Eco Route
ENVIRONMENTAL CONSULTANCY
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NEED AND DESIRABILITY

The Proposed Residential Development on Portion 91 of Farm Matjes Fontein 304, Keurboomstrand, Plettenberg Bay, Western Cape Province.

The development concept includes 60 group housing stands with average erf sizes of ±500m². The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.

The 60 residential erven are approximately 29 471m² in total, with the internal road network of approximately 12 013m² making a total permanent disturbance footprint of 41,484m². The communal open space II area within the development will be approximately 9 642m² of landscaped gardens and stormwater infiltration ponds systems.

The proposed open space system is made up of 9 642m² within the development footprint and 83 512m² of the remaining area. The open space areas within the development will be zoned as Open Space II and correspond to the position of indigenous vegetation, forest, and milkwood trees. The remaining undeveloped 83 512m² will be zoned as Open Space III and will be managed as a conservation area in accordance with a Conservation Management Plan. The conservation area also incorporates an ecological corridor for wildlife movement and the historical fountain. The ecological corridor will run between the west and east boundary of the property along the foot of the slope and creates a buffer zone of 20 meters between the development and the forest area. In addition to the wildlife benefitting from this 20 m corridor, the slope base is also then protected in terms of groundwater recharge

As per the Guideline Information to be Assessed	EAPs Response
"securing ecological sustainable development and use of natural resources"	
How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?	The relevant Key Issues with regard to the Receiving Environment include: – **Forest habitats** on the upland, steeply-sloping part of the site, have high biodiversity and conservation value, and are designated as sensitive. These areas must not be affected by the proposed development. A buffer zone of 20 meters will be retained along the base of the slope to protect the **forest margin**. For example, steps should be taken to rehabilitate these areas and encourage growth of species, such as *Pterocelastrus tricuspidatus* and *Sideroxylon inerme*, that are mesic and fire-resistant. An open space management system should be developed to formalize such steps for forest protection. – No plant species of concern were found on site, but a small number of free-standing, relatively large **milkwood trees** (*Sideroxylon inerme*) were found on site that are protected under the National Forests Act. These will be retained within the proposed development. – The **dam and associated spring** are identified as a watercourse as defined in the National Water Act. The mapped spring and dam have been protected by a 10 m buffer as recommended, which constitutes the regulated area as per GN509 as this incorporates riparian vegetation in the immediate vicinity of the features. – The property is located on the edge of the 1:100 year floodline, which is not mapped to extend beyond the boundary of the property. In reality, the frequency of 100-year flood events is increasing due to climate change, and when coincident with sea-level rise and high tide events, it is not impossible that minor flooding could affect the low-lying area of the property in future. This should be considered in the design and layout of the property, and **stormwater management** should not further exacerbate the flood risk. To this end, Sustainable Drainage Systems (SuDS) should be fully implemented. The system should lead run off water away from sensitive areas, in order to prevent soil erosion and contamination. The use of grass blocks on paved driveways, roadway kerb and channel side drain, and retention ponds to assist percolations of stormwater. – **Sedimentation and pollutant runoff** from the development during construction may impact the dam and associated spring and its buffer area. – **Removal of topsoil** must only be allowed in the disturbance area and undertaken prior to

	commencement of construction activities and stored for later use during the Rehabilitation Phase of the development. This will largely determine the success and rate of rehabilitation. – Allow for the maintenance of **animal movement** through the creation of open space links to the forest area. The preferred layout includes a 20m buffer along the forest margin and also incorporates portions of the secondary vegetation area to form part of the open space system within the development, which will link up with the forest area. the 20m wide buffer runs along the forest and foothill to allow for animal movement along the foothill of the ridge. Wherever fences are needed in the development area and on its boundary, it will be necessary to ensure that wildlife can move through the fences to enable their movement across the landscape. This can be achieved with wildlife gaps strategically placed in the fence. – **Alien plant infestation** impacting biodiversity and ecological processes. An ongoing alien invasive management programme should take place on site. This will protect riparian habitats downslope from degradation and could potentially be the biggest contribution to maintaining and protecting biodiversity on site and in surrounding areas. – **Fire risk** mostly posed by alien vegetation. The removal of the alien vegetation will mitigate fire risk to a large extent. There must be well-placed/planned defensible spaces around the structures/houses which will offer additional structural protection against possible wildfires moving into the development. These defensible spaces should be properly maintained. Highly burnable vegetation or flammable material should not be present within these defensible spaces. The road network within the development will also limit any spread of fires within the proposed development. It cannot be expected landowners/homeowners to make provision for extreme wildfire events. – **Erosion** due to removal of organic rich topsoil and disturbance of vegetation during construction. Areas that are disturbed through building activities (such as the excavations for pipelines) should be suitably rehabilitated without delay. Failure to do so will have a knock-on effect on biodiversity in the form of soil exposure and a loss of the soil micro-organisms that are essential for plant growth. The disturbed open space areas will be rehabilitated with indigenous vegetation. – The **preservation of natural habitats**. Wherever there are sections of undisturbed natural habitat within the development area, they should not be impacted by the building activities and should be conserved as small islands of natural

<table>
<tr><td></td><td>resources for the small wildlife of the area. Any area of natural habitat that is not required for the approved development should be conserved for small wildlife. Rehabilitation of disturbed areas, as well as previously invaded areas, should promote establishment of site-appropriate indigenous species.</td></tr>
<tr><td>How were the following ecological integrity considerations taken into account?
➢ Threatened Ecosystems,</td><td>A specialist was appointed to ground truth the animal and plant biodiversity found on site. Both reports concluded that no listed threatened or near threatened species would be directly impacted by the development.</td></tr>
<tr><td>Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure</td><td>The development is not in close proximity to coastal shores, estuaries, wetlands, and similar systems.

A small natural spring is present on the site and was identified by the landowner. Water flowing from the spring is stored to a minor extent in a small, excavated pond measuring approximately 2-3 square metres. Soil is very sandy on the site and should therefore be relatively well drained. The dam is roughly circular, and measures approximately 90m^2 in extent. These features will be protected by a 10m buffer.</td></tr>
<tr><td>Critical Biodiversity Areas (“CBAs”) and Ecological Support Areas (“ESAs”)</td><td>The 2023 WCBSP map for the property shows that the northern area of the site below the public road (±41.34%) is within a Critical Biodiversity Area (CBA1: Terrestrial). This indicates that the Garden Route Shale Fynbos on site is considered to be highly important for the conservation of biodiversity in the province as well as for maintaining ecological patterns in the landscape. However, the forest exists in the areas designated as Critical Biodiversity Area 1. A small section along the foot of the slope, is shown as CBA Estuary. The area of the site north of the CBA1 is classified as Degraded CBA2 (Terrestrial), and to the south it is classified as Degraded CBA2 (Earmarked). The proposed development is within the Degraded CBA2 (Earmarked) and overlaps with the CBA1.</td></tr>
<tr><td>Conservation targets,</td><td>As per Cape Farm Mapper:

Critical Biodiversity Areas:
<table>
<tr><td>Name:</td><td>Garden Route Shale Fynbos</td></tr>
<tr><td>Condition:</td><td>Natural</td></tr>
<tr><td>Category 1:</td><td>CBA: Terrestrial</td></tr>
<tr><td>Category 2:</td><td>CBA: Threatened Ecosystem</td></tr>
<tr><td>Definition:</td><td>Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.</td></tr>
<tr><td>Objective:</td><td>Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be</td></tr>
</table></td></tr>
</table>

	rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.

Name:	Keurbooms
Condition:	Natural
Category 1:	CBA: Aquatic
Category 2:	CBA: Estuary
Definition:	Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.
Objective:	Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.

Critical Biodiversity Areas (Degraded):

Name:	Garden Route Shale Fynbos
Condition:	Degraded
Category 1:	CBA2: Terrestrial
Category 2:	CBA2: Threatened Ecosystem
Definition:	Areas in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.
Objective:	Maintain in a natural or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land-uses are appropriate.

Category 1:	CBA2: Terrestrial
Category 2:	CBA2: Earmarked
Definition:	Areas in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes

	and infrastructure.
Objective:	Maintain in a natural or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land-uses are appropriate.
Ecological drivers of the ecosystem	The most important direct drivers of change in ecosystems are habitat change (land use change and physical modification of rivers or water withdrawal from rivers), overexploitation, invasive alien species, pollution, and climate change. No rivers will be impacted and care has been taken to ensure no exploitation of natural resources. Based on a detailed field survey by Dr Hoare to verify conditions on site, a detailed landcover and habitat mapping exercise was undertaken for the site. This identified three main habitats occurring on site. These are mapped as Forest, Secondary vegetation and Pastures. There are also transformed areas associated with roads, localised patches of alien trees, and residual individual milkwood trees (*Sideroxylon inerme*). The habitat assessment is important for understanding the suitability of habitat on site for various plant and animal species of concern, which usually have very specific habitat requirements. Following the procedures within the Species Environmental Assessment Guidelines, the forests on site have been assessed as having Very High sensitivity / Ecological Importance, secondary vegetation as having Medium sensitivity / Ecological Importance, and remaining areas Low or Very Low sensitivity. The Forest habitat will be buffered from the development by a 20m wildlife corridor.
Environmental attributes and management proposals contained in relevant Environmental Management Frameworks	The Garden Route EMF is applicable to the proposed development. The EMF states the following: Specific reference to relevant factors which should be taken into account from a sustainable development perspective is then listed in section (4)(a) to include the following: i. That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied; ii. that pollution and degradation of the environment are avoided, or, where they The Garden Route Environmental Management Framework cannot be altogether avoided, are minimised and remedied; iii. that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;

	iv. that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner; v. that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource; vi. that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised; vii. 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; and viii. that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied. The BAR will address the points above. The focus of these planning tools is on directing development and infrastructural utility service investment, as well as managing and directing ongoing private sector development applications.
Environmental attributes and management proposals contained in relevant Spatial Development Framework, and	The Garden Route SDF aims to promote balanced development that supports the integration and densification of settlements within the District. In general, it promotes the creation of a walkable, integrated, and compact urban environment. The report states that the financial and economic viability of towns in the District should be improved by promoting the intensification of existing urban areas. This can be achieved through infill, densification, and redevelopment, which in turn makes the use of existing infrastructure capacity and services more efficient. This vacant site presents an ideal opportunity for densification and urban infill. The Bitou SDF 2021 identifies the properties as being within a settlement area. The property has been earmarked for development and the proposal is in-line with this land use designation. The property is situated in the Coastal Corridor which is defined by a number of smaller properties located within an approximate 1km offset from the high watermark extending from the Bitou River in the direction of the Keurboomstrand settlement. The Spatial Plan has identified development nodes for this area. For these nodes, a gross density profile of 12 units per ha of the identified transformed footprint area is proposed. The latter is based on the guideline of 15 units per hectare proposed for smaller rural settlements as contained in the Draft Bitou SDF (2013).

	Furthermore, in general the SDF support the densification of urban areas, although the document does not have any specific densification policy pertaining to this area. The approval of this application would not compromise the integrity of the applicable policy documents agreed to by the relevant authorities.
Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.)	This is not a RAMSAR site, climate change has been taken into consideration with the possibility of increased storm activity. The negative result may be that stormwater from hardened surfaces may lead to soil erosion. This has been addressed by implementing the SUDs principals on site to manage the stormwater.
The Impact Mitigation Hierarchy	
How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	The negative impacts on the receiving environment that may have resulted in degradation or pollution are as follow: i. Disturbance of vegetation ii. Pollution of water resources iii. Ecological corridors iv. Stormwater All aspects have been addressed in the BAR and EMPr, with associated mitigation measures. Specialist studies were conducted that recommended mitigation measures in regard to the negative impacts on the receiving environment.
What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimise, reuse and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste?	General waste generated through the construction and operational phase of the project is the responsibility of the contractor / landowner. Refuse such as container bags, gravel, rubble, cans, plastic, wire, etc. generated during the execution of any works must be separated out and stored in appropriately designated areas, removed on a regular basis for disposal at a permitted waste disposal site. All recyclable waste must be separated out with separate containers for paper products, glass, plastic, etc. Any *possible* hazardous waste generated on the site during construction must be kept in a suitably bunded area and removed appropriately.
How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	There are four major types of non-renewable resources: oil, natural gas, coal, and nuclear energy. The following technologies are proposed: • Solar geysers and geyser thermal insulation • Solar panels • Use of gas • Energy efficient light bulbs • Low bollard-type lighting • Natural ventilation in certain buildings • Rainwater tanks
How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into	Renewable resources include biomass energy (such as ethanol), hydropower, geothermal power, wind energy, and solar energy. The following technologies are proposed:

account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?	• Solar geysers and geyser thermal insulation • Solar panels • Use of gas • Energy efficient light bulbs • Low bollard-type lighting • Natural ventilation in certain buildings • Rainwater tanks • Bio Sewage Plant Effluent from the on-site Bio Sewage Plant will be reticulated with each erf being provided with a connection for irrigation and toilet flushing.
Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life)	Local labour and materials will be used as far as possible during the construction of the development. Water, electricity and sewage services will be acquired from the municipality. There is adequate service availability for the development.
Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources for the proposed development alternative?).	Rainwater will be collected from rooves and stored in rainwater tanks to be used as grey water if a filter system is added the water can be used as potable water. Electricity provision will also be augmented with solar power. The opportunity costs are positive as it will reduce the amount of municipal water supply.
Intra- and inter-generational equity in the context of sustainability"	
Do the proposed location, type and scale of development promote a reduced dependency on resources? For example, can the development be located more appropriately to reduce the dependency of resources needed for service infrastructure?	There is existing water and electricity available that will be utilised. Electricity provision will also be augmented with solar power as well as rainwater harvesting complying with these criteria.
How were a risk-averse and cautious approach applied in terms of ecological impacts?	The EAP, Town Planner, Specialists, and Engineers conducted site visits and completed reports based on best possible option to prevent negative ecological impacts, and the SDP was designed accordingly.
What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?	There are currently no known gaps in knowledge pertaining to Intra- and inter-generational equity.
What is the level of risk associated with the limits of current knowledge?	Low level of risk.
Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	A Town Planning report was compiled to assess these issues.
A risk averse and cautious approach	
How will the ecological impacts be resulting from this development impact on people's environmental right in terms following	No foreseeable impacts.
Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?	Access to resources: N/A Opportunity costs: Loss of amenity: The area is earmarked for development. Air and Water quality impacts: No negative impacts

	are expected. Health Impacts: No health impacts are expected
Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?	Improved access to resources: N/A Improved amenity: The area is earmarked for development. Due to the location a residential development was most suitable for this area. Improved air or water quality: N/A Communities: The proposal will enhance the value of the area and supplement the surrounding land uses. The proposal will result in employment opportunities
Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)	Ecosystem goods and services (ES) simply are the benefits that humans receive from nature. These benefits support many aspects of human well-being, including our food and water, security, health and economy. The proposal will enhance the value of the area and supplement the surrounding land uses. The proposal will result in new employment opportunities.
Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area?	This project will start with investment into local construction companies and their workforce. All local suppliers involved. Permanent employment of staff to manage the day-to-day operations of security estate. The proposal will also secure long-term investment to the area as well as temporary and permanent employment opportunities for the ward. The socio-economic impacts of the proposed development will also contribute to the municipal revenue base. The proposal can be considered to be in line with the IDP enabling an economic environment through local economic development initiatives.
Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?	The consideration of alternatives land use options provides a framework for sound decision-making based on the principles of sustainable development. Key criteria for consideration when identifying alternatives are that they should be "practicable", "feasible", "relevant", "reasonable" and "viable". **Status Quo:** If the land remained undeveloped there will be little benefit for the landowner, the community, or the municipality. **Alternatives:** The developer wants to provide a high-quality yet affordable housing product. To make this project financially viable and responsive to the target market, the cost of land, services and build cost need to be limited and in order to do so, a certain economy of scale needs to be attained. The most relevant design aspect to achieve this, is through development density. The property is 14.7ha in size and **Alternative 1** proposed 73 units of approximately 375m², which calculates to a gross density 5 units per ha. The nett

	density is calculated excluding the undevelopable steep slopes and forest vegetation to the north of the site. The identified development area measures approximately 6ha and 73 units will calculate to a net density of 12 units per ha, which is not regarded as high density. This density correlate with the proposed density profile of 12 units per ha of the identified transformed development nodes as set out in the Local Spatial Plan. To bring the above density into perspective, medium-density housing is generally characterized by a density of 30 to 40 dwelling units per hectare (gross), while high-density residential areas, typically situated in inner urban locales with high-rise structures and mixed-use components, can exhibit densities ranging from 40 to 100 units per hectare. Based on the objections received during the initial public participation phase conducted as part of the Basic Assessment process, it is evident that the local community is predominantly concerned about the perceived high density of the development and the potential demographic it might attract, and how this may impact on their own property values. In an effort to address the concerns of neighbouring residents, the original development concept has been revised by reducing the density from 73 to 60 units, concurrently increasing property sizes from approximately 375m²to approximately 500m². As a result, the development's gross density now stands at approximately 4 units per hectare, while the net density is approximately 10 units per hectare. These adjusted figures align more closely with the surrounding neighbourhood densities while is still allows for enough units to be financially viable and affordable to the end user. The proposed density is high enough to be financially viable, yet low enough to fit into the surrounding area.
Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and existing and other planned developments in the area?	There are no cumulative impacts expected if all mitigation measures are adhered too.
"Promoting justifiable economic and social development"	
What is the socio-economic context of the area, based on, amongst other considerations, the following considerations?	
The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area	Please refer to the town planning report.
Spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.)	Efficiency relates to the form of settlements and use of resources - compaction as opposed to sprawl; mixed-use, as opposed to mono-functional land, uses; residential areas close to work opportunities as opposed to dormitory settlement. This principle can only be address through spatial development frameworks. The Bitou SDF supports this principle in its strive to limit urban development to certain areas.

	Being compatible with the SDF can therefore be regarded as being compatible with the principle of Spatial Efficiency.
Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and	The sustainable use of provincial assets is one of the main aims of the Western Cape Provincial Spatial Development Framework 2014. The protection of the non –renewable natural and agricultural resources is achieved through clear settlement edges for towns by defining limits to settlements and through establishing buffers/transitions between urban and rural areas.
Municipal Economic Development Strategy ("LED Strategy")	Property rates are an important source of general revenue for municipalities. Revenue from property rates is used to fund services that benefit the community as a whole. These include installing and maintaining streets, roads, sidewalks, lighting, and storm drainage facilities; operating parks, recreational facilities, and cemeteries. Property rates revenue is also used to fund municipal administration, and costs of governance. High-value properties, yielding high property rates have a very important role to play in municipal finance.
Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?	
Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?	The development will provide skills development opportunities during the construction phase and will make use of local labour.
How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts	The well-positioned and designed development infrastructure allows for it to blend in very well with its surroundings and create minimal contrast in the landscape. With the implementation of appropriate mitigation measures the preferred and alternative development layouts can be effectively screened from the road.
How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities? • Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term? Will the impact be socially and economically sustainable in the short- and long-term?	Spatial justice principles seek to eliminate spatial injustices that result from discrimination and marginalisation. Inequitable access to housing, educational and economic opportunities, and health facilities are consequences of spatial injustice. The instruments used to promote spatial justice include Spatial Development Frameworks, Precinct Plans, and Urban Regeneration Plans and Policies. The location of this private property on the outer limits of the urban area cannot directly contribute to spatial reform and integration.
In terms of location, describe how the placement of the proposed development will:	
result in the creation of residential and employment opportunities in close proximity to or integrated with each other	Employment opportunities will be created for skilled an un skilled labour. Several communities reside in the area who will be able to benefit from employment opportunities.
reduce the need for transport of people and goods,	N/A
result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport),	No.
compliment other uses in the area,	The planned residential development will be similar to existing and planned residential developments to the south of the property, Milkwood Glen Residential Complex, which consists of about 50 Group Housing

	erven and communal open space. The site lies within the urban edge for Plettenberg Bay and the proposed residential development is compatible with surrounding land uses. The proposal is sensitive towards the character of the area and attempts to create a unique sense of place that will blend in and compliment the ambience of the surrounding area.
be in line with the planning for the area,	This property has been included in the urban edge and has been earmarked for urban development.
for urban related development, make use of underutilised land available within the urban edge	The urban fringe must ensure that urban expansion is structured and directed away from environmentally sensitive land and farming land; agricultural resources are reserved; environmental resources are protected; appropriate levels of services are feasible to support urban fringe land uses, and land use allocations within the urban fringe are compatible and sustainable.
optimise the use of existing resources and infrastructure,	Eskom power and the municipal water will be used.
consider opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement),	N/A
discourage "urban sprawl" and contribute to compaction/densification,	The proposal supports this principle of spatial sustainability in the sense that it proposes a compact development within the urban edge, thereby limiting the need for urban sprawl and encouraging the optimal use of existing urban land and services.
contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs,	Spatial justice principles seek to eliminate spatial injustices that result from discrimination and marginalisation. Inequitable access to housing, educational and economic opportunities, and health facilities are consequences of spatial injustice. The instruments used to promote spatial justice include Spatial Development Frameworks, Precinct Plans, and Urban Regeneration Plans and Policies. The location of this private property on the outer limits of the urban area cannot directly contribute to spatial reform and integration.
encourage environmentally sustainable land development practices and processes	Yes.
take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.)	The houses will vary in size but will be built in a similar style that will create a harmonious development. The vision of this development concept was to create an affordable and sustainable housing product specifically targeting the middle-income group. The aim is to create a pleasant yet affordable residential neighbourhood where the average person can own a home and live with dignity. There were several objections from the local residents that express their concern about the density of the development.
result in investment in the settlement or area in question that will generate the highest socio-economic returns (i.e. an area with high economic potential),	The proposal responds to the need for middle-income housing in Plettenberg Bay and will, contribute to job creation, municipal revenue, and economic growth in the town.

	The Garden Route SDF states that financial and economic viability of towns in the District should be improved by promoting the intensification of existing urban areas. This can be achieved through infill, densification, and redevelopment, which in turn makes the use of existing infrastructure capacity and services more efficient.
impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and	The proposal is sensitive towards the character of the area and attempts to create a unique sense of place that will blend in and compliment the ambience of the surrounding area.
in terms of the nature, scale and location of the development, promote or act as a catalyst to create a more integrated settlement?	No, the location of this private property on the outer limits of the urban area cannot directly contribute to spatial reform and integration.
How were a risk-averse and cautious approach applied in terms of socio-economic impacts?	
What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?	There are no gaps in Knowledge.
What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?	None.
Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development (and its alternatives)?	N/A
How will the socio-economic impacts be resulting from this development impact on people's environmental right in terms following:	
Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?	The proposed development will not impact on this.
Positive impacts. What measures were taken to enhance positive impacts?	Local labour will be used, and assist in developing skills.
Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio-economic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?	No ecosystem services will be impacted upon.
What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	The planned residential estate will create construction jobs for local contractors and laborers. The employment opportunities associated with the construction phase are frequently regarded as temporary employment. However, while these jobs may be classified as "temporary" it is worth noting that the people employed in the construction industry by its very nature rely on "temporary" jobs for their survival. In this regard "permanent" employment in the construction sector is linked to the ability of construction companies to secure a series of temporary projects over a period of time. Each development, such as the proposed development, therefore contributes to creating "permanent" employment in the construction sector.
What measures were taken to pursue environmental justice so that adverse environmental impacts shall	Use of local labour and materials. The construction industry is an important player in job

not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)?	creation, not only in the construction sector but in other sectors of the economy as well. The construction industry uses a wide range of inputs such as manufacturing of construction materials and equipment, mining of raw materials, forestry, transportation, real estate, finance, and professional services which all contribute indirectly to more jobs that are created across several sectors.
Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?	The alternative allows the best practicable option, there is no need to assess another alternative.
What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?	No environmental resources will be impacted. The proposal will not deplete scarce natural and agricultural resources and will not have a negative impact on the surrounding built environment.
What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle? 62 o What measures were taken to:ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge?	No traditional or ordinary knowledge is applicable. A public participation process is in process to ensure all needs and values of affected parties are being taken into consideration.
Opportunity Cost: Describe how the development will impact on job creation in terms of, amongst other aspects:	
the number of temporary versus permanent jobs that will be created	The planned residential estate will create construction jobs for local contractors and laborers. The employment opportunities associated with the construction phase are frequently regarded as temporary employment. However, while these jobs may be classified as "temporary" it is worth noting that the people employed in the construction industry by its very nature rely on "temporary" jobs for their survival. In this regard "permanent" employment in the construction sector is linked to the ability of construction companies to secure a series of temporary projects over a period of time. Each development, such as the proposed development, therefore contributes to creating "permanent" employment in the construction sector. Further permanent job opportunities will exist throughout the operation phase of the residential estate.
whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area)	Yes only local labour will be used.
the distance from where labourers will have to travel	Approximately 10 km during operational phase, construction phase labourers will in all probability come from the municipal area.
the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits), and	Local labours within the vicinity will be used.
the opportunity costs in terms of job creation (e.g. a	There would have been no employment

mine might create 100 jobs in the short and medium term, but impact on 1000 permanent agricultural jobs, etc.).	opportunity, the alternative allows for temporary employment opportunity during construction phase and permanent employment opportunities during operational phase.
What measures were taken to ensure	
that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, and	A town planner was appointed.
that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	At this stage there is no conflicts, the PPP still needs to be completed to address this section.
What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage?	The development is on private property.
Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	Yes, no long-term burden is expected.
What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be borne by those responsible for harming the environment?	During construction phase an EMPr will be applicable, environmental training will be provided and an ECO appointed. A yearly audit is recommended to ensure compliance with Environmental Authorisation if granted.
Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?	Employment opportunities will be created for skilled an un skilled labour. Several communities reside in the area who will be able to benefit from employment opportunities during construction phase and operational phase.
Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area?	Empowerment of the local community members living in the area relating to temporary employment opportunities: • Use existing social structures and communication channels to ensure social representation. • The planned residential estate will create construction jobs for local contractors and laborers. The construction industry is an important player in job creation, not only in the construction sector but in other sectors of the economy as well. The construction industry uses a wide range of inputs such as manufacturing of construction materials and equipment, mining of raw materials, forestry, transportation, real estate, finance, and professional services which all contribute indirectly to more jobs that are created across several sectors. Property rates are an important source of general revenue for municipalities. Revenue from property rates is used to fund services that benefit the community as a whole. These include installing and maintaining streets, roads, sidewalks, lighting, and storm drainage facilities; operating parks, recreational facilities, and cemeteries. Property rates

	revenue is also used to fund municipal administration, and costs of governance. High-value properties, yielding high property rates have a very important role to play in municipal finance.