

DRAFT

**BASIC ASSESSMENT REPORT
INFILLING AND EXCAVATION OF MATERIAL WITHIN 100M OF THE
HIGH-WATER MARK OF THE SEA AND CLEARANCE OF
INDIGENOUS VEGETATION FOR THE EDWARD SANDS
RESIDENTIAL DEVELOPMENT, BALLITO
KWADUKUZA MUNICIPALITY
DC29/0008/2022**



09th JUNE 2022

Ref: C023

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AUTHOR OF REPORT

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The EAP confirms that:

- a) All information contained in the Basic Assessment Report is, to the best of my knowledge, accurate and correct.
- b) Comments and input from stakeholders and registered Interested and Affected Parties have been included in the Basic Assessment Report.
- c) Input and relevant recommendations contained in the attached specialist reports have been included in the Basic Assessment Report and Environmental Management Programme.
- d) All relevant, available information has been provided to registered Interested and Affected Parties; and
- e) Responses to comments or inputs made by registered Interested and Affected Parties has been included under Appendix D.



Stephanie Denison

30th May 2022

EXECUTIVE SUMMARY

Edward Sands (Pty) Ltd proposes to construct a new residential development on a vacant plot of land described as Erf 618 of Ballitoville Township. The site is located at No. 1 Edward Place, KwaDukuza Local Municipality, iLembe District (centre of site 29°32'37.79"S; 31°12'56.45"E). Construction of residential infrastructure will take place within 100m of the high-water mark of the sea. The excavation and infilling of material on site during construction as well as the clearance of indigenous vegetation from the property requires Environmental Authorisation from the Department of Economic Development, Tourism and Environmental Affairs (EDTEA).

The property is strategically located within Ballito Village and will be fully developed. The two layout alternatives considered (six-storey and four-storey developments) are therefore not substantially different from an environmental perspective, as the footprints are the same for both alternatives. The preferred alternative is for a four-storey residential development with a basement parking level. Mitigation measures provided in the Beach and Coastal Assessment, Geotechnical Report and Palaeontological Impact Assessment have been included in the Environmental Management Programme (EMPr), which is to be adhered to during construction.

The following provides a summary of the key findings of the Environmental Impact Assessment:

1. Indirect impact on the adjacent beach environment during the infilling and excavation of material at 1 Edward Place. Stormwater management measures have been included in the attached EMPr to reduce the significance of this potential impact from low to very low risk. These measures include the efficient attenuation of stormwater onsite, the removal of sediment prior to discharge into the municipal system and environmental awareness training to be conducted for all primary contractors on site.
2. New infrastructure negatively impacting on coastal processes (i.e. sand sharing system). This impact was assessed by the coastal specialist, who concluded that the development is located outside of the sand sharing system and will not be impacted by future sea level rises.
3. Clearance of indigenous vegetation, including the removal of rare and protected plant species. This impact is unavoidable and has a low-risk rating, after mitigation considering that the majority of vegetation to be cleared is secondary, ruderal vegetation. The rare plant species must be relocated or replanted on the property as part of the indigenous landscaping requirements. A permit from DFFE is required for the removal of the two Milkwood trees.
4. General construction-related impacts (i.e. dust, noise, waste management etc.) will be managed in accordance with the EMPr attached under Appendix E.
5. Development having a potentially negative impact on Ballito Village's "*sense of place*". The significance of this impact is difficult to quantify as the impact is largely subjective. Using the precautionary approach, the significance of this impact has been rated as *moderate*. The findings of the Market Research Report show that the proposed development offers a desirable product (i.e. apartment-type living), is well located in Compensation Beach and has the potential to increase surrounding property values by 20-25%. The existing zoning allows a residential development with a height of 9m. A separate town planning application is underway to increase the height of the residential development to 10.5m above natural ground level.

All impacts identified in the Environmental Impact Assessment can be mitigated to an acceptable level of risk provided that the measures included in the attached EMPr are adhered to. The potential impact on "*sense of place*" associated with Ballito Village remains as a *moderate* risk due to a precautionary risk rating approach. The Environmental Assessment Practitioner is of the opinion that the Infilling and Excavation of Material within 100m of the High-Water Mark of the Sea and Clearance of Indigenous Vegetation for the Edward Sands Residential Development, be authorised by EDTEA.

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1.0 INTRODUCTION

1.1 DESCRIPTION OF ACTIVITY TO BE UNDERTAKEN

Edward Sands (Pty) Ltd propose to construct a new residential development on a vacant property described as Erf 618 of Ballitoville Township. The site is located at 1 Edward Place, Ballito, KwaDukuza Local Municipality in the iLembe District (Figure 1).

The property is 2 035m² in extent with 75% of the property being located within 100m of the high-water mark of the sea (i.e. 1 530m²). The site will be fully developed to accommodate a four-storey residential development (28 units) and a basement parking level. As required by the traffic engineer, access will be off Edward Place. The development will connect to the existing municipal water, sewer and stormwater network.

The total development footprint of infrastructure to be constructed within 100m of the high-water mark of the sea is 1 300m² triggering Activity 17 of Listing Notice 1. During construction, approximately 1 400m³ of material will be excavated and infilled within 100m of the high-water mark of the sea triggering Activity 19A of Listing Notice 1. Although secondary and ruderal in nature, 1 100m² of indigenous vegetation will be cleared from within 100m of the high-water mark to accommodate the development. The clearance of this indigenous vegetation triggers Activity 12 of Listing Notice 3. All listed activities being applied for are provided in Table 1 below.

Table 1: Listed and Specified Activities Triggered and Being Applied for.

Activity #	Relevant Listing Notice	Listed Activity Description as Per the Legislation	Listed Activity Description as Per the Project Description
17 (v) (e)	Listing Notice 1 (GNR327) 04 th December 2014 as amended.	Development – (v) if no development setback exists, within a distance of 100m inland of the high-water mark of the sea, or an estuary, whichever is greater; In respect of – (e) infrastructure or structures with a development footprint of 50m ² or more.	Development of 1 300m ² of residential infrastructure will take place within 100m inland of the high-water mark of the sea.
19A (ii)	Listing Notice 1 (GNR327) 04 th December 2014 as amended.	The infilling or depositing of any material of more than 5m ³ into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5m ³ from ii) the littoral active zone, an estuary or a distance of 100m inland of the highwater mark of the sea or an estuary, whichever distance is the greater.	During construction, a total of 1400m ³ of material will be excavated and infilled within 100m of the high-water mark of the sea.
12 (d) (iv) & (vi)	Listing Notice 3 (GNR324) 04 th December 2014 as amended.	The clearance of an area of 300m ² or more of indigenous vegetation. (d) In KZN (iv) Within critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA; and (vi) Within the littoral active zone or 100m inland from the high-water mark of the sea.	During construction, 1 100m ² of secondary indigenous vegetation will be cleared to accommodate the Edward Sands residential development.

1.2 LOCATION OF ACTIVITY

The Edward Sands residential development is located at 1 Edward Place in Ballito Village. The property is in Ward 6 of the KwaDukuza Local Municipality, iLembe District (centre of site: 29°23'37.79"S; 31°12'56.45"E). Please refer to Figure 1 for the Locality Map.

21 Digit Surveyor General code	N0FU00150000061800000
Property Description	Erf 618 of Ballitoville Township

Figure 2: Site Development Plan Showing Proposed New Infrastructure to be Developed on Erf 618 of Ballitoville Township (Source: MAP Architects, 2021).

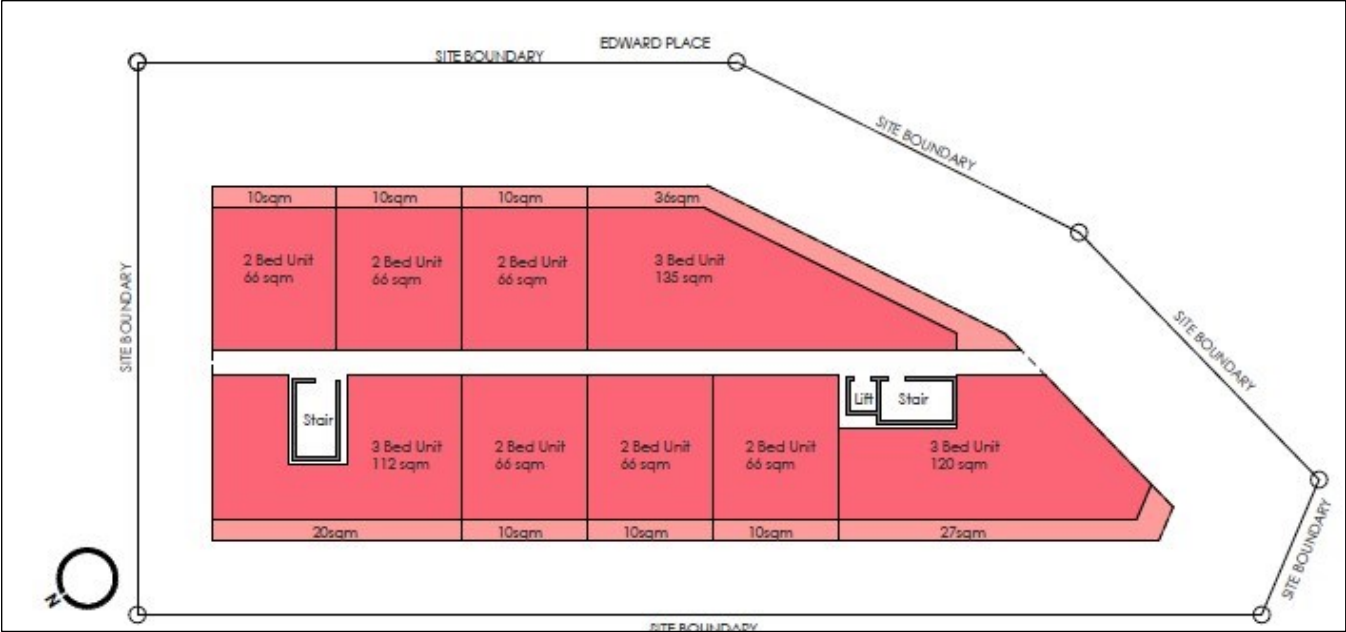
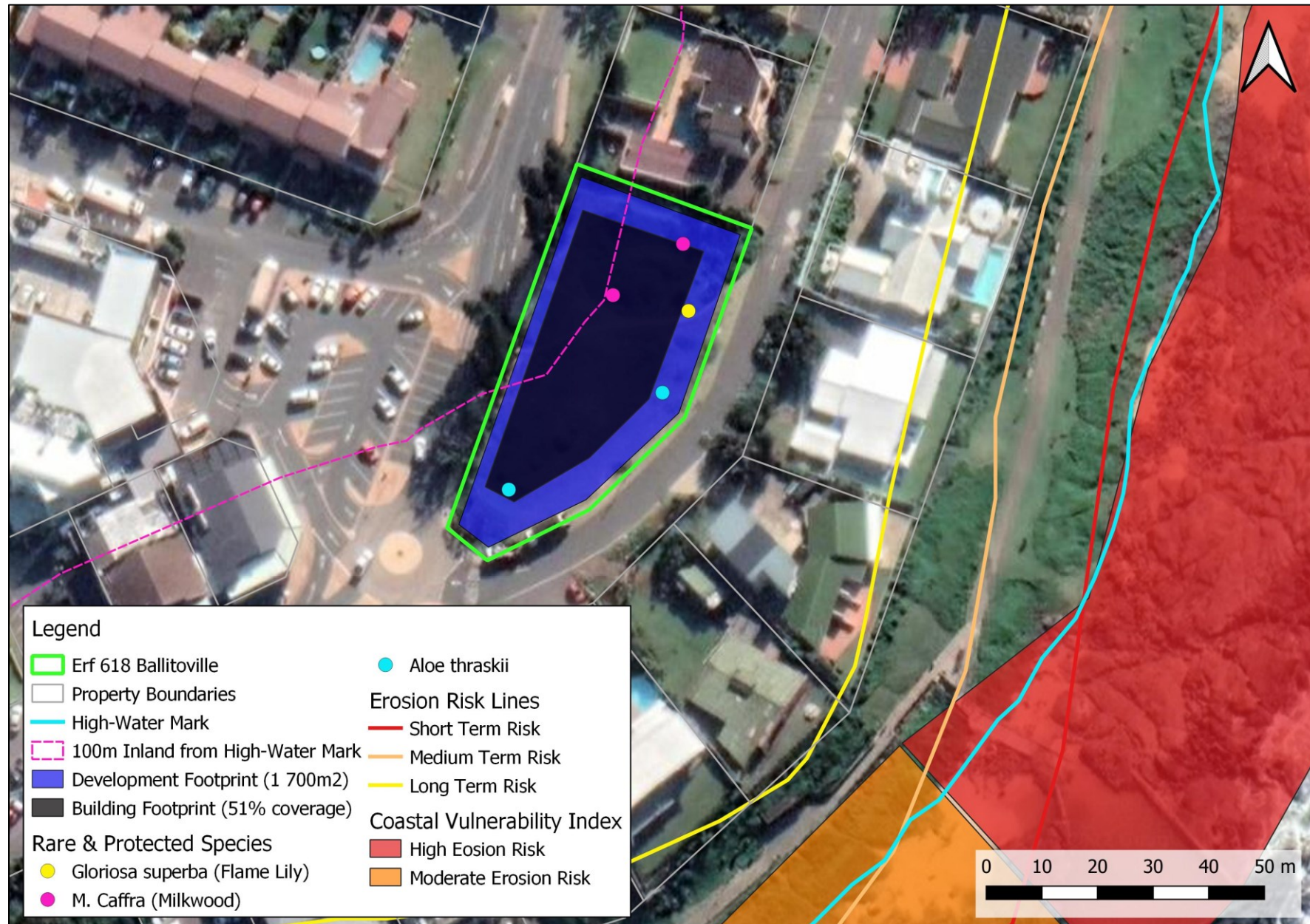


Figure 3: Map Superimposing the Proposed Activity and Associated Infrastructure on the Environmentally Sensitivities of the Site.



2.0 ALTERNATIVES

2.1 DETAILS OF ALTERNATIVES CONSIDERED

“Alternatives” are defined as “different means of meeting the general purpose and requirements of the activity”¹. Alternatives considered must be feasible and reasonable. The general purpose and requirement for this project is for the development of a vacant property within Ballito Village.

2.1.1 Site Alternatives and Outcome of the Site Selection Matrix

The proposed application is specific to Erf 618 of Ballitoville Township. The applicant is in the process of purchasing the property and obtaining the relevant, site-specific approvals for the proposed development (environmental and town planning). No other feasible site alternatives have therefore been considered.

2.1.2 Activity

The current zoning of the property allows for the “development of a residential building”. The proposed residential development is therefore aligned with the permissible land use reflected in the town planning scheme. Other activity alternatives considered included a mixed-use development (mix of commercial and residential), however this activity was not considered feasible due to the existing parking and traffic issues surrounding the site as well as the high land value, due to its location within Ballito Village. No other feasible activity activities have therefore been considered.

2.1.3 Layout

Two layout alternatives are available for assessment. Layout Alternative 1 is for the construction of a 6-storey residential development and Layout Alternative 2 is the construction of a 4-storey residential development (preferred). To maximise the economic return on the strategically positioned property, a 6-storey residential development was originally considered by the applicant (layout included under Appendix C). The proposed 6-storey development would be similar to what is currently permitted for the commercial development immediately west of the property (i.e. Kwik Spar). The height of the 6-storey residential development would be 17m, measured from the highest point of natural ground level.

After discussions with the town planner and considering the sensitive location of the site in proximity to the beachfront, the height of the building was reduced to 4-storeys. The height of the preferred layout alternative is 10.5m, measured from the highest point of natural ground level. The current zoning allows for a residential development not exceeding 9m in height, measured from the highest point of natural ground level. A separate town planning application is therefore underway to increase the height of the building by 1.5m.

It is noted that the footprint of the two layout alternatives remains the same with just the height of the building differing. The two layout alternatives are therefore not substantially different, from an environmental perspective. Only the preferred layout alternative (Layout Alternative 2) has therefore assessed further. Please refer to section 2.3. below motivating the preferred alternative.

2.1.4 No-Go Alternative

The development of the Edward Sands residential development will not take place and there will be no immediate negative environmental impacts that may result from the construction phase. The property is likely to remain vacant until such time as another development proposal is submitted. The property is not secure and is located within Ballito Village close to restaurants, bars, taxi drop off and parking areas. Pedestrians can traverse the site. This is particularly common during peak seasons when the property is used as a gathering place for drinking and other unruly behaviour.

2.2 CONCLUDING STATEMENT INDICATING PREFERRED ALTERNATIVES

Since the project is for a residential development on vacant land at 1 Edward Place in Ballito Village, no other feasible site or activity alternatives have been assessed. The proposed activity is aligned with the currently permitted land use, with a separate town planning application underway to increase the height of the building by 1.5m. The two layout alternatives have the same footprint and therefore only the preferred layout alternative, Layout Alternative 2, for the construction of a 4-storey residential development, has been assessed further.

¹ DEA & DP (2010) Guideline on Alternatives, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA&DP).



2.3 MOTIVATION FOR PREFERRED ALTERNATIVE

The following provides a summary motivating the preferred layout (Layout Alternative 2):

- All proposed new infrastructure associated with the development is located outside of the coastal sand sharing system and therefore will have no direct impact on the adjacent beach environment².
- The property was previously developed and therefore the vegetation to be cleared is described as “*highly transformed*”, secondary, ruderal vegetation³.
- Layout Alternative 2 is preferred from a social perspective due to the lower height of the building. The current zoning allows for a building height of 9m, measured from the highest point of natural ground level. Layout Alternative 2 has a building height of 10.5m compared to Layout Alternative 1, which has a building height of 17m. Layout Alternative 1 is significantly higher compared to the heights of the surrounding developments.

3.0 PLANNING CONTEXT

3.1 ENVIRONMENTAL POLICY AND LEGISLATIVE CONTEXT

The table below provides a list of legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments relevant to the Edward Sands development. The table includes comment on how the proposed development complies with and responds to the listed legislation.

Table 2: Legislation, Policies, Plans, Guidelines, Spatial Tools, Municipal Development Planning Frameworks, And Instruments Relevant to Edward Sands.

Legislation	Acronym	Comment
National Environmental Management Act (Act No. 107 of 1998 as amended).	NEMA	NEMA provides environmental management principles that are applicable across South Africa to fulfil section 24 of the Constitution, which is the right to “ <i>an environment that is not harmful to their health or wellbeing</i> ”. Section 24 of NEMA defines the activities requiring Environmental Authorisation and the processes to be followed to obtain Environmental Authorisation (published in the Environmental Impact Assessment Regulations, 2014 as amended). This application triggers activities listed in Listing Notice 1 and 3 of the Environmental Impact Assessment Regulations, 2014 as amended. A Basic Assessment process is underway to obtain Environmental Authorisation prior to any activities commencing.
DEA (2017), Public Participation guideline in terms of NEMA EIA Regulations, DEA, Pretoria, South Africa.	-	To give effect to section 2 (4)(f) and (o) of NEMA, adequate and appropriate opportunity for public participation in decisions that may affect the environment is required. NEMA requires that any person conducting public participation take into account any relevant guidelines applicable to the public participation process as contemplated in section 24J of NEMA. The public participation conducted as part of the Basic Assessment process complies with the NEMA EIA Regulations and has considered the relevant guidelines.
DEA (2017), Guideline on Need and Desirability, DEA, Pretoria, South Africa.	-	This guideline contains information on best practice and how to meet the requirements prescribed by NEMA when considering the need and desirability of a development. The need and desirability of the project has considered the list of questions outlined in the Need & Desirability Guidelines.
National Environmental Management: Waste Act (Act No. 59 of 2008 as amended).	NEM: WA	NEM: WA provides measures to protect health and the environment of South Africa by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development. There are no activities proposed that will trigger a Waste Management License however measures have been provided in the EMP to ensure

² Section 3.2 of the SDP “*Beach and Coastal Assessment: Establishment of Residential Structures on Erf 618 Ballito*”.

³ Section 7.0 of the SDP “*Beach and Coastal Assessment: Establishment of Residential Structures on Erf 618 Ballito*”.

		that waste management is compliant with the requirements of NEM: WA.
National Environmental Management Biodiversity Act (Act No. 10 of 2004).	NEM: BA	To manage and conserve South Africa's Biodiversity and protect species and ecosystems that warrant national protection. The proposed development does not require any specific permissions in terms of NEM:BA however the landowner must comply with the requirements of the Alien and Invasive Species Regulations (2020) which have been published in terms of section 97(1) of NEM:BA. These regulations categorise invasive species and outlines the way these species must be controlled by landowners. Section 52 of NEMBA allows for the publication of a national list of ecosystems that are threatened and in need of protection. The property is located within the Northern Coastal Grasslands Ecosystem which has been identified as " <i>critically endangered</i> " by the South African National Biodiversity Institute (SANBI). The vegetation on site is however described by the specialist as highly transformed, secondary, ruderal vegetation.
National Environmental Management: Air Quality Act (Act No. 39 of 2004).	NEM: AQA	Regulates air quality to protect the environment by providing measures to prevent pollution and ecological degradation and for securing ecologically sustainable development. There are no activities on site that will trigger an Air Emissions License however measures have been provided in the EMPr to ensure that air quality is managed in line with the requirements of NEM: AQA.
National Water Act (Act No. 36 of 1998) (as amended).	NWA	Provides for fundamental reform of the law relating to water resources. There are no watercourses within the property itself or within 32m of the site. The nearest watercourse is an unnamed watercourse, which originates in Zimbali Coastal Resort and Estate. This is approximately 1.1km south-west of the site. No watercourses will be impacted by the proposed development. A Water Use Authorisation is not required for this application.
National Forests Act (Act No. 84 of 1998).	NFA	To conserve and protect natural forests and woodlands as well as ensuring development with principles of sustainable management. The Department of Forestry Fisheries and Environment (DFFE) governs the removal, disturbance, cutting or damaging of protected tree species and natural forests. There are no forests located on site however a permit from DFFE is required for the removal of two juvenile <i>M.caffra</i> trees (i.e. Milkwoods).
Integrated Coastal Management Amendment Act (Act No. 36 of 2014).	ICMAA	Establishes an integrated coastal and estuarine management system to promote the conservation of coastal environment and maintain natural attributes of coastal landscapes and seascapes. Sound coastal management principles are presented in the ICMAA which are applicable to this application. The Coastal Vulnerability Index shows the site to have a " <i>high</i> " vulnerability. All infrastructure proposed falls within 100m of the high-water mark of the sea and therefore the layout needs to be " <i>economically justifiable and ecologically sustainable</i> ", which is a requirement of the ICMAA.
National Heritage Resources Act (Act No. 25 of 1999).	NHRA	For the management of national heritage resources and to nurture and conserve heritage resources so that they may be bequeathed to future generations. There are no heritage features on site. The property falls within a " <i>highly</i> " sensitive palaeontological (i.e. fossils) area. A Palaeontological Impact Assessment was therefore carried out and is attached under Appendix B. The findings of the report are summarised in section 4.0 below.
iLembe District Municipality Integrated Development Plan (2021 / 2022 Review)	iLembe IDP	Provided that the construction is carried out in a sustainable manner, the activities proposed at 1 Edward Place are in line with the iLembe District Vision outlined in section 1.2 of the iLembe IDP. This vision is " <i>By 2030 iLembe District Municipality will be a sustainable people-centred economic hub providing excellent service and quality of life</i> ".

KwaDukuza Local Municipality Integrated Development Plan (2021/22)	KDM IDP	Ballito is identified in the KDM IDP as a major town centre experiencing high levels of demand for new residential, commercial and retail developments (section 3.3.1 of the IDP). In the Spatial Management SWOT Analysis, the establishment of high-income residential areas with high end services has been identified as an opportunity by KDM. A threat identified by the municipality is that the “ <i>concept of densification and compactness is not as prevalent as it should be</i> ” in Ballito. “ <i>Wasted land</i> ” in Ballito is also identified as a threat. 1 Edward Place has been left vacant since 2006. Its strategic location in the Ballito town centre makes any development on the land appealing in terms of the KDM IDP.
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3.2 MOTIVATION FOR THE NEED AND DESIRABILITY

The need and desirability of a project is based on the principle of obtaining a sustainable development in that the proposal must be “*ecologically sustainable and socially and economically justifiable*”⁴. The property is well located in Ballito Village, within walking distance to Ballito main beach and local restaurants. The property is zoned for residential use, with a height restriction of 9m. The property is located on the boarder of a residential area and commercial / retail node. There are existing bulk water and sewer reticulation networks available to the property. The site and proposed activity are therefore considered to be desirable in terms of the municipal town planning scheme for the area. A separate town planning application is underway to increase the permitted height of the residential development by 1.5m.

As per the Need & Desirability Guideline, the broader community’s needs and interests, as reflected in the municipal planning tools, need to be considered as these planning tools provide strategies to support economic growth. The surrounding land uses are identified in detail under section 4.8. The surrounding community was engaged during the public participation process (see Appendix D for the Public Participation Report for further details):

- Landowners and occupiers of surrounding retail, commercial and mixed-use developments encouraged the proposed residential development on the vacant land, provided that parking was accommodated for in the layout.
- Some private residents and tenants along Edward Place expressed concerns about the increase in vehicles utilising Edward Place, which is already congested during peak season. Other concerns included the creation of shadows due to the height of the building and the impact that the development will have on surrounding property values (i.e. loss of sea views).
- The Dolphin Coast Community raised a concern regarding the potential negative impact that the development would have on the “*sense of place*” associated with the Ballito Village node.

While some of the social aspects raised above can be mitigated to some extent (i.e. provision of onsite parking), the overall impact on “*sense of place*” is difficult to quantify due to subjectivity. Concerns raised during the public consultation phase have been included in the impact assessment section of the Basic Assessment Report (section 6.0). On receipt of the above preliminary comments, an independent Market Research Report was commissioned to further assess the impact of the proposed development on the Ballito Village area⁵. The findings of the report are summarised in the impact assessment table (Aspect 4; Impact c) however the findings of the Market Research Report show that the proposed development offers a desirable product, is well located in Compensation Beach and has the potential to increase the surrounding property values by 20-25%.

From an environmental perspective, the property has been previously developed and fully excavated for residential purposes (as far back as 1968). The most recent structure on the property was demolished in 2006. The vegetation that has re-grown is secondary vegetation which is common to disturbed land (mixture of ruderal indigenous vegetation and exotic). There are three protected specimens within the property boundary and one rare plant specimen that will be cleared. These species must be relocated or replanted within the property boundaries during landscaping. All new infrastructure proposed is leeward of the coastal erosion risk line and will be of no risk to the coastal environment⁶. The development is therefore considered to be ecologically sustainable.

⁴ DEA (2017), Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa.

⁵ Please refer to the RainMaker “Market Research Report” attached under Appendix B.

⁶ Section 6.0 of the SDP Beach and Coastal Assessment: Establishment of Residential Structures on Erf 618 Ballito.

4.0 ENVIRONMENTAL ATTRIBUTES

A report was generated by the national web-based environmental screening tool in terms of section 24(5)(h) of NEMA and Regulation 16(1)(b)(v) of the EIA Regulations, 2014 as amended. The Department of Environment, Forestry and Fisheries (DEFF) Screening Tool is attached under Appendix B. The Screening Tool identifies potential specialist assessments which may be required for the application. It is the responsibility of the EAP to confirm this list and to motivate the reason for not including any of the identified specialist studies. Table 3 provides a list of the specialist studies identified by the Screening Tool and a motivation as to why the studies were or were not conducted.

Table 3: List of Specialist Assessments identified in the Department of Forestry, Fisheries and Environment Screening Tool Report.

Specialist Assessment	Included in Appendix B / C	Motivation for Not Conducting Assessment
Landscape / Visual Impact Assessment	Yes	Renditions of the site and the proposed development have been provided by the architect and are attached under Appendix C of the Basic Assessment Report.
Archaeological and Cultural Heritage Impact Assessment	No	Due to the location of the site within an urban area, the size of the development (<1 hectare) and the previous activity that has taken place within the property, this study was not required.
Palaeontology Impact Assessment	Yes	According to the SAHRIS PalaeoSensitivity Map, the study area falls within a "high" palaeontological sensitive area. A Palaeontological Impact Assessment was therefore carried out by Marion Brown and is attached to Appendix B. The findings of the report are summarised in section 4.5.
Terrestrial Biodiversity Impact Assessment	No	Vegetation has previously been cleared on the property and therefore represents a mix of ruderal and exotic vegetation. As per the SDP Beach and Coastal Assessment, the development "will affect only secondary, ruderal vegetation within the property. Only two juvenile <i>M. caffra</i> are evident". The property is in a developed, urban area and therefore a full Terrestrial Biodiversity Impact Assessment was not deemed necessary. Comment on the terrestrial environment has been provided for under section 5.0 of the SDP Beach and Coastal Assessment (attached under Appendix B).
Aquatic Biodiversity Impact Assessment	No	There are no watercourses on site or within 32m of the site. No watercourses will be impacted by the proposed development and no Water Use Authorisation is required. This assessment was therefore not required.
Marine Impact Assessment	Yes	A Beach and Coastal Assessment was carried out by SDP Ecological and Environmental Services. The report includes the Coastal Vulnerability Assessment. The report is attached under Appendix B and the findings summarised in the sections below.
Avian Impact Assessment	No	The small development footprint within a developed urban area will not significantly impact any bird communities and therefore an Avian Impact Assessment was not considered necessary.
Geotechnical Assessment	Yes	A Geotechnical Report was carried out by Drennan Maud (Pty) Ltd and is attached under Appendix B. The findings of the report are summarised under section 4.2. with recommendations included in the EMPr.
Socio-Economic Assessment	No	As per section 3.2 above, the proposed activity is in line with the municipal planning framework for the area and the property zoning. A Socio-Economic Assessment was not considered necessary.
Plant Species Assessment	No	Plant species on the property are described under section 5.0 of the Beach and Coastal Impact Assessment. As per the SDP Beach and Coastal Assessment "vegetation on site presents an

		early seral state with <i>Cynodon dactylon</i> (couch grass) and <i>Chrysanthemoides monilifera</i> being the dominant vegetation form". Please refer to the SDP Beach and Coastal Assessment attached under Appendix B which contains information on the plant species remaining on site.
Animal Species Assessment	No	The property is in a developed, urban area surrounded by road networks. The development will not impact any animal species and therefore this assessment was not deemed necessary.

Information provided in the specialist assessments has been used to describe the receiving environment. All mitigation measures and recommendations provided by the specialists has been incorporated into the Assessment of Impacts Table under section 6.0. and the EMPr provided under Appendix E. All specialist assessments are attached under Appendix B.

4.1 PHYSICAL CHARACTERISTICS OF THE SITE

The property is located within an urbanised area of Ballito, at an elevation of 15m above mean sea level. The gradient of the site is described in the Geotechnical Report as "approximately level", falling within a small depression⁷. The location of the proposed development within the depression is visible in Figure 4. Figure 4a shows an elevation profile of the site within the broader setting and Figure 4b shows a more focussed elevation profile of the immediate area. Compensation Road and Edward Place form the eastern, western and southern boundaries of the site. A residential house is located on the northern boundary. The property is 75 – 115m inland from the beach, between Salmon and Clarke Bay.

Figure 4: West to East Elevation Profiles of the Application Area. 1 Edward Place is Indicated by the Blue Rectangle: (a): Location of the Site in the Broader Area; and (B) Location of the Site within Ballito Village (Source: Google Earth Pro, 2022).



4.2 GEOGRAPHICAL ATTRIBUTES AND GEOLOGY

A Geotechnical Investigation was carried out by Drennan Maud (Pty) Ltd. The report is attached under Appendix B. The field investigation showed that the site is comprised of a wave-cut platform of very hard dolerite rock that has intruded into the sandstone of the Vryheid Formation. Overlying the rock, there is a thick succession of primary dune sand (up to 5m thick). This recent aeolian dune sand is generally uniform and described as "very loose to loose

⁷ Section 2.1.3 of the Drennan Maud "Preliminary Geotechnical Investigation for Environmental Application for Rezoning, Erf 618 Ballitoville".

*slightly silty fine to medium grained sand*⁸. In terms of site stability, the property is located on a “bluff slope” but is located well away from the crest of the slope, behind existing developed sites.

Recommendations made in the Geotechnical Report have been included as mitigation measures under section 6.0 of the Basic Assessment Report.

4.3 FAUNA AND FLORA

The study area falls within the Northern Coastal Grasslands ecosystem. This ecosystem has been classified as “critically endangered” by SANBI. The site is comprised of two biomes, KwaZulu-Natal Coastal Belt Grassland and Subtropical Seashore vegetation⁹. KwaZulu-Natal Coastal Belt Grassland can be described as a highly dissected undulating coastal plain environment, which was historically covered by subtropical coastal forest. Subtropical Seashore vegetation is characterised by recent/young coastal sandy sediments which form beaches and dunes that support herbaceous and dwarf-shrubby vegetation.

The site has been subject to historical transformation and was one of the earliest properties to be developed in Ballito (as far back as 1968)¹⁰. More recent structures on the property were demolished in 2006 with the land lying vacant since then. Vegetation has been left to grow back naturally and therefore presents an early seral state with *Cynodon dactylon* (couch grass) and *Chrysanthemoides monilifera* being the dominant vegetation form (photographs of the vegetation on site provided in Figure 6). Exotic species (*Agave spp.* and *Araucaria bidwillii*) have also established on site due to previous disturbance. One rare species, *Gloriosa superba* (flame lily) and two protected species (*Mimusops caffra* and *Aloe thraskii*) were identified on site by the specialist. The location of these plants is shown in Figure 3.

The property does not fall within an area identified by Ezemvelo KZN Wildlife as a Critical Biodiversity Area (see Figure 7 of the Beach and Coastal Assessment attached under Appendix B). Development will take place in an existing urban area that is surrounded by a road network with residential, retail and commercial developments. No faunal species were therefore identified on site and are anticipated to be impacted by the proposed development.

4.4 COASTAL VULNERABILITY

The Ballito coastline is primarily a rocky coast, interspersed with small pocket beaches which form a thin veneer of sand across a primarily doleritic pavement¹¹. With the development of Ballito town, in close proximity to the high-water mark of the sea, the elasticity and dynamics of the sand sharing system has been stabilised however the coastline is susceptible to erosion under high surf conditions, such as the 2007 storm event (Figure 5).

According to the CoastKZN database, the study site falls outside of the long-term (100 year) risk category. The beach environment eastwards of the property is considered to be “high risk” in terms of the Coastal Vulnerability Index (indicated in Figure 3). Sites of high risk are those that are “most susceptible to the effects of erosion, sea level rise or extreme events”. Taking into consideration the accepted annual sea level rise of between 1.23mm and 3.2mm, the coastal specialist concluded that marine storm events will have little influence on 1 Edward Place¹². Due to the elevated level and distal position of the property from the high-water mark of the sea, the development will have no impact on the sand sharing system of the coastline.

⁸ Section 2.2.3 of the Drennan Maud “Preliminary Geotechnical Investigation for Environmental Application for Rezoning, Erf 618 Ballitoville”.

⁹ Mucina L M and M Rutherford “The Vegetation of South Africa, Lesotho and Swaziland. Strelitzia (2006).

¹⁰ Section 5 of the SDP “Beach and Coastal Assessment: Establishment of Residential Structures on Erf 618 Ballito”.

¹¹ Section 4.0 of the SDP “Beach and Coastal Assessment: Establishment of Residential Structures on Erf 618 Ballito”.

¹² As above.

Figure 5: Aerial Photograph Showing Ballito Village Coastline after the 2007 Marine Storm Event (Source: SDP, March 2022).



4.5 WATERCOURSES

There are no watercourses on the property or within 32m of the property boundary. The nearest watercourse is an unnamed watercourse, which originates in Zimbali Coastal Resort and Estate. This is approximately 1.1km south-west of the site. No watercourses will be impacted by the proposed development.

4.6 CULTURAL AND HERITAGE

There are no structures on the property and there is no known cultural significance associated with the area. Young Maputaland sands overlie the older Natal Group rocks. The Maputaland Group sediments are part of the early Miocene marine transgression that was followed by epeirogeny uplift, then a eustatic marine regression. This marine regression deposited littoral marine sediments on the marine planed coastal platform that had incised across the entire range of rock types that were exposed along the eastern seaboard of southern Africa¹³.

The site for development is in the Umkwelane Formation and indicated as highly sensitive in terms of fossil discovery. A Palaeontological Impact Assessment was therefore undertaken by Professor Marion Bamford (Appendix B). The palaeontologist specialist concluded that surface activities may impact upon the fossil heritage if preserved in the development footprint however the geological structures suggest that the rocks are either much too young to contain fossils of marine or terrestrial shells. Furthermore, the material to be excavated is already disturbed by modern vegetation and roots, and this does not preserve fossils. Since there is an extremely small chance that fossils from the Holocene may be disturbed a Fossil Chance Find Protocol has been provided and included in the EMPr (Appendix E). The potential impact to fossil heritage resources is extremely low.

The findings and recommendations made in the Palaeontological Impact Assessment have been included as mitigation measures under section 6.0 of the Basic Assessment Report.

¹³ Section 3 of Prof Marion Bamford "Palaeontological Impact Assessment for the Proposed 1 Edward Place Residential Units, Ballito, KwaZulu Natal Province".

4.7 SOCIO-ECONOMIC PROFILE

The study area falls in the Ward 6 of KwaDukuza Local Municipality, iLembe District. Ballito Town is one of the fastest growing areas in South Africa, experiencing a population growth rate of 104% since 2011¹⁴. The greater area household income and LSM's suggest a wealthy community. The Ballito Village area, where the proposed development is located, consists of a mixture of free-standing homes, many of which have been converted to tourism facilities (Air BnB, guesthouses etc.), sectional title units, retail and mixed-use developments.

4.8 SURROUNDING LAND USES

The table below shows the existing land uses surrounding the study area. There are existing residential dwellings directly north and east of the property. Commercial, retail and mixed-use developments are located to the south and west of the property.

Table 4: Land Uses Surrounding the Proposed Edward Sands Development, Ballito.

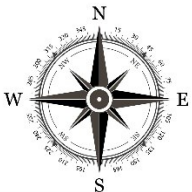
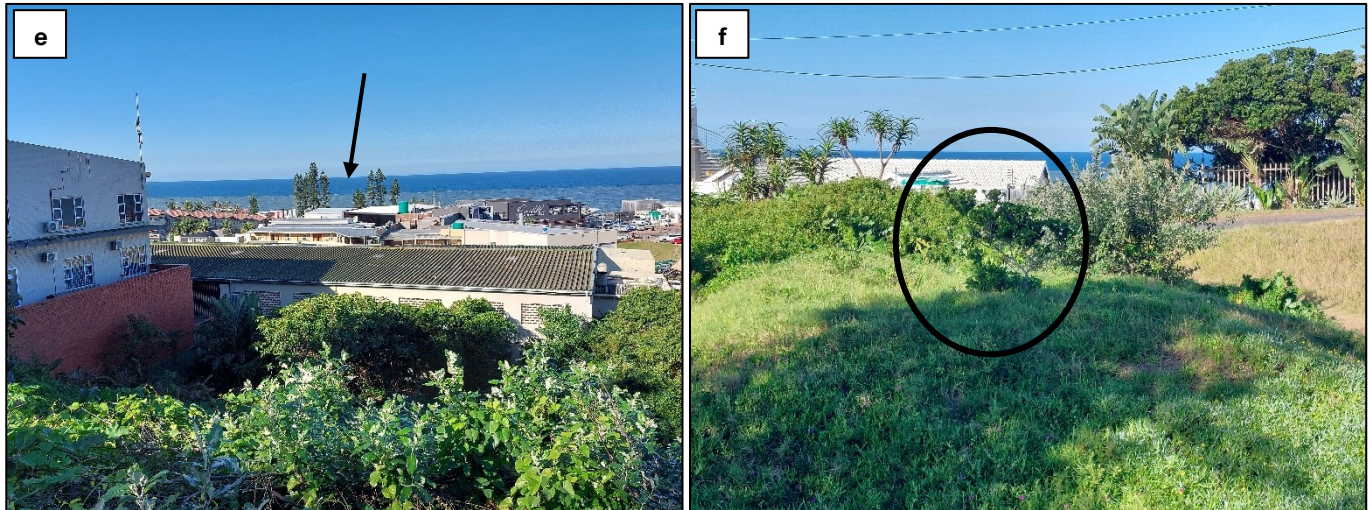
	Residential Complex (Ballito Views)	Residential Dwelling	Residential Dwelling & Indian Ocean
	Car Park, Kwik-Spar, Pharmacy, Mixed-Use	Application Area	Residential Dwelling & Indian Ocean
	Car Park, Restaurants, Bars, Mixed-Use	Vacant Land & Restaurants	Residential Dwelling & Indian Ocean

Figure 6: Photographs Showing the Characteristics of the Site Taken off Google Earth Historic Imagery and by the EAP on the 01st December 2021: (a) Historic Aerial Image of the Site Taken in June 2006 Showing the Previous Structure; (b) Historic Image of the Site Taken in December 2006 after the Previous Structure was Demolished; (c) Photograph Taken Facing South Showing the Topography of the Site and Characteristics of the Vegetation; (d) Photograph Taken Facing North.



¹⁴ RainMaker "Market Research Report" (May 2022).

Figure 6 (cont.): Photographs Showing the Characteristics of the Site Taken on the 24th May 2022: (e) View of the Property Taken from Minerva Road; and (f) Juvenile Milkwood Tree Located in the Northern Portion of the Site.



5.0 PUBLIC PARTICIPATION PROCESS

5.1 DETAILS OF PROCESS UNDERTAKEN IN TERMS OF REGULATION 41 OF THE EIA REGULATIONS

Please refer to the Public Participation Report attached under Appendix D for all details on the public participation process followed and proof of communications. Notification of all potentially Interested and Affected Parties (I & APs) took place using the following methods:

- (a) Noticeboard on the boundary of the site;
- (b) Written notification to adjacent landowners, adjacent occupiers, the relevant municipal ward councillor, the municipality and all other responsible organs of state; and
- (c) Advertisement placed in the local newspaper.

A copy of the Draft Basic Assessment Report has been provided to all I & APs for a 30-day comment period. Once all comments have been responded to, the Final Basic Assessment Report will be updated and submitted to EDTEA for assessment. I & APs will also be provided an opportunity to comment on the Final Basic Assessment Report. EDTEA have a legislated period of 107 days to assess the application. Registered I & APs will be notified of the outcome of the application.

5.2 SUMMARY OF ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Please refer to the Comments and Response Table attached to the Public Participation Report (Appendix D) for a full copy of all comments received on the application to date. A summary of comments / issues raised by I & APs to date is provided below:

- The Chairman of the Dolphin Coast Conservancy raised an objection to the development on the 24th March 2022. The reasons for the objection included the loss of “*sense of place*” associated with Ballito Village, a decrease in surrounding residential property values (loss of ocean views and privacy) and the increase in building height setting a precedent for other properties in the area. The proposed density and the impact on municipal infrastructure was also raised as a concern.
- Two residents residing in Ballito Views, a nearby residential complex, raised objections to the development telephonically. The objections were due to the loss of ocean views and potential negative impact on their property values.
- The owner of the residential dwelling on the northern boundary of the site raised concerns around general construction related impacts (noise, damage to property), an increase in traffic on Edward Place and the impact of shadows that the development would have on the adjacent house, which is used as an Air BnB / tourist accommodation.
- A resident renting one of the units on Edward Place raised concerns about the increase in traffic on Edward Place, particularly during peak seasons (i.e. December), when the road was already severely congested.

The issues raised by I & APs have been included in the impact assessment section (Table 6) and mitigation measures provided, where possible.

6.0 IMPACT ASSESSMENT

The aspects and impacts listed in the table below have been identified by reviewing the receiving environmental characteristics of the site (geographical, physical, biological, social, economic, heritage and cultural), having an understanding of the environmental impacts caused by similar activities as well as input from the specialist team.

The significance of the impact (before and after mitigation) has been calculated using the recognised quantified methods described in the Department of Environment, Forestry and Fisheries Integrated Environmental Management Information Series (Series 5 on Impact Significance). The following criteria has been used to assess the significance of the impacts identified:

Table 5: Criteria Used to Assess the Significance of Impacts Identified.

Criteria	Rating
Extent of Impact <i>Size of area that will be affected by the impact</i>	<ul style="list-style-type: none"> ▪ Site ▪ Local (<10km from site) ▪ Regional (>10km from site)
Duration of the Impact <i>Timeframe during which the impact will be experienced</i>	<ul style="list-style-type: none"> ▪ Short / once off ▪ Medium / during operation ▪ Long-term / permanent
Severity of the Impact <i>Anticipated consequence of impact</i>	<ul style="list-style-type: none"> ▪ Slight ▪ Moderate ▪ Substantial ▪ Severe ▪ Extreme
Probability <i>Probability of the impact occurring</i>	<ul style="list-style-type: none"> ▪ Very likely ▪ Likely ▪ Unlikely ▪ Very unlikely ▪ Extremely unlikely
Irreplaceability <i>Degree of which the impact causes irreplaceable loss of resources.</i>	<ul style="list-style-type: none"> ▪ High (activity will destroy resources that cannot be replaced) ▪ Moderate ▪ Low
Degree of Certainty <i>Confidence of impact rating based on available information</i>	<ul style="list-style-type: none"> ▪ High ▪ Moderate ▪ Low
Significance of Impact <i>(Severity x Probability calculated as per the figure below)</i>	<ul style="list-style-type: none"> ▪ Very low (very minor alterations of the environment and can be easily avoided by implementing mitigation measures) ▪ Low (minor alterations of the environment and can be easily avoided by implementing mitigation measures) ▪ Moderate (moderate alteration of the environment and can be reduced/avoided by implementing mitigation measures) ▪ High (major alteration to the environment even with the implementation of mitigation measures) ▪ Very high (Very major alteration to the environment even with the implementation of mitigation measures. The impact will have an influence on decision-making)
Ranking of residual impacts <i>Ranking of impact remaining after mitigation</i>	<ul style="list-style-type: none"> ▪ 5 (very low) ▪ 4 (low) ▪ 3 (moderate) ▪ 2 (high) ▪ 1 (very high)

The significance of the impacts has been assessed both with and without mitigation actions. Describing the impacts in terms of the above criteria aims to provide a consistent and systematic approach for authorities to rate the effectiveness of the mitigation measures provided and assist with the assessment of the application. The *Significance of Impact* rating is calculated according to the guide below.

Figure 7: Guide to Calculating the Significance of an Impact Based on the Severity and Probability of the Impact Occurring.

		Significance of Impact = Severity x Probability				
Probability	Very Likely	Very Low	Low	Moderate	High	Very High
	Likely	Very Low	Low	Moderate	High	High
	Unlikely	Very Low	Low	Moderate	Moderate	Moderate
	Very Unlikely	Very Low	Low	Low	Low	Low
	Extremely Unlikely	Very Low	Very Low	Very Low	Very Low	Very Low
			Slight	Moderate	Substantial	Severe
		Severity				

Table 6: Assessment of Impacts Associated with the Preferred Layout for Edward Sands (Layout Alternative 2).

Aspect	Impact	Extent	Duration	Severity	Probability	Irreplaceability	Mitigation	Significance of Impact (Severity x Probability)		Ranking of residual impacts	Degree of Certainty
								Without mitigation	With Mitigation (residual impact)		
CONSTRUCTION											
1. Infilling and excavation of material within 100m inland of the high-water mark of the sea during the construction of Edwards Sands.	a. Soil mobilisation resulting in silt entering the stormwater drains damaging nearby coastal environment.	Local	Short-term	Moderate	Unlikely	Low	<p>Since construction will take place within a small depression, it is unlikely that erosion or mobilised sediment will travel outside of the property boundaries (surrounding roads and properties are higher than 1 Edward Place). The development will however ultimately connect to the local stormwater network and therefore recommendations provided in the Geotechnical Report and Bulk Services Report must be adhered to during the design phase to ensure the site is stable:</p> <ul style="list-style-type: none"> • Heavily loaded structures require deep foundations such as piled foundations. • A detailed geotechnical investigation must be carried out prior to construction commencing to make recommendations on specific measures to be implemented ensuring stability of the proposed development. • Stormwater runoff from hard surfaces must be attenuated prior to discharge into the municipal stormwater system. • Stormwater on site must be attenuated on the basis of 1m³ attenuated for every 40m² of hard surface. <p>The following measures must be put in place to reduce stormwater runoff and associated erosion damage during construction:</p> <ul style="list-style-type: none"> • Vegetation must remain in place wherever possible and for as long as possible during earthworks. 	Low	Very Low	5	High



							<ul style="list-style-type: none"> • Sound management of surface water runoff from any exposed sand surfaces must be put in place early in the construction phase to prevent excessive inundation of sediments into the local stormwater disposal system. This must include the placement of sandbags and/or bidim in areas of preferential flow to contain stormwater on site. 				
	b. Indirect impact on nearby environment.	Local	Short-term	Moderate	Unlikely	Low	<ul style="list-style-type: none"> • During excavations, all material must be stockpiled within the property boundaries to reduce the risk of sand / sediment from being blown / washed into the stormwater system and onto the beach. • All cement mixing must take place on plastic sheets and must be contained to prevent cement / concrete from entering the stormwater system. • Prior to any work commencing on site, the applicant must appoint an independent Environmental Control Officer (ECO). • All Primary Contractors on site must undergo environmental induction training prior to work commencing (see Environmental Awareness Plan under section 5.0 of the EMPr). • General construction related impacts must be managed in accordance with the mitigation measures provided under section 4.3 of the EMPr. 	Low	Very Low	5	High
	c. Excavations destroying fossils impacting on palaeontology.	Regional	Long-term	Substantial	Extremely Unlikely	High	<p>The palaeontologist concluded that it is extremely unlikely that any fossils occur in the development footprint however, given the potentially very high sensitivity of the rocks underlying the site, a Fossil Chance Find Protocol has been provided under section 4.3 of the EMPr.</p> <ul style="list-style-type: none"> • During earthworks, should any objects with historical, archaeological or cultural significance be uncovered, all work in this area must cease and the heritage authority, AMAFA, notified. 	Very Low	Very Low	5	Moderate

							<ul style="list-style-type: none"> If fossils are found by the Contractor, Environmental Officer or other responsible person once excavations for foundations and amenities have commenced, then they must be rescued and a palaeontologist called to assess and collect a representative sample. 				
2. Development of residential infrastructure within 100m inland of the high-water mark of the sea.	<p>a. New infrastructure negatively impacting coastal processes (i.e. the sand sharing system, biotic environment, sea-level rise and storm surges).</p>	Local	Long-term	Slight	Extremely Unlikely	Low	<p>The coastal specialist concluded that the proposed development “<i>will have no impact on the sand sharing system of the immediate coastline</i>” This is due to the elevated height of the property, the distance from the high-water mark (>75m) and the presence of residential dwellings in between the development and the coastline. No specific mitigation measures have therefore been prescribed by the specialist.</p> <ul style="list-style-type: none"> All construction work and staff must be contained within the property boundaries during the construction phase. 	Very Low	No Impact	5	High
	<p>b. Clearance of 1 100m² of indigenous vegetation from within the critically endangered Northern Coastal Grasslands ecosystem.</p>	Site	Long-term	Moderate	Very Likely	Low	<p>Vegetation that will be cleared is primarily comprised of <i>Cynodon dactylon</i> (couch grass) and <i>Chrysanthemoides monilifera</i>. Both species are indicative of recent disturbance. Exotic species are also present on site. The vegetation that will be cleared is “<i>secondary, ruderal vegetation</i>” and therefore the significance of this impact has been rated as “<i>very low</i>” by the specialist¹⁵. This impact cannot be avoided or reduced as the entire property will be developed.</p>	Low	Low	4	High
	<p>c. Clearance of rare and protected plant species.</p>	Site	Long-term	Substantial	Very Likely	Low	<p>One rare species, <i>Gloriosa superba</i> (flame lily) and two protected species (<i>Mimusops caffra</i> and <i>Aloe thraskii</i>) will be cleared from the site to accommodate the development (location of these plants is shown in Figure 3).</p> <ul style="list-style-type: none"> A permit from DFFE must be obtained for the removal of the two <i>M. caffra</i> trees. Additional <i>M.caffra</i> trees to be used in the landscaping post-construction. 	Moderate	Low	4	High

¹⁵ Section 6.0 of the SDP “*Beach and Coastal Assessment: Establishment of Residential Structures on Erf 618 Ballito*”.

							<ul style="list-style-type: none"> • <i>A. thraskii</i> must either be retained and used as part of the landscaping or a permit from EKZN Wildlife must be obtained for the clearance of the aloes¹⁶. • <i>A. thraskii</i> must be planted as part of the landscaping associated with the development. 				
3. General construction-related impacts.	<p>a. Dust & emissions becoming a nuisance to surrounding residents.</p>	Site	Short-term	Moderate	Unlikely	Low	<p>This impact is unlikely considering the geology of the site, which is comprised on unconsolidated sand. Some dust may be generated during the construction phase and therefore the following mitigation measures apply:</p> <ul style="list-style-type: none"> • During high winds, dust suppression must take place using water carts / hose to prevent excessive dust on site. • Any fine materials stockpiled on site must be covered to prevent dust from being blown around. • Material transported to site on the back of trucks must be covered, • A complaints register must be maintained on site and any complaints received addressed timeously. • A shade cloth fence / other screening techniques must be used to reduce dust from entering other properties, where required. • All construction vehicles and equipment must be well maintained to reduce emissions generated on site. 	Low	Very Low	5	High
	<p>b. Noise form construction machinery, equipment and staff becoming a nuisance to surrounding neighbours.</p>	Site	Short-term	Moderate	Likely	Low	<p>The following measures are included in the EMPr to manage noise during construction:</p> <ul style="list-style-type: none"> • All construction vehicles and equipment must be well maintained to reduce noise on site. • All construction vehicles and equipment must be fitted with standard silencers. • No construction vehicles or machinery to operate outside of construction working hours (07:00 – 17:00). 	Low	Very Low	5	High

¹⁶ All species in the Liliaceae family, including aloes, are specially protected species listed under Schedule 12 of the Nature Conservation Ordinance No. 15 of 1974. A permit from EKZN Wildlife is required to relocate these species.

							<ul style="list-style-type: none"> • Neighbours to be advised prior to work being done outside of the above times. • A complaints register must be maintained on site and any complaints received addressed timeously. 				
	c. Littering and improper storage / disposal of waste accumulating on site.	Site	Short-term	Moderate	Likely	Low	<p>The following measures are included in the EMPr to manage waste during construction so that it is contained within the development footprint and correctly disposed of:</p> <ul style="list-style-type: none"> • All waste generated on site must be disposed of in the designated waste management area to ensure that it is not blown around the site or into adjacent properties. • All waste must be stored under cover to prevent rain ingress and/or waste from being blown around site. • No waste must be buried or burnt on site. • Potentially hazardous substance¹⁷ must be stored in a fenced off area that is undercover to prevent contamination of rainwater. • All potentially hazardous substances must be stored, in a bunded area (110% capacity of largest container) with an impermeable surface to prevent soil contamination during handling. • The use of hydrocarbons and other potentially hazardous liquids on site must be managed in accordance with section 4.3 of the EMPr. • No bulk storage of fuel is permitted on site (>30m³). • A full inventory of all hazardous materials must be retained on site with the respective Material Safety Data Sheets. 	Low	Very Low	5	High
	d. Improper management of toilet facilities potentially impacting the environment and	Site	Short-term	Moderate	Unlikely	Low	<ul style="list-style-type: none"> • Sufficient toilet facilities must be provided on site to prevent construction staff from utilising the surrounding areas. 	Low	Very Low	5	High

¹⁷ Hazardous substances refer to substances scheduled in the Hazardous Substances Act (1973) and Hazardous Chemical Substances Regulations (1995) and include paint, oils, fuels, solvents, pesticides.

	becoming a to surrounding neighbours.						<ul style="list-style-type: none"> On-site toilets will be provided for domestic purposes during construction phase (chemical or connected to municipal sewerage pipeline). Toilets must be located within the property boundaries. Staff must use the toilets provided and must not use any other areas on site as toilet facilities. Toilets should be screened from the neighbours as far as is practically possible. Ablution facilities must be checked regularly and kept in a clean state. 				
	e. Greywater / hydrocarbons / chemicals storage and use on site having the potential to contaminate soil and stormwater.	Local	Short-term	Moderate	Unlikely	Low	<p>During construction, minor spills of material, particularly hydrocarbons, may occur. This will pose a localised threat the immediate environment. This impact can be prevented by ensuring the mitigation measures provided above for waste management are adhered to. If a spill does occur, every effort must be made to prevent the spill from entering the municipal stormwater network / washing off site.</p> <ul style="list-style-type: none"> Any spills on site must be cleaned up immediately using the Spill Response Procedure provided in section 5.4.1 of the EMPr. The seven step Spill Response Procedure must be included in the ECO's environmental toolbox talk. No vehicles or equipment must be washed on site. Drip trays must be available near the hazardous storage area and where hazardous materials are being used on the site. A Spill Kit / similar must be available near the hazardous storage area. 	Low	Very Low	5	Moderate
	f. Proliferation of exotic species on site.	Local	Medium-term	Moderate	Likely	Low	<p>Construction activities, primarily vegetation clearance, typically provides an opportunity for the proliferation of exotic species within the disturbed area. The establishment and spread of alien invasive species within the disturbance footprint</p>	Low	Very Low	5	High

							<p>must be managed throughout the construction phase by the Contractor.</p> <ul style="list-style-type: none"> The “<i>Eradication of Alien Invasive Plant</i>” Management Plan must be implemented on site during construction (section 5.4.2 of the EMP). This Management Plan includes a list of common alien invasive plant species anticipated on site, identification photographs and eradication measures. 				
OPERATION											
4. Edward Sands development located within 100m of the high-water mark of the sea.	<p>a. Climate change and rising sea levels having a long-term impact on infrastructure on site.</p>	Site	Long-term	Slight	Very Unlikely	Low	<p>Climate change is anticipated to include a rise in sea level as well as an increase in severe storm events¹⁸. An accepted annual sea level rise of between 1.23 – 3.2mm is anticipated. Due to the elevation and distance from the high-water mark, the coastal specialist concluded that sea level rise will have “<i>little influence</i>” on the proposed Edward Sands development¹⁹. No specific mitigation measures have therefore been prescribed by the specialist.</p>	Very Low	No Impact	5	Moderate
	<p>b. Uncontrolled stormwater management resulting in ponding of stormwater in the basement parking and/or high velocity of stormwater runoff onto the beach environment.</p>	Local	Long-term	Moderate	Likely	Low	<p>As described in section 4.1., the property is located within a small depression and is surrounded by road networks. The following must be adhered to to manage stormwater and prevent ponding in the basement parking:</p> <ul style="list-style-type: none"> Stormwater infrastructure must be connected to the existing municipal stormwater system in Edward Place and/or Compensation Road. Stormwater must be attenuated on site before being discharged into the municipal system. As per the Bulk Services Report, attenuation facilities must allow for 1m³ of attenuation volume for every 40m² of hard surfaces²⁰. Attenuation facilities must be constructed at the same level as the municipal stormwater system 	Low	Very Low	5	High

¹⁸ Bundy, S., Goble, B., Parak, O. and Bodasing, M. “*Best Practises for Coastal Development in KwaZulu-Natal*” KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs, Pietermaritzburg (2021).

¹⁹ Section 4 of the SDP “*Beach and Coastal Assessment: Establishment of Residential Structures on Erf 618 Ballito*”.

²⁰ Section 4.1.1 of the Escongweni BPH Engineers “*Bulk Services Report*” April 2022.

							<p>or a pump must be installed to pump stormwater into the municipal system.</p> <ul style="list-style-type: none"> To prevent stormwater from ponding in the basement parking, a separate storage / attenuation tank must be constructed below-ground. Any stormwater entering the underground attenuation tanks must either be stored and used in the building (greywater system / landscaping etc.) or automatically pumped into the municipal system when the tanks are reaching capacity. A cut off drain / berm must be constructed at the top of the driveway leading down to the basement parking to prevent / reduce the volume of stormwater from entering the parking. A detailed stormwater management plan must be prepared by an engineer prior to development commencing. The architect and engineer to encourage on-site stormwater percolation, where possible (i.e. permeable paving, grass blocks, landscaped areas vs hard surfaced etc.) 				
	<p>c. Loss of sense of place associated with Ballito Village (raised as a concern during the public consultation phase).</p>	Local	Long-term	Substantial	Likely	Low	<p>The proposed Edward Sands development is located within Ballito Village, which is comprised of a mixture of residential, retail, tourism and commercial facilities. The Ballito Village area has undergone a level of gentrification over the past couple of years with the establishment of vibrant restaurants / bars as well as the Kwik-Spar. As described in section 4.8 of the BAR, there are existing residential dwellings directly north and east of 1 Edward Place with commercial, retail and mixed-use developments located to the south and west. Due to the proposed height of the building, a concern was raised during the public consultation phase, that the “<i>sense of place</i>” associated with the Lower Ballito Village area will be disturbed. The significance rating of this impact is subjective and difficult to quantify as “<i>sense of</i></p>	Moderate	Moderate	3	Low

						<p><i>place</i>” is an intangible aspect of the environment. The potential impact on the Ballito Villages “<i>sense of place</i>” has therefore been assessed using the precautionary approach which requires “<i>that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions</i>”²¹. Using the precautionary approach, the significance of this impact has been rated as <i>moderate</i>. While architectural design and landscaping may mitigate this impact to some degree, the impact is unavoidable. To better assess this impact, a Market Research Report was commissioned (Appendix B). The findings of the Market Research Report is summarised as follows:</p> <ul style="list-style-type: none"> • Since 2011, Ballito town has experienced an increase in population of 104%. • There is a lack of new product offering, especially in Compensation Beach which is where the new development will be located. • There is a noticeable trend of downsizing from larger homes to smaller sized apartments, indicating the current development is well placed. • 60% of agents interviewed stated that the development will not impact the existing market and that hill houses don’t have sea views, or the views are already obstructed by existing buildings. • 40% of agents interviewed stated that there may be limitations to the site due to town planning constraints (i.e. height restrictions) and obstruction of views for surrounding residents. Agents acknowledged that this is however, not a reason to prevent development. • The proposed development will significantly impact the desirability of the area as well as 				
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²¹ Section 2(4)(a)(vii) of the National Environmental Management Act 107 of 1998 as amended.

						<p>price points for properties, which are anticipated to increase by 20 – 25%.</p> <p>The findings of the Market Research Report therefore reflect that the development will have an overall positive impact on the Ballito Village area. Other factors to be considered include:</p> <ul style="list-style-type: none"> • The current zoning of the property allows a 9m high residential development. A separate town planning application is underway to increase the height of the proposed structure to 10.5m. • Renderings and images of the proposed development provided by the architect are included under Appendix C. 					
	<p>d. Negative impact on surrounding residential property values (raised as a concern during the public consultation phase).</p>	Local	Medium-term	Moderate	Unlikely	Low	<p>Concerns that the proposed development will reduce property values in the area was raised by some local residents who may lose sea views or whose views may be impacted by the development. The property where the Edward Sands development is proposed is currently vacant allowing uninterrupted sea views from some units in the nearby Ballito Views complex as well as some houses along Sandra Place. The property is currently zoned to accommodate a residential development with a height of 9m and therefore views across the vacant land would be impacted by any development on Erf 618. Like the impact assessed above, this impact is subjective and depends on the need of potential purchasers. As per the findings of the independent Market Research Report, the proposed development <i>“creates significant impact in terms of desirability of the area as well as price points of the area, which could increase area prices by 20-25%”</i>. Market research therefore shows a potential improvement in surrounding property values.</p>	Low	Low	4	Moderate

	e. Height of the residential building creating shade / shadows on surrounding residential dwellings (raised as a concern during the public consultation phase).	Local	Long-term	Moderate	Likely	Low	The elevation profile of Ballito Village is shown in Figure 4a. Ballito Village is located at the base of a steeply inclining hill which rises up behind Sandra Road (visible in Figure 4a). The sun rises in the east, above the sea, and sets in the west, behind the hill. It is therefore reasonable to assume that there would be no shadows created by the development until the sun reaches its zenith, above the building, and starts moving west towards the hill. The entire Ballito Village is cast in the shadow of the hill as the sun sets and therefore it is unlikely that the proposed development, despite its proposed height, would create additional shadow / shade on surrounding residential properties. The height of the existing Kwik-Spar centre must also be considered. The degree of certainty of this impact rating has been rated as “low” as the position of the sun differs depending on the season and there may be shadows cast to the north and south of the Edward Sands development depending on time of year.	Low	Low	4	Low
CUMULATIVE											
5. Development of Edward Sands within Ballito Village.	a. Cumulative impact on traffic congestion.	Local	Long-term	Moderate	Very Likely	Low	Some residents on Edward Place concerns about the increased traffic volumes expected from the proposed development, specifically along Edward Place, which is already congested during peak seasons (i.e. December). A Traffic Assessment was conducted by NSA Consulting Engineers and is attached under Appendix B. The traffic engineer concluded that “ <i>the additional trips would have an inconsequential /marginal effect on the external road network</i> ” ²² <ul style="list-style-type: none"> The traffic engineer recommends access off Edward Place with no access from Compensation Road considered due to safety concerns. All parking must be provided within the property boundaries. 	Low	Very Low	5	High

²² Section 7.6 of the NSA “Site Traffic Assessment” (April 2022).

7.0 ENVIRONMENTAL IMPACT STATEMENT

7.1 SUMMARY OF KEY FINDINGS (POSITIVE AND NEGATIVE IMPACTS)

The proposed Edward Sands development is located at No. 1 Edward Place in Ballito Village. The majority of the property (75%) is located within 100m of the high-water mark of the Indian Ocean. Clearance of indigenous vegetation, excavation of material and the construction of infrastructure on the property therefore requires Environmental Authorisation from EDTEA.

The property is located within an existing urban environment with the property having been fully developed in 2006. The environment on site is therefore highly transformed with the property having been previously excavated. The property lies outside of the sand sharing system and will not be influenced by future predicted sea level rises. The most notable environmental features on the property are the rare and protected species which will be removed to accommodate the development footprint (*Gloriosa superba*, 2x *Mimusops caffra* and *Aloe thraskii*). All construction activity must take place in accordance with the attached EMPr to ensure that the significance of all impacts identified is reduced to “low” or “very low”.

The proposed Edward Sands development received mixed reactions from the public during the consultation phase. Local businesses, restaurants and some residents look forward to development of the property, which has been vacant since 2006. Some other local residents have raised objections due to the height of the building and the potential negative impact this may have on property values. The Dolphin Coast Conservancy raised concerns that the height of the development will negatively impact the overall “sense of place” associated with Ballito Village. The Market Research Report, attached under Appendix B, addresses some of these concerns however the impact on “sense of place” remains a moderate risk as a precautionary approach to the assessment of a subjective concern raised. The town planning scheme currently permits a 9m residential development and therefore a separate town planning application is underway to increase the height of the development to 10.5m. The town planning application follows the Environmental Impact Assessment and undergoes a separate public consultation phase.

7.2 ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

The information in this report has been extracted from the various specialist reports attached under Appendix B. The assessment assumes that information received from the specialist team, architect and applicant is accurate. Assumptions and limitations of the specialist reports are listed under section 2.0 of the SDP “Beach and Coastal Assessment” March 2022 and section 5.0 of the “Palaeontological Impact Assessment”.

7.3 IMPACT MANAGEMENT OUTCOMES

Through the assessment process, impact management outcomes have been identified and are provided in the table below. Impact management measures and recommendations identified during the assessment have been included in the EMPr attached under Appendix E to ensure that the impact management outcome is achieved.

Table 7: Impact Management Outcomes Associated with Edward Sands.

Primary Impact Management Outcome: <i>To create a sustainable development by preventing construction activities from impacting the adjacent beach environment and further uplifting the Ballito Village area.</i>		
#	Impact Management Outcome	Measures in Place to Achieve Outcome
1	To avoid construction activities from indirectly impacting the sand sharing system.	An independent ECO must be appointed to manage construction in accordance with the mitigation measures provided in the EMPr. All construction staff and vehicles to be contained to the property and stormwater management measures implemented early in the construction period to avoid ponding on site and uncontrolled stormwater discharge into the municipal system.
2	Reduce nuisance to the neighbours and surrounding area during construction.	Section 4.3 of the EMPr contains measures to manage and minimise general construction-related impacts (waste management, dust suppression, noise restrictions etc.). A complaints register must be retained on site and complaints recorded, timeously dealt with.

3	Effective stormwater management on and off-site.	Since the site is located in a depression with a basement parking level proposed, stormwater needs to be attenuated on site and pumped into the surrounding municipal stormwater system. A detailed stormwater management plan must be compiled prior to construction commencing to ensure there is sufficient capacity on site to attenuate stormwater prior to discharge into the municipal system (due to close proximity to the beach). On-site stormwater percolation to be encouraged.
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7.4 PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

Construction of the Edward Sands development is likely to commence within the next 5 years and therefore the EA must be valid until at least 2027. A post-construction audit must be undertaken by an independent ECO and the report submitted to EDTEA: Compliance and Enforcement.

7.5 MONITORING REQUIREMENTS

An independent ECO must be appointed by the applicant to monitor the development in accordance with the EMPr attached under Appendix E.

- The ECO must, prior to any work commencing on site, conduct Environmental Awareness training with site personnel (as per section 5.0 of the EMPr).
- The ECO must undertake monthly audits during the construction phase of the Edward Sands development.
- The monthly audit must include an inspection of the beach environment in front of the development (where stormwater drains onto the beach near Hops Restaurant and Bar).
- One monthly report summarising the findings of the audits must be submitted to the applicant, Contractor and EDTEA: Compliance and Enforcement.
- One post-construction audit must be undertaken when construction is complete.

7.6 REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD BE AUTHORISED AND CONDITIONS OF AUTHORISATION

Based on the outcome of this assessment, it is recommended that the proposed Edward Sands development (Layout Alternative 2) be authorised by EDTEA (Figure 8). There are no environmental restrictions for development on Erf 618 of Ballitoville Township. Mitigation measures provided in the attached EMPr must be strictly adhered to during construction to ensure that the significance of all impacts associated with construction have a “low” to “very low” significance. The potential impact that the proposed development may have on the “sense of place” associated with Ballito Village remains at a *moderate* risk rating due to a precautionary risk rating approach. The findings of the Market Research Report show that the proposed development offers a desirable product, is well located in Compensation Beach and has the potential to increase the surrounding property values by 20-25%.

The following conditions are recommended for inclusion in the Environmental Authorisation:

- The EMPr attached under Appendix E must be adhered to during all phases of the project.
- The ECO must monitor the site and adjacent beach environment monthly during the construction phase.
- The Contractor and all construction staff must be restricted to the boundaries of the property to prevent any indirect impact on the sand sharing system.
- Stormwater management measures to be implemented early in the construction phase to prevent ponding of stormwater on site and reduced sediment entering the municipal stormwater system having an indirect impact on the beach environment.
- A permit from DFFE must be obtained for the removal of the two *M.caffra* trees.
- *A. thraskii* must either be retained and used as part of the landscaping or a permit from EKZN Wildlife must be obtained for the clearance of the aloes
- *A. thraskii* must be planted as part of the landscaping associated with the development.

Figure 8: Location of the Edward Sands Residential Development at 1 Edward Place, Ballito Village Showing Sensitive Environmental Areas to be Aware of During Construction.

