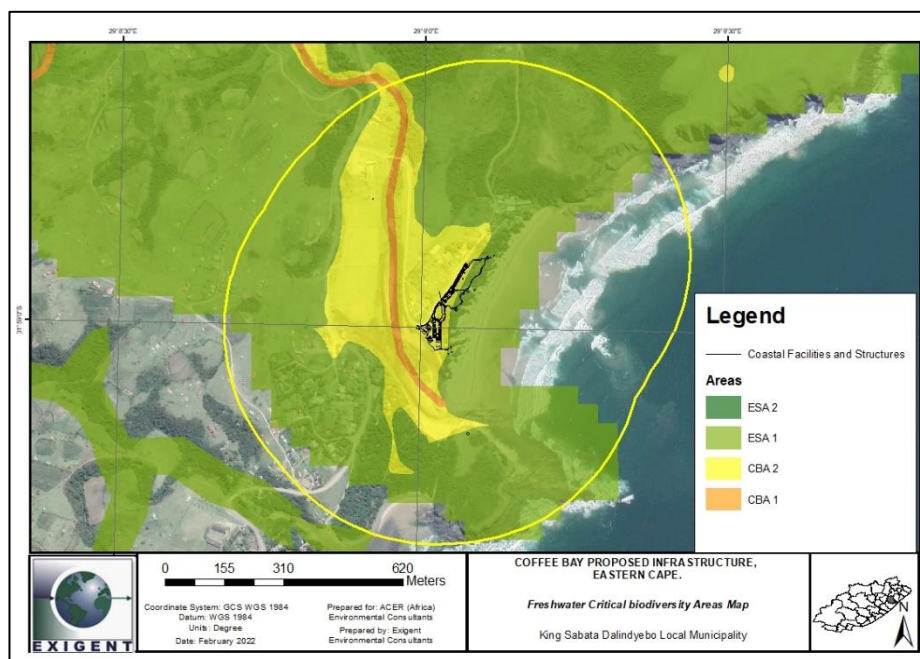


Figure 5: Freshwater/ aquatic CBAs at Coffee Bay

#### 4.2.2. Vegetation types

There are five vegetation types present within the study area at Coffee Bay (Figure 3 above):

- Transkei Coastal Belt.
- Subtropical Seashore Vegetation.
- Subtropical Dune Thicket.
- Scarp Forest.
- Non-terrestrial (Estuarine Functional Zone).

#### 4.2.3. Aquatic vegetation on site

According to the Aquatic Biodiversity Impact Assessment (Exigent, 2021), the Coffee Bay study area has been divided into three terrestrial vegetation communities (Section 5.7.3, Figure 10), namely:

- Coastal Dune Forest and Dune slack.
- Nenga Estuary and floodplain.
- Cyperus esculentus* Floodplain (*Phoenix reclinate*).

These vegetation communities are interlinked to the terrestrial vegetation communities.

*Coastal dune forest and dune slack (discussed above – terrestrial vegetation)*

*Nenga Estuary and floodplain*

This vegetation community refers to the area between the wet dune slack and the Nenga Estuary. This area is associated with both high and low flows from the Nenga Estuary and includes a small, isolated wetland with wetland sedge species. The water flow to the wetland is affected by the disturbed areas between the road to the ablution facilities. The leeward side of the dune is associated is dominated by species such as *Issolossa woodii* and *Chrysanthemoides monilifera* (Plate 6) (Exigent, 2021).



Plate 6: Vegetation associated with the Estuary and floodplain

*Cyperus esculentus* floodplain (*Phoenix reclinata*)

This vegetation community is located in the disturbed habitats such as the Ocean View Hotel, existing informal parking areas and stocking areas of domestic animals. Some of these areas contain hard surfaces, however areas in between the houses do show characteristics of the natural vegetation, evident in the few large trees still remaining. The species composition includes exotic weed species and typical graminoid species characteristic of the area, such as Coastal Buffalo grass (*Stenotaphrum secundatum*) (Plate 7). This suggests that the grassland is either highly disturbed or secondary in nature (Exigent, 2021).



Plate 7: Vegetation associated with the *Phoenix reclinata esculentus* floodplain grassland wetland

*Species of concern*

Species of special concern was identified by the National DFFE Web Based Environmental Screening Tool. Exigent (2021) looked at the habitat requirements of these species against the available habitat within the study area and the positioning of the proposed infrastructure. The summary of the specialist findings is presented in Table 3.

Table 3: Coffee Bay floral species of special concern

Sensitivity	Taxon	Feature (s)	Potential of occurring within the study footprint
<b>AQUATIC THEME</b>			
Very high	Aquatic	Freshwater ecosystem priority area and quaternary catchments	The proposed construction activities will mostly occur within a disturbed footprint, with limited impact on the natural habitat.
Very high	Aquatic	Wetlands and Estuaries	

The proposed development includes the refurbishment of the picnic area and the construction of new ablution facilities at Coffee Bay, which occur within a disturbed environment and will not result in any impacts on sensitive aquatic habitats on site. The proposed stabilisation and provision of suitable drainage infrastructure to the artificial wetland to the northwest of the proposed picnic site is anticipated to have a positive impact on this aquatic habitat as beach goers and livestock will be prevented from entering the wetland and suitable drainage will be provided to ensure water enters this system



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

Natural veld - good conditionE	Natural veld with scattered aliensE	Natural veld with heavy alien infestationE	Veld dominated by alien speciesE	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

**Refer to Appendix A for the detailed specialist maps, showing the location of sensitive species and Appendix D for the specialist studies.**

## 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:

No.	Description	YES	NO
5.1	Natural area	x	
5.2	Low density residential		
5.3	Medium density residential		
5.4	High density residential		
5.5	Informal residential	x	
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)	x	
	<b>Coastal public property</b>		

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.

N/A

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

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?

YES	NO x
-----	---------

Uncertain

If YES, explain:



If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:

Active Heritage was appointed to conduct a Phase 1 Heritage Impact Assessment for the proposed refurbishment and construction of coastal infrastructure at Coffee Bay and Hole in the Wall. The development nodes at Coffee Bay and Hole in the Wall were assessed for heritage sites and features. No archaeological and/or historical features occur within 50 m from the development footprint at Coffee Bay. Furthermore, the heritage consultant did not find any shell middens along the dunes of the Coffee Bay Main Beach.

Findings by Active Heritage (Appendix D) indicate that:

- There are no archaeological or historical sites occurring at the Coffee Bay development node.
- Coffee Bay has been identified as moderate to high in terms of Palaeontological sensitivity. According to SAHRA policy, a qualified palaeontologist is required to undertake a desktop survey for the area. However, the proposed development will have minimum impact on the geological deposits, and it is the opinion of the consultant that no additional palaeontological studies will be required.

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

YES	NO x
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Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

YES	NO x
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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;

Onsite notices in English and Xhosa (Appendix E) was erected on site (next to the existing ablution facilities) on the 25 March 2021.

- (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;

Directly affected property owners have been notified of the proposed development (Appendix E).  
 Where property owners could not be physically contacted, additional copies of all notifications were circulated at popular accommodations in Coffee Bay and Hole in the Wall.

- (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

Advertisements (Appendix E) were placed on the 23 March 2021 in a local newspaper providing project and contact details of where to register as an I&AP and obtain further information. Advertisements were placed in the following newspaper:  
 Daily Dispatch (English and Xhosa).

- (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.

Compilation of a database of I&APs (Appendix E) identified as being potentially interested and/or affected, including authorities, municipalities, organs of state, councillors, conservation bodies, non-government organisations, landowners, local residents, etc.

- ❑ Personalised letters and electronic mail, including a Background Information Document containing relevant details of the project and environmental application process (Appendix E):
- ❑ Personalised letters were placed at popular local accommodations including the Nenga River Lodge, Coffee Shack and the Hole in the Wall Hotel. Accommodation managers were requested and encouraged to display the letters on their notice boards and to inform tourists and community members of the proposed development.
- ❑ Additional comment sheets were circulated at various accommodations for community members to access and provide their comments.
- ❑ BIDs were electronically circulated to all I&APs on the database. A comment sheet was provided for I&APs to update their contact details, register themselves on the database, to record issues and to send back by fax or email. Contact telephone numbers of the project public participation office were provided to enable direct telephonic liaison with the project team, if required.
- ❑ A project website containing relevant documentation was set up [www.acerafrica.co.za](http://www.acerafrica.co.za) under the current projects link.

During the project announcement period between March 2021 and April 2021, ACER obtained comments from I&APs outlining their concerns associated with the proposed development and the placement of certain infrastructure. ACER reviewed the concerns, conducted an additional site visit to meet with I&APs and requested that MBB amend certain infrastructure components to address I&AP concerns.

Receipt of comments from I&APs and acknowledgement of comments has been ongoing since project announcement in March 2021. Responses to these comments are in the Comments and Responses Report (Appendix E).

Refer below for a table showing a summary of adverts, meetings and project notifications to the public and key stakeholders.

Table 4: Summary of adverts, meetings and project notifications to the public and key stakeholders

Publication/ event	Type	Placement date
Pre-application meeting with DFFE, DEDEAT, KSDLM and MBB	<ul style="list-style-type: none"> <li>▪ The EAP and project proponent (KSDLM) outlined the proposed development to the competent authority (Eastern Cape DEDEAT).</li> <li>▪ The Eastern Cape DEDEAT approved the project description, the motivation for the project, the listed triggered activities and the public participation plan.</li> </ul>	Conducted on 3 March 2021
Daily Dispatch	<ul style="list-style-type: none"> <li>▪ English Advertisement</li> </ul>	23 March 2021
Daily Dispatch	<ul style="list-style-type: none"> <li>▪ Xhosa Advertisement</li> </ul>	23 March 2021
A2 on-site notice boards	<ul style="list-style-type: none"> <li>▪ 1 x English and Xhosa Advertisement</li> </ul>	25 March 2021
Email and post to database	<ul style="list-style-type: none"> <li>▪ Notification letter (English &amp; Xhosa)</li> <li>▪ Background Information Document (BID) (English &amp; Xhosa)</li> <li>▪ Comment Sheet (English &amp; Xhosa)</li> </ul>	Posted on 24 March 2021 and emailed throughout the notification period.
ACER project website	<ul style="list-style-type: none"> <li>▪ Notification letter (English &amp; Xhosa)</li> <li>▪ Background Information Document (BID) (English &amp; Xhosa)</li> <li>▪ Comment Sheet (English &amp; Xhosa)</li> <li>▪ Newspaper Advertisement (English &amp; Xhosa).</li> <li>▪ Proof of on-site notice boards</li> </ul>	Posted 29 March 2021
Site visit with I&APs	<ul style="list-style-type: none"> <li>▪ Following numerous concerns by I&amp;APs, ACER undertook a site visit to discuss these concerns. The I&amp;APs provided alternative locations for infrastructure components.</li> </ul>	21 April 2021
Meeting with MBB	<ul style="list-style-type: none"> <li>▪ After the I&amp;AP site visit, ACER conducted a meeting with MBB to discuss the proposed amendments to the initial layout.</li> <li>▪ MBB acknowledged the proposed amendments and requested the approval from the DFFE.</li> </ul>	28 April 2021
Distribution of Draft BARs to the public for 30-day comment	<ul style="list-style-type: none"> <li>▪ The Draft BARs were initially circulated for a period of 30 days (from 16 November 2021 – 07 January 2022).</li> <li>▪ The comments raised during this period required the project team to revise the project layout at Coffee Bay and Hole in the Wall.</li> <li>▪ At the site visit undertaken on 27 January 2022, DEDEAT advised that the project undergo another 30-day comment period following the significant project changes.</li> </ul>	16 November 2021 – 07 January 2022

## 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.

Following the comments raised at the public meeting, the project team (members from MBB, DFFE, KSDLM, Eastern Cape DEDEAT, ACER and the appointed specialists) undertook a site inspection to discuss the main issues and provide recommendations.

The meeting took place on Thursday, 27 January 2022 and involved visits to both Coffee Bay and Hole in the Wall and covered the main issues (as outlined in the Comments and Responses Report).

### *Circulation of the Draft BAR for public review*

- As advised by the Eastern Cape DEDEAT, the Draft BAR was circulated again for review for a period of 30 days.
- Stakeholders on the project database (registered stakeholders) were notified of the availability of the draft BAR & EMPr for comment, for a period of 30 days (all I&APs including authorities). Notification was done via email.
- Hard copies of the Draft BAR and EMPr will be made available at the Hole in the Wall Hotel for public review.
- Electronic of the draft BAR & EMPr were provided to all key commenting authorities and organs of state.
- Electronic copies of the BAR and EMPr were also made available on the ACER website [www.acerafrica.co.za](http://www.acerafrica.co.za) under the current projects link for I&APs to access and download.
- Comments submitted on the draft BAR will be recorded and responded to in the FBAR and in the Comments and Responses Report.



## 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.

The following comments and responses report are provided in Appendix E:

- Project Announcement Period.
- Initial 30-day comment period (16 November 2021 – 07 January 2022).
- Second round of public comment (10 March 2022 – 11 April 2022).

## 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:

- Eastern Cape Department of Human Settlements, Water and Sanitation (DHSWS)
- Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)
- King Sabata Dalindyebo Local Municipality
- OR Thambo District Municipality
- National Department of Forestry, Fisheries and Environment (DFFE)
- South African Heritage Resources Agency (SAHRA)
- Eastern Cape Provincial Heritage Resources Authority (ECHRA)
- National Department of Tourism

List of authorities from whom comments have been received:

- Eastern Cape Department of Human Settlements, Water and Sanitation (DHSWS)
- Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)
- King Sabata Dalindyebo Local Municipality
- OR Thambo District Municipality
- National Department of Forestry, Fisheries and Environment (DFFE)
- South African Heritage Resources Agency (SAHRA)
- Eastern Cape Provincial Heritage Resources Authority (ECHRA)
- National Department of Tourism

## 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
	x

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

## SECTION D: IMPACT ASSESSMENT

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

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

List the main issues raised by interested and affected parties.

<ul style="list-style-type: none"><li><input type="checkbox"/> The purpose of the development.</li><li><input type="checkbox"/> Increased traffic volumes.</li><li><input type="checkbox"/> The position and use of the existing ablution facilities.</li><li><input type="checkbox"/> Elaborate on the materials used in the development.</li><li><input type="checkbox"/> Municipal refuse removal.</li><li><input type="checkbox"/> Storm water management.</li></ul>
--

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):

<ul style="list-style-type: none"><li><input type="checkbox"/> The purpose of the development.<ul style="list-style-type: none"><li>▪ The EAP highlighted the purpose/ motivation of the development at a public meeting held on 26 November 2022. The purpose of the proposed development is to promote coastal access whilst creating safer conditions along the coastline.</li></ul></li><li><input type="checkbox"/> Increased traffic volumes.<ul style="list-style-type: none"><li>▪ At the meeting held on 27 January 2022, the project team discussed the issues concerning the availability of parking associated with the proposed development. It was highlighted that the proposed development at Coffee Bay is aimed at addressing and promoting coastal access. Currently, the area does not cater for the increased traffic volumes, but the proposed development aims to regulate some traffic (given the available space) through the provision of a dedicated parking area and additional parking bays. The Eastern Cape DEDEAT has advised that the regulation and management of traffic volumes is an operational concern and should be the responsibility of the KSDLM. The position and use of the existing ablution facilities.</li></ul></li><li><input type="checkbox"/> The position and use of the existing ablution facilities.<ul style="list-style-type: none"><li>▪ I&amp;APs have indicated that the existing ablution facilities at Coffee Bay are incorrectly positioned, insufficiently sized and have not been officially commissioned for public use. The EAP acknowledged these comments and forwarded all concerns to the project engineers.</li><li>▪ A flood line assessment was undertaken to determine the presence of the existing ablution facilities in relation to the 1:50 and 1:100 flood line levels. The findings of the study indicated that the existing facilities are within the 1:50 and 1:100 flood lines and are exposed to flooding events. In response to these findings, MBB amended their proposal to decommission the existing facilities and reposition it further north (out of the flood lines). The new ablution facilities will also include two new underground conservancy tank (which will be adequately sized to comfortably handle the accumulation and storage of waste) and above ground Jojo water storage tanks.</li></ul></li><li><input type="checkbox"/> Elaborate on the materials used in the development.<ul style="list-style-type: none"><li><i>Poly-timber walkway</i><ul style="list-style-type: none"><li>▪ The poly-timber walkway is suitable in wet and dry conditions and will withstand the harshest weather conditions.</li><li>▪ It will have a texture similar to wood which becomes less tacky when wet.</li><li>▪ This material does not require repainting and is non-toxic.</li></ul></li></ul></li></ul>
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- The material does not rot, warp, splinter, crack or fade significantly
- The material is not suitable for fires thus limiting the risk from vandalism from community members looking for firewood.

*Poly-timber benches*

- The thick manufactured planks provide incredible strength and is both comfortable and long lasting.

*Poly-timber waste receptacles*

- Poly-timber reduces the consumption of raw materials and also reduces water and air pollution associated with landfilling. Municipal refuse removal.
- Waste receptacles will be provided at the dedicated braai and picnic areas, at strategic positions within the dedicated parking areas, along the formalised walkways and at the three viewing decks. Beach goers, pedestrians and tourists are encouraged to utilise these receptacles and prevent pollution of the receiving environment. The local municipality will be responsible for the collection and disposal of all waste and is encouraged to conduct routine collection and disposal of waste at the nearest registered landfill site.

□ Storm water management.

- Presently, stormwater is an ongoing issue experienced on site. Part of the development will involve the stabilisation/ infilling of the braai/ picnic areas to remediate the ponding of water on site. The

□ Municipal refuse removal.

- Waste receptacles will be provided at the dedicated braai and picnic areas, at strategic positions within the dedicated parking areas, along the formalised walkways and at the three viewing decks. Beach goers, pedestrians and tourists are encouraged to utilise these receptacles and prevent pollution of the receiving environment. The local municipality will be responsible for the collection and disposal of all waste and is encouraged to conduct routine collection and disposal of waste at the nearest registered landfill site.

## **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.

### **2.1. Direct and Indirect Impacts (Preferred alternative)**

#### **2.1.1 Impacts on the socio-economic environment**

During the planning, design and construction phases, economic and socio-economic benefits will accrue locally, regionally, and nationally through project spend. There will be increased opportunities for temporary employment (albeit largely unskilled and semi-skilled positions) and capacity building for individuals, local contractors, SMMEs and service providers.

The proposed refurbishment and construction of coastal infrastructure at Coffee Bay aims to unlock future development opportunities within the area. The Municipality is working towards establishing Coffee Bay and Hole in the Wall as a coastal town in the Eastern Cape. The formalisation of coastal access will encourage safe, sustainable tourism and attract both local and international investors.

The proposed refurbishment and construction activities will provide the following opportunities to the Coffee Bay community:

- ❑ Skills development.
- ❑ General employment opportunities.
- ❑ Increased revenue into the Coffee Bay community (Nenga River Lodge and other surrounding places of accommodation will also benefit).
- ❑ Unlock future development within the area.

#### ASSESSMENT OF SIGNIFICANCE

The proposed refurbishment and construction of coastal infrastructure at Coffee Bay may be considered a relatively small development, however, it will provide employment opportunities to members of the community (during the construction and operation phases). During construction, employment opportunities will be limited in duration and skill set (unskilled labour – bush clearing, infilling, establishment of walkways etc.). However, given the economic characteristics of the area, employment opportunities will be welcomed.

During the operational phase of the development, tourism within the area is expected to increase. The formalization of beach and coastal access will promote tourism and local investment within the area. It is predicated that the refurbishment of infrastructure and construction of formal beach access walkways and viewing decks will initiate future development within the area and unlock more economic opportunities and promote and/or stimulate the local community.

It is the EAP's opinion that the proposed refurbishment and construction of coastal infrastructure at Coffee Bay will have a positive impact on the socio-economic environment through employment creation and skills development within the Coffee Bay community, where such opportunities are scarce. Informal traders (who sell locally produced curios and traditional wares (carvings, reed mats and bags, etc.)) may also have an opportunity to generate additional income.

### 2.1.2 Impacts to the biophysical environment and biodiversity (water, soils, wetland, terrestrial/aquatic natural habitat and fauna).

Impacts on the biophysical environment are often caused by factors which are interrelated and often have common triggers which can impact on several biophysical parameters. Consequently, many of the proposed mitigation measures to limit impacts on the biophysical environment may be applicable to more than one impact. The description of impacts and their assessment of significance which follows takes note of this and specific mitigation measures are not repeated. All proposed mitigation measures are included in the EMPr provided in Appendix F and must be implemented on site. For further detail, refer to the ecological impact assessment (terrestrial and aquatic), beach and coastal impact assessment and the heritage impact assessment in Appendix D.

#### ***Impact on CBAs***

CBAs are considered important in achieving biodiversity targets and thresholds. These helps ensure the promotion of populations and functionality of ecosystems. The Eastern Cape Biodiversity Conservation Plan (2019) highlights the important vegetation types and species that require protection in the area.

#### *Terrestrial CBA*

Coffee Bay falls within terrestrial CBA 1; however, portions of the CBA include disturbed habitats which include the presence of rural households and other existing infrastructure. A large portion of the infrastructure components will be located within areas dominated by Coastal Buffalo Grass. (Exigent, 2021). The proposed refurbishment and construction will include the placement of viewing decks and walkways within isolated portions of the terrestrial CBA. However, most of this environment is disturbed by informal footpaths.

An important source of water for the dune habitat originates from the dune slack inland of the coastal dune cordon. Impacts on water supply to the dune system from the new ablution facilities are projected to be low because these new facilities will be positioned at least 3 m away from the heel of the dune to provide sufficient water to the dune vegetation.

#### *Aquatic CBA*

Coffee Bay falls within aquatic CBA 2. Large portions of the aquatic CBA are already disturbed with existing infrastructure (informal braai and parking areas at the foot of the dune slack). The proposed development will include the construction of two new ablution facilities behind the wet dune slack. The new facilities will be managed as an open system and will not be subject to further disturbance after its construction. Furthermore, the ablution facilities, will be clearly demarcated and fenced to minimise impacts to surrounding vegetation and maintain the ecological integrity of the dune slack and dune vegetation.

#### ASSESSMENT OF SIGNIFICANCE

Although potential impacts on the CBAs within the proposed footprint are unavoidable, they can be largely mitigated and are not considered significant for the proposed development given the following factors considered in the design.

- The placement of the proposed walkways and viewing decks has been selected to traverse areas that have been previously disturbed by anthropogenic factors.
- The material for the dedicated parking area has been revised to now include grass blocks. Any hardened surfaces located near the aquatic CBA will cause permanent changes to the water flow (Exigent, 2021). The grass blocks will promote vegetation growth and allow water to seep into the ground which is an important water source for dune vegetation. In addition to the above the grass blocks will allow storm water flow through the nearby artificial wetland.
- The new ablution facilities will be positioned at least 3 m from the heel of the dune

Key mitigation measures which will be implemented on site to reduce the impacts CBAs include:

- The footprint of the proposed infrastructure components must be managed and kept to a minimal.
- No vegetation in areas outside of the development footprint may be cleared and/or removed.
- Construction activities must take place in designated areas, outside the CBA and ESA zones.
- The vegetation associated with the proposed parking area must not be replaced with hardened surfaces which may potentially alter the surface water flow to the dune slack.
- All disturbed areas (surrounding the viewing decks, walkways, parking area and braai and picnic area) must be landscaped to near-natural profiles and revegetated after construction.
- Soil from excavated areas (for landscaping purposes) must be reinstated as quick as possible to minimize the possible disturbance to receiving environment.
- Soils must be monitored for signs of erosion at regular intervals. Upon identification of a potential erosion problem, measures must be put in place to prevent further soil loss.
- All topsoil must be stored within designated stockpile areas.
- Topsoil must not be buried, mixed with spoil (excavated subsoil), rubble or building material, or subjected to compaction or contamination by vehicles or machinery. This will render the topsoil unsuitable for use during rehabilitation.
- The Contractor will be held liable for the replacement of any topsoil rendered unsuitable for use during rehabilitation, for reasons due to his negligence or mismanagement on site.
- The Environmental Control Officer (ECO) and Contractor must ensure that all wetlands and CBA units likely to be affected by the project have been identified, delineated, photographed and clearly marked by the ECO prior to any construction work commencing.
- Operational management impacts of the ablution facilities should be managed very strictly in order to monitor potential pollution impacts from the ablution facilities into the wetland and groundwater.

If the proposed mitigation measures are implemented and enforced on site, it is the EAP's opinion that the impact on CBAs are anticipated to be negligible both during construction and operations.

### ***Impact on ESAs***

For the most part, the proposed infrastructure will traverse disturbed and/or modified habitats, which have low conservation statuses attached to its flora and fauna. However, there are portions of untouched dune vegetation which require protection. During construction, the movement of people and machinery, vegetation clearance and earthworks associated with the establishment of parking areas, viewing decks and walkways will cause disturbance to flora and fauna. These disturbances can either be direct physical disturbances (clearing of vegetation) or indirect (noise and vibrations) which will impact on ecosystem functioning. The purpose of an ESA is to protect the critical conservation areas from edge effects and provide ecological support through the movement of corridors. The proposed walkways will promote formalised beach access and reduce the use informal paths and access routes which disturb the surrounding area.

#### *Terrestrial ESA*

The beach cordon area is classified into the terrestrial ESA 1 area. There will be no proposed development within this terrestrial ESA 1 unit. During the field investigation undertaken by Exigent (2021), there were no faunal species present in the surrounding Scarp Forest.

#### *Aquatic ESA*

The beach cordon area is classified into the aquatic ESA 1 area, which will be impacted by the formalised walkways to access the three viewing decks.

### **ASSESSMENT OF SIGNIFICANCE**

Impacts on the ESAs although unavoidable within the construction footprint, can be largely mitigated and are not considered significant for the proposed development given the following factors considered in the design:

- ❑ The development footprint has maximized the use of areas previously disturbed by anthropogenic factors.
- ❑ The placement of the lifeguard tower must be located on a section of dune which is not susceptible to erosion and transgression of the dune system.
- ❑ The walkways being used to access the viewing decks and braai and picnic areas have taken into consideration the prevailing vegetation and, where possible, larger trees will be maintained.
- ❑ The walkways accessing each viewing deck will be aligned along existing pathways, thus minimizing disturbances.
- ❑ The construction footprint of the viewing decks will be selected to fit into existing disturbed patches of coastal vegetation and will be placed to avoid the need to remove large trees on the coastal dune.
- ❑ To reduce possible impacts to aquatic ESA 1, the proposed walkways will be positioned in open areas, minimising vegetation clearance (Exigent, 2021).

During the field investigation undertaken by Exigent (2021), there were no faunal species identified in the surrounding Scarp Forest. The Scarp Forest does however provide refuge for faunal species from anthropogenic activities and the protection of this habitat should be maintained to provide refuge for faunal species. Given the small development footprint and materials to be used for the construction of the walkways and viewing decks, the impact on fauna within the area is not considered to be significant. Faunal species within the area are anticipated to move away from the construction areas during construction due to noise and vibrations associated with construction. This will be for a limited period and once construction has been completed fauna is expected to move back into the surrounding Scarp Forest. Consequently, impacts on fauna are not anticipated to be significant; however, the contractor should brief staff to be vigilant for smaller species.

Key mitigation measures which will be implemented on site to reduce the impacts on ESAs include:

Key mitigation measures which will be implemented on site to reduce the impacts on ESAs include:

- Prior to construction commencing, the project area must be inspected by the ECO to identify the following:
  - Protected trees (which should be avoided as far as possible).
  - If a protected tree species needs to be removed, the contractor must obtain the agreement of the ECO and the necessary license from the DFFE.
  - Indigenous trees that should not be removed (these must be marked by the ECO using barrier tape).
- Suitable sites for the relocation of sensitive plant material must be identified in the surrounding scarp Forest. The removal of indigenous vegetation must be kept to a minimum by reducing the construction footprint and by confining areas for structures to existing disturbed areas.
- The footprint of the proposed infrastructure components must be managed and kept to a minimal.
- No vegetation in areas outside of the development footprint may be cleared and/or removed.
- Construction activities must take place in designated areas, outside the CBA and ESA zones.
- Prior to any disturbance/stockpiling and clearing of natural vegetation and soil (either within the construction servitude, working footprint or at designated stockpile area outside of the construction footprint), the Contractor must submit a method statement to the Project Engineer for approval.
- The Contractor must ensure that the necessary rescue and translocation of plants and animals be undertaken prior to the commencement of construction.
- Wild animals must not be fed, handled, removed, hunted, snared, captured, injured or killed or otherwise interfered with.
- Prior to the clearance of any vegetation the ECO and Contractor must check that no bird nests will be disturbed by the proposed vegetation clearing.
- Fauna and flora within the surrounding environment must not be disturbed.
- The Contractor must not use any pesticides, unless approved by the Environmental Manager/ECO.
- Where excavations pose a safety risk to animals, the Contractor must ensure that they are adequately cordoned off.

If the proposed mitigation measures are implemented and enforced on site, it is the EAP's opinion that impacts on ESAs although unavoidable, are anticipated to be negligible both during construction and operations.

#### ***Impact on protected and expansion areas***

Based on the NPAES database (South African National Biodiversity Institute (SANBI), 2010) no protected and expansion areas occur within the study area.

#### **ASSESSMENT OF SIGNIFICANCE**

The impacts on protected of expansion areas during construction and operation is not considered significant for the following reasons:

- There were no protected or expansion areas observed within the proposed development footprint.

#### ***Impact on strategic water source areas***

Coffee Bay lies within the Pondoland Coast Strategic Water Source area, which extends for an area of 13,461 km<sup>2</sup> along the Transkei coast (Exigent,2021). The proposed coastal infrastructure components will not impact on the water source and surrounding wetland vegetation units. However, there is the risk of pollution of the water source area from the leaking of fuels and hydrocarbons from construction machinery and equipment, and from solid waste pollution and sewerage leaks or spills. The Nenga estuary is located within 50 m from the proposed infrastructure components and care must be taken when conducting construction activities.



## ASSESSMENT OF SIGNIFICANCE

Impacts on water source areas, wetlands and stream crossings can be largely mitigated and are not considered significant given the following design considerations:

- ❑ The placement of braai and picnic facilities will be located within the existing, disturbed picnic site footprint adjacent to the Nenga estuary.
- ❑ The existing ablution facilities will be decommissioned and repositioned out of the 1:50 and 1:100 flood line levels.
- ❑ The new underground conservancy tanks will be positioned out of the 1:50 and 1:100-year flood line levels.
- ❑ The proposed development includes the construction of a pipe culvert to assist with natural water flow from the artificial wetland into the Nenga River.

In the event that wetland vegetation units are affected, the appropriate mitigation measures must be adopted to avoid or reduce any significant impacts.

Key mitigation measures which will be implemented on site to reduce the impacts strategic water source areas include:

- ❑ The contractor must not cause any physical damage to any aspect of a watercourse, other than that necessary to complete the works as specified and in accordance with the accepted method statement.
- ❑ The appointed ECO and contractor must ensure that all wetlands and rivers/streams likely to be affected by the project have been identified, delineated, photographed and clearly marked by the ECO prior to any construction work occurring.
- ❑ Where possible, the timing of trenching and pipe laying through the artificial system should be during the low flow season to minimise increased sedimentation and turbidity.
- ❑ The contractor must avoid unnecessary compaction on sensitive wetland and riparian soils.
- ❑ No construction materials may be stockpiled in any wetland and riparian areas.
- ❑ Replanting of wetland and riparian vegetation must be undertaken immediately after surface reinstatement is complete.
- ❑ Where possible, plants must be replanted in wetland and river/stream areas from which they were removed.
- ❑ The pre-construction profile of the artificial wetland must be returned to one similar as before construction.
- ❑ The use and handling of all chemicals and potentially hazardous substances must take place on an impermeable surface and bunded areas to prevent chemicals and potentially hazardous substances from infiltrating the soil.
- ❑ Contingency plans must be compiled for possible spillages of dangerous goods and include details for decontamination and process to be followed.
- ❑ A spill kit must be available in the event of a hydrocarbon or chemical spill.
- ❑ The ECO and contractor must ensure that all wetlands and rivers (estuarine habitats) likely to be affected by the project have been identified, delineated, photographed and clearly marked by the ECO prior to any construction work occurring.
- ❑ Culvert protection measures should be used where the structural integrity of the culvert crossing may be compromised.
- ❑ The culvert crossings should be designed to ensure that flow patterns along the wetland is not altered or diverted potentially resulting in stream bed and bank erosion and instability.
- ❑ Engineering designs should cater for current wetland conditions to ensure limited impact on the function of wetlands.
- ❑ Construction activities and lay down activities should be located outside the wetland buffer zones.

- No construction in wetlands may take place until such time as approval has been obtained from DHSWS.

### 2.1.3 Impact on the coastal and dune habitat

According to the Beach and Coastal Impact Assessment specialist report (Appendix D), there are several activities that have the potential to affect the beach and dune habitat along the Coffee Bay Main Beach. Although the proposed layout was updated to accommodate the initial findings of the specialist and I&AP comments, some impacts are still anticipated.

#### ***Disruption to geomorphological drivers and features within the supra tidal zone***

The beach morphology at Coffee Bay is in a state of erosion. There are no ephemeral dune forms evident along the back beach, whilst the seaward face of the primary dune form is undergoing significant undercutting and slumping (SDP, 2021). Transgression may be a result of anthropogenic activities including informal pedestrian access through the beach and dune habitat as well as sand mining activities. The placement of formalised walkways and viewing decks will encourage the sustainable use of the beach and coastal habitat.

#### ASSESSMENT OF SIGNIFICANCE

Impacts on the geomorphological drivers and features associated with the supratidal zone although unavoidable within the construction footprint, can be largely mitigated and are not considered significant for the proposed development given the following factors considered in the design:

- The placement of the viewing decks was revised and positioned further north to avoid the transgressive sand system to the south near the Nenga River.
- The placement of the new lifeguard tower was revised and will be repositioned out of the transgressive dune habitat.
- The proposed ablution facilities will be managed as an open system and will not be subject to further disturbance after its construction. Furthermore, these facilities will be clearly demarcated and fenced to minimise impacts to surrounding vegetation and maintain the ecological integrity of the dune slack and dune vegetation.

Key mitigation measures which will be implemented on site to reduce the impacts associated with the disruption to geomorphological drivers:

- Infrastructure must be established at the most distal point from the Nenga estuary to reduce any risk that these structures may pose to the eco-morphological state of the dune and beach environment.
- The engineer and contractor must ensure that structures are maintained on the crest and heel of the dune.

The parking areas must avoid the wetland environments within the dune slack or heel of the dune. The parking bays are best accommodated to the north of the artificial wetland area and new ablution facilities.

#### ***Disruption of the sand sharing system associated with the Coffee Bay coastline***

To the immediate north of the Nenga estuary, there is a drowned "sand bypass system". This is indicative of shifting sediment towards the north. Therefore, the location of coastal infrastructure should not be positioned near the transgressive sand bypass system.

#### ASSESSMENT OF SIGNIFICANCE

Impacts on the sand sharing system although unavoidable within the construction footprint, can be largely mitigated and are not considered significant for the proposed development given the following factors considered in the design:

- ❑ The positioning of coastal infrastructure will be located further north of the transgressive dune form.
- ❑ The proposed infrastructure components will be located behind the sand sharing system. The formalized walkways and viewing decks will stabilize the existing dune formations.
- ❑ The placement and positioning of structures will disrupt sediment transport, alter the depositional aspects of the dune stoss face and crest, whilst also stabilizing the dune.

Key mitigation measures which will be implemented on site to reduce the impacts associated with the disruption of the sand sharing system:

- ❑ Infrastructure components must be positioned on the crest and heel of the dune.
- ❑ The beach access and walkway facilities must align with the dune crest and sand sharing system.
- ❑ Soils must be monitored for signs of erosion at regular intervals. Upon identification of a potential erosion problem, measures must be put in place to prevent further soil loss.
- ❑ Any erosion observed on site must be dealt with immediately.
- ❑ Excessive excavation along the dune formation must be dissuaded.

#### ***Disturbance affecting the prevailing habitats***

The proposed development at Coffee Bay will result in the following impacts arising:

- ❑ Possible alteration of the sub surface hydrology on account of changes in the wet dune slack.
- ❑ Minor excavations associated with the construction of formalized walkways and viewing decks.
- ❑ Minor vegetation clearance for the establishment of walkways and viewing decks.

#### **ASSESSMENT OF SIGNIFICANCE**

Impacts on the prevailing habitats although unavoidable within the construction footprint, can be largely mitigated and are not considered significant for the proposed development given the following factors considered in the design:

- ❑ The placement of the viewing decks was revised and positioned further north on the dune cordon to avoid the transgressive sand system to the south near the Nenga River.
- ❑ The positioning of coastal infrastructure will be located further north of the transgressive dune form.
- ❑ The proposed infrastructure components will be located behind the sand sharing system. The formalized walkways and viewing decks will stabilize the existing dune formations.

Key mitigation measures which will be implemented on site to reduce the impacts associated with the disruption of prevailing habitats:

- ❑ Traversing of the frontal dune by beach visitors must be dissuaded. Formalised beach access points will assist with the preservation of the present structure of the dune by limiting the creation of informal beach access pathways which promote dune instability.

#### **2.1.4 Impact on Cultural Heritage resources**

Active Heritage was appointed to undertake a Heritage Impact Assessment of the project areas and surrounds. The findings from the specialist study concluded that there were no heritage sites identified within the Coffee Bay development node. Therefore, no impacts on cultural natural heritage resources are expected. However, the potential does exist for heritage resources to be unearthed during construction activities in the placement of the walkways and viewing decks.

## ASSESSMENT OF SIGNIFICANCE

It is possible that sub-surface heritage resources could be encountered during construction. The ECO and all other persons responsible for site management and excavation should be aware that indicators of sub-surface sites could include:

- Bone concentrations, either animal or human.
- Fossilized remains of fauna and flora, including trees.
- Shell middens along the dune formations and beach area.

Key mitigation measures which will be implemented on site to protect cultural heritage:

- The National Heritage Act (1999) requires that if any graves older than 60 years, or any archaeological and historical residues are encountered, activities must cease immediately pending an evaluation by the respective heritage authority.
- Should the project extend beyond the current footprint (which may involve vegetation removal and/or clearance), a prior assessment by a qualified heritage practitioner must be undertaken.
- The chance finds procedure incorporated in the EMPr must be abided by if heritage resources are uncovered on site.

If the proposed mitigation measures are enforced, it is the EAP's opinion that little to no impact on heritage resources will occur during construction and operation.

### 2.1.5 Impact on health, safety, security and other nuisance impacts

The construction team's activities within the construction footprint may generate nuisance impacts such as:

- Increased noise level.
- Increased dust emissions.
- Temporary disruption of access.
- Increase in criminal activity and possible theft.
- Spread of diseases (COVID 19).
- Disturbance of peace and privacy.

These potential impacts will most likely be experienced by the Nenga River Lodge (situated adjacent to the proposed construction activities) and the Ocean View Hotel (situated north of the proposed activities).

## ASSESSMENT OF SIGNIFICANCE

The significance of nuisance related impacts largely depends on the planning measures and management interventions taken by the project proponent in scheduling construction works and the daily management of construction staff.

To limit possible nuisance impacts on different user groups, the project proponent must engage with the municipality to agree on a construction schedule and ensure that all user groups and/or I&APs are notified well in advance of construction commencing. If the project proponent adopts an active role during the construction and operation phase of the development, it is the EAP's opinion that nuisance related impacts can be largely mitigated.

Key mitigation measures which will be implemented on site to reduce nuisance impacts include:

- Contractors must abide by Construction Regulations and Health and Safety Regulations.

- ❑ The contractor and staff are required to attend an environmental awareness training/ induction course prior to construction commencing and keep attendance registers.
- ❑ Cordon off construction sites and maintain boundary walls/fences/ boards in proximity to residential homes, lodges etc.
- ❑ Provide safe areas for pedestrian access.
- ❑ Surrounding communities must be informed about the project and asked to brief their children about the dangers of entering construction sites.
- ❑ Private property, access roads and other existing services on and in the vicinity of the construction site must be treated with respect and protected against damage. The contractor must bear the cost to repair damages as a result of the contractor's operations on site.
- ❑ Inform staff of the risk of contraction, the symptoms thereof, and the steps for prevention and treatment of the following:
  - HIV/AIDS.
  - Tick bite fever.
  - Heat stroke.
  - COVID-19.
- ❑ Dust control management practices and procedures must be defined during the design phase to ensure the effective suppression of dust during construction. The construction of viewing decks and walkways within the dune habitat is not expected to generate noise and dust, however, the contractor must compile method statements for conducting work within these environments.
- ❑ Dust-suppression techniques (e.g. the use of water spray vehicles) must be employed on all exposed surfaces during periods of high wind. Additional dust suppressing activities include:
  - Remove only limited vegetation to accommodate construction activities.
  - Spray unpaved roads and construction areas, including stockpiles and spoil, with water routinely throughout construction to contain dust.
  - No construction activities should be undertaken outside of standard business hours (06h00 – 17h00 Monday to Friday and 07h00 – 13h00 on Saturdays). There should be no construction activities on Sundays and public holidays.
- ❑ Construction activities must not take place during peak seasons, as this could impact the traffic volumes within the area.

### 2.1.6 Impact on existing infrastructure, services and land use

- The construction team's activities within the construction footprint may generate the following impacts on existing infrastructure, services and/ or land use:
- ❑ Temporary traffic disruptions.
    - During construction, the movement of traffic such as heavy machinery, building materials and construction activities may pose a risk to people and domestic animals. Construction related delays to vehicles (stop-go measures and temporary road closures) utilising the beach road which accesses the site will take place during construction, however these impacts will be limited to the construction phase which is expected to take a few months to complete.
    - Nuisance related impacts associated with the proposed refurbishment and construction of coastal infrastructure at Coffee Bay is not expected to be significant and the improved facilities and infrastructure at Coffee Bay beach are expected to reduce nuisance related impacts during operation.
  - ❑ Disturbance to existing infrastructure, services, and properties.
    - During the construction phase, the adjacent businesses and homeowners may be affected by increased noise levels, traffic, and other nuisance impacts.
  - ❑ Decommissioning/demolition of the existing ablution facilities
    - During construction, the existing ablution facilities (including the underground conservancy

tank) will be decommissioned and relocated further north. The existing ablution site will be replaced with a parking area.

#### ASSESSMENT OF SIGNIFICANCE

The proposed refurbishment and construction of coastal infrastructure in Coffee Bay will result in some disturbances to services, access, and land use; however, these impacts are not considered significant if the proposed mitigation measures are implemented and the conditions outlined in the EMP are enforced.

Access to the site (and nearby accommodation) is gained through an existing access road. During the construction period, increased traffic volumes are expected because of increased construction plant on site. However, if the proposed mitigation measures are implemented, disturbances associated with access, sense of place, construction deliveries and movement of staff will be significantly reduced.

The surrounding communities should be made aware of the proposed development prior to construction commencing. The developer and/or contractor should outline the work schedule and explain the working areas and the associated no-go areas.

Key mitigation measures which will be implemented on site to minimise impacts on existing infrastructure, services and land use include:

- Appropriate temporary traffic control and warning signage must be erected and implemented on all affected roads in the vicinity.
- Construction workers and construction vehicles must take heed of normal road safety regulations (all personnel must obey and respect the law of the road).
- Adequate signage and traffic control measures such as traffic lights, manned stop-go and traffic calming devices should be in place to ensure both driver and pedestrian safety.
- Ensure that all construction staff and workers sourced from the surrounding community undergo road safety training.
- Ensure that all staff members and people on site have suitable Personal Protective Equipment (PPE).
- Ensure there is suitable signage informing road users of construction activities. During the operational phase, clear signage must be erected to indicate the dedicated parking areas and/or parking bays.
- Implement measures to reduce traffic speed.
- Ensure measures are put in place to prevent unauthorised people from accessing the areas where construction is taking place. As far as possible, existing roads must be used for access purposes, as per the construction site layout plan.
- Community complaints with regards to noise must be responded to, taking reasonable action to ameliorate the impact.

#### 2.1.7 Pollution and waste related impacts

During the construction phase of the Coffee Bay development, there is a risk of pollution and waste related impacts which could, if not managed correctly, cause significant impacts on the receiving environment.

- The decommissioning and construction of the new ablution facilities have the potential to release waste into the receiving environment and water bodies (if not managed correctly).
- The storage of materials required for the construction of the walkways, access routes and viewing platforms may have the potential to pollute the environment if not contained and maintained correctly.
- Surface runoff associated with the construction of the dedicated parking areas and new ablution facilities have the potential to pollute the receiving environment, if not contained and maintained correctly

### **Surface runoff, sewerage, wastewater and the pollution of stormwater/ watercourses**

- ❑ Sewage and wastewater will be generated at the construction site (which will be equipped with portable toilets). Wastewater may potentially pollute soils, and underground and surface water.
- ❑ Concrete mixing may cause pollution if not responsibly managed and confined. Topsoil that is contaminated by concrete wash hardens and becomes unusable by plants.
- ❑ Potential pollution of water resources and soils can occur from spillages and leakages of fuels and other chemicals used during construction, thus, negatively affecting land use and/or land users.
- ❑ The construction and placement of hardened surfaces (walkways, viewing decks, levelled braai and picnic areas) has the potential to accelerate surface runoff into the receiving environment.

#### **ASSESSMENT OF IMPACTS**

Surface water resources (Nenga River/ Estuary and associated wetland units) close to the proposed development may become contaminated because of contaminated runoff. This could be a result of spillages and mismanagement of petrochemical substances on site where stormwater transfers these pollutants into the receiving environment. The risks for polluting of the receiving environment are particularly pertinent to the proposed shaping and landscaping of the proposed picnic and braai areas adjacent to the Nenga River.

The existing ablution facilities makes use of an underground conservancy tank to collect organic waste. Septic tanks, soakaway and conservancy systems are widely used in areas where no formal wastewater treatment works exist (water borne sewage) and are a viable, long-term solution for treating wastewater in rural areas. A septic tank is a self-contained system of tanks that are used to collect effluent and store solid waste and wastewater. The effectiveness of septic tanks and soakaways has been widely published, if designed correctly, are an inexpensive and efficient means to treat and dispose of wastewater in suitable areas.

One impact associated with the septic tank system is their impact on ground water quality and these types of systems should not be located close to water resources such as the Nenga River. However, the proposed development involves the decommissioning of the existing ablution facilities (which will involve the removal of the existing underground conservancy tank). The new facilities will include a larger conservancy tank (2 x 6,000 l) which will be able contain a larger amount of brown and grey water. If the conservancy tanks are serviced regularly by the municipality, the impact on surrounding water resources is considered negligible. It must be noted however that should the conservancy tanks not be serviced regularly and emptied, they do have the potential to significantly impact both surface and ground water within the surrounding area through overflows.

Key mitigation measures which will be implemented on site to reduce the impacts on surface runoff and pollution include:

- ❑ Appropriate drainage measures must be installed to ensure that excessive run-off, and as a result, soil erosion, does not occur from the construction site.
- ❑ Storm water diversions must be constructed above the construction campsite to direct runoff away from the site.
- ❑ Stormwater control measures must be implemented where required, with all storm water generated within exposed areas channeled to temporary settling ponds which will allow the water to naturally filter back to the watercourse after settling out the solids.
- ❑ All areas impacted by earth-moving activities to be re-shaped to ensure natural flow of runoff and to prevent ponding.
- ❑ Landscaping and the planting of indigenous vegetation must be undertaken within the picnic and braai areas to ensure the stabilisation of the soil.
- ❑ Concrete may only be mixed in an area of low environmental sensitivity to be identified and approved by the ECO.
- ❑ Cement may not be mixed directly on the ground, but rather on a protective sheet or board.

- ❑ During construction, portable toilets are to be provided and regularly serviced by a suitably qualified service provider. Sewage must be disposed at a licensed wastewater treatment works and under no circumstances may it be dumped in the bush or buried. Proof of disposal by the appointed service provider must be kept in the environmental file on site.
- ❑ During operation, the conservancy tanks must be regularly serviced by a suitably qualified service provider. Sewage must be disposed at a licensed wastewater treatment works and under no circumstances may it be dumped in the bush or buried. Proof of disposal by the appointed service provider must be provided to the KSDM.
- ❑ Where possible, existing mature trees on site should be retained where possible near the conservancy tank systems.
- ❑ The conservancy tanks must be designed to handle the expected volume of wastewater and sewage at a 100 % occupancy rate.
- ❑ The new conservancy tanks must only be installed by registered installers.
- ❑ Whilst decommissioning the existing ablution facilities, the contents of the conservancy tanks must be removed with a honey sucker (or similar) and disposed at an approved wastewater treatment plant. Thereafter, the conservancy tanks (including pipes etc.) must be excavated and disposed at a municipal approved waste storage facility.
- ❑ Monitoring of the conservancy tank systems must take place by the KSDLM during operations.
- ❑ Monitor for signs of a blocked or leaking conservancy tanks.
- ❑ Monitor sewage pipelines for leaks. Should leaks be noted, repairs must be undertaken immediately, and spillages must be cleaned up immediately.
- ❑ Closely monitor the conservancy tanks and evapotranspiration areas after heavy rain to ensure that malfunctions and leakages are not occurring.

If the proposed mitigation measures and those contained in the EMP are enforced on site during the construction and operation of the proposed development, it is the EAP's opinion that the impacts associated with wastewater, surface water and other pollutants affecting water resources will be significantly reduced and are not considered to be significant.

### **Solid waste**

Solid waste will be generated during construction and operation and will be disposed at the closest licenced municipal landfill site. General waste from construction activities will be collected for disposal. Excess spoil material generated for the infilling and shaping of the proposed parking areas and braai and picnic areas will be reinstated and backfilled to reduce possible sediment deposition and runoff into the adjacent artificial wetland.

### **ASSESSMENT OF SIGNIFICANCE**

During construction, solid waste will be collected and disposed of at the nearest registered landfill site. Waste recycling is encouraged and where possible, general waste items must be separated for recycling. Recyclable material may be given to local community members to either recycle on their own, or, used for the production and manufacturing of products (chains, bracelets, toys etc.). The existing infrastructure components will be demolished and disposed at the nearest registered landfill site.

During operation, the refurbished infrastructure and the repositioned ablution facilities will promote access to tourists, community members and beach goers and there will be an increase in solid waste production (general waste items, plastics etc.). All new infrastructure components (viewing decks, braai and picnic areas and the dedicated parking area) will include the provision of waste receptacles for the collection of solid domestic waste.

During operations, all general waste must be disposed of at the multipurpose buy back center and waste transfer facility in Coffee Bay. The center was commissioned by the DFFE and handed over to the community on the 06 November 2020.



Key mitigation measures which will be implemented on site to reduce pollution impacts from solid waste include:

- ❑ Solid waste is to be stored onsite in an appropriate manner until it can be disposed at the nearest identified, licensed waste fill site.
- ❑ The contractor is to exercise strict care in the disposal of construction waste, with proof of disposal at an approved site provided after off-loading each waste load and this is to be logged/registered within the Environmental File that must be maintained at the contractor's camp for duration of construction.
- ❑ The Contractor's method statement for waste management and waste minimisation must be implemented at the outset of the contract and approved by the Project Engineer.
- ❑ The Contractor must ensure that personnel make use of the litter bins provided and that the construction site and the construction camp are always kept tidy and litter free.
- ❑ All domestic waste must be collected in litter bins.
- ❑ Litter bins must be equipped with a closing mechanism to prevent their contents from blowing out and scavengers from getting in.
- ❑ Litter bins must be emptied weekly (or as required before they reach capacity).
- ❑ Domestic waste must be taken to a licensed landfill site. Waste must be transported responsibly, avoiding waste spills en-route.
- ❑ Where necessary, a storage area must be dedicated on site for the collection of construction waste.
- ❑ No solid waste may be burned or buried on site.
- ❑ During operations, all general waste must be disposed of at the multipurpose buy back center and waste transfer facility in Coffee Bay and it is the responsibility to ensure that there is sufficient budget for routine waste collection and disposal.

If the management of solid waste during construction and operation is undertaken as specified in the mitigation measures outlined in the EMPr and recycling is promoted wherever possible, the proposed development will have little impact in terms of solid waste. It is the EAP's opinion that solid waste will have a negligible impact within the development footprint and immediate surrounds.

## 2.2. Cumulative impacts

A cumulative impact is an incremental impact on the environment that results from the impact of a proposed action when added to existing and reasonably foreseeable future actions. Cumulative effects can be both positive and negative. Also, the nature of cumulative impacts can be both temporary in nature (i.e., impacts that are restricted to the construction phase) and permanent (i.e., impacts that occur in both the construction and operation phases).

To enhance the positive impacts of the proposed refurbishment and construction of coastal infrastructure at Coffee Bay and, thus, enhance positive cumulative effects, the project should be implemented efficiently according to best environmental practise and once constructed, a budget should be provided for regular maintenance.

To minimise negative impacts of the proposed refurbishment and construction of coastal infrastructure at Coffee Bay and, thus, its negative contributions towards cumulative effects on the environment, the project should be implemented with the recommended mitigation measures outlined in the EMPr.

Potential cumulative impacts from the proposed refurbishment and construction of coastal infrastructure on the environment, as related to the key identified issues and impacts, are described below.

***Cumulative local, regional and national economic and social benefits arising from the proposed development***

The proposed refurbishment and construction of coastal infrastructure at Coffee Bay is considered a catalytic project that will promote sustainable beach and coastal access, increase tourism, and will improve infrastructure facilities within Coffee Bay. Increased tourism will contribute to the local economy and allow for increased income generation opportunities for the surrounding communities.

***Cumulative health, safety, security and nuisance impacts***

All or most of the health, safety, security, and nuisance impacts discussed in Section 8.5 have the potential to be compounded if other developments in proximity occur simultaneously in the area. Possible cumulative impacts may include increased traffic and possible public dissatisfaction. In terms of the health, safety, security, and nuisance cumulative impacts, it is the EAPs opinion that with the implantation of the proposed mitigation measures put forward in the EMPr most of the negative impacts can be mitigated to acceptable levels.

***Cumulative impacts on the biophysical environment***

Human development needs continually place pressure on land and result in increasing levels of vegetation removal for both domestic and commercial needs. There is future potential for development within the Coffee Bay area and together with other developments taking place, the proposed project will contribute cumulatively to the loss of natural habitat and biodiversity in the study area and may accelerate degradation of adjacent areas through soil erosion, edge effects, spread of alien invasive plants, decrease in water quality, etc. In terms of the cumulative impacts on the biophysical environment it is the EAPs opinion that with the implantation of the proposed mitigation measures put forward in the EMPr most of the negative impacts can be mitigated to a large degree.

With the formalisation of the parking areas, walkways to the beach and viewing decks and the demarcation of the picnic site it is the EAPs opinion that the cumulative impact on the coastal dune cordon and associated vegetation will be improved over time as visitors to the area will be confined to formalised access routes to the beach and associated infrastructure. This will prevent the establishment of informal pathways and roads which has resulted in disturbance to the coastal dune cordon and vegetation.

The placement of the walkways and viewing decks have also taken into consideration the coastal processes at work in Coffee Bay with regards to dune transgressions and sand movement and it is hoped that the layout provided enables the continued ecological functioning of the dune system as well as ensuring the longevity of the proposed infrastructure.

With the repositioning of the existing ablution facilities out of the 1:50 and 1:100 flood line levels, it is the EAP's opinion that the cumulative impact on the surface water resources will be improved over time as the available resources will be protected from future pollution and contamination. The placement of the new ablution facilities will also redirect pedestrians and possible pollution away from the Nenga estuary.

### 3. 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.

#### 3.1. What effects will the proposed refurbishment and construction of coastal infrastructure at Coffee Bay have on the socio-economic environment, at a local, regional and national scale?

The proposed refurbishment and construction of coastal infrastructure at Coffee Bay may be considered a relatively small development, however, it will provide employment opportunities to members of the community (during the construction and operation phases). During construction, employment opportunities will be limited in duration and primarily focused on unskilled labour. Although job opportunities will be limited, job opportunities within this rural poverty-stricken area will be welcomed and provide much needed income to local households.

The formalisation of beach and coastal access at Coffee Bay is also hoped to promote tourism and local investment within the area. It is predicated that the proposed development will serve as a catalyst to promote future development within the area and unlock more economic opportunities and promote and/or stimulate the local community.

It is the EAP's opinion that the proposed refurbishment and construction of coastal infrastructure at Coffee Bay will have a positive impact on the socio-economic environment through employment creation and skills development within the Coffee Bay community, where such opportunities are scarce.

#### 3.2. What effects will the proposed refurbishment and construction of coastal infrastructure at Coffee Bay have on the biophysical environment and biodiversity (water, soils, wetland, terrestrial/aquatic natural habitat, and fauna)?

Most of the impacts on the biophysical environment associated with the proposed development can be mitigated resulting in minimal impacts on the biophysical environment following construction and rehabilitation. The most significant impacts associated with the proposed development will occur during the construction of the new ablution facilities, dedicated parking area, formalised poly-timber walkways, the viewing decks, the stabilisation of the artificial wetland and the infilling and/or reshaping of the areas associated with the braai and picnic facilities. These impacts are generally associated with the removal and/or disturbance of vegetation related to construction activities. With the implementation of mitigation measures outlined in the EMP, the impacts on the following biophysical components are not expected to be of any significance:

- Impact on CBAs, ESAs, protected and/or expansion areas and strategic water source areas
  - The infilling, removal and compaction of soil.
  - Erosion.
  - Storm water related impacts.
  - Pollution (solid and liquid waste).
  - Disturbance to surrounding areas (primary – removal of vegetation, secondary – vibrations and increased noise levels).

The disturbance of surrounding habitats through possible vegetation clearance is considered the most significant impact. This impact is however not considered to be significant as infrastructure has been placed to limit impacts on surrounding natural vegetation and after mitigation the impact on vegetation is expected to be minimal. Based on the above, it is recommended that the following conditions be included in the EA to ensure that impacts on the biophysical environment are adequately mitigated:

- No areas outside the development footprint may be cleared of natural vegetation.

- The ECO must ensure that all staff and plant remain within the demarcated development footprint during construction.
- The proposed walkways and viewing decks must be positioned in previously disturbed areas and must limit the need for the pruning of trees.
- The dedicated parking area must be constructed using grass blocks which reduces hardened surfaces on site and promotes the infiltration of water to the dune slack.
- The installation of pipe culverts and/or other structures at the picnic site must not alter the natural flow regime of the adjacent artificial wetland and Nenga estuary.
- The ECO must monitor all sites disturbed by construction activities for colonisation by alien invasive plants.

**3.3. What effects will the proposed refurbishment and construction of coastal infrastructure at Coffee Bay have on the coastal and dune habitat during construction, operation, and rehabilitation?**

The current beach morphology and coastal dune cordon is in a state of erosion. The placement of formalised walkways and viewing decks has taken into consideration the coastal processes at play within this dynamic environment. The correct placement of formalised walkways will encourage the sustainable use of the beach and coastal habitat. The proposed layout of the walkways and viewing decks have been repositioned further north on the dune cordon to avoid the transgressive dune sand bypass on the southern section of the dune cordon.

An important source of water for the dune habitat originates from the dune slack inland of the coastal dune cordon. Impacts on water supply to the dune system from the new ablution facilities are projected to be low because these new facilities will be positioned at least 3 m away from the heel of the dune to provide sufficient water to the dune vegetation.

The following conditions are recommended by the EAP to be included in the EA to ensure that impacts on the biophysical environment are adequately mitigated:

- The dune slack must be managed as an open system and must not be subject to further disturbance.
- The walkways and viewing decks should align with the dune crest and sand sharing system.
- The placement of the lifeguard tower must be located on a section of dune which is not susceptible to erosion and transgression of the dune system or located on the beach above the high-water mark of the sea.

**3.4. What effects will the proposed refurbishment and construction of coastal infrastructure at Coffee Bay have on the cultural heritage resources?**

A site visit conducted by the appointed heritage practitioner identified no heritage resources within the Coffee Bay development node. As such, it is unlikely that any archaeological heritage resources will be impacted by the proposed development. If heritage resources are identified on site, the chance finds protocol as outlined in the EMPr must be implemented on site.

**3.5. What potential health, safety, security, and other nuisance impacts may be experienced as a result of the proposed refurbishment and construction of coastal infrastructure at Coffee Bay?**

No significant nuisance related impacts have been identified during this assessment which precludes the development from being implemented. Nuisance related impacts in terms of the proposed refurbishment and construction of coastal infrastructure relates mainly to impacts associated with noise, dust, disruption to traffic, visual impacts associated with the placement of infrastructure components and increased crime levels. With the mitigation measures included in the EMPr it is the EAPs opinion that the significance of all nuisance-related impacts can be classed as low.

**3.6. What effects will the proposed refurbishment and construction of coastal infrastructure at Coffee Bay have on the existing infrastructure, services, and land use?**

The existing infrastructure at Coffee Bay will either be refurbished and/or removed to accommodate new infrastructure components. The addition of new infrastructure can accommodate larger volumes of pedestrians, beach goers and tourists. With the construction of the new ablution facilities and the formalisation of the parking areas, picnic area and walkways and viewing decks to the beach, the disturbances to the surrounding property owners is anticipated to be reduced as visitors will be making use of formalised infrastructure which has been positioned taking both environmental and social considerations into account.

The proposed refurbishment also includes the provision of bollards to prevent the access of vehicles onto the dune cordon and the provision of refuse bins for visitors to dispose of their waste in. If maintained and managed, the proposed infrastructure at Coffee Bay is anticipated to significantly reduce impacts on the receiving environment and maximise the tourism related land use of this beach node.

### **3.7. What potential pollution and waste related impacts may be experienced as a result of the proposed refurbishment and construction of coastal infrastructure at Coffee Bay?**

Water resources (Nenga Estuary and associated wetland units) close to the proposed development have the potential to become contaminated because of contaminated surface and subsurface runoff. This may also be a result of spillages and mismanagement of petrochemical substances on site where stormwater transfers these pollutants into the receiving environment. If the mitigation measures outlined in the EMP are adopted, the impacts related to the pollution of water resources and the terrestrial habitat will be significantly reduced, with little impact on the environment.

It must be noted however that the existing ablution facilities are inadequately located and will be decommissioned and relocated further north. The new facilities will make use of underground conservancy tanks to collect organic waste and if not routinely emptied have the potential to contaminate the surrounding environment through overfilling. However, as part of the proposed development, two 6,000-l tanks will be installed, which will adequately handle the amount of organic waste produced. Impacts during construction are negligible (if undertaken in accordance with the prescribed mitigation measures) but if not maintained and serviced regularly during operation the conservancy tank system can have significant impacts on water quality of surrounding water resources.

The following conditions are recommended by the EAP to be included in the EA to ensure that impacts on the biophysical environment are adequately mitigated:

- The project applicant must ensure that sufficient budget is available to regularly service and maintain the ablution facilities at Coffee Bay.
- The project applicant must ensure that sufficient budget is available regular collection and disposal of general waste.

### **3.8. What are the impacts of the no-development alternative (not upgrading and constructing coastal infrastructure at Coffee Bay)?**

The no-development alternative would imply that the proposed refurbishment and construction of coastal infrastructure in Coffee Bay will not occur and therefore avoiding the negative impacts associated with the construction activities described in this report.

It is the EAPs opinion that if the proposed refurbishment and construction does not take place, the existing infrastructure will continue to deteriorate and the status quo of unregulated access of people and vehicles onto the coastal dune cordon will continue. Further, the contamination of surrounding water resources due to the placement of the existing ablution facilities will continue to persist. This will result in the following:

- Continued disturbance and loss of coastal vegetation on the dune cordon which will promote dune erosion and transgression.
- The existing ablution facilities at the picnic site are in a state of disarray and an immediate concern is the contamination of the Nenga River and surrounding environment through leaking septic tanks and soak-aways.

- The no development alternative would mean that the tourist and income revenue targets set by the Municipality will not be met. Tourism plays an important role in the overall development and growth of the local economy. Over time, this would prevent economic stimulus to the area through short term employment and long-term investment.

It is the EAP's opinion that the no-development alternative is not a viable alternative for this development as it will potentially have several negative social, economic, and environmental impacts which may not be mitigated. For the above reasons, the no-development alternative is not recommended.

## 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 x	NO
YES x	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:

- No areas outside the development footprint may be cleared of natural vegetation.
- The ECO must ensure that all staff and plant remain within the demarcated development footprint during construction.
- The proposed walkways and viewing decks must be positioned in previously disturbed areas and must limit the need for the pruning of trees.
- The southern extent of the walkways must be checked and the access for visitors from the walkways to the beach should be concentrated to the north of the embayment
- The installation of pipe culverts and/or other structures at the picnic site must not alter the natural flow regime of the adjacent artificial wetland and Nenga estuary.
- The ECO must monitor all sites disturbed by construction activities for colonisation by alien invasive plants.
- The dedicated parking area must make use of grass block paving and avoid the artificial wetland within the dune slack.
- The placement of the lifeguard tower must be located on a section of dune which is not susceptible to erosion and transgression of the dune system or on the beach above the high-water mark of the sea.
- The project applicant must ensure that sufficient budget is available to regularly service and maintain the ablution facilities at Coffee Bay.
- The project applicant must ensure that sufficient budget is available regular collection and disposal of general waste.
- The project applicant must ensure that water is always available for the operations of the new ablution facilities.
- The new ablution facilities must be set back by at least three metres from the heel of the dune. Surface run-off must be concentrated into the heel of the dune to provide a water supply to dune vegetation.
- The new ablution facilities must be relocated out of the 1:50 and 1:100-year flood line levels.
- 
- If heritage resources are identified on site, the chance finds protocol as outlined in the EMPr must be implemented on site.
- While most of these impacts are unavoidable, the onus lies with the applicant to ensure that the construction activities result in a minimal disturbance to neighbouring areas.
- Construction work should be restricted to weekday working hours between 08h00- and 17h00.
- The construction and operational plan should not clash with the residential land use of this neighbourhood. The construction schedule/operational plan/ times be communicated and, if possible, avoid holiday periods. As far as possible, the construction schedule should be available to

neighbour properties to ensure that they are aware of the proposed activities and that they can make adequate means to mitigate noise and impacts.

- ❑ The project applicant must ensure that sufficient budget is available to regularly service, maintain and dispose all waste to the multipurpose buy back center in Coffee Bay.
- ❑ No wastewater containing harmful chemicals should be released on-site, to avoid contamination of the sand/soil.
- ❑ Ensure drainage and runoff are controlled to prevent erosion and soil loss. Install contour berms where erosion has occurred to ensure that no new erosion pathways are formed.



## **SECTION F: APPENDICES**

The following appendixes must be attached as appropriate:

Appendix A	Site plan(s)
Appendix B	Photographs
Appendix C	Facility illustration(s)
Appendix D:	Specialist reports
Appendix E	Comments and responses report
Appendix F	Environmental Management Programme (EMPr)
Appendix G	Other information

**IMPORTANT NOTE:**

**DEPARTMENTAL DETAILS**

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