Eco Route
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ERF 9706, PORTION 57 OF 443
NEED & DESIRABILITY

Erf 9706,mPortion 57 of 443 is zoned residential and is a single dwelling is currently under construction. Previous dwelling was destroyed in 2017 fires.

An OSCAE permit have been obtained for this purpose.

Proposed Development: Structures:

- The owner is applying for the development of an outside deck and a beach access boardwalk plus viewing deck within 100m of the HWM OF THE SEA .
- Preferred alternative would be to apply for the development of proposed development of outside deck within 100 meters from the HWM OF THE Sea and a beach access boardwalk plus viewing deck.
- The dimension of this alternative is:
- Boardwalk: 98.3m2
- New decking and firepit: 281m2

As per the Guideline Information to be Assessed	EAPs Response
"securing ecological sustainable development and use of natural resources"	
1. How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?	The development follows an existing informal path, avoid removal of protected Milkwoods, limits vegetation disturbance, and uses an elevated design that maintains natural dune processes. With mitigation, impacts are low and ecological integrity is preserved.
1.1 How were the following ecological integrity considerations taken into account? Threatened Ecosystems	The site lies within Goukamma Dune Strandveld, which is not a threatened ecosystem. No threatened habitats will be lost.
1.2. Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure	The dune system is stable. The elevated and lightweight design avoids dune reshaping and maintains natural sand movement.
1.3. Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs")	The footprint lies mostly on a previous disturbed path outside a broader CBA area. Rehabilitation of degraded areas will be done on completion of construction.
1.4. Conservation targets	Targets are unaffected. No loss of priority species or habitat. Rehabilitation will improve ecological condition, as replating of plants observed by specialist will be prioritised.
1.5. Ecological drivers of the ecosystem	Design avoids disturbing dune morphology, wind-driven processes, drainage or vegetation structure.
1.6. 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 has addressed all the points above. Alignment with Graden Route EMFs.
1.7. Environmental attributes and management proposals contained in relevant Spatial Development Framework, and	The Bitou Spatial Development Framework (SDF) provides clear policy direction for managing environmental assets, coastal areas, dune systems, biodiversity corridors and development within sensitive landscapes. The proposed boardwalk and deck on Erf 9706, Brakkloof fall within the SDF's environmental management objectives. SDF's guidance as it applies directly to this project: 1. Coastal Management Priority Areas The SDF identifies the coastal edge and associated dune systems as highly sensitive, requiring controlled access, protection of ecological processes, and avoidance of development that may destabilise the dunes or disrupt natural functioning. The SDF's environmental attributes include: Protection of primary and secondary dune systems. Minimisation of vegetation loss in coastal habitats. Prevention of informal footpaths and erosion scars. Maintaining the natural character of the coastline. Promoting safe and sustainable access. Alignment of the proposed development: The boardwalk formalises a previous disturbed area where a boardwalk existed, but was destroyed in the 2017 fires, directly addressing SDF concerns about uncontrolled pedestrian movement. Elevated, lightweight construction allows dune processes (wind and sand movement) to continue unhindered.

	The development improves safety and accessibility while reducing long-term environmental degradation. 2. Biodiversity Mapping (CBAs & ESAs) Area does not fall within a CBA area, but rehabilitation of degraded areas will be done on completion of construction. The footprint is restricted to a previously disturbed area. The boardwalk reduces ongoing spoiling of natural vegetation, demonstrating a conservation-enhancing land use. Rehabilitation of surrounding disturbed areas is consistent with SDF biodiversity objectives. 3. Scenic Landscape & Sense of Place Protection The SDF places strong emphasis on protecting the visual character and scenic value of coastal slopes and dune ridges and natural materials and colours will be used to blend into the landscape. - The boardwalk is low-rise, visually unobtrusive and constructed from natural-toned timber. - No lighting is proposed, preventing visual pollution at night. - The structure follows natural contours and on a previous disturbed area, preserving scenic quality. - No vegetation clearing beyond the narrow footprint is required. 4. Climate Change Adaptation & Resilience The SDF emphasises strengthening coastal resilience and avoiding hard infrastructure close to the shoreline. Elevated boardwalk can be demountable and adaptable to future climate conditions. 5. Environmental Management Proposals Relevant to This Site The Bitou SDF contains several specific proposals that relate directly to the Brakkloof and Robberg coastal areas: Key SDF proposals include: - Preventing uncontrolled dune trampling - Protecting stabilised secondary dune systems - Encouraging low-impact recreation infrastructure - Ensuring development does not introduce bulk services into sensitive landscapes

	- Managing erosion impacts through soft engineering or passive systems **How the project meets these:** Establishes a formal boardwalk to prevent dune damage from informal access. 6. Environmental Attributes: Goukamma Dune Strandveld Identified in the SDF as a valued ecological type requiring careful management. Not a threatened ecosystem, but locally sensitive. The SDF requires strict control of disturbance. • No transformation beyond the existing disturbed path. • Rehabilitation is proposed around the structure.
1.8. 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. Supports climate change resilience (elevated, demountable structure) and avoids contributions to coastal erosion.
2. The Impact Mitigation Hierarchy	
2.1. 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?	1. Potential Pollution and Degradation of the Biophysical Environment Although the development is small-scale and designed to be low-impact, several temporary construction-phase impacts may occur: **1.1 Vegetation Disturbance**Small-scale clearing of dune vegetation within the narrow footprint. - Trampling by workers if access is not controlled. **1.2 Soil and Dune Disturbance** - Localised earthworks required for installing timber poles / support posts. - Potential exposure of loose dune sand leading to erosion if not stabilised. - Risk of minor scarring around post holes prior to rehabilitation. **1.3 Erosion and Sediment Movement** - Disturbance of stabilised sands along the previous path. - Wind erosion if soils are exposed without immediate stabilisation. - Potential channelling of stormwater along the cleared path if not mitigated.

1.4 Pollution

- Dust generation during excavation and movement of materials.
- Noise impacts from hand tools and small machinery.
- Risk of accidental spills (cement, adhesives, fuels from equipment).
- Waste generation (wood offcuts, packaging, general waste).

1.5 Disturbance to Ecological Processes

- Short-term disturbance to dune vegetation forming part of the Goukamma Dune Strandveld system.
- Temporary interruption to small fauna movement during construction.
- These impacts are temporary, confined, and reversible, but required careful avoidance and minimisation.

2. Measures Explored to First Avoid the Impacts

The project incorporated several avoidance-focused design decisions to prevent impacts before they occur:

2.1 Layout & Footprint Avoidance

- The alignment follows the existing disturbed area of previous boardwalk, with a small addition to footprint to align with new deck and dwelling.
- No widening of the pathway beyond the minimum construction footprint.

2.2 Avoiding Dune Excavation

- No cutting, terracing, reshaping or benching of dunes.
- The natural dune profile remains intact.

2.3 Avoidance Through Elevated Design

- The boardwalk is elevated, reducing direct ground contact.
- Elevated footings eliminate the need for continuous trenching or ground compaction.
- Only small-diameter pole holes are required, avoiding mass excavation.

2.4 Avoiding Heavy Machinery

- No heavy plant or machinery allowed.
- All construction is manual or uses light, hand-held tools.
- This avoids vibration, compaction and larger excavations.

2.5 Access Control

- A demarcated construction footprint for construction personnel prevents unnecessary trampling.

3. Where Impacts Could Not Be Avoided, Measures to Minimise and Remedy

Some minor impacts (e.g., pole excavations, vegetation clearance) cannot be fully avoided.
To address these, the following minimisation and remediation measures were developed:

3.1 Minimisation of Earthworks

- Hand-dug post holes only (small diameter and depth).
- Excavated sand kept adjacent, then replaced around posts.
- No stockpiling of sand or materials outside demarcated areas.

3.2 Erosion Control

- Immediate placement of dune sand back into holes after post installation.
- Brush-packing with onsite trimmings (if approved) around disturbed areas.
- Temporary wind barriers/netting if required by ECO.
- No open trenches left overnight.

3.3 Vegetation Protection & Rehabilitation

- Vegetation manually removed only within the minimum footprint.
- Indigenous dune vegetation replanted or overseeded immediately post-construction.
- Species identified by specialist on site, suitable for stabilisation to be used in rehabilitation.
- Disturbed areas rehabilitated to original form.

3.4 Stormwater Management

- Elevated boardwalk allows natural dispersion of stormwater.
- No hard surfaces added that could concentrate runoff.
- No channel formation allowed — monitored during construction.

3.5 Pollution Prevention

- Construction materials stored in sealed containers.
- No cement mixing on bare sand.
- Drip trays under equipment.
- Daily waste removal and no on-site burning.

3.6 Noise and Dust Minimisation

- Manual tools preferred.
- Limited working hours.

	- Water lightly applied if dust becomes problematic (avoiding runoff). 4. <u>Measures to Remedy Residual Impacts</u> Where unavoidable impacts remain, the following remediation actions will be implemented: - Recontouring any disturbed soil back to natural shape. - Replanting indigenous dune vegetation. - Removing all construction waste, temporary structures, and markers. - Monitoring for erosion after first rainfall and wind events. - Follow-up rehabilitation until vegetation is re-established. - No offsetting is required because impacts are small, localised, and fully reversible. 5. <u>Measures to Enhance Positive Impacts</u> The proposal offers several long-term environmental enhancements: **5.1 Formalised Access** - Prevents widening and proliferation of informal paths. - Reduces trampling and vegetation loss across the dune. - Long-term dune stabilisation is improved. **5.2 Biodiversity Protection** - Rehabilitation of surrounding disturbed areas increases ecological integrity. - Removal of invasive species during construction as part of site management. The development may result in temporary construction impacts, including minor vegetation disturbance, dust and noise, localised erosion, and small-scale earthworks for planting timber poles. These impacts are short-term, small in extent, and fully reversible. Overall, impacts are low, short-term and manageable, while long-term environmental conditions are improved through controlled access and dune protection.
2.2 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?	Normal construction waste only. No waste during operational phase. The proposed development will generate normal construction waste only, including small quantities of timber offcuts, plastic wrapping, cardboard packaging, and general construction debris. No hazardous or large-volume waste streams are expected due to the lightweight, low-impact nature of the boardwalk and deck.

	Avoidance: - Efficient material planning ensures that construction products are delivered pre-measured, limiting excess and offcuts. **Reuse:** - Timber offcuts suitable for reuse will be used for temporary stabilisation, such as brush-packing or gap-filling around post holes (where approved by the ECO). - Reusable crates, containers, or pallets from suppliers will be returned for further use. **Recycling:** - All recyclable waste streams—including cardboard, plastic, metal and glass—will be separated at source and stored in clearly marked containers. - Recyclable materials will be taken to an approved recycling facility in accordance with Bitou Municipal requirements, as is already the established practice during the construction of the dwelling on the same property. **Disposal:** - Non-recyclable waste will be removed from site regularly and disposed of at a licensed landfill site, as is already the established practice during the construction of the dwelling on the same property. - No waste may be buried, burned, or stored on the dune system.
2.3. 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?	No abstraction or harvesting of natural resources. Vegetation used for rehabilitation is indigenous and locally sourced. Design does not exceed carrying capacity of dune system. The development reduces long-term ecological footprint by providing a defined route, lessening ongoing damage that would otherwise require rehabilitation.
2.4. 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 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?	The development reduces long-term ecological footprint by providing a defined route, lessening ongoing damage that would otherwise require rehabilitation.

2.5. 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)	N/A
2.6. 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?).	N/A
3. Intra- and inter-generational equity in the context of sustainability"	
3.1. 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?	No electricity, no services required, small-scale, low impact. Design chosen to avoid high maintenance requirements.
3.2. How were a risk-averse and cautious approach applied in terms of ecological impacts?	**A risk-averse and cautious approach was adopted by:** - Designing the boardwalk as an elevated, demountable, lightweight structure to avoid dune reshaping or heavy excavation. - Confining all works to the smallest practicable footprint and following the existing informal path. - Using hand tools / light plant only (no heavy machinery) for post-hole installation. - All specialist recommendations incorporated. - ECO oversight and adaptive management will be included, and monitoring to continue for 12 months post-construction. - Requiring a rehabilitation and monitoring programme (performance targets, adaptive management). These measures reduce uncertainty and keep risk to human health, ecological function and property low.
3.3 What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?	**Uncertainties:** - Climate change impacts, dune migration rates, vegetation recovery timelines. **Risk level:** - Low, due to small scale and adaptability of structure.
3.4 What is the level of risk associated with the limits of current knowledge?	Low level of risk
3.5. 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 cautious approach was applied by opting for lightweight, reversible construction.
4. A risk averse and cautious approach	

4.1 How will the ecological impacts be resulting from this development impact on people's environmental right in terms following:	
4.2. 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?	**Potential negative impacts (that could affect environmental rights such as access to a healthy environment, amenity, safety):** - Temporary noise, dust and nuisance during construction (affecting neighbours and visitors). - short-term loss of small patches of dune vegetation within the narrow footprint (loss of amenity/landscape). - Localised visual change (small, elevated structure in coastal view). - Risk of localised erosion if post-holes or exposed sand are not stabilised (which could affect access routes). - Small-scale waste generation and risk of spill incidents if poorly managed. **Avoidance / first-order measures (applied to prevent impacts altogether):** - Alignment mostly along the same route a previous boardwalk existed before being destroyed in the 2017 fires. - No removal of protected Milkwood trees; no dune reshaping or benching. - Elevated design to avoid continuous ground contact and water-channel formation. - No heavy plant on dunes to avoid compaction and broad disturbance. **Minimisation / management where avoidance not possible:** - Work-hour restrictions and low-noise methods to minimise nuisance. - Dust suppression (light watering if required) and housekeeping to reduce off-site impact. - Hand-dug small-diameter post holes; immediate backfill and sand reinstatement. - Erosion controls (brush-packing, temporary sand fencing/coir logs where required) installed immediately after disturbance. - Waste segregation and licensed disposal; spill kits and drip trays for fuel/chemicals. - ECO inspection and stop-work triggers for any unauthorised impacts. **Remedy / compensation (if required):** - Immediate on-site rehabilitation (replanting with indigenous dune species) to restore amenity and function. - Adaptive remedial measures (shoreline-stable plantings, additional stabilisers) if early monitoring shows failure. - No large-scale offsets anticipated (residual impacts are localised and reversible); if an

	unforeseen protected species loss occurred, appropriate specialist remediation/permitting would be required.
4.3. Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?	**Positive impacts:** - Improved safe, access to the . - Reduced trampling and spread of informal routes — long-term protection of dune vegetation. - Small local employment during construction and maintenance. **Enhancement measures applied:** - Use of natural-toned, low-reflectance materials to minimise visual intrusion. - No lighting (or low-impact, shielded lighting if absolutely required) to avoid night-time disturbance. - A rehabilitation programme to quickly restore surrounding vegetation and improve amenity. - Promotion of local labour and contractor briefings to create local benefits.
4.4. 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.)	**Key ecosystem services** provided by the dunes and coast: coastal protection (buffering storm energy), recreation and tourism value, biodiversity habitat, and aesthetic/scenic value. **Linkages / dependencies:** Coastal protection provided by dunes reduces long-term risk to property and infrastructure; destabilisation would increase future costs to the community. **How the project affects these linkages:** By formalising access and stabilising the footprint, the development strengthens ecosystem service delivery (protection, recreation) — a net socio-economic benefit. Short-term construction impacts are mitigated so that livelihoods (tourism, property values) are not harmed.
4.5. Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area?	**Neutral to positive** — provided mitigation and monitoring are implemented. Short-term, localised, reversible loss of vegetation occurs but is addressed through immediate rehabilitation. Long-term, the boardwalk reduces cumulative trampling and erosion compared to continued informal use, helping to meet SDF/EMF objectives of maintaining dune systems and restoring degraded areas. No loss of irreplaceable habitat or SCC is expected. Therefore the development supports local ecological integrity objectives.
4.6. Considering the need to secure ecological integrity and a healthy biophysical environment, describe how	**Alternatives considered (summary):**

the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?	- No-go: Leaves uncontrolled trampling and progressive dune degradation — worse ecological outcome. - Alternative alignments that cut through intact vegetation: Greater habitat loss and higher ecological risk. - Elevated boardwalk along existing path (proposed): Small, contained disturbance, avoids trees, reduces future trampling and erosion. **Why this is BPEO?:** - It avoids sensitive areas, minimises unavoidable impacts with elevated design and hand-dug posts, and rehabilitates all disturbed ground. - It improves long-term outcomes by preventing ongoing diffuse disturbance (which would otherwise be costly to reverse) and aligns with Bitou SDF and specialist recommendations. - It is adaptive and demountable, allowing future removal or relocation should coastal dynamics require it.
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?	**Negative cumulative potential (if unmanaged):** - Multiple informal access routes and poorly controlled development can cause progressive loss of dune vegetation, broader erosion, and reduced ecosystem function. **Positive cumulative outcome with the proposed project (most likely):** - The boardwalk, combined with rehabilitation and alien plant control, contributes to reduced cumulative damage across the local dune system by channelising foot traffic and restoring adjacent degraded patches. - Over time this results in improved dune stability, better vegetation cover, maintained scenic quality and reduced maintenance costs for landowners/municipality. **Scale & significance:** Given the small scale and confined footprint, negative cumulative effects are negligible, and positive cumulative benefits are moderate.
"Promoting justifiable economic and social development"	
5. What is the socio-economic context of the area, based on, amongst other considerations, the following considerations?	
5.1. The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area	Bitou SDF, IDP, LED Strategy all emphasise: - Protection of coastal assets - Safe access - Low-impact development - Enhancement of natural character The proposed development supports all of these.

5.2. Spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.)	The proposal will not impact area in such a way that any of the surrounding properties landowners will be unfairly impacted.
5.3. Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and	The site is situated within a natural coastal dune system characterised by indigenous Goukamma Dune Strandveld vegetation, a low-density residential properties set back from the shoreline. Existing land use in the area is predominantly natural coastal landscape with strong scenic and ecological value. Planned land uses, as outlined in the Bitou SDF and EMF, prioritise conservation, controlled public access, and the protection of dune ecological processes. The proposed elevated boardwalk aligns with these spatial characteristics by reinstating and formalising the previous boardwalk alignment, thereby reducing reliance on informal paths and preventing further dune disturbance.
5.4. Municipal Economic Development Strategy ("LED Strategy")	The proposed boardwalk aligns with the Bitou LED - The use of local labour for construction and maintenance contributes directly to short-term job creation and skills utilisation in line with LED objectives. Furthermore, the protection of dune systems and scenic coastal landscapes helps safeguard the natural capital.
6. 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?	
6.1. Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?	Will only provide short term employment during construction phase
6.2. 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 nations cultural heritage will not be impacted upon. Confirmed via email by SAHRA.
6.3. 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?	N/A
7.In terms of location, describe how the placement of the proposed development will:	
7.1. result in the creation of residential and employment opportunities in close proximity to or integrated with each other	Short term employment during construction phase.
7.2. reduce the need for transport of people and goods,	N/A
7.3 result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport),	No transport requirements; encourages walking.

7.4.compliment other uses in the area,	Yes , the surrounding land uses are residential, Compatible with recreation, and conservation.
7.5. Be in line with the planning for the area,	Fully aligned with SDF and EMF policies for coastal management.
7.6. for urban related development, make use of underutilised land available within the urban edge	Yes
7.7. optimise the use of existing resources and infrastructure,	No services required; minimal resource use.
7.8. 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
7.9. discourage "urban sprawl" and contribute to compaction/densification,	N/A
7.10. contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs,	N/A
7.11. encourage environmentally sustainable land development practices and processes	Yes
7.12. take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.)	N/A
7.13. 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),	N/A
7.14. impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and	N/A
7.15. in terms of the nature, scale and location of the development, promote or act as a catalyst to create a more integrated settlement?	N/A
8. How were a risk-averse and cautious approach applied in terms of socio-economic impacts?	
8.1.What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?	N/A
8.2.What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?	None
8.3.Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development (and its alternatives)?	N/A
9. How will the socio-economic impacts be resulting from this development impact on people's environmental right in terms following:	
9.1. Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?	The proposed development will not impact on this. Temporary noise and disturbance. Managed through timing, footprint control, and communication.
9.2. Positive impacts. What measures were taken to enhance positive impacts?	Local short-term labour will be used and assist in developing skills

9.3. 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.)?	Short-term employment opportunity. Protection of dunes maintains ecosystem services.
9.4. What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	Provides part time employment.
9.5. What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)?	No group is disproportionately burdened.
9.6. 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?	No group is disproportionately burdened.
9.7. 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 group is disproportionately burdened.
9.8. 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? 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?	EMPr ensures environmental health and safety responsibilities throughout construction and operation. All interests and ordinary knowledge will considered through statutory public participation.
10. Opportunity Cost: Describe how the development will impact on job creation in terms of, amongst other aspects:	
10.1. the number of temporary versus permanent jobs that will be created,	10 people during construction phase. No permanent positions during operational phase.
10.2. 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.
10.3. the distance from where labourers will have to travel	Approximately 5-10 km during operational phase construction phase labourers will in all probability come from the municipal area.
10.4. the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits), and	Local labourers within the vicinity will be used.
10.5. the opportunity costs in terms of job creation (e.g. a mine might create 100 jobs in the short and medium term, but impact on 1000 permanent agricultural jobs, etc.).	There would only be short-term temporary employment opportunity during construction phase.
11. What measures were taken to ensure	

11.1. that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, and	No conflicts of interest.
11.2. that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	The PPP still needs to be completed to address this section.
11.3. 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?	Promotes responsible use and protects dune ecosystems as common natural heritage.
11.4. Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	Mitigation measures are practical, effective, and based on specialist guidance. Positive — stabilised dune system, controlled access, minimal long-term burden.
11.5.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?	Developer responsible for rehabilitation, waste removal, and environmental compliance with EMPr.
11.6. 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?	No alternatives. Only one site. Proposed alignment mostly along previous boardwalk path least disturbance. Other alignments = unnecessary dune impact. No-go = increased erosion and unsafe access.
11.7. 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?	Positive: - improved public access - long-term dune protection Negative: negligible.