Western Cape Government
Environmental Affairs and Development Planning

FORM NO. BAR10/2019

BASIC ASSESSMENT REPORT

THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.

FORM DATE - NOVEMBER 2019

(For official use only)	
Pre-application Reference Number (if applicable):	16/3/3/6/7/1/E2/15/1135/19 - previous NOI, file closed 16/3/3/6/7/1/E2/15/1265/20
EIA Application Reference Number:	16/3/3/1/E2/15/1029/22
NEAS Reference Number:	
Exemption Reference Number (if applicable):	
Date BAR received by Department:	
Date BAR received by Directorate:	
Date BAR received by Case Officer:	

GENERAL PROJECT DESCRIPTION

(This must Include an overview of the project including the Farm name/Portion/Erf number)

FORMALISED PEDESTRIAN PATH CONNECTING TO THE HERMANUS CLIFF PATH VIA POOLE'S BAY IN HERMANUS

[Report date -May 2022]

IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.

2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 19998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".

3. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.

4. All applicable sections of this BAR must be completed.

5. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.

6. This BAR is current as of **November 2019**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at http://www.westerncape.gov.za/eadp to check for the latest version of this BAR.

7. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.

8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.

9. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.

10. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.

11. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.

12. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.

13. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link

https://screening.environment.gov.za/screeningtool to generate the Screening Tool Report. The screening tool report must be attached to this BAR.

14. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('NEM:AQA"), the submission of the Report must also be made as follows, for-
Waste Management Licence Applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (Tel: 021-483-2728/2705 and Fax: 021-483-4425) at the same postal address as the Cape Town Office.

Atmospheric Emissions Licence Applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (Tel: 021 483 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE: REGION 1 and REGION 2 **(Region 1: City of Cape Town, West Coast District)** **(Region 2: Cape Winelands District & Overberg District)**	**GEORGE OFFICE: REGION 3** **(Central Karoo District & Garden Route District)**
BAR must be sent to the following details: Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1 or 2) Private Bag X 9086 Cape Town, 8000 Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Development Management (Region 1 and 2) at: Tel: (021) 483-5829 Fax (021) 483-4372	BAR must be sent to the following details: Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530 Registry Office 4th Floor, York Park Building 93 York Street George Queries should be directed to the Directorate: Development Management (Region 3) at: Tel: (044) 805-8600 Fax (044) 805 8650

EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:

Introduction

Ecosense CC has been appointed as independent consultant responsible for facilitating the Basic Assessment process for a proposed formalised pedestrian path connecting the existing Hermanus Cliff Path via Poole's Bay, Hermanus. The Environmental Assessment Practitioner (EAP) is Kozette Myburgh, EAPASA registration no 2019/1346.

The process is being undertaken in terms of the National Environmental Management Act (NEMA, Act 107 of 1998), Environmental Impact Assessment Regulations as promulgated in December 2014 (as amended). The Applicant is the Cliff Path Action Group, who will facilitate and implement the activity, should it be approved by the Department of Environmental Affairs and Development Planning (DEA&DP). In terms of the NEMA, this proposal requires an application for environmental authorisation for the following listed activities 15, 52, 18, 19 and 19A, through a Basic Assessment process. These activities are concerned with development in or within proximity to water courses and the sea.

Proposed project

The proposal is to have a formalised pedestrian path built just below the high-watermark (HWM) in Poole's Bay, similar to the existing Hermanus Cliff path appearance. The path would accommodate the landscape, and the design would allow sea water to flow back and under the path.

Most of the path would be built with concrete, finished with a rough aggregate, to encourage staining and seaweed/mussel shell growth. Two small wetlands below Erf 12257 and Erf 1249 would be crossed by a boardwalk.

Alternatives

The NEMA EIA Regulations require consideration of alternatives to achieve the best practical environmental option for a proposed development. Layout, design and material alternatives were therefore investigated, as there is not a site alternative - Poole's bay falls between two sections of the existing Hermanus Cliff Path and is therefore the only proposed site.

Alternative 1 (A1 of 2020) (first design alternative)

This alternative would consist of battered and solid built balustrade sections buttressed to the sides of rocks, depending on the height above ground level as well as the wave force in the area. There would also be sections of varying demarcation as some areas on the beach may only require subtle demarcation for users of the path to refrain from entering private property. Alternative 1, although still regarded to be a feasible alternative, is not preferred.

The solid balustrade sections would have stainless steel grab rails for safety. Steps would accommodate the landscape, creating paths over large rocks, while crossings would accommodate the falls and allow sea water to flow back and under the path. These gulley areas would be bridged by heavy duty sugar gum beam crossings, connected to the concrete with stainless steel threaded bar.

Alternative 2 (A2 of 2021) (preferred design alternative)

Apart from the layout being revised from Alternative 1 (December 2020) by an alternative connection on the western side as the original entry down the gully would be impractical, the previous design alternative has been reconsidered further taking into account appearance, practical implementation of construction and cost, considering that the project is a community driven, privately funded initiative, without government financial support. Solid concrete structures would be very costly and was considered by some to be too elaborate and not in keeping with the current Cliff path character. A more affordable alternative needed to be investigated.

This alternative would also consist of concrete structures, but bridge like structures along sections of the path, where steep cliffs are present, or where the path would be mostly submerged under normal conditions, seeing that it would be constructed below the HWM. Two small wetland areas in front of Erf 12257 and in front of Erf 1249 would be crossed by boardwalks. The western entry is proposed to connect from the lookout bench below Protea Rd, over the gully to in front of erf 12557.

Execution of the proposal is intended to address the areas which are most difficult to traverse first and allow the path to progress gradually within an approved footprint to eventually conform to the existing Cliff path appearance in the remaining sections along the flatter and easier accessible areas.

In the case of the '**No-go' alternative**, no action will be taken to formalise the path through Poole's Bay and usage conditions will remain as is current.

NEMA Environmental Authorisation Process

A first pre-application phase for the basic assessment process was undertaken during the first half of 2019. Due to investigations and delays as a result of Covid during 2020, the process was started anew in October 2020, with a first comment period in December 2020 -February 2021. As part of the original process, a Heritage Screening for Notice of Intent to Develop submission was undertaken. It was however clarified that the project would not traverse over Erf 6088 and due to its location being under the HWM would fall under the national competency for heritage resources, i.e. SAHRA.

Public Participation

The Public Participation Process is being carried out in terms of the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), as set out in Chapter 6 of Government Notice No. 982, as amended and in accordance with an approved public participation plan. This revised report contains a summary of the public participation process to date. A full record of pre-2020 public participation is not required by the DEA&DP, as this process is a new process, but relevant issues raised during the previous process have been incorporated as applicable.

Process progress

For the 2019 pre-application process, the following actions were undertaken while the design was under revision:

- Poole's Bay property owner meetings (October 2019).
- Additional consultation with authorities and organisations, including the Surveyor General, DEA&DP Coastal Management, DFFE Oceans and Coasts, Birdlife South Africa, Department of Public Works (DPW).
- Avian Specialist appointment and facilitation (for bird survey as recommended by Birdlife SA) (March 2020).
- Technical meeting with Alternative 1 architect and construction contractor (March 2020).
- Covid-19 Constraints - March 2020-September 2020
- HWM survey - September 2020

The 2020 pre-application process, which is currently being followed commenced in October 2020 and the following was undertaken to inform this process:

- Closing of 2019 Pre-application File and Opening of new Pre-application File (October 2020)
- Compilation of new pre-application draft BAR in updated format (October-November 2020)
- Public Open Day (December 2020)
- Extended Public Comment period (November 2020 to February 2021)
- Marine Impact Assessment (March to April 2021)
- BGCMA engagement for WUA requirements (ongoing)
- Engineering input and alternative concept design proposal development (Alternative 2 / Preferred Alternative) (ongoing)
- DPW wayleave application, consultation and withdrawal (advisory to apply for CapeNature lease – to follow towards end of process only) (May2021)
- Drone survey (June 2021)
- Drone data processing and coastal engineering input (July 2021)

- RvB Geomatics HWM survey (September 2021)
- Visual Impact study (August-September 2021)
- Marine Impact Assessment update with preferred Alternative (October 2021)
- DEA&DP liaison and Public Participation Plan update re POPIA (September 2021)
- Freshwater ecology site visit and screening report update (September 2021)
- Compilation of revised draft Pre-application BAR
- Request for re-registration in line with POPIA requirements (Nov 2021)
- Open Day for visual presentations (November 2021)
- Public Comment period (November 2021 to December 2021)
- Consultation with BGCMA and DEA&DP re the One Environmental System requirements (February 2022)
- Freshwater ecology assessment for WA and Protocol requirements and risk matrix (February 2022)
- E-wulaas submission for a General Authorisation due to low risk outcome (March 2022)
- Compilation of draft BAR for Application phase (ongoing since Feb-March 2022)

Impacts and Mitigation

The project is currently in the conceptual phase of its development. Resulting from concerns raised and studies undertaken over the past three years, several management actions are required in the design phase already to ensure that impacts expected during the implementation phase are avoided or minimised. These design phase considerations would mitigate potential visual impact, financial impact, construction and maintenance issues going forward.

Potential impacts normally associated with construction activities include disturbance outside construction footprint, noise, littering, etc. In order to mitigate these impacts, specifications have been included in the Environmental Management Programme (EMPr), which must be adhered to. These include, but are not limited to:

- Demarcated restriction of construction activities on site to minimise any potential disturbance to the surrounding area.
- Considering seasonal sensitivities (whales and birds)
- Following an integrated waste management approach during construction and post development.
- Rehabilitation of disturbed areas must take place after the completion of construction.
- Environmental awareness training to construction staff.
- Local employment.

Although the proposed development would not have operational activities, some management actions would be required during the post-development phase. These aspects of the proposed development would be limited to maintenance of infrastructure and signage and waste management along the path. Specifications in the EMPr to address the associated impacts include:

- Regular inspection of infrastructure and signage
- Regular clean-up of litter along this section of the path

A Maintenance Management Plan for maintenance activities resulting in potential disturbance of material within 100m of the HWM, as well as for potential disturbance in the two wetland areas has been included for adoption by the Competent Authority.

Conclusion

The intention of the Applicant is to improve physical access in this relatively short section of the coast through formalisation of the current informal footpath in the least disruptive and most practical way. After consideration of the local context, need and desirability, as well as issues raised thus far and scrutiny by various specialists, it was found that there would be limited negative impacts on the social, economic, cultural and ecological environment, which can be managed effectively through the implementation of an Environmental Management Programme.

Contents

List of Figures

List of Tables

MAPS

Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.	
Locality Map:	The scale of the locality map must be at least 1:50 000. For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; and • a linear scale. For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken. Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.
Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.	
Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following: • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. • The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development **must** be clearly indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): o Watercourses / Rivers / Wetlands o Flood lines (*i.e.,* 1:100 year, 1:50 year and 1:10 year where applicable); o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): o Ridges; o Cultural and historical features/landscapes; o Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.
Site photographs:	Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as **Appendix C**. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites. **EAPS note: Some photographs have been repeated in the body of this document for ease of reference in the immediate context of the discussion.**
Biodiversity Overlay Map:	A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as **Appendix D**.
Linear activities or development and multiple properties	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as **Appendix A3**.

ACRONYMS

BA:	Basic Assessment
BAR:	Basic Assessment Report
CBA:	Critical Biodiversity Area
DEA (now DFFE):	National Department of Environmental Affairs now Department of Forestry, Fisheries and the Environment
DEA& DP:	Department of Environmental Affairs and Development Planning
DWS:	Department of Water and Sanitation
EIA:	Environmental Impact Assessment
EMPr:	Environmental Management Programme
ESA:	Ecological Support Area
HWC:	Heritage Western Cape
I&APs:	Interested and Affected Parties
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:ICMA	National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NWA	National Water Act 36 of 1998
PPP:	Public Participation Process

ATTACHMENTS

Note: The Appendices must be attached to the BAR as per the list below. Please use a ✓ **(**tick) or a **x** (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

APPENDIX			**✓ (Tick) or x (cross)**
Appendix A:	**Maps**		
	Appendix A1:	**Locality Map**	✓
	Appendix A2:	**Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning**	Section G3 contains details of the Coastal Risk Zones.
	Appendix A3:	**Map with the GPS co-ordinates for linear activities**	✓
Appendix B:	**Appendix B1:**	**Site development plan(s) for Alternative 1**	✓
	Appendix B2	**Site development plan(s) for Alternative 2 (preferred)**	✓
	Appendix B3	**A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;**	See Appendix D
Appendix C:	**Photographs**		✓
Appendix D:	**Biodiversity overlay map**		✓
Appendix E:	**Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality.**		
	Appendix E1:	**Final comment/ROD from Heritage Western Cape**	✓ Previous comment still applicable

		Comment from SAHRA	✓
	Appendix E2:	**Copy of comment from Cape Nature**	✓
	Appendix E3:	**Final Comment from the DWS (n.a.) / BGCMA**	✓
	Appendix E4:	**Comment from the DFFE: Oceans and Coast**	✓
	Appendix E5:	**Comment from the DAFF**	Not applicable
	Appendix E6:	**Comment from WCG: Transport and Public Works**	Not applicable
	Appendix E7:	**Comment from WCG: DoA**	Not applicable
	Appendix E8:	**Comment from WCG: DHS**	Not applicable
	Appendix E9:	**Comment from WCG: DoH**	Not applicable
	Appendix E10:	**Comment from DEA&DP: Pollution Management**	✓
	Appendix E11:	**Comment from DEA&DP: Development Management** *(note – Waste Management not applicable)*	✓
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	See comments from Coastal Management
	Appendix E13:	**Comment from DEA&DP: Air Quality**	Not applicable
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	✓
	Appendix E15:	**Comment from the local authority**	✓
	Appendix E16:	**Confirmation of all services (water, electricity, sewage, solid waste management)**	Not applicable
	Appendix E17:	**Comment from the District Municipality**	✓
	Appendix E18:	**Copy of an exemption notice**	Not applicable
	Appendix E19	**Pre-approval for the reclamation of land**	Not applicable
	Appendix E20:	**Proof of agreement/TOR of the specialist studies conducted.**	See specialist studies
	Appendix E21:	**Proof of land use rights**	Not applicable
	Appendix E22:	**Proof of public participation agreement for linear activities**	✓
	Appendix E23:	**SG Correspondence August 2019**	✓
	Appendix E24:	**DFFE Oceans and Coast correspondence re MPA**	✓
	Appendix E25:	**Proof of GA submission to BGCMA**	✓
Appendix F:	**Public participation information**		✓
	Appendix F1:	**Copy of the register of I&APs**	✓
	Appendix F2:	**Comments and responses Report**	✓
	Appendix F3:	**Proof of notices, advertisements**	✓
	Appendix F4:	**Meetings and Open Day information**	✓
Appendix G:	**Specialist Report(s)**		✓

	Appendix G1:	**Heritage NID**	Included for enrichment, not required for structures below the HWM
	Appendix G2:	**Freshwater Ecology**	✓
	Appendix G3:	**Avian Survey**	✓
	Appendix G4:	**Marine Impact Assessment**	✓
	Appendix G5:	**Visual Impact Statement**	✓
	Appendix G6:	**HWM survey methodology**	✓
Appendix H:	**Environmental Management Programme with MMP**		✓
Appendix I:	**Appendix**	**Screening tool report**	✓
		Site Sensitivity Verification Report	✓
Appendix J:	**The impact and risk assessment for each alternative**		See Section H
Appendix K:	**Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline**		✓
Appendix L	**References**		✓
Appendix M	**EAP Curriculum Vitae**		✓

SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	CAPE TOWN OFFICE:		GEORGE OFFICE:
	REGION 1 (City of Cape Town, West Coast District	**REGION 2** **(Cape Winelands District & Overberg District)**	REGION 3 (Central Karoo District & Garden Route District)
Duplicate this section where there is more than one Proponent Name of Applicant/Proponent:	Cliff Path Action Group		
Name of contact person for Applicant/Proponent (if other):	Jobre Stassen		
Company/ Trading name/State Department/Organ of State:	Not applicable		
Company Registration Number:	Not applicable		
Postal address:	24 Monmouth Ave		
	Claremont	Postal code: 7708	
Telephone:	( )	Cell: 0828964527	
E-mail:	jobre@iafrica.com	Fax: ( )	
Company of EAP:	Ecosense cc		
EAP name:	Kozette Myburgh		
Postal address:	58 Wedderwill		
	Sir Lowrys Pass	Postal code: 7133	
Telephone:	(021) 161 0258	Cell: 082 783 9860	
E-mail:	kozette@ecosense.co.za	Fax: (086) 547 4221	
Qualifications:	LL.M Env Law (K Myburgh)		
EAPASA registration no:	2019/1346		
Duplicate this section where there is more than one landowner Name of landowner:	The project would be located on coastal public property below the High-water Mark, the landowner must therefore be regarded as the Republic of South Africa		
Name of contact person for landowner (if other):			
Postal address:			
		Postal code:	
Telephone:	( )	Cell:	
E-mail:		Fax: ( )	
Name of Person in control of the land:	The pathway area would be leased to the Applicant through a Seashore lease, administered by CapeNature		
Name of contact person for person in control of the land:	Rowena Crowe		
Postal address:	Cape Nature		
	Private Bag X29		
	Gatesville	Postal code: 7766	
Telephone:	021 483 012	Cell:	
E-mail:	rcrowe@capenature.co.za	Fax: 086 528 9773	
Duplicate this section where there is more than one Municipal Jurisdiction Municipality in whose area of jurisdiction the proposed activity will fall:	Overstrand Municipality		
Contact person:	Dean O'Neill (Municipal Manager)		
Postal address:	PO Box 20		
	Hermanus	Postal code: 7200	
Telephone	(028) 313 8000	Cell:	
E-mail:	mm@overstrand.gov.za	Fax: (028) 312 1894	

SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INLCUDED IN THE APPLICATION FORM

1.	Is the proposed development (please tick):	New	✔	Expansion	

The proposal entails new construction to facilitate access, but the area is already informally in use and a trodden path has formed. A formalised constructed path is therefore proposed to connect two sections of an existing formalised path (Hermanus Cliff path).

2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.

None. In urban planning, brownfield land is any previously developed land that is not currently in use that may be potentially contaminated. The term is also used to describe land previously used for industrial or commercial purposes with known or suspected pollution including soil contamination due to hazardous waste. No development has taken place below the high-water mark in this area apart from a few old sewer and storm water pipes into the sea.

3.	**For Linear activities or developments**
3.1.	Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:

Not applicable. – seashore

3.2.	Development footprint of the proposed development for all alternatives.	Approximately 1200m^2

The path after completion would be approximately 850m long have a walking surface of approximately 1.2m wide, thus 1020m^2, but some deviation may be required in areas and is allowed for.

3.3.	Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.

In order to be able to have formalised public access from Sea Road to Mollergren Park through Poole's Bay, a concrete pedestrian path of approximately 850m in length with a walking surface of approximately 1.2m wide is proposed to be located entirely on the sea side of the high-water mark (HWM) apart from the entry on the western side, which would connect to the existing path on municipal land. On the eastern side there are existing steps leading from the beach, which will remain unchanged.

The current preferred proposal is for the path to consist of level, stepped and elevated sections, depending on the height above ground level as well as wave force in the area. The appearance would be similar to the existing Hermanus Cliff path appearance. The path is proposed to be formalised for easier usage and for users of the path to remain on a demarcated pathway and refrain from entering private property.

For safety, balustrade sections would be included in elevated areas. The path would accommodate the landscape, and the design would allow sea water to flow back and under the path. The path would traverse two small wetlands in front of Erf 12257 and Erf 1249 where a boardwalk is proposed.

The only material considered strong enough to withstand rough sea conditions is concrete (e.g. tidal pools and harbour walls) and the path would be built mainly of concrete, but where less exposed, natural materials such as rock can be used. It would be finished with a rough aggregate, to encourage staining and seaweed/mussel shell growth.

The path would link the existing Hermanus cliff path but would be built on the seaward side of the HWM (except for approximately 5m on the western connection point where it would join the existing path). Because of this

section's location below the HWM, there would be times when it would not be safely accessible, and appropriate signage would be required to advise the public to be aware of sea conditions before using this part of the walk. Less agile persons would also be warned of the nature of the walk in this area, being inaccessible to wheelchairs as a result of the required stepped areas and elevated crossings in steep areas.

3.4.	Indicate how access to the proposed routes will be obtained for all alternatives.

Figure 1 below indicates access points and various landmarks along the proposed pathway.

Access for Alternative 1 would be down the gully immediately adjacent Erf 12257 over an old storm water pipe and on the eastern side from the historical steps at Mickey.

For Alternative 2 (preferred Alternative), access to the development site is on the western side from just below the lookout bench when entering the Western Cliff Path section from Protea Road (Western entry promontory) and on the eastern side from the historical steps at Mickey. Temporary access down the gully may be needed until the first elevated section has been constructed.

An informal trodden path has already formed due to current usage. The proposed path would further consist of elevated sections with balustrades where required to facilitate movement across these areas (Tidal pool, Baleen cliffs, Bayview pool, Bayview scramble). Boardwalks are proposed over the wetland below Erf 12257 before the tidal pool and another small wetland below Erf 1249 by the pebble beach.

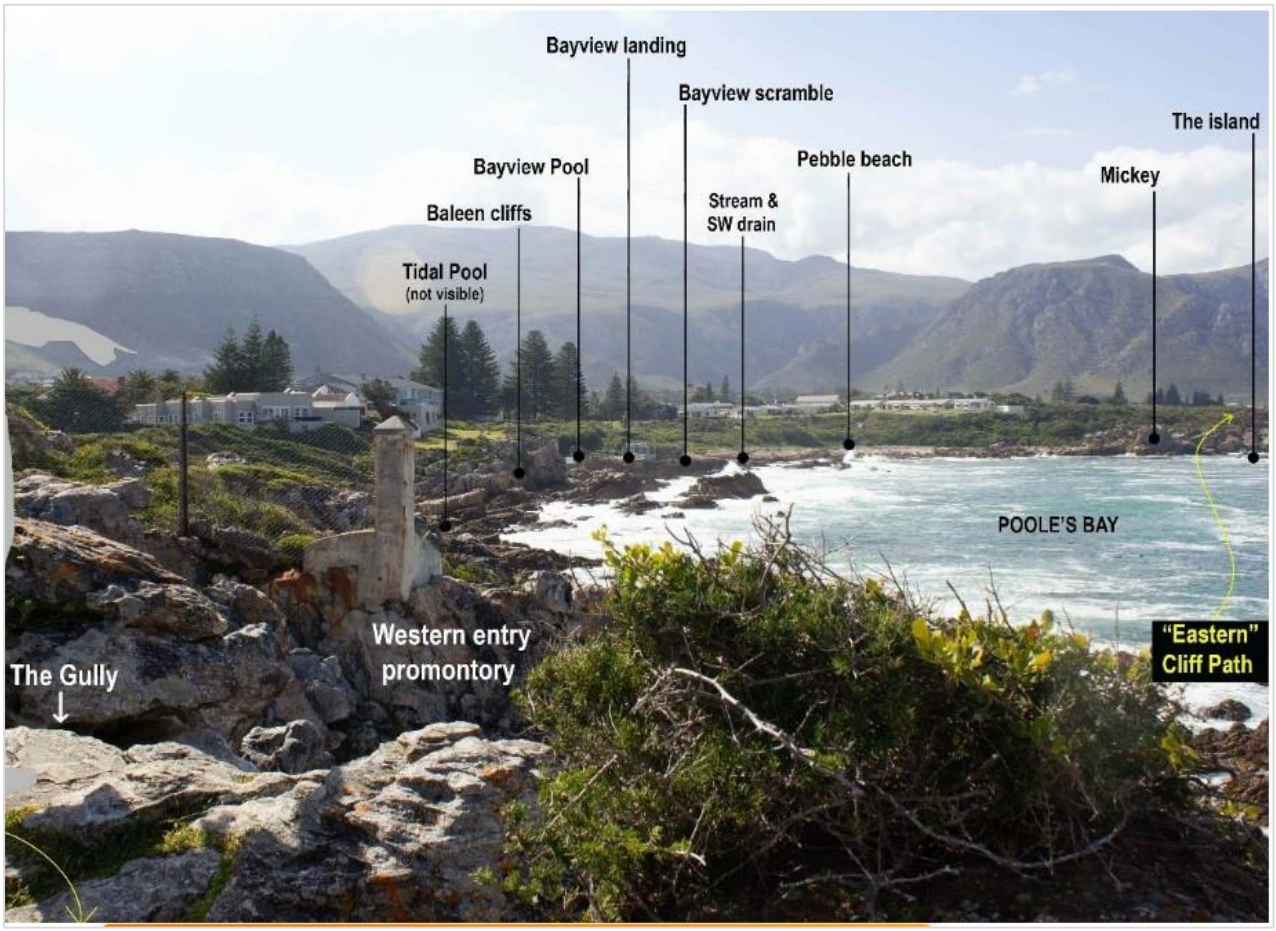


Figure 1: Most prominent landmarks along the proposed path

3.5.	SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives	Not applicable		
3.6.	**Starting point co-ordinates for all alternatives**			
	Latitude (S)	34º	24‘	55.79“
	Longitude (E)	19º	14‘	59.33“
	Middle point co-ordinates for all alternatives			
	Latitude (S)	34º	24‘	48.15“
	Longitude (E)	19º	15‘	6.26“
	End point co-ordinates for all alternatives			
	Latitude (S)	34º	24‘	46.03“
	Longitude (E)	19º	15‘	19.22“

Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.

~~4.~~	~~**Other developments**~~	
~~4.1.~~	~~Property size(s) of all proposed site(s):~~	~~m^2~~
~~4.2.~~	~~Developed footprint of the existing facility and associated infrastructure (if applicable):~~	~~m^2~~
~~4.3.~~	~~Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:~~	~~m^2~~
~~4.4.~~	~~Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).~~	
~~4.5.~~	~~Indicate how access to the proposed site(s) will be obtained for all alternatives.~~	
~~4.6.~~	~~SG Digit code(s) of the proposed site(s) for all alternatives:~~	
~~4.7.~~	~~Coordinates of the proposed site(s) for all alternatives:~~	
	~~Latitude (S)~~	~~º~~ ~~‘~~ ~~“~~
	~~Longitude (E)~~	~~º~~ ~~‘~~ ~~“~~

SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

1. Exemption applied for in terms of the NEMA and the NEMA EIA Regulations

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18.	~~YES~~	**NO**

2. Is the following legislation applicable to the proposed activity or development.

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19. No reclamation of land is required. However, Section 63 is applicable to the development, as well as Section 18 regarding access to the coast - refer to Section G 3.3 for further discussion.	**YES**	~~NO~~
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1. A NID assigned to development over a portion of Erf 6088 was submitted to HWC in 2019 in order to assess the potential impact on National Heritage Resources. It was indicated that no negative impact was expected and Heritage Western Cape's final comment also indicated no further required studies. However, it has subsequently been determined that the proposed path would not cross Erf 6088 and would be located entirely below the HWM, except for about 5m of steps on the western side to link up with the existing Cliff path which is on municipal land. In discussions with SAHRA, it was confirmed that a NID is not required in this case and that SAHRA is the appropriate Competent Authority to comment on the proposed application. The NID is therefore no longer valid. It however contains relevant information on the archaeological and historical context of the area and is still included for enrichment of the BAR. Comment from SAHRA on the 2020 pre-application draft BAR has been received and is included in Appendix E1 with the comment previously received from Heritage Western Cape. In addition, notes from a meeting on clarification of the requirements and the CA is also included in Appendix E1. SAHRA further confirmed that their comment of 2020 is still stands for the 2021 revised pre-application draft BAR. This comment is also included in Appendix E1	**YES**	~~NO~~
The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3. A General Authorisation must be applied for from the Breede Gouritz Catchment Management Agency, as was determined through the risk assessment from a Freshwater Ecologist. Comments received from BGCMA to date are included in Appendix E3.	**YES** Online E-wulaas submission in process	~~NO~~
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13.	~~YES~~	**NO**
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	~~YES~~	**NO**
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	~~YES~~	**NO**
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	~~YES~~	**NO**
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.	~~YES~~	**NO**

3. Other legislation

List any other legislation that is applicable to the proposed activity or development.	
Seashore Act 21 of 1935	Seashore lease for structures below the high-watermark is required and will be applied for with CapeNature towards the end of the EA process.

4. Policies

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.	
Western Cape Provincial Spatial Development Framework (PSDF)	The Provincial Spatial Development Framework does not include coastal public property.
Overstrand Spatial Development Framework (SDF)	It was determined that this proposal is not in conflict with the Overstrand Municipality Spatial Development Framework. The proposal is for tourism infrastructure within the coastal public property.
Overstrand Environmental Management Framework	With reference to the coast, the SEMF states that the protection of the aesthetic, tourism and cultural value of the coast requires that the planning and management of land use in the coastal zone takes these values into consideration. Land-use planning must also consider the predicted effects of climate change in terms of, disaster risk reduction strategies and programmes, and in terms of safeguarding and promoting ecosystem resilience (Cilliers and Withers, 2013:80). Restrictions are noted in terms of coastal management lines and buffers from wetlands, within which the proposed development would fall. However, the nature and scale of the proposed connection path would not significantly impact, or be impacted by these factors.
Overstrand Integrated Development Plan (IDP)	The proposed development is not in conflict with the Overstrand Municipality IDP (Draft 2017-2021). The IDP regards tourism as a key economic driver. Connecting the existing Cliff path would support a landmark tourism attraction in the area. Since the development of the path would not be financed through municipal resources, it would not put pressure on municipal revenue.
National Coastal Management Programme	The proposed project would be in line with the following priority areas for the National Programme: Priority Area 1: Social and Economic development and planning (in support of local tourism which is one of the main economic drivers of the area) Priority Area 3: Facilitation of coastal access
Overberg Coastal Management Programme	Goal: Facilitation of Coastal Access

5. Guidelines

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.	
DEA&DP EIA Guideline Information Document on Generic Terms of Reference for EAPs and Project Schedules (March 2013)	This Guideline was consulted to ensure that the EAP's managing of the process and the Project Schedule of this application relates to these requirements.
DEA&DP EIA Guideline on Public Participation (March 2013)	A Public Participation Process is being undertaken in order to comply with Chapter 6 of Government No. R. 982. The Guideline was consulted to ensure full compliance with the Regulations. Details on the PPP are provided in Section F of the BAR, as well as **Appendix E1-E17, E22 and F**.
DEA&DP EIA Guideline on Need & Desirability (March 2013)	This Guideline was consulted as part of the project motivation section of this report describing the activity's need & desirability. See **Appendix K** for more detail on the project's need and desirability within its specific context.
DEA&DP EIA Guideline on Alternatives (March 2013)	The EIA Guideline on Alternatives was consulted as part of the project motivation and section of this report describing the possible alternatives.
DEA&DP Guidelines on Environmental Management Plans (June 2005)	The Environmental Management Programme Guidelines were consulted as part of the compiling of the Environmental Management Programme (EMP) for this application to ensure that the EMP prescribed complies with the Guidelines.
DEA&DP Guideline for Determining the Scope of Specialist Involvement (June 2005)	This Guideline was consulted for the specialist studies as described in Section I.
DEA&DP Waste Minimization Guideline Document for EIA Reviews (May 2003)	This Guideline was consulted in consideration of ways to minimise waste and wastage in design, construction and operational phases of the development.

6. Protocols

Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form
The sensitivities identified by the DFFE online Screening Tool were verified to determine which Protocols according to GN 320 of October 2020 needed to be followed. A summary of the verification is provided below: • Agricultural theme - The land on which the proposed site is located is not appropriate in size or location for agriculture. This sensitivity is therefore refuted.

- Civil aviation and defense themes - the proximity to aerodromes and military bases as well as the nature of the activity (a pedestrian path) would not affect these in any way and the sensitivity is refuted.
- Aquatic Biodiversity Theme - the low sensitivity identified is regarded as incorrect and due to the presence of wetlands within the path footprint, the sensitivity should be very high. A Freshwater Ecologist was appointed to undertake the required assessment to inform the risk matrix for the water use authorisation, but also to comply with the Protocol for very high sensitivity, i.e. an Aquatic Biodiversity Assessment.
- Archaeological, Cultural Heritage and Palaeontology Theme - A Specialist was appointed to investigate archaeology and to also consider cultural heritage and palaeontology. Heritage was further considered in the Visual study. Due to no significant findings, the sensitivity is refuted within the site-specific context of the path. Neither SAHRA nor Heritage Western Cape required any additional studies after the NID and subsequent draft BARs and therefore further studies are not deemed warranted.
- Animal Species theme - refuted as the habitat below the HWM, where the path would be located is not suitable for the identified species (African Marsh Harrier, Katydid, Yellow-winged Agile Grasshopper, Red Hill copper, and Sensitive species no 15 which is a species in danger of exploitation through illegal harvesting and therefore the names cannot be revealed in the public domain)
- Plant species theme - the footprint of the proposed path falls outside the area indicated to have medium sensitivity and because the path would be located below the HWM, this sensitivity is refuted as the vegetation below the HWM is very sparse. The Marine Impact assessment did also not record any SSC (which includes sensitive species that may be subject to illegal harvesting) within 10m of the path footprint. Two SCC plant species were recorded outside the proposed development footprint, within proximity to the path, but it is unlikely that activities associated with the path would endanger these specimens.
- The terrestrial biodiversity theme - the very high sensitivity is refuted also as the path would be located in the marine environment, below the HWM, to which the Screening tool does not extend. Nevertheless, a Marine Impact Study was undertaken to identify whether any sensitive fauna or flora were present below the HWM / in the intertidal zone and if so, whether they would be detrimentally affected by the construction or operation of the path. No ecologically sensitive species were noted that would be affected by the development of the path, provided that mitigation be implemented as recommended (i.e. for whales and breeding birds).

Please see **Appendix I** for the detailed sensitivity verification report.

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 1**	Describe the portion of the proposed development to which the applicable listed activity relates.
15, 52	The development or expansion of structures in the coastal public property where the development footprint is bigger than 50 square metres	The proposed pathway would exceed 50 m^2.
18	The planting of vegetation or placing of any material on dunes or exposed sand surfaces of more than 10 square metres, within the littoral active zone, for the purpose of preventing the free movement of sand, erosion or accretion	The proposed pathway would entail the placement of concrete on more than 10m^2 exposed sand surfaces within the littoral active zone in order to provide formalised access for pedestrians, possibly preventing the free movement of sand, erosion or accretion in these areas.
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse	The pathway will traverse two wetland areas on the eastern side and western side of Poole's Bay. A boardwalk is proposed to cross both of these, which would have concrete footings. Constructing these footings would likely cause disturbance of more than 10 cubic metres in total.
19A	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from the seashore.	Construction activities would require the infilling or depositing of more than 5 m^3 of pebbles and grit within the seashore, as the pathway would be approximately 850m long.
Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 3**	Describe the portion of the proposed development to which the applicable listed activity relates.
12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. In the Western Cape – iii) Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;	Although Activity 12 is included in case vegetation clearance exceeds 300m^2, it is our opinion that it would not be required, as the path would be located below the HWM of the sea, where there is very little vegetation to be cleared. The Marine Impact Assessment study, which included an assessment of other themes (animal species, aquatic biodiversity, plant species and terrestrial biodiversity) that have relevance to the coastal environment indicated that the area has been degraded and physically transformed along much of its length and is largely devoid of natural vegetation.

Note:

- The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted.
- Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority.

List the applicable waste management listed activities in terms of the NEM:WA

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Category A**	Describe the portion of the proposed development to which the applicable listed activity relates.
Not applicable to this application.		

List the applicable listed activities in terms of the NEM:AQA

Activity No(s):	Provide the relevant **Listed Activity(ies)**	Describe the portion of the proposed development to which the applicable listed activity relates.
Not applicable to this application.		

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.

The preferred Alternative would consist of a concrete pathway with a walking surface of approximately 1.2m wide, with bridge-like structures along sections of the path, where steep cliffs are present, or where the path would be mostly submerged under normal conditions, seeing that it would be constructed below the HWM. Other sections would be stepped or level, depending on the topography. Boardwalks are proposed at the sections where two small wetlands are present (below Erf 12257 and in front of Erf 1249). The western entry is proposed to connect from the Western Cliff path lookout bench as approached from Protea Road, over the gully to in front of erf 12557. On the eastern side, the path would connect to the existing Cliff path through the historical steps at Mickey which would remain unchanged.

Execution of the proposal is intended to address the areas which are most difficult to traverse first and allow the path to progress gradually within an approved footprint to eventually conform to the existing Cliff path appearance in the remaining sections along the flatter and easier accessible areas.

A 5 m construction zone buffer on the seaward side of the path would be implemented during construction to allow for movement of personnel and equipment, as well as minor deviations due to topography, but any disturbance outside the width of the final path is to be restored after completion of construction.

2.	Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.

As this is a structure that would be located in the coastal public property, the municipal planning by-law does not apply. The proposed path does not require any change in land use legally or physically as an informal path already exists. The development would facilitate easier access to the coast in the Poole's Bay area through a formalised path.

3.	Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.

There are no existing approvals associated with the site that we are aware of.

4.	Explain how the proposed development will be in line with the following?
4.1	The Provincial Spatial Development Framework.

The PSDF does not include coastal public property and the proposed project is of insignificant scale in the context of the PSDF.

4.2	The Integrated Development Plan of the local municipality.

One of the Strategic objectives identified in the municipal IDP for 2017-2021 is social upliftment and economic development. The proposed connection of the Cliff path via Poole's Bay could contribute to the key performance areas identified under this objective, i.e. local economic development and tourism and the enhancement of sport, recreation and culture (Overstrand Municipality 2017:101).

4.3.	The Spatial Development Framework of the local municipality.

The goals of the SDF include among others (Overstrand Municipality 2017: 224):
2) An environmentally sustainable and resilient Overstrand.
3) A memorable and distinctive Overstrand
6) An accessible and connected Overstrand.

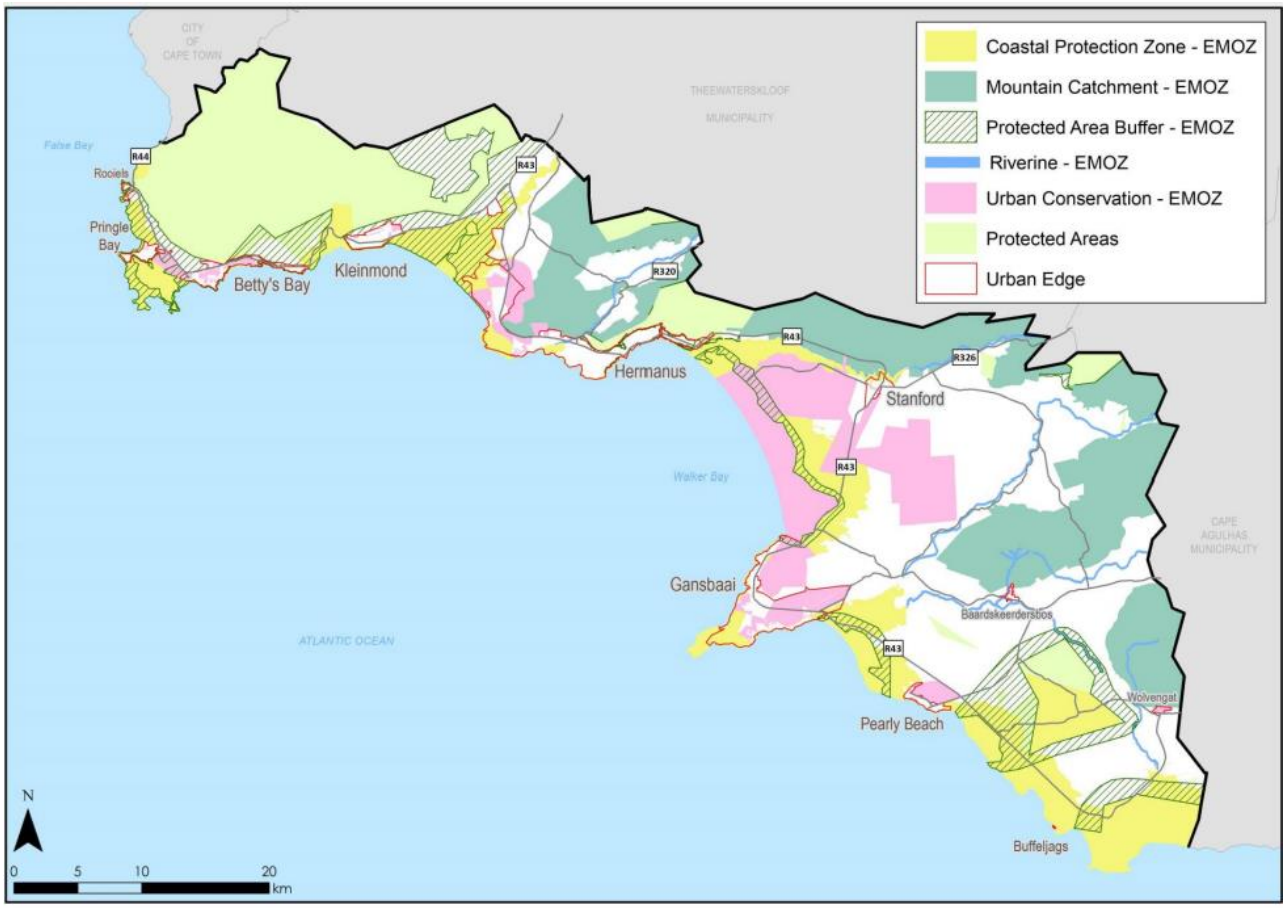
The proposed connection of the existing distinctive Hermanus Cliff path sections intends to enhance coastal access without detrimental impacts on the environment and would therefore be in line with the above goals.

4.4.	The Environmental Management Framework applicable to the area.

With reference to the coast, the SEMF states that the protection of the aesthetic, tourism and cultural value of the coast requires that the planning and management of land use in the coastal zone takes these values into consideration. Land-use planning must also consider the predicted effects of climate change in terms of, disaster risk reduction strategies and programmes, and in terms of safeguarding and promoting ecosystem resilience (Cilliers and Withers, 2013:80). Restrictions are noted in terms of coastal management lines and buffers from wetlands, within which the proposed development would fall. However, the location, nature and scale of the proposed connection path would not significantly impact, or be impacted by these factors. Predicted sea level rise is acknowledged and incorporated into the design and it is accepted that the proposed path alignment may need to be changed in the medium term (20-50 years) as a result.

The municipality has developed environmental management overlay zones, i.e. Overstrand Municipality Environmental Management Overlay Zone Regulations 2020 (Annexure C: EMOZ) entailing the following:

- Coastal Protection EMOZ
- Mountain Catchment EMOZ
- Protected Area Buffer EMOZ
- Riverine EMOZ
- Urban Conservation EMOZ



Plan 16: Composite EMOZ

Figure 2: Environmental Management Overlay zones

The urban coastline of Hermanus does not fall within any of the EMOZones as per the Spatial Development Framework of May 2020.

5.	Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.

Marine and coastal biodiversity aspects have been investigated in the Marine Impact Assessment (Appendix G4). Although comment was previously received regarding the terrestrial CBA in the area, the site falls below the HWM and is not included in the Western Cape Biodiversity Spatial Plan, as confirmed by Cape Nature (see Appendix E2). Construction activities would however be sensitive to the surrounding environment with demarcated no-go areas to limit any potential impact to the minimum.

6.	Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.

The Western Cape Biodiversity Spatial Plan (WCBSP) (2017) indicates a single freshwater feature falling just above the proposed site (Erf 1249) and classed partially as an aquatic Ecological Support Area (ESA) class 1, and also as an aquatic ESA class 2 (Wetland 1 as per Freshwater Ecology report). ESA's are areas that are required to support the functioning of Critical Biodiversity Areas (CBA's) which are essential in averting loss of biodiversity. As this feature is located on private property, the project would not impact on it. The design and construction methods at the stream outflow to this feature would be sensitive to it by placing a boardwalk which would have least physical impact and avoid damming that may push back and impact on it.

7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.

"Coastal zone" means the area comprising coastal public property, the coastal protection zone, coastal access land, coastal protected areas, the seashore and coastal waters, and includes any aspect of the environment on, in, under and above such area.

The preamble of NEMICMA states among others that everyone has the constitutional right to have the environment, including the coastal environment, protected for the benefit of present and future generations; that the coastal zone is a unique part of the environment in which biophysical, economic, social and institutional considerations interconnect in a manner that requires a dedicated and integrated management approach; that much of the rich natural heritage of our coastal zone is being squandered by overuse, degradation and inappropriate management; and that the economic, social and environmental benefits of the coastal zone have been distributed unfairly in the past. The Act was therefore promulgated to establish a system of integrated coastal and estuarine management to also ensure that development and the use of natural resources within the coastal zone is socially and economically justifiable and ecologically sustainable.

As far as the requirements are applicable to the Proponent, the development is proposed mainly within the coastal public property. The Act is very clear on access to coastal public property:

(1) Subject to this Act and any other applicable legislation, any natural person in the Republic -
(a) has a right of reasonable access to coastal public property; and
(b) is entitled to use and enjoy coastal public property, provided such use-
(i) does not adversely affect the rights of members of the public to use and enjoy the coastal public property;
(ii) does not hinder the State in the performance of its duty to protect the environment; and
(iii) does not cause an adverse effect.
(1A) Subject to subsections (2) and (3), no person may prevent access to coastal public property.

The Act states under Section 15 (2) that no person may construct, maintain or extend any structure, or take other measures on coastal public property to prevent or promote erosion or accretion of the seashore except as provided for in this Act (NEMICMA), the National Environmental Management Act or any other specific environmental management Act. This implies an Application for Environmental Authorisation under NEMA

Previously, the competent authority was not allowed to grant an environmental authorisation if the activity was situated within coastal public property and inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations, or is situated within the coastal protection zone or coastal access land and is inconsistent with the purposes of those zones, unless the nature of the activity requires it to be located within that particular zone or the activity will provide important services to the public. However, in terms of the NEM:ICMA Amendment Act the competent authority now has to take the following factors into account in making a decision:

- whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development or activity is consistent with the purpose for establishing and protecting those areas;
- the estuarine management plans, coastal management programmes (CMP), coastal management lines and coastal management objectives (CMOs) applicable in the area;
- the likely impact of coastal environmental processes on the proposed activity;
- whether the very nature of the proposed activity or development requires it to be located within coastal public property, the coastal protection zone or coastal access land; and
- whether the proposed activity or development will provide important services to the public when using coastal public property, the coastal protection zone, coastal access land or a coastal propertied area

The nature of the proposed development requires it to be located within the Coastal Public Property and would therefore affect it as a new structure would be developed. The impacts have been investigated and the proposed development would not have unacceptable or detrimental effects. The proposed development would provide a recreational service to the public, as it is not a private development with exclusive access.

8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.

The Screening tool report and site sensitivity verification report that was submitted with the Notice of Intent was dated April 2020. An updated Screening tool report was compiled for the revised Draft BAR of November 2021and it was again updated for the purpose of this Draft BAR and submitting the Application form. The verification report has been revised to incorporate new insights and specialist studies that were undertaken to address issues raised previously regarding findings.

9.	Explain how the proposed development will optimise vacant land available within an urban area.

The proposed project is technically not located within the delineated municipal urban edge, but would be located on vacant public land surrounded by urban area and the sea.

10.	Explain how the proposed development will optimise the use of existing resources and infrastructure.

The existing Hermanus Cliff Path would be enhanced by connecting it through Poole's Bay. Current informal access to the area is not optimal as it is not easily accessible (risk of injury).

11.	Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16).

The proposed project would not require the use of municipal services. No additional services with additional capacity need be created.

12.	In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.

See Appendix K.

SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that If the NEM: WA and/or the NEM: AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

1. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

See Public Participation Plan and DEA&DP correspondence in **Appendix E22.**

2. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.

This report is the revised pre-application draft report and is the third in a new process initiated during November 2020, even though it was subject to pre-application public participation during 2019. Proof of all public participation as part of this new process will be included with subsequent reports. It is not required to include proof of the previous public participation process. Public Participation information, including a comments and responses table is included under Appendix F.

3. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

State Department / Organ of State	**Date request was sent:**	**Date comment received:**	**Support / not in support**
Note that since this project has already been subject to scrutiny by various authorities and the public during 2019, relevant consultation has been included in the comment in Section 6 and Appendix F (Authority meeting notes):			
Department of Environmental Affairs & Development Planning – Directorate Coastal Management	Pre-App Draft BAR - December 2020 Revised Pre App Draft BAR request - November 2021	22 February 2021 New comment to follow.	Support
Department of Environmental Affairs – Oceans and Coasts	Pre-App Draft BAR - December 2020 Revised Pre App Draft BAR request - November 2021	28 January 2021 No further comment received	Not indicated
Department of Environmental Affairs & Development Planning – Directorate Development Management Region 2	Pre-App Draft BAR - December 2020 Revised Pre App Draft BAR request - November 2021	21 December 2020 7 December 2021	Not indicated
Department of Environmental Affairs & Development Planning – Directorate Pollution and Chemicals Management	Pre-App Draft BAR - December 2020 Revised Pre App Draft BAR request - November 2021	21 January 2021 23 November 2021	Reserved comment for next round of the Public Participation Process
Department of Water and Sanitation (Not CA for this application)	Pre-App Draft BAR - December 2020 Comment will not be requested again, will be obtained from BGCMA	Requested initially but no comment received.	-

Breede Gouritz Catchment Management Agency (CA for this application)	Pre-App Draft BAR - December 2020 Revised Pre App Draft BAR request - November 2021	19 March 2021 14 December 2021	Not indicated
CapeNature	Pre-App Draft BAR - December 2020 Revised Pre App Draft BAR request - November 2021	22 February 2021 15 December 2021	Does not object
Heritage Western Cape (Not CA for this application)	28 May 2019 - NID submission No further comment required, but notification to be sent in any event	7 June 2019 14 December 2020 and 29 January 2021	Final response - no further action
South African Heritage Resources Agency (CA for this application)	Pre-App Draft BAR - December 2020 Revised Pre App Draft BAR request - November 2021	11 February 2021 23 November 2021	The comment issued in 2019 remains the same
Overstrand Municipality	Pre-App Draft BAR - December 2020 Revised Pre App Draft BAR request - November 2021	19 January 2021 9 December 2021; 15 December 2021	Not indicated
Overberg District Municipality	Pre-App Draft BAR - December 2020 Revised Pre App Draft BAR request - November 2021	25 January 2021 No further comment received	Not indicated

4. If any of the State Departments and Organs of State were not consulted, indicate which and why.

All identified State Departments and Organs of State were consulted.

5. if any of the State Departments and Organs of State did not respond, indicate which.

See 3. above.

6. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated into the development proposal.

The comments received have been copied *verbatim* into the issues trail that is included with the Comments and responses report, Appendix 6. Each comment has been responded to individually. The issues trail has been divided into three sections for ease of reference (note the heading of the table read 'comments in support and Requests to register. The electronic file name was shorter, but have now been changed to 'other comments with responses)"
For the Nov-Dec 2021 comment period, comments other than those from Authorities or specifically indicated to be objections have been organised to include a separate section for those IAPs who only requested to register

Comments received during the 2020 comment period
Section A - Authority Comments
Section B - Objections

Section C - Comments in Support and Requests to Register.

Comments received during the 2021 comment period:
Section A - Authority Comments
Section B - Objections
Section C - Requests for registration
Section D - Other comments

Specific Comments by Organs of State that have been incorporated / addressed:

Issue / comment	**Manner in which the issues were incorporated**
<u>Cape Nature (2020 comments):</u> • recommendation that the proposed footpath should minimise the amount of the construction and structures as far as possible • Use of pre-cast concrete • in terms of the Sea-Shore Act (Act No 21 of 1935), a lease is required from CapeNature for structures below the HWM. • The location of the footpath below the HWM needs to be considered in terms of the impact on the coastal environment, in particular related to hydrodynamics. Coastal management lines (CML) not indicated in relation to the proposed alignment to the path.	• The design has since been revised to be as little intrusive as possible • Although pre-cast concrete would be preferred, the terrain may not allow it in all places and small batches of on-site casting may be more practical. A method statement would cover the applicable method. • An application will be made in due course, if still applicable at the time. • We understand hydrodynamics to be the study of the flow of water. It has been acknowledged in the design that since the path would be located below the HWM, it should not create a tidal pool by restricting water to flow back to the ocean. The path would therefore include various sections and design elements (e.g. gabions and rectagrid), which would allow for water flowing through. Battered sections would be at a gentle slope to accommodate rough sea conditions • The CML's are landward of the HWM, while the path would be located below the HWM. Section G3 includes a discussion on CMLs.
<u>Cape Nature 2021 Comments:</u> • Integrated Coastal Layer has been developed following on from the National Biodiversity Assessment (2018), which integrates the mapping along the coastal interface of terrestrial and marine ecosystems, should be referred to within coastal environments • The Marine assessment clarifies that the sections of the path which are located below the high-water mark are only inundated during extreme storm events and therefore does not support intertidal biota found within the five intertidal zones. The proposed path therefore will not impact on intertidal habitat provided there are no intrusions during the construction phase.	• Section G3.3 was updated with information from the coastal layer • The MIA was revised to read consistently and the EMPr was revised to include essential and recommended mitigation measures as stipulated i the MIA

• EMPr must include all recommended mitigation measures	
<u>Department of Environment Affairs (DEA) Branch: Oceans and Coast (Directorate: Coastal Conservation and Strategies) 2020 comments:</u> • Development must be socially, economical justifiable and ecologically suitable • Construction and maintenance are responsibilities and liabilities of applicant • Consider objectives of the ICM Act and Protect and conserve coastal environment in all construction Phases • Consider Section 15 of the ICM Act: Measures affecting erosion and accretion. • Consider Section 13 of the ICM Act: Access to coastal public property • Consider Section 14 of the ICM Act: Position of high-water mark • Structures used to connect path must withstand all weather conditions • Lifespan of the path should be considered when planning the design, methodology and technology to be used • Path construction plan to consider elevation of site and maintenance and rehabilitation in case of coastal erosion. • Competent Authority to include public access condition in EA • Applicant to ensure the path is accessible to the public during and after project phases	• The project is a private development for public benefit. Since it would be privately funded, it is socially and economically justifiable and the impact on the environmental aspects would be limited after mitigation. See Assessment in Section H4 • Applicant is responsible for implementation of conditions of EA and EMPr (See Section J 2.3) • The objective of NEMICMA and prevention of erosion and accretion is addressed through the EMPr, see Appendix H. • The purpose of the project is to improve coastal access, see Section G3 for discussion • The HWM is discussed in Section G3. • The main element in the path construction would be concrete, where not practical or where this would have high negative impact (e.g. wetland areas, alternative materials have been suggested. Maintenance would ensure that structures don't deteriorate (see Alternatives, Section H1) • The lifespan is seen as short-med term (up to 30 years) in the current alignment due to possible sea level rise (see Section G3 for discussion) • The purpose of the project is to improve accessibility
<u>Department of Environmental Affairs and Development Planning Western Cape Government (Directorate: Biodiversity and Coastal Management):</u> • More detailed consideration of S63 of NEMICMA	• The objectives of the Act is to promote social equity and make best economic use of coastal resources, whilst protecting the natural environment, which can be realised through the proposed project. See Section G3.3 below for discussion on coastal attributes and management lines

• Relevant guidelines, Estuarine Management Plans, Mouth Management Plans need to be considered when any listed activities are triggered in the Estuarine Functional Zone	• An Estuarine Functional Zone, is not applicable in this context, as the project falls approximately 5 kms away from the Klein River Estuary.
<u>Department of Environmental Affairs and Development Planning Western Cape Government (Directorate: Development Management: Region 1) (2020 comment)</u> • Submission of a written water use application request to the DWS if a WULA is required, proof of submission to BGCMA and all information related to the WULA application must be included in the BAR • In addition to this, comment from the relevant water management authority regarding the proposed development, must be obtained. • A separate MMP document must be drafted and included in the final BAR • The Public Participation Process must comply with the requirements of Regulation 41 of the EIA Regulations 2014, and proof of compliance with all the steps undertaken must be included in the Final BAR. • Obtaining comments from listed authorities • An original signed and dated applicant and EAP declaration is required to be submitted with the final BAR.	• Currently in consultation with BGCMA regarding requirements. • A MMP was already included as a separate document under Section 6 of the EMPr. • Draft Comments and responses report included in Appendix F • The Final BAR is anticipated to be submitted towards the end of April 2022, when the required proof, comments and signed documents will be submitted.
<u>DEA&DP Development Management 2021 comment:</u> • <u>Standard Operating Procedure under the One Environmental System must be complied with.</u> • <u>Proof of submission of the WULA must be included with the BAR</u>	• Discussed between DEA&DP and BGCMA, notes of meeting included in Appendix F4. • No WULA required, but proof of submission of GA Registration included under Appendix E25.
<u>Heritage Western Cape</u> • Should any heritage resources, including evidence of graves and human burials, archaeological material and palaeontological material be discovered during the execution of the activities, all works must be stopped immediately, and	• Specification included in EMPr, although Heritage Western Cape is not the relevant Heritage Authority for this project.

Heritage Western Cape must be notified without delay.	
<u>South African Heritage Resources Agency (2020 and 2021 comment)</u> • Should any structures or shipwreck remains older than 60 years be uncovered during the proposed works, they must be notified immediately so that further advice can be given regarding complying with heritage legislation • Any alterations to structures older than 60 years requires a permit under the NHRA	• Permit would be applied for if the final design indicates alterations to the tidal pool or swimming pool. Stated for condition in the EA. • Specification included in EMPr
<u>Overstrand Municipality (2020 comment)</u> • Specify which entity will be responsible for maintenance of the path as well as responsibilities in terms of refuse removal/emptying of bins • Specify which entity will be dealing with claims in regard to public liability re safety • Visual Impact Assessment required • Overlay zones to be considered • Specify ablution facilities and noise measures • Coastal Risk Zones	• The CPAG would be the authorised entity with responsibility of compliance (including implementation of the MMP) • Disclaimer of liability signs will be erected in visible places according to the EMPr and the CPAG would take out public liability insurance. • Visual Impact Statement adequate according to DEA&DP guidelines, but includes assessment for the purposes of the BAR. • Visual study considered Heritage overlay zones • EMPr has been updated • See updated discussion of Coastal risk zones, Section G3.
<u>Overstrand Municipality (2021 comment)</u> • The recommended window period for construction; outside of bird (November to January) and whale breeding seasons (July to December), must be adhered to. • Noise levels to be kept to a minimum during construction phase • All bins in the area must be baboon proofed to prevent raiding by baboons • Engagement with the relevant municipal department should take place as these proposed maintenance activities has associated budget implications for the municipality • The applicant must clearly specify how any claims of injury will be dealt with and will be the responsible entity. • The proposed locations of the Contractor's camp and toilets must	• The EMPr has been updated to address construction window periods, noise and bins and construction ablution facilities. • A meeting was held in May 2022 with the municipality to resolve the liability and maintenance cost issue • EMOZ regulations were consulted, but not found to be applicable in this particular context, as the land is not municipal land or under jurisdiction of the municipality.

please be indicated. Relevant approval must be obtained from the Property Administration department if these facilities will be placed on municipal land. • EMOZ regulations must be considered	
Overberg District Municipality • Inclusion of visual concept of path • Method statement of construction process • Tidal zone pollution	• See Appendix B • This can only be provided by the contractor when construction will take place but is a requirement of the EMPr • See measures in EMPr

Objections and other issues :

The main issues highlighted and how they were incorporated included those as set out below in alphabetical order. Note that only pressing concerns that required further consideration are included here. Since a new process was initiated in October 2020, the 2019 comments and responses will not be included with this report and IAPs were given a new opportunity to raise comment on issues of concern that were not yet addressed. The issues raised previously have however been noted here:

Issues raised during the 2020 public participation process

Issue	Manner in which the issues were incorporated
Access Clarity on connection points to the existing path Access for criminals / poachers	The two connection points to the existing path have now been indicated more clearly on the site plans. Access would be facilitated for law enforcement and security to police the area
Alternatives No-go Inadequate consideration of alternatives	It is the intention of the process to consider practical options with their impacts to determine if feasible and reasonable and if not, the No-go option would be implemented. In the 2019 pre-application draft report, two alternatives were presented along with the no-go alternative. These alternatives were not substantially different, albeit from an alignment / lay-out point of view in that for one, the possibility of having the path above the HWM in some areas was explored. As a result, the impacts associated with each did not differ. Through respecting the fact that properties in this area extends down to the HWM and that the majority of landowners would prefer to see the path below the HWM the only feasible alignment is therefore along the HWM. Although other alternatives, such as materials to be used was considered, it is not regarded as practical within the coastal context and therefore it is motivated that they are not reasonable or feasible. The original designs that were presented are more elaborate and not feasible from a financial point of view, considering that this would be a community funded project. As it is still regarded as a reasonable alternative, the option presented in 2020/2021 has been presented and assessed as the alternative to the now preferred alternative, which has a concept design that would conform better to the existing Cliff Path appearance.

	The DEA&DP Guideline on alternatives which confirms that in the absence of reasonable and feasible alternatives, the preferred alternative may be assessed in comparison the no-go alternative, provided that a reasonable motivation is provided for not considering other alternatives.
Birds The importance of birds and sea life in this area and on the island close to the proposed eastern entry point. Black Oystercatchers Breeding season	This was further investigated and a survey by an Avian specialist is included under **Appendix G3**. Although two red data species were observed during their study. Their findings concluded that the path would not present fatal flaws from an avian point of view that may compromise the birds' presence or possible breeding. Should active nests be present, construction must be delayed until birds have moved off as specified in the EMPr.
Commencement of listed activities Vegetation clearance and moving of stones	It has been alledged that listed activities commenced through vegetation clearance and moving of stones to demarcate the informal pathway. The current access that was cut open is over an existing old sewer pipe and no vegetation was removed - it was only pruned. Photos were provided to clarify. The blue whale tail markers were, according to the applicant, already painted four years ago. It indicates only one route, which is to direct pedestrians to in fact avoid numerous trodden paths from forming. The applicant did not move nor instruct anyone to move rocks - this has happened unintended over time and the persons who are responsible are unknown.
Costs and funding: Use of public funding / Allocation of funds, Maintenance costs Ability of applicant to complete project	There has been a misconception that the funding for this project would be municipal or other public funding. The perceived costs are also not confirmed and it is submitted that the cost of the preferred alternative would be substantially less than that of the original alternatives. It is emphasized that the project is community driven, but would be dependent on private funding / donor funding for construction as well as maintenance. Financial guarantees have been suggested to ensure that the means to fund the project are available.
Construction Timing; Methods; Management (noise, dust, nuisance, litter etc) , construction camp location	These issues have been formally addressed in the EMPr. The construction camp and stockpile would not be located on the public areas either side of the connection path anymore, but in an off site location. E.g. in Industrial area. Materials and labourers would be brought in daily as required as construction times would be limited to seasonal (whales and birds) and tidal conditions and weather.
Design and layout Further refinement of design, alignment and inclusion of coastal management line on site plan Structural integrity	Revised design descriptions for the preferred alternative have been included in this report. Updated drawings / plans have been included in **Appendix B**. The path would need to be constructed in the same way any other sea-exposed structure is done, such as piers, harbours and tidal pools, so damage by wave action can be withstood. Experienced engineers and contractors have been approached for input and method statements are to be included with the EMPr to ensure that structures are developed sustainably.

	It is included as a condition of approval that a coastal engineer signs off on the final design before construction may start.
Ecological sensitivities Perceived pristine area Sensitivities according to National Screening Tool - plant species, animal species, aquatic features, biodiversity	The ecological sensitivities were investigated through a Marine and coastal impact assessment - See Appendix G4. The sensitivity verification report has also been updated accordingly.
Freshwater features Stream and wetlands	At Erf12257, a small wetland traverses the HWM and a boardwalk is suggested in this location to have minimal wetland impact in the area. Likewise a boardwalk / small bridge is suggested over the wetland stream outflow below Erf 1249.
High-water Mark Incorrect position Questionable survey methodology Conformation by Surveyor General	A third survey of the HWM was undertaken during September 2021. The results as well as methodology has been included in Appendix G6.
Liability	Liability can only be addressed by putting agreements in place with the relevant authorities and by ensuring disclaimers are visible along the pathway. The Applicant would also take out public liability insurance for unforeseen events. This has been stipulated as a requirement to be implemented through the EMPr.
Maintenance	Maintenance would be the Applicant's responsibility. The EMPr provides for measures and a condition for a financial guarantee to include provision for 5 year maintenance (to be reviewed at the end of this period) is proposed to ensure maintenance takes place.
Pollution Concrete spills	The current specifications, as well as method statements to be included with the EMPr specifies how construction should take place to minimise the risk of spills.
Protected Areas Fernkloof and Walker Bay Whale Sanctuary (MPA)	As per maps provided (See Section G(4)3), the proposed path would not fall within a Protected Area.
Safety (referring to physical safety when using the path) Storm surges, danger during high tide, terrain	Appropriate signage has been recommended and included as a specification to be implemented through the EMPr. The purpose of the path would be to ease access over difficult terrain and the proposed conceptual design included in the report and **Appendix B** shows how - level sections in the relatively flat areas, stepped sections over rocky areas and elevated sections against cliffs and over the gully at the western connection point.
Privacy Loss of privacy Pool on Erf 6337	The proposed alignment is off private property. We have been informed by local landowners that there are regular breaches of privacy by hikers not knowing where to walk currently. It is assumed that formal demarcation would reduce the amount of people trespassing on private property. The path would also be aligned seaward of the pool on Erf 6337.
Property values Decline due to loss of privacy and security	The perceived loss of privacy and security would be relative to the physical location of the path in relation to individual properties. It is unlikely that the values would decline substantially as a result of the pathway, which may not be physically visible to

	most of the properties due to topography, as the path would be located behind / below rocks in many places.
Security (referring to criminal elements)	It is our opinion that to formalise the Poole's Bay section would improve accessibility for law enforcement officials to pursue poachers or other criminal elements. Visible policing is known to discourage criminal activities.
Visual impact The path may result in property owners erecting walls and fences which would have a visual impact.	The visual study indicated that the path itself would have low visibility and that property owners would more likely see path users than the path itself. It is not possible to respond or predict what property owners along the path would do. Currently only two properties don't have some form of barrier between their property and the shore. Should property owners want to erect walls or fences, these would be subject to municipal building restrictions.
Waste Management Construction and operational phases of the proposed development - it must be specified who will be responsible. Litter	The EMPr specifies how waste should be dealt with during construction and operational phase and specifies responsibility.
Comments in Support and other comments The majority of comments received during 2020 were in support of the proposed project and the main issues raised in this regard is to have improved access to the area, the desire to avoid the Main Road detour, enhancement of the existing Cliff path as major asset to Hermanus in terms of local recreation and contribution to tourism and the local economy. The Coastal Access Audit was considered in the report as the Poole's Bay area was at the time identified as a conflict area where public access was desired. Coastal access is an important government driven issue, as is evident from the current coastal access management strategy. It was revealed during the public participation process for this strategy that people in the area was under the general impression that access was denied to this part of the coast. Other comments included requests for registration, corrections to the documents, reminders of requirements of the application process and so on. These have been addressed where applicable in the documents referred to. The parties that requested to register were given the option re-register under the requirements of the Protection of Personal Information Act (POPIA).	
<u>Issues raised during the 2021 public participation process</u>	
Issue	**Manner in which the issues were incorporated**
Alternatives • Use of green concrete not considered (Marine report). • Causeway proposed by Freshwater Ecologist not considered	Discussed with engineers ito practicality, research done on availability and types. Marine Specialist report recommendation revised to use if practical in project context. Freshwater assessment did not include causeway as recommendation, as it would be too impractical to get materials to site (culverts and pipes)
Avian study Study needs to cover longer period	Specialist report acknowledges limitation of survey duration but has been revised to confirm that the study was undertaken during a time where both resident and migratory birds could be observed.
Bias reporting Bias reporting, specifically from the Applicant, on which a number of comments are incorrectly based, is continuous	The EAP has no vested interest in the outcome of the decision. Bias reporting by the Applicant is irrelevant -the applicant does not compile the BAR. There has been no biased reporting by the EAP.

	The test for bias in an EIA process would be where the EAP inaccurately reflects the specialist opinion to favour the project. Specialists that are independent from the Applicant and the EAP provided specialist assessments for this proposal. Their input was incorporated in an accurate and comprehensive manner in the BAR, thereby demonstrating a non-bias approach by the EAP.
Black Oyster catchers Conservation status discrepancy	At the time of writing the Avian report (March 2020) and MIA (2021) the Black Oystercatcher was globally classified as Near Threatened. Now, in 2022 the species has been down-listed to Least Concern following the South African red list down-listing. So globally and regionally it is now Least Concern. Both specialist reports have been revised accordingly.
Conflicting information between the BAR, Specialist Reports and responses in the form of the C&R Report	BAR, Specialist reports and EMPr have been revised to remove conflicting information and responses to comments received during the Nov-Dec 2021 comment period responds to this issue.
EMPr SEMP to be updated to reflect correct requirements re birds (conflicting information between SEMP and response to comment)	Requirements have been clarified and updated in the EMPr Planning and Design requirements, as well as SEMP
High-water mark Incorrect and not approved by SG	The HWM was surveyed on numerous occasions with similar results. For the purpose of this application, the HWM determination of RvB Geomatics, 2021 has been used (see Appendix G6 and Section G3.2 of the BAR)
Landowner clarification	Relevant sections in the BAR have been corrected. Public coastal land belongs to the RSA, but Cape Nature would issue a Seashore lease for the proposed path structures.
Management of the pathway Responsibility and liability	The Applicant must assume responsibility for the project. A financial guarantee for construction costs and projected 5 year maintenance (to be reviewed every 5 years thereafter) is provide for. See BAR section J 2.4 and planning phase requirements specified in the EMPr Section 3.1. The implementation of the EMPr would also be a condition of Authorisation
Medium term lifespan of the project unsustainable in the long term due to climate change	This is acknowledged. Design requirements to cater for possible sea level rise within the next 20-50 years has been included in the BAR (see Section I5) and under design measurers in the EMPr.
Misrepresentation of comments Section C of comments and responses report not only including support comments but also requests for registration Inadequate responses to comments	Revised the sections for the new comments received. See updated responses to comments received regarding inadequate responses to comments.
Need and desirability Impact significance statement to be clarified. Are the negative environmental impacts and the significant financial costs associated with the proposed pathway worth undertaking, for a structure that is	Section J 1.3 in the BAR includes a summary table of all the assessed impacts which indicates significance rating with and without mitigation. The negative impacts are all rated as low - negligible after mitigation. This point in the Need and Desirability statement has been revised to reflect such.

considered a safety hazard in terms of public liability - at best in the medium term?	The negative environmental impacts can be mitigated to an acceptable level through the proposed mitigation, as is illustrated in Section H4 of the BAR. Cost and liability remain the responsibility of the Applicant, who is prepared to undertake the project at their cost, even if it will not have a long term lifetime - which has been incorporated as a condition of Authorisation.
Negative comments	The EAP is obliged to present all comments received as part of the public comment periods. We are not prepared to respond to derogatory comments by any party as this does not serve the impact assessment process and compromises our independence. Statements in this regard has been responded to accordingly.
No-go areas certain maps indicate a 3.5m landside buffer zone	This buffer zone is indicated on the Alternative 1 Maps. Note that only the requirement for a 5.0 METER CONSTRUCTION ZONE on the seaside of the HWM is included as a management action in the EMPr. This is to accommodate the rocky and irregular landscape and as indication of the limit of construction activity. The 3.5m landside buffer has been struck out on the Alternative 1 plans and there is no requirement for it indicated in the BAR or the EMPr. Furthermore, as per Freshwater Ecology assessment, a 3.5m seaward no-go area has been specified in the EMPr to limit impact to wetland areas.
One environmental system requirements	It has since been resolved that a GA is needed, which does not fall under the requirements of the One environmental system. No other integration is necessary (e.g. agriculture and heritage)
Open Day issues Short notice, mid-week, using the EIA process to market the project. Cannot be considered part of the independent Public Participation Process of the EIA as it was not hosted by the EAP but rather a marketing campaign utilized by the Applicant	The goal of the Open day was to provide visual presentations of the proposed project, which is included with this report in the Public participation. Articles that were displayed at this open day have not been included with this report, as the EAP did not action them. The EAP facilitated notifications for the Open day a month before the date (see proof of notifications in Appendix F) and used the opportunity to address issues related to the BAR (Open day is not a requirement by the regulations). Future events, if any will make clearer distinction between the role of the Applicant and the role of the EAP. Attendees at the open day included persons in support of the project, but also persons against the proposed project as is reflected by the comments received (see comments and responses table, Appendix F).
Public Safety & Liability It is not believed that path users will adhere to signage and formalising the path therefore increases the risk of injury as there will be people using the path despite warnings.	Public liability insurance is required as a condition of the EA
Specialist studies and recommendations Marine impact mitigation measures have not been adequately presented.	Relevant sections in the BAR have been revised for more clarity.

Freshwater Ecology recommendation of causeway instead of bridge not incorporated Visual statement mitigation measures to be addressed by preferred alternative.	The causeway that was previously recommended has been considered in the context of the path, especially the limited access for delivering construction materials. The materials required for a causeway would not be practical and after further investigation of positioning of the infrastructure, it has been proposed to have boardwalks to traverse the wetland areas. In the updated Freshwater Ecology assessment a boardwalk has been assessed and the associated recommendations and mitigation has been incorporated into the BAR and EMPr. All specialist mitigation measures have been included in the BAR and EMPr.
Visual statement re disabled persons	The Visual statement has been revised to exclude this consideration.
Water Use Authorisation BGCMA to be consulted and type of WUA be determined as it will influence duration of public and authority consultation and the influence on the application in general	A Fresh Water Ecology assessment has been undertaken and is replacing the screening study done previously. The risk matrix indicated a low risk, thus a GA registration is underway. Proof of this has been included under Appendix E25.

Note:

A register of all the I&AP's notified, including the Organs of State, and all the registered I&APs must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that *"Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but **must** be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority."*

All the comments received from I&APs on the pre -application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

- a site map showing where the site notice was displayed, dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
  - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  - if a facsimile was sent, a copy of the facsimile Report;
  - if an electronic mail was sent, a copy of the electronic mail sent; and
  - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

1. GROUNDWATER

1.1.	Was a specialist study conducted?	~~YES~~	**NO**
1.2.	Provide the name and or company who conducted the specialist study.		
Not applicable			
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
Not applicable			
1.4.	Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development.		
Not applicable			

2. SURFACE WATER

2.1.	Was a specialist study conducted?	**YES**	~~NO~~
2.2.	Provide the name and/or company who conducted the specialist study.		
Enviroswift conducted a screening study to delineate wetlands in the vicinity of the path. The first study was compiled by Joshua Gericke and it was revised after confirmation of the HWM and concept path design by Nick Steytler from Enviroswift in September 2021. A full assessment was required to inform the risk matrix for the Water Use Authorisation and also because of the sensitivity being Very high as a result of the wetland being traversed. The full assessment report is included in Appendix G2.			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		
The proposed development would be located below the HWM. Boardwalks over the wetland in front of Erf 12257 and wetland stream outflow in front of Erf 1249 would not impede any flow into the sea and is therefore supported.			

3. COASTAL ENVIRONMENT

3.1.	Was a specialist study conducted?	**YES**	~~NO~~
3.2.	Provide the name and/or company who conducted the specialist study.		
Anchor Environmental was appointed to investigate the marine and coastal environment and its biodiversity. The specialists are: Dr Barry Clarke, Cheruska Swart and Safiyya Sedick. Credentials and CVs included with the specialist report in Appendix G4.			
3.3.	Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development.		

Section 63 of NEMICMA refers to Environmental authorisations for coastal activities. “coastal activities” means activities listed or specified in terms of Chapter 5 of the National Environmental Management Act which take place in (a) in the coastal zone; “coastal zone” means the area comprising coastal public property, the coastal protection zone, coastal access land, coastal protected areas, the seashore and coastal waters, and includes any aspect of the environment on, in, under and above such area; The property falls within the coastal protection zone, which includes any land parcel within 100m of the high-watermark of the sea. The trigger is therefore the 100m threshold from the HWM.

Coastal interface of terrestrial and marine ecosystems

The terrestrial ecosystem along the alignment is Overberg Sandstone Fynbos and the marine ecosystems are Agulhas Exposed Rocky Shore and Agulhas Mixed Shore, with patches of Agulhas Kelp Forest a short distance offshore (SANBI BGIS National Marine Layers). The area falls within the shore (“intertidal” ecosystem types (sandy beaches, rocky shores, mixed shores, etc) mapped from the dune base (decadal-scale high water mark) to the back of the surf zone) / coastal vegetation (vegetation types with purely coastal descriptions, and/or with >95 % of their extent within the 2.5 km seashore buffer) (bgis.sanbi.org).

Coastal Management Lines

During 2010, a study to inform development setback for the Overberg District was undertaken, which also informed the DEA&DP Coastal Management Programme (2015). The Overberg Coastal Set-backs project involved delineating realistic coastal set-back line(s) (or coastal management lines / CMS1) in addition to the modelled maximum risk line. The management lines would then translate long term (e.g. 100 year) natural processes modelling into guidance that relates to pragmatic planning horizons (e.g. 50 year structural life expectancy). The project culminated in the designation of three conceptual lines or zones:

- A broad Coastal Protection Zone extending to the landward boundary of sensitive coastal features in addition to the maximum modelled coastal risk zone, within which limited management control was required
- A Physical Processes Zone[2] which demarcated the output of the rigorous scientific modelling process used to project future coastal risk
- A Draft Overberg Coastal Set-back Line which designated a narrow band of high risk area along the shoreline within which strict management controls are to be applied

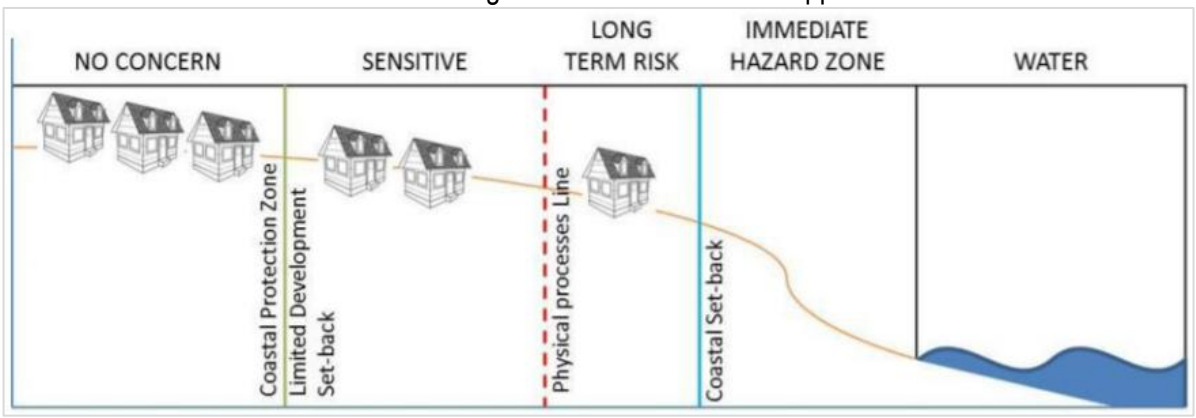


Figure 3: Schematic representation of Overberg District Coastal Set-Back Lines concept (source – DEA&DP 2015:11)

[1] Coastal Management line (CMA) means a line determined in accordance with section 25 of the NEMICMA, as amended, in order to demarcate an area within which development will be prohibited or controlled in order to achieve the objects of the Act or coastal management objectives

[2] A physical process / hazard line is intended to define the limit of the coastal area seaward of which any development is likely to experience unacceptable risk of erosion, flooding by wave action and/or unacceptable maintenance of windblown sand accumulations.

The Coastal Management line (CML) is an important factor to consider in any development application. In terms of the NEMICMA, **Coastal Management Lines** are intended to protect **coastal** public property, private property, the **coastal** protection **zone**, people and infrastructure from the dynamic processes of the coast in the interest of public safety, and preservation of the aesthetic value of the **coastal zone**. For Overstrand in this particular location, it follows the edge of the 13 properties along Poole's Bay, as indicated in Figure 2 below. Note that the CML and the HWM overlaps to a great extent (CML - thick red line, HWM thick pink line).

Figure 4: Coastal Management line in Poole's Bay area

In 2015 the Department of Environmental Affairs & Development Planning released a report titled "Coastal Management (Set-back) Lines for the Overberg district". It is not certain which coastal overlay zone would apply as the project would be neither urban nor rural. The general zone intensions for all risk zones are however the following, which the project would adhere to or achieve to some extent:

- Maintain coastal quality
- Limit private and public liability
- Reduce risk to human life
- Prevent intensification of development in high risk zone, but allow exercising of existing rights albeit with the knowledge of the associated risks
- Maintain coastal quality
- Prevent encroachment that will impact on the integrity of the shoreline ecology and exacerbate negative impacts
- Enable safe evacuation in an emergency

High-watermark (HWM)

According to NEMICMA "high-water mark" means the highest line reached by coastal waters, but excluding any line reached as a result of—
(a) exceptional or abnormal weather or sea conditions; or
(b) an estuary being closed to the sea;

The HWM for the area was surveyed in September 2020 and resurveyed in Sept 2021. The Sept 2021 survey is in line with the 1:10 year HWM as indicated below and will be used going forward in the process as reference HWM line. It is indicated in finer detail on the Site development plans in **Appendix B**.

The factors considered in determining the HWM for Poole's Bay includes (See Appendix G6 for short report):

- 1:10 year run-up line as defined in the coastal risk modelling study performed for the Overberg District by RHDHV(note that DFFE also indicates the 1:10 year run-up line as the HWM on their coastal viewer)
- vegetation line (visible physical feature)
- storm debris lines
- For short ambiguous sections, rough contour lines whenever it seemed reasonable to assume that the incoming wave characteristics would be similar
- In areas where manmade structures were erected, these structures were considered like seawall structures which act as barriers to the water run-up. The HWM was therefore surveyed around these structures (Erf 6337)

The Eastern Cape Surveyor General confirms these considerations in an article (Williams Wynne, 2012) : Wave action, tidal data, previous determinations of the high-water mark, sand, rock colouration and vegetation.

"The Land Survey Act, No. 8 of 1997 confirms that a Professional Land Surveyor is responsible for the determination of the position of all boundaries defining land parcels and land rights. Because of the contentious nature of the position of the high-water mark, Act No. 8 of 1997 requires that the Professional Land Surveyor determines the position in consultation with the Surveyor-General. How the Professional Land Surveyor identifies the position of the high-water mark remains a dilemma for many because the high-water mark is ambulatory. Its position can and does change with time and therefore any positional determination of a high-water mark is at a specific point in time only "(Williams Wynn, 2012).

The above is unfortunately not applicable in the context of the proposed development as the seashore is not a cadastral unit subject to land use planning applications. Consultation with the Western Cape Surveyor General indicated that the Land Survey Act only makes provision for the SG to become involved when there is subdivision of a property of which the seaward boundary is the HWM (i.e. through site inspection for endorsement of a new SG diagramme).

For this development, where there is no private property owner or subdivision of a property, the Land Survey Act does not apply and the SG is not compelled to do a site inspection. A NEMA application will therefore not require the SG to do a site inspection or confirm the HWM, as no SG diagramme will be needed.

A private land surveyor could be appointed (and has been) to determine the current HWM, but should this be contested it would be at the appointed surveyor's risk. There is also no provision for a public consultation process in the Land Survey Act whereby the SG must confirm the HWM with all the neigbouring landowners present. It this particular case, public consultation will take place through the NEMA application process whereby neighbouring property owners will have the opportunity to contest the surveyed HWM, should they not agree. They would then have to appoint their own surveyor and if there is still not agreement, then further steps would have to be taken by the contesting party, likely through a submission to the court.

3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.
	The proposed development would not fall within an estuary.
3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.
	The path is proposed on the seaward side of the HWM, therefore within all the coastal risk zones. See discussion in Section 3.3 above

4. BIODIVERSITY

4.1.	Were specialist studies conducted?	**YES**	~~NO~~
4.2.	Provide the name and/or company who conducted the specialist studies.		
As the project falls below the HWM, Anchor Environmental was appointed to investigate the marine and coastal environment and its biodiversity. The specialists are: Dr Barry Clarke, Cheruska Swart and Safiyya Sedick. Credentials and CVs included with the specialist report in Appendix G4.			
4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.		
Although the proposed path would seemingly fall within the CBA that is indicated along this stretch of coastline, it is not indicated as such on the WCBSP, as the site falls below the HWM, where very little vegetation is found. The marine layers on SANBI BGIS was consulted			
4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.		
The Western Cape Biodiversity Spatial Plan (WCBSP) (2017) indicates a single freshwater feature falling just above the proposed site (erf 1249) and classed partially as an aquatic Ecological Support Area (ESA) class 1, and also as an aquatic ESA class 2. ESA's are areas that are required to support the functioning of Critical Biodiversity Areas (CBA's) which are essential in averting loss of biodiversity. The design and construction methods at the stream outflow to this feature would be sensitive to it by placing a boardwalk which would have least physical impact and avoid damming that may push back and impact on it. The WCBSP (2017) also indicates that the easternmost portion of the proposed path would most likely fall within the Fernkloof Nature Reserve, but the border of the reserve falls on the top of the Cliff where the current Cliff path is located and the proposed path is not located within any protected area.			
4.5.	Explain what impact the proposed development will have on the site specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.		
Areas below the HWM is not included in the Western Cape Biodiversity Spatial Plan (WCBSP) (2017) and thus there is no category assigned to it. However, the area is classified as the Agulhas Ecoregion in the most recent National Biodiversity Assessment for the marine and coastal environment in South Africa. Accordingly marine ecosystems are Agulhas Exposed Rocky Shore and Agulhas Mixed Shore, with patches of Agulhas Kelp Forest a short distance offshore. The features of the above were taken into account in the Marine Impact assessment, which considered the development within this context and for which mitigation measures were proposed accordingly.			
4.6.	If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.		
The development site is not located in a Protected area. The following map was provided by DEA Oceans and Coasts:			

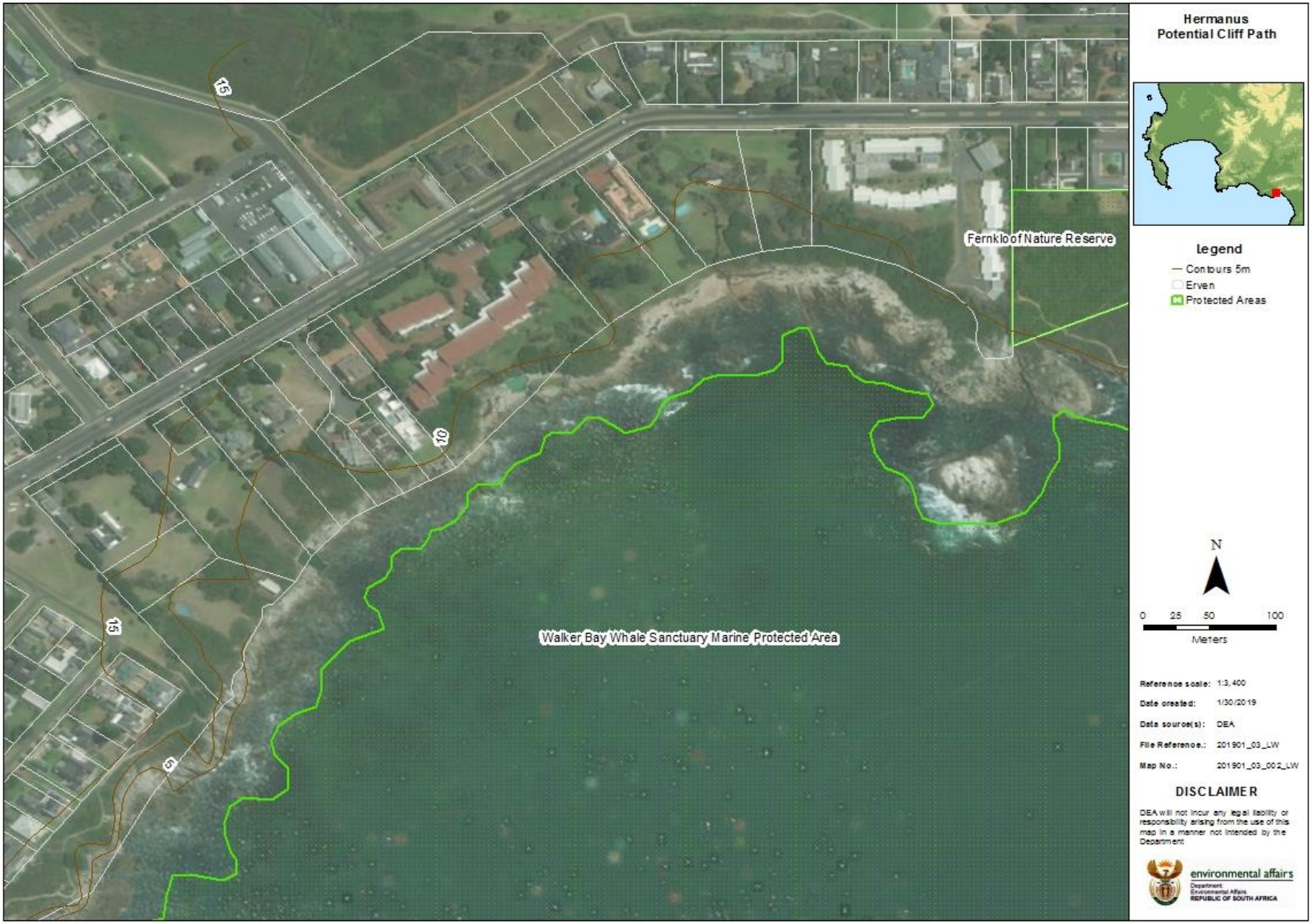


Figure 5: MPA Boundary Map (provided by DFFE OC 30/1/2019)

4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.

Fauna on or adjacent the site is limited to shore birds, sea otters, dassies or whales off shore. The design is sensitive to the environment as to not impede movements of any of the fauna that would have to cross the path. Whales would not be affected, provided that the management actions as stipulated in the EMPr is implemented (i.e. no construction activities that would cause vibrations, e.g. drilling).

5. GEOGRAPHICAL ASPECTS

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.

The proposed activity is not expected to result in any significant geographical impacts. Due to the location of the site and the nature and the character of the surrounding land use types, the impact associated with this anticipated change is expected to be low. The path would be built with concrete, with a rough aggregate, to encourage staining and seaweed/mussel shell growth, thus minimising impact. Physically, a new structure would be created in the landscape, but it is expected that it would blend into the surrounding environment over time, since it would be built as near as possible to the bedrock and to conform to the local topography.

6. HERITAGE RESOURCES

6.1.	Was a specialist study conducted?	**YES**	~~NO~~
6.2.	Provide the name and/or company who conducted the specialist study.		

Dr Jayson Orton, Asha Consulting.

6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.

There are a number of buildings older than 60 years in the area and the tidal pool adjacent to erf 6337 is also older than 60 years (though now heavily modified), which would not be affected by the proposed development. (Orton, 2019).

According to the Visual study (Filia, 2021), the wider area contains several heritage resources and areas, all of which are regulated and protected locally under the Draft Heritage Protection Overlay Zones (HPOZ) or the National Heritage Resources Act, 1999 (Act 25 of 1999). The historic CBD and the Old Harbour fall under a Local Area HPOZ, and a substantial coastal area is recognized as being of unique heritage value, and all contribute to an area of particular character which is classified as the Coastal Strip HPOZ (Overstrand Municipal Spatial Development Framework, 2020, pp. 46, 85).

A Heritage survey undertaken in 2009 by the Overstrand Heritage Landscape Group did not provide a grading for the Hermanus Cliffs/Cliff Path itself but noted that the heritage significance of these features is related to "Natural scenic beauty" and "Dramatic views over Walker Bay". The study concluded that the proposed development will result in limited change in the visual character of the area and an overall low level of intrusion on landscapes and scenic resources. The proposed development is not expected to erode the sense of place or landscape character of the receiving environment. the connecting cliff path will more likely enhance the scenic, cultural and heritage value of the Coastal Strip HPOZ by enabling more equitable access to the historic route, the cultural history of the coastline and the scenic resources. This will result in an overall positive impact.

The first phase of the existing Cliff path was completed in 1948, thus making the existing Cliff path older than 60 years. A member of Mollergren Park Board provided the history as recorded by the Rotary Club between 1948-1998 (Pers comm W Hamman, 2019):

"*The first phase of making the cliff path wheel chair friendly and extending it from Protea Road to the Marine Hotel car park has been completed.*

As a result of the success of this project it was decided to extend it by reconstructing the path to the Old Harbour. Rotary provided the money for the materials and the Municipality provided the labour.
Basil Clark Brown was Rotary's supervisor or Clerk of works at the time".

When Mr Hamman became President of Rotary in 2000, they constructed a hall at Mollergren Park and asked if the Cliff Path could be extended past Mollergren. It was indicated at the time that the land is private and Rotary did not have the financial resources to contest this in court.

7. HISTORICAL AND CULTURAL ASPECTS

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.

Two Later Stone Age (LSA) archaeological sites were located. One was a scatter of shells and quartzite flakes near the east end of the study area. An existing old footpath goes through the site, but it appears to be only a very light scatter that extends under the bushes in this area. A second site was identified only by a few marine shells in an area of lawn and garden midway along the proposed pathway.

Description of impact on heritage resource: The LSA site will be only very slightly impacted since the new path will be built along the alignment of the existing informal pathway. The site is in a private garden and will not be impacted by the new works. (Orton, 2019)

(Refer to NID attached in **Appendix E1** for more details)

8. SOCIO/ECONOMIC ASPECTS

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.

By 2023 the population [for Overstrand Municipality] is estimated to be approximately 98 000 with an unemployment rate of 19 % (Western Cape 2017:3). The economic sectors that contributed the most to employment in the Overstrand area (2015 figures) included the wholesale and retail trade, catering and accommodation (28.2 per cent), the finance, insurance, real estate and business services (15.0 per cent) and the community, social and personal services (13.5 per cent) sectors. Tourism falls mostly under the wholesale and retail trade catering and accommodation sector. (Western Cape 2017:25) The tourism industry in the province has grown faster and created more jobs than any other industry. One in 10 employees in the Western Cape earns a living in the tourism industry, and it contributes more than R25 billion to the provincial economy (Overstrand, 2018:6).

Hermanus is one of the top five cities visited in the Western Cape (Wesgro 2016:7) Hermanus emerges unsurprisingly as the economic hub of the Overstrand local economy contributing almost two-thirds (62,2%) of the area's economic output. Tourism is a major economic driver for the Overstrand and plays an important role in the social, cultural and economic vibrancy of the Overstrand. The effect of tourism is not limited to the accommodation, cafes & restaurants, retail and personal services sectors; the indirect financial and employment benefits filter through to all industries (Overstrand, 2018:10).

8.2.	Explain the socio-economic value/contribution of the proposed development.

The area would likely benefit from this development and the proposal has merit because it will result in improved utilisation of tourism infrastructure.

The proposed path would improve access to coastal resources (as defined in the NEMICA to include the coastal environment that is of actual or potential benefit to humans), in this case through recreational activities.

8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.

The project is a private initiative and not of a scale or type to require associated community social initiatives or upliftment of the community (assuming such initiatives are aimed at disadvantaged communities). The project will however provide limited job opportunities during construction and maintenance activities.

8.4.	Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.

Due to its scale, it is further not expected to cause influx of labour that may lead to exacerbation of social risks and impacts that may be associated with changes in population composition, health implications and exposure to communicable diseases (e.g. HIV/AIDS or TB), threats of sexual violence and harassment, crime, and increased vulnerability of communities due to increased pressure on social and economic resources.

The overall impact on people's health and well-being is expected to be of a positive nature. Provided that the conditions and other precautionary and mitigation measures stipulated in both this BAR and the attached EMPr are complied with.

The proposed development would reduce risk of injury to people using the currently informal pathway as it would require less scrambling and provide elevated access along cliff areas.

Users of the path would be less affected by noise and pollution by using the sidewalk along the R43, which is the main route through Hermanus connecting other towns in the region.

It is presumed to contribute positively towards tourism, which is a major income source for the town of Hermanus as the path will result in an uninterrupted formalised Cliff path along approximately 13km of coastline.

Visually, the impact would be localised and is not expected to negatively impact on sense of place.

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. DETAILS OF THE ALTERNATIVES IDENTIFIED AND CONSIDERED

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred property and site alternative.

Due to the fact that this Application is for the development of a formalised path along the Poole's Bay coast which would connect two sections of the existing Hermanus Cliff Path along the shore, only one site alternative has been assessed.

Provide a description of any other property and site alternatives investigated.

Due to the nature of this application, no activity alternatives were investigated. The proposed activity entails the construction of a concrete pedestrian path on the seashore.

Provide a motivation for the preferred property and site alternative including the outcome of the site selection matrix.

Due to the fact that this Application is for the formalisation of an informal pathway to connect to an existing formalised pathway, only one site alternative exists, and no other sites were considered or assessed. A site selection matrix was therefore not completed.

Provide a full description of the process followed to reach the preferred alternative within the site.

Project objectives were determined. The main objective for the applicant is to connect the Hermanus Cliff path through Poole's Bay by formalising the current trodden path to provide easier and safer access along difficult areas.

Constraints were investigated, especially the position of the high-watermark and topography, as well as possible impact to birds, heritage, marine and coastal biodiversity and freshwater features in proximity to the site.

Alternative alignments were considered including the path being above the HWM in some sections - but since the route is limited to the high-watermark through Poole's Bay as a result of private property boundaries up to the HWM, alternatives are limited to use of materials and design.

The reality of climate change, sea-level rise and more frequent storm events is not debated, hence the proposal for a low and robust structure to withstand such events. The success of concrete structures in rough sea conditions have been repeatedly confirmed, and it seems fitting to implement a well validated solution.

As there was a previous opportunity to obtain input from adjoining landowners, their local knowledge, concerns and suggestions were incorporated as far as practically possible.

<u>Alternative 1 (2020)</u>
The first alternative was adapted from a previous spanning design to consist of battered and balustrade sections, depending on the height above ground level as well as the wave force in the area. To make the design as little intrusive in the landscape as possible, there would also be sections of varying demarcation as some areas on the beach may only require subtle demarcation for users of the path to refrain from entering private property.

Balustrade sections would have a solid build with stainless steel grab rails for safety. Steps would accommodate the landscape, creating paths over large rocks, while crossings would accommodate the falls and allow sea water to flow back and under the path. These gulley areas would be bridged by heavy duty sugar gum beam crossings, connected to the concrete with stainless steel threaded bar.

The design for Alternative one was more advanced and elaborate which meant that the cost of construction would be too high and the visual effect too sophisticated. Hence a more simplified design was sought.

Alternative 2 (preferred) (2021)
After further consideration of public opinion, coastal conditions and with input from a coastal engineering specialist, the alignment was changed at the western connection point to allow for a more simplified bridge structure on pillars anchored to prominent rocks below. Other elevated sections along the route would have similar structures that would be supported from below instead of being buttressed against the cliffs.

Provide a detailed motivation if no property and site alternatives were considered.

Should a path be built in this location, it can only be located below the high-watermark. Consideration of site alternatives would therefore be futile.

The description of the investigation of alternatives considered are provided above and will not be repeated here.

List the positive and negative impacts that the property and site alternatives will have on the environment.

Not applicable as there are no property / site alternatives.

1.2.	Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred activity alternative.

The activity would be the construction of a concrete pedestrian path with two timber boardwalk sections to traverse wetland areas below the HWM

Provide a description of any other activity alternatives investigated.

Due to the nature of this Application, no activity alternatives were investigated.

Provide a motivation for the preferred activity alternative.

The existing Hermanus Cliff Path is interrupted at Poole's Bay and people can either navigate the rocks along this stretch or turn to the R43 and proceed next to a fairly busy provincial road to where the Cliff Path continues. The proposed concrete path would allow safer and aesthetically more pleasing access along this area, albeit below the highwater mark since private property reaches up to the HWM in Poole's Bay.

Provide a detailed motivation if no activity alternatives exist.

There is not another viable way to formalise access through Poole's Bay.

List the positive and negative impacts that the activity alternatives will have on the environment.

See detailed assessment of alternatives and no-go alternative in Section H 4 below.

1.3.	Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts

Provide a description of the preferred design or layout alternative.

The preferred alternative (**ALTERNATIVE 2 (A2 of 2021)**) entails a concrete pedestrian path built just below the high-watermark (HWM) in Poole's Bay that would consist of level, stepped and elevated sections, depending on the height above ground level as well as wave force in the area. Note that the preferred alternative is in concept design phase and refinement according to recommended visual mitigation by the specialist (Filia Visual, 2021) and structural requirements will be undertaken during detail design phase, to be signed off by a coastal engineer.

For safety, balustrades would be included in elevated areas that are higher than 1 m, as per SANS requirements. The path would accommodate the landscape, and the design would allow sea water to flow back and under the path through permeability.

A boardwalk for the entire length of the path consisting of wooden structures instead of concrete structures were considered, but due to the rough sea conditions and the path being situated below the HWM, this option is not regarded as practical as it would require constant repair and maintenance of infrastructure. The only places where it would be preferred would be over the wetland and stream area to minimise disturbance of these features. Solid stainless-steel structures could also be considered but would be too expensive and would not blend into the landscape as easily as a concrete path. These materials have not been assessed as alternatives as they are not regarded as feasible.

The only material considered strong enough to withstand rough sea conditions is concrete (e.g. tidal pools and harbour walls). Most of the path would be done with concrete, finished with a rough aggregate, to encourage staining and seaweed/mussel shell growth and according to the visual specialist design guidelines. The wetland area in front of Erf 12257 and the stream outflow of the wetland area on Erf 1249 would be crossed by a boardwalk.

Since the infrastructure is intended for public use, a practical, durable and robust design is required, which would be served best by using concrete as the main building material. Where timber or steel materials are required, it is acknowledged that it would require additional maintenance. Maintenance requirements are included in the EMPr.

Provide a description of any other design or layout alternatives investigated.

To illustrate the consideration of alternatives, the alternatives presented in the first Pre-application BAR during **2019** are noted here:

First and Preferred layout Alternative - Mostly below the HWM (A1 of 2019)
The preferred layout alternative entails the construction of a concrete pedestrian footpath just below the high-watermark of the sea in Poole's Bay, but following the topography of the coast and erf boundaries as far as possible, which may in some cases be above the HWM of the sea in Poole's Bay

Second Layout Alternative – Entirely below the HWM (A2 of 2019)
This layout alternative entails the construction of a concrete pedestrian footpath just below the high-watermark of the sea in Poole's Bay, which would follow the HWM completely thus avoiding crossing any of the 13 properties along Poole's Bay of which the boundaries are up to the HWM. Although this is possible from an engineering point of view, it is a less safe option and would therefore be the more expensive option to design it in such a way to provide optimal safety.

The original design further proposed spanning sections, dowelled sections and steppingstone sections.

While the above were under revision, the pre-application file was closed and the above alternatives are no longer applicable.

Revision of alternatives (2020):

Through careful consideration of the terrain by physical investigation and survey of the high-watermark, as well as consultation with local landowners, engineers and building contractors, it was thought at the time that within the limitation of the HWM, the only feasible alternative would be a revised design from the one presented in 2019.

ALTERNATIVE 1 (A1 of 2020), presented in 2020, consisted of battered sections of no higher than 500mm with steps to accommodate uneven rocks and where the terrain requires these sections to raise higher than 500mm. A concrete balustrade around cliff areas with stainless steel grab handles would improve safety during rough sea conditions. In areas where the terrain is relatively flat, no structures would be required and the path would be marked with varying demarcation, best suited to the specific section of the path (bollards, local rocks etc). The layout was still proposed entirely below the HWM, going around Mickey but included an informal additional section next to Erf 6088 where only demarcation is necessary - no construction would take place in this section.

The design was an improvement to the original design in terms of practicality and cost and would be the less visible in the landscape. As such, the need to present both designs as alternatives is not regarded necessary as it would follow the same layout on the ground.

Provide a motivation for the preferred design or layout alternative.

The current design layout (A2 of 2020) is preferred as it would be the least intrusive, more affordable option to conform to the existing Cliff path appearance.

Provide a detailed motivation if no design or layout alternatives exist.

Not applicable.

List the positive and negative impacts that the design alternatives will have on the environment.

The development in its entirety would result in the identified impacts and the design of the preferred alternative, with mitigation as indicated by the specialists, would not have any distinctly different impact other than cost to the Applicant. The assessment of alternatives is presented in Section H 4 below.

1.4.	Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred technology alternative:

The project doesn't have components for which different technologies could be considered.

Provide a description of any other technology alternatives investigated.

Not applicable.

Provide a motivation for the preferred technology alternative.

Not applicable.

Provide a detailed motivation if no alternatives exist.

Technology alternatives are not applicable in the context of this project.

List the positive and negative impacts that the technology alternatives will have on the environment.

No technology alternatives have been assessed.

1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred operational alternative.

The completed path would not have operational aspects, therefore no operational alternatives are applicable. Post development activities would include people using it and maintenance of infrastructure for which no alternatives exist.

Provide a description of any other operational alternatives investigated.

Not applicable.

Provide a motivation for the preferred operational alternative.

Not applicable.

Provide a detailed motivation if no alternatives exist.

No operational alternatives exist. The proposed development would be a fixed structure in the landscape with only maintenance requirements.

List the positive and negative impacts that the operational alternatives will have on the environment.

No operational alternatives have been assessed. .

1.6.	The option of not implementing the activity (the 'No-Go' Option).

Provide an explanation as to why the 'No-Go' Option is not preferred.

In the case of the 'no-go' option **(NO-GO ALTERNATIVE)**, no action will be taken to formalise the path and current access conditions will remain.

1.7.	Provide and explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, were considered or detailed motivation if no reasonable or feasible alternatives exist.

Alternatives to the use of concrete as main building material were considered.

Green concrete as a technology alternative which has a less environmental impact from a manufacturing point of view was suggested as an alternative to conventional concrete as it aims at being environmentally friendly by using waste materials while also addressing global warming.

Green concrete technology is being actively researched by the University of the Free State but not yet readily available in South Africa. Although geopolymer concrete technology has been employed in limited projects in different countries such as China, Australia, France, and the USA, there are some issues regarding the complexity of this technology that need to be solved before its extensive application in the industry. It may take some time before this 'new' concrete will be used more regularly in the construction industry. (see Bizcommunity.com) It would therefore not be a feasible alternative.

Products available in South Africa includes Envirocrete (manufactured in Pretoria and using treated wood chips as aggregate in the concrete mix instead of sand and stone - see https://envirocrete.org.za/products/), thus not feasible to transport to Hermanus - it would defeat the objective of reducing CO_2 emissions) or Envirolite (manufactured in Cape Town from polystyrene, but not suitable for this particular application - see https://www.enviroliteconcrete.co.za/).

Since the infrastructure would be located in a dynamic environment with exposure to the elements, a practical, durable and robust design is required, which would be served best by using conventional concrete as the main

building material as it is considered strong enough to withstand rough sea conditions (e.g. tidal pools and harbour walls). Most of the path would be done with concrete, finished with a rough aggregate, to encourage staining and seaweed/mussel shell growth and according to the visual specialist design guidelines

1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.

The preferred alternative (A2 of 2020) is to have a concrete pedestrian path built just below the high-watermark (HWM) in Poole's Bay that would consist of level, stepped and elevated sections, depending on the height above ground level as well as wave force in the area.

The only material considered strong enough to withstand rough sea conditions is concrete (e.g. tidal pools and harbour walls). Most of the path would be done with concrete, finished with a rough aggregate, to encourage staining and seaweed/mussel shell growth and according to the visual specialist design guidelines.

For safety, balustrades would be included in elevated areas higher than 1m. The path would accommodate the landscape, and the design would allow sea water to flow back and under the path, e.g. through the use of rectagrid and gabions.

The wetland area in front of Erf 12257 and the stream outflow of the wetland area on Erf 1249 would be crossed by a boardwalk.

Since the infrastructure would be located in a dynamic environment with exposure to various elements, a practical, durable and robust design is required, which would be served best by using concrete as the main building material. Where timber or steel materials are required, it is acknowledged that it would require additional maintenance. Maintenance requirements are included in the EMPr.

It is submitted that the proposal for the preferred alternative is the most reasonable and feasible alternative to achieve the project objective of providing formalised access after also considering input from authorities, the public, specialists, engineering professionals and the applicant.

2. "NO-GO" AREAS

Explain what "no-go" area(s) have been identified during identification of the alternatives and provide the co-ordinates of the "no-go" area(s).

Because the HWM is an ambulatory line, which means that it moves dynamically, the No-go areas would be regarded as all areas above where the vegetation line starts in front of the private erven through Poole's Bay, which was adopted as the HWM in the survey undertaken by Geomatics in October 2021 (See Appendix G6). Co-ordinates of the HWM as follows (blue line):

Figure 6: Co-ordinates of the HWM. All areas above this line in font of private property would be no-go areas (see Appendix A3 for enlarged image)

No-go areas would therefore mainly be private property along the pathway which is located above the HWM.

In addition, at the 2 wetland areas the following is also no-go areas -

- the area below the HWM outside a 3m construction corridor where personnel, equipment is allowed and no temporary laydown areas for materials to be within 20m of the wetlands on either side.

3. METHODOLOGY TO DETERMINE THE SIGNIFICANCE RATINGS OF THE POTENTIAL ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES.

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.

KEY TERMS AND CRITERIA CONSIDERED IN ASSESSMENT OF EACH POTENTIAL IMPACT

A - Key terminology:

Aspects

An aspect is an element of the proposed development that can interact with the environment. These would include in broad terms physical aspects, ecological aspects, socio-economic aspects etc. but can also include more specific elements associated with the development such as bulk services, fuel handling and storage, traffic, waste etc There may be similar aspects associated with each phase of the development (planning and design / pre-construction / construction / post development or operational / decommissioning phase), which may have different impacts, depending on the phase. E.g. waste aspects may have construction waste and operational waste that would have different impacts or a different level of impact, depending on the phase.

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Phases

The following are considered and grouped or excluded as appropriate: Planning and design / pre-construction / construction / post development or operational / decommissioning phase

Mitigation

Ways to limit (avoid, minimise, rectify, reduce or offset) significance of negative impacts or to enhance positive impacts.

B - Categories of environmental impacts:

Direct Impacts:

These impacts are caused by the development itself for example the clearing of vegetation for a development. These are the impacts assessed in the tables to follow.

Indirect Impacts:
These impacts are usually linked closely with the project or specific impact and may have more profound results than the direct impacts for example the degradation of surface water due to soil erosion emanating from the site where vegetation clearance has taken place.

Cumulative Impacts:
These impacts can be defined as the ability of natural and social environments to incorporate cumulative stresses placed on them and the likelihood of negative synergistic effects. Cumulative impacts also arise when existing future development rights set a precedent in an area. The process of cumulative impacts may arise from any of the following four events: A single large event / Multiple interrelated events / Sudden or catastrophic events / Incremental change.

Residual Impact
Residual impact means an impact that is not eliminated by mitigation.

C - Definition of key criteria:

Nature of the impact
This is an estimation of the type of effect (negative or positive) the construction, operation and maintenance of a development would have on the affected environment. This description should include what would be affected and how.

Extent scale
The Extent scale refers to the extent of the impact to be felt at the regional, local or site-specific scale. The extent scale is explained in more detail in Table 1 below:

Table 1: Description of the Spatial scale

Rating	Description
Low	The impact will affect only the specific site
Med	The impact will affect as far as a 1 - 2 km radius area (Local)
High	The impact will affect more than a 2 km radius area or Regional
Very high	The impact will have an effect on National scale or extend across international borders

Duration scale
This explains the duration and persistence of an impact on affected parties or the environment. The duration scale is rated according to criteria set out in Table 2 below:

Table 2: Description of the Duration scale

Rating	Description
Low	The impact will be limited to the construction phase (up to 18 months). / Short term
Med	The impact will persist for up to 5 years / Medium term
High	The impact will be long term / longer than 5 years.
Very high	The impact will be permanent

Consequence scale (risk)
This explains what the changes mean as described in Table 3 below:

Table 3: Description of the Consequence scale

Rating	Description
Slight	Change with no other consequence
Moderate	Nuisance / Convenience
Substantial	Material reduction / improvement in environmental quality (air, soil, water, habitat, heritage, amenity etc)
Severe	Loss of faunal populations, livelihoods, individual economic loss or gain
Extreme	Human health, morbidity, mortality, species loss

Probability scale
This explains the likelihood of an impact occurring as described in Table 4 below:

Table 4: Description of the Probability scale

Rating	Description
Highly improbable	The consultant believes that it is not going to happen
Unlikely	Less than 40% chance
Probable	40% - 70% sure
Very likely	70% - 90% sure
Definite	More than 90% certain that it is going to happen

Significance

Significance is determined through considering probability and consequence:

Table 5: Significance determination

Probability						
	Definite					Very high
	Very likely				High	
	Probable			Medium		
	Unlikely		Low			
	Highly improbable	Very Low				
		Slight Change with no other consequence	Moderate Nuisance / Improvement	Substantial Material reduction / improvement in environmental quality (air, soil, water, habitat, heritage, amenity	Severe Loss of faunal populations, livelihoods, individual economic loss or gain	Extreme Human health, morbidity, mortality, species loss
		Consequence				

SIGNIFICANCE

Reversibility

Possibility to reverse the impact is set out in Table 6 below:

Table 6: Reversibility scale

Rating	Description
None	Impact is non- reversible (impact is permanent)
Low	Impact is reversible at end of project life
Med	Impact is reversible, but through intensive mitigation
High	Impact is reversible at any time with minimum mitigation

Irreplaceability

The scope of resource loss caused by impacts is set out in Table 7 below:

Table 7: Irreplaceability Scale

Rating	Description
Insignificant	Little or no resources are lost
Low	Resources are replaceable (the affected resource is easy to replace/ rehabilitate).
Med	Resources are only replaceable though intensive rehabilitation / mitigation
High	The project will destroy unique resources that cannot be replaced

4. ASSESSMENT OF EACH IMPACT AND RISK IDENTIFIED FOR EACH ALTERNATIVE

Note: The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. The EAP may decide to include this section as Appendix J to this BAR.

Alternatives assessed:

Alternative 1 (A1 of 2020) - buttressed concrete structures, with solid balustrades in elevated areas, battered sections, stepping stone sections and sections of subtle demarcation (proposed previously in 2020). Western connection point down gully.

Alternative 2 (preferred) (A2 of 2021) - elevated sections on pillars, with open balustrades, level concrete pathway and stepped sections to conform to existing Cliff path and local materials (developed during 2021). Western connection point over gully. Boardwalks over wetland areas.

4.1 Planning, Design and Development Phase

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Geographical and physical aspects:	1. Structure in the landscape		
Nature of impact:	Positive (considering positive socio-cultural impacts)	Positive (considering positive socio-cultural impacts)	Neutral – No impact
Extent and duration of impact:	Local, permanent	Local, permanent	
Consequence of impact or risk:	Acceptable slight risk	Acceptable slight risk	
Probability of occurrence:	Definite if approved	Definite if approved	
Degree to which the impact may cause irreplaceable loss of resources:	Low	Low	
Degree to which the impact can be reversed:	Low, not impossible, but may be difficult	Low, but less difficult than Alternative 1	
Indirect impacts:	Pollution as a result of • concrete spillage during construction • building rubble • litter from workers (negative impacts of low significance)	Pollution as a result of • concrete spillage during construction • building rubble • litter from workers (negative impacts of low significance)	
Cumulative impact prior to mitigation:	None	None	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low	Very Low	
Degree to which the impact can be avoided:	Not applicable	Not applicable	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	High	High	
Proposed mitigation:	The appearance to match the existing Cliff path For indirect impacts, implement CEMP specifications and waste management measures	The appearance to match the existing Cliff path For indirect impacts, implement CEMP specifications and waste management measures	
Residual impacts:	Structure in the landscape	Structure in the landscape	
Cumulative impact post mitigation:	Positive – overall enhancement of 13km existing Cliff Path	Positive – overall enhancement of 13km existing Cliff Path	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low	Very Low	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Physical aspects:**	**2.** Reduced water quality (sedimentation) - See Marine Impact Assessment, Appendix G4		
Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Site Specific, short term	Site Specific, short term	
Consequence of impact or risk:	Moderate	Moderate	
Probability of occurrence:	Unlikely	Unlikely	
Degree to which the impact may cause irreplaceable loss of resources:	Low	Low	
Degree to which the impact can be reversed:	High	High	
Indirect impacts:	None identified	None identified	
Cumulative impact prior to mitigation:	None identified	None identified	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	High	High	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	High	High	
Proposed mitigation:	• Limit the removal of vegetation • Limit access of construction materials to either end of the footpath. • Secure materials brought into the construction site and immediately clear the debris. • Emergency management and spill contingency planning must be put into place. • Ensure that construction materials, infrastructure and workers stay within the demarcated buffer zones. • Adherence to an environmental monitoring programme that works to restore affected habitat/vegetation.	• Limit the removal of vegetation • Limit access of construction materials to either end of the footpath. • Secure materials brought into the construction site and immediately clear the debris. • Emergency management and spill contingency planning must be put into place. • Ensure that construction materials, infrastructure and workers stay within the demarcated buffer zones. Adherence to an environmental monitoring programme that works to restore affected habitat/vegetation.	
Residual impacts:	None	None	
Cumulative impact post mitigation:	None identified	None identified	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very low	Very low	

PLANNING, DESIGN AND DEVELOPMENT PHASE				
Alternative:	Alternative 1 (not applicable, no boardwalk was proposed for this alternative)	Alternative 2 (Preferred Alternative)		No-go Alternative
Potential impact and risk: **Physical aspects associated with boardwalk over wetland areas**	3. Alteration of wetland natural flow regime Disturbance of wetland habitat is unavoidable given that the two wetlands must be traversed by the path. To minimise disturbance the path will be raised in the form of a wooden boardwalk but the need to insert 300 mm diameter poles with concrete footings means that wetland habitat (primarily topsoil and plants) will be temporarily displaced during the construction phase. Wetland habitat will also be disturbed due to the requirement to transport machinery, materials and personnel across the wetland areas.- see Detailed Freshwater Assessment, Appendix G2			
Nature of impact:	Not applicable	Negative		See A. below
		WITHOUT MITIGATION	**WITH MITIGATION**	
Extent of impact:		Local	Local	
Duration of impact		Short term	Short term	
Consequence of impact or risk:		Negative	Negative	
Intensity		Very low	Very low	
Probability of occurrence:		Definite	Definite	
Indirect impacts:		N/a	N/a	
Cumulative impacts		High	High	
Significance rating of impact		Very low (-ve)	Very low (-ve)	
Degree to which the impact may cause irreplaceable loss of resources:		Low		
Degree to which the impact can be reversed:		Irreversible		
Degree to which the impact can be avoided:		Low (the proposed boardwalk will result in some vegetation clearing)		
Degree to which the impact can be managed:		Low		
Degree to which the impact can be mitigated:		Low		
Proposed mitigation		• Avoid the impact as far as is practically possible by undertaking construction during the dry summer season. • Once constructed the timber boardwalks would allow access to the remaining parts of the path for construction personnel, materials and equipment with minimal impact on wetland habitat		
Residual impacts:		Very low (-ve)		

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1 (not applicable, no boardwalk was proposed for this alternative)	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Physical aspects associated with boardwalk over wetland areas**	4. Increased erosion and sedimentation The exposure of soils resulting from excavations and/or temporary sand stockpiling near the wetlands would increase the rates of erosion and sedimentation (the deposition of sediment into the wetland and the sea). During excavations, soils would be destabilised thereby becoming more prone to erosion - see Detailed Freshwater Assessment, Appendix G2)		
Nature of impact:	Not applicable	Negative	See A. below

		WITHOUT MITIGATION	WITH MITIGATION	
Extent of impact:		Local	Local	
Duration of impact		Medium term	Short term	
Consequence of impact or risk:		Negative	Negative	
Intensity		Medium	Low	
Probability of occurrence:		Highly probable	Probable	
Indirect impacts:		N/a	N/a	
Cumulative impacts		High	High	
Significance rating of impact		Low (-ve)	Very low (-ve)	
Degree to which the impact may cause irreplaceable loss of resources:		Low		
Degree to which the impact can be reversed:		Reversible		
Degree to which the impact can be avoided:		Medium		
Degree to which the impact can be managed:		Medium		
Degree to which the impact can be mitigated:		Medium		
Proposed mitigation		• Avoid the impact as far as is practically possible by undertaking construction in close proximity to the wetlands during the dry summer season; • Formulate and implement a Construction phase EMP which includes the following specifications: No stockpiling of soil or materials may occur on site; Ensure that any part of the wetland area that is damaged as a result of construction activities is suitably and timeously rehabilitated to the satisfaction of the ECO		
Residual impacts:		Very low (-ve)		

PLANNING, DESIGN AND DEVELOPMENT PHASE				
Alternative:	Alternative 1 (not applicable, no boardwalk was proposed for this alternative)	Alternative 2 (Preferred Alternative)		No-go Alternative
Potential impact and risk: **Physical aspects associated with boardwalk over wetland areas**	5. Water quality impairment Wetland contamination as a result of the use of construction materials, in particular cement, and / or as a result of the disposal of solid waste including litter and building material- see Detailed Freshwater Assessment, Appendix G2)			
Nature of impact:	Not applicable	Negative		See A. below
		WITHOUT MITIGATION	WITH MITIGATION	
Extent of impact:		Local	Local	
Duration of impact		Short term	Short term	
Consequence of impact or risk:		Negative	Negative	
Intensity		Medium	Low	
Probability of occurrence:		Highly probable	Highly Probable	
Indirect impacts:		N/a	N/a	
Cumulative impacts		High	High	
Significance rating of impact		Low (-ve)	Very low (-ve)	

Degree to which the impact may cause irreplaceable loss of resources:		Low	
Degree to which the impact can be reversed:		Irreversible	
Degree to which the impact can be avoided:		Medium	
Degree to which the impact can be managed:		Medium	
Degree to which the impact can be mitigated:		Medium	
Proposed mitigation		▪	
Residual impacts:		Low (-ve)	

PLANNING, DESIGN AND DEVELOPMENT PHASE				
Alternative:	Alternative 1 (not applicable, no boardwalk was proposed for this alternative)	Alternative 2 (Preferred Alternative)		No-go Alternative
Potential impact and risk: Biological aspects associated with boardwalk over wetland areas	6. Disturbance of wetland habitat Disturbance of wetland habitat is unavoidable given that the two wetlands must be traversed by the path. To minimise disturbance the path will be raised in the form of a wooden boardwalk but the need to insert 300 mm diameter poles with concrete footings means that wetland habitat (primarily topsoil and plants) will be temporarily displaced during the construction phase. Wetland habitat will also be disturbed due to the requirement to transport machinery, materials and personnel across the wetland areas - see Detailed Freshwater Assessment, Appendix G2)			
Nature of impact:	Not applicable	Negative		See A. below
		WITHOUT MITIGATION	**WITH MITIGATION**	
Extent of impact:		Local	Local	
Duration of impact		Medium term	Short term	
Consequence of impact or risk:		Negative	Negative	
Intensity		Medium	Low	
Probability of occurrence:		Definite	Definite	
Indirect impacts:		N/a	N/a	
Cumulative impacts		Medium	Low	
Significance rating of impact		Med (-ve)	Low (-ve)	
Degree to which the impact may cause irreplaceable loss of resources:		Low (disturbance is unlikely to result in the actual loss of resources)		
Degree to which the impact can be reversed:		Reversible		
Degree to which the impact can be avoided:		Medium		
Degree to which the impact can be managed:		Medium		
Degree to which the impact can be mitigated:		Medium		
Proposed mitigation		• Declare the area outside of the construction corridor of 3m as a No-Go area to construction personnel, materials and equipment; • Prior to commencement, Contractor to demarcate the boundary of the No-Go area within which with wire mesh fencing fitted with shade cloth (which must be removed at the end of each day when construction takes place) and restrict all construction activities to within this demarcated area;		

		• Prior to commencement, ECO to demarcate the HWM at each wetland with danger tape or other suitable, non-invasive method (e.g. coloured stakes); • The ECO must identify a suitable location for the temporary storage of construction materials and any equipment within the 3m wide construction corridor within the wetland area and at least 20m from the wetland edge on either sides along the path footprint; • Access to the No-Go area may only be authorised by the ECO following the approval by the ECO of a Method Statement detailing the activity that will be undertaken in the No-Go area including how the area will be accessed; • Collect and remove any construction waste (waste packaging, concrete or litter) at the end of each construction day that may have been accidentally deposited into the wetland area as a result of construction activities and dispose of at an appropriate registered facility; • Ensure that any timber hoarding placed to allow construction personnel, materials and equipment access across the wetland areas, are removed on a daily basis; • When excavating to insert the upright poles that support the timber boardwalk within the wetland areas, remove topsoil separately and temporarily store topsoil in ECO-designated stockpile area off site; • Following casting and setting of footings replace the topsoil and compact to natural soil compaction levels; and • Rehabilitate any part of the wetland area that may have been damaged as a result of construction activities to the satisfaction of the ECO. Depending on the extent of damage the method of rehabilitation may need input from a freshwater specialist. This will be at the discretion of the ECO.	
Residual impacts:		Low (-ve)	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1 (not applicable, no boardwalk was proposed for this alternative)	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Biological aspects associated with boardwalk over wetland areas**	7. Loss of biota The killing and displacement of organisms as a result of excavations within the wetlands, laying of timber hoarding across the wetlands to allow for the transportation of personnel, materials and equipment and temporary stockpiling of construction materials near the wetland is PROBABLE. This is particularly the case for any biota that have low mobility as these cannot easily escape harm. Minimising the intensity of the potential impact is the high likelihood that biota utilising the wetlands are expected to be widespread common species - see Detailed Freshwater Assessment, Appendix G2)		

Nature of impact:	Not applicable	Negative	See A. below
		WITHOUT MITIGATION / **WITH MITIGATION**	
Extent of impact:		Local / Local	
Duration of impact		Medium term / Short term	
Consequence of impact or risk:		Negative / Negative	
Intensity		Low / Very Low	
Probability of occurrence:		Probable / Improbable	
Indirect impacts:		N/a / N/a	
Cumulative impacts		High / High	
Significance rating of impact		Low (-ve) / Very low (-ve)	
Degree to which the impact may cause irreplaceable loss of resources:		Low (wetland is unlikely to contain irreplaceable resources)	
Degree to which the impact can be reversed:		Irreversible (in the event of mortality)	
Degree to which the impact can be avoided:		Low (the wetlands have to be traversed)	
Degree to which the impact can be managed:		Medium	
Degree to which the impact can be mitigated:		Low	
Proposed mitigation		• Formulate and implement an EMP for the development/construction phase which includes the following specifications: ▪ Declare the area outside the 3m construction corridor as a No-Go area to construction personnel, vehicles and equipment. ▪ ECO to demarcate the HWM at the wetland areas prior to commencement with danger tape or other suitable means. ▪ ECO to designate areas for temporary storage of construction materials and equipment. ▪ No storage areas to be within 20m of the wetlands. ▪ Should timber hoarding be used to allow personnel, materials and equipment to cross over the wetland areas, ensure that the hoarding is removed daily. This is to ensure that materials are not washed into the upstream area of the wetland by wave action and that shading effects of the hoarding do not cause wetland plants to die-back	
Residual impacts:		None	

A. ASSESSMENT OF THE NO-GO ALTERNATIVE FOR WETLAND RELATED IMPACTS ASSOCIATED WITH THE PROPOSED TIMBER BOARDWALK

The 'No-Go' alternative implies that the current informal path along Poole's Bay would remain as-is. What this means for the two on-site wetlands is that they would continue to experience the effects of the indiscriminate use of the informal path, which, based on visual evidence, is mostly trampling of wetland vegetation. There is also evidence of litter in the area but the source of the litter is uncertain as it could also be from the ocean or wind-blown. Accordingly, the effect of littering as a result of the current use of the cliff path is regarded as being negligible.

The effects of trampling were only evident in Wetland 2 where an informal pedestrian track is visible where the vegetation growth has been retarded. In the context of the assessment of the 'No-Go' alternative it is important to consider that in assessing the PES of Wetland 2, the wetland is not considered to be on a trajectory of decline (i.e. despite the effects of pedestrian thoroughfare and significant transformation of its immediate catchment, the wetland's condition is stable). There is no evidence that pedestrian thoroughfare through Wetland 2 has caused any disturbance of wetland habitat so the impact intensity is ameliorated further. This is because the easiest way, at present, to cross the watercourse is on the pebble beach below the wetland with negligible impact on freshwater ecosystems (note that while the watercourse at the pebble beach is a freshwater feature, it is devoid of vegetation due to inundation by the sea and as a result is not associated with any freshwater habitat).		
CRITERIA	**WITHOUT MITIGATION**	**WITH MITIGATION**
Extent of impact:	Local	N/a to the no-go alternative
Duration of impact	Long term	
Consequence of impact or risk:	Negative	
Intensity	Very low	
Probability of occurrence:	Probable	
Indirect impacts:	N/a	
Cumulative impacts	High	
Significance rating of impact	Very low (-ve)	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible (habitat degradation can be reversed through rehabilitation)	
Degree to which the impact can be avoided:	Low (continued environmental degradation is an inevitable trend for biodiversity in urban areas due primarily to significant edge effects)	
Degree to which the impact can be managed:	Medium (while the local authority could undertake measures to manage ongoing degradation this has not occurred, presumably due to a lack of resources)	
Degree to which the impact can be mitigated:	Medium (while the local authority could undertake measures to mitigate ongoing degradation this has not occurred, presumably due to a lack of resources)	
Residual impacts:	Very low (-ve)	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Biological aspects:**	**8.** Loss of indigenous vegetation and habitat (See also Marine Impact Assessment, Appendix G)		
Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Site specific, permanent within footprint, short term alongside	Site specific, permanent within footprint, short term alongside	No positive impact of rehabilitation in disturbed areas
Consequence of impact or risk:	Acceptable moderate risk	Acceptable moderate risk	
Probability of occurrence:	Probable	Probable	
Degree to which the impact may cause irreplaceable loss of resources:	Low	Low	
Degree to which the impact can be reversed:	Low –where rehabilitation is possible next to the path footprint, No reversal on footprint	Low –where rehabilitation is possible next to the path footprint, No reversal on footprint	
Indirect impacts:	None – insignificant scale	None – insignificant scale	
Cumulative impact prior to mitigation:	None identified	None identified	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	High	High	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	Medium	Medium	

Proposed mitigation:	• Care should be taken to not damage, destroy or move the coastal Milkwood tree or Christmas Berry both pre-construction and during construction. All areas supporting these plants should be identified and clearly marked as "no-go" areas. Should pruning be absolutely necessary, a permit will first have to be obtained from the relevant authority. • Ensure that construction materials, infrastructure and workers stay within the demarcated buffer zones. • Adherence to an environmental monitoring programme that works to restore affected habitat/vegetation. • Use the construction of the pathway as an opportunity to remove rubble, and upgrade and reinforce the elevated [infilled] areas below the properties to prevent further erosion and pollution	• Care should be taken to not damage, destroy or move the coastal Milkwood tree or Christmas Berry both pre-construction and during construction. All areas supporting these plants should be identified and clearly marked as "no-go" areas. Should pruning be absolutely necessary, a permit will first have to be obtained from the relevant authority. • Ensure that construction materials, infrastructure and workers stay within the demarcated buffer zones. • Adherence to an environmental monitoring programme that works to restore affected habitat/vegetation. Use the construction of the pathway as an opportunity to remove rubble, and upgrade and reinforce the elevated [infilled] areas below the properties to prevent further erosion and pollution	
Residual impacts:	Due to the sparse occurrence of vegetation below the HWM within the path footprint, it is unlikely that there would be residual impacts and may be limited to path footprint where vegetation is already sparce.	Due to the sparse occurrence of vegetation below the HWM within the path footprint, it is unlikely that there would be residual impacts and may be limited to path footprint where vegetation is already sparce.	
Cumulative impact post mitigation:	None indicated	None indicated	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very low negative for vegetation loss High positive for upgrade and reinforcement of the area	Very low negative for vegetation loss High positive for upgrade and reinforcement of the area	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Biological aspects**	9. Disturbance / displacement of avifauna, small mammals and macrofaunal invertebrates (Temporary disturbance and/ or displacement of small mammals such as the rock hyrax, coastal birds such as terns and cormorants and macrofaunal invertebrates within the intertidal zone as a result of movement, noise and vibration. Marine invertebrates have, however, been shown to be relatively insensitive to low frequency sound, while the highly mobile organisms will be able to move to adjacent habitat or avoid the construction zone and noise and return to the region once the construction has ended) - see Marine Impact Assessment, Appendix G		

Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Site specific, short term	Site specific, short term	
Consequence of impact or risk:	Substantial - The southern periwinkle, characteristic of the splash zone, is the only macrofaunal species anticipated to be killed or displaced during construction, but only in sections where the pathway extends into the splash zone and, as in the case with alternative one, where it needs to be raised and mounted against the cliff wall.	Moderate	
Probability of occurrence:	Probable	Unlikely	
Degree to which the impact may cause irreplaceable loss of resources:	Negligible	Negligible	
Degree to which the impact can be reversed:	High, as disruption would be temporary	High, as disruption would be temporary	
Indirect impacts:	None - insignificant scale	None - insignificant scale	
Cumulative impact prior to mitigation:	Not applicable	Not applicable	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	Medium	Medium	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	Medium	High	
Proposed mitigation:	• Limit construction times so they occur outside of bird and whale breeding seasons. • Limit movement within the area and stay within the buffer zones. • Where possible, try not to disturb any animal in the region unnecessarily. • Where possible, move any macrofaunal species (such as the southern periwinkle) to a safe area within the intertidal, but outside of the construction zone. • Subject equipment to noise tests at commencement and periodically throughout the construction phase.	• Limit construction times so they occur outside of bird and whale breeding seasons. • Limit movement within the area and stay within the buffer zones. • Where possible, try not to disturb any animal in the region unnecessarily. • Where possible, move any macrofaunal species (such as the southern periwinkle) to a safe area within the intertidal, but outside of the construction zone. • Subject equipment to noise tests at commencement and periodically throughout the construction phase.	

	• Noise should be kept to a minimum by preassembling materials off-site and using hand tools instead of power tools as far as possible	• Noise should be kept to a minimum by preassembling materials off-site and using hand tools instead of power tools as far as possible.	
Residual impacts:	None expected	None expected	
Cumulative impact post mitigation:	None identified	None identified	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very low	Very low	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Waste aspect	10. Waste generation and pollution of marine environment (e.g. cement bags, packaging materials)		
Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Regional, short term	Regional, short term	
Consequence of impact or risk:	Severe	Severe	
Probability of occurrence:	Very likely	Very likely	
Degree to which the impact may cause irreplaceable loss of resources:	Medium	Medium	
Degree to which the impact can be reversed:	High	High	
Indirect impacts:	The impact of floating or submerged solid materials on marine life (especially seabirds, cetaceans and fish) can be lethal and can affect rare and endangered species	The impact of floating or submerged solid materials on marine life (especially seabirds, cetaceans and fish) can be lethal and can affect rare and endangered species	
Cumulative impact prior to mitigation:	Plastic particle pollution	Plastic particle pollution	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium	Medium	
Degree to which the impact can be avoided:	High	High	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	High	High	
Proposed mitigation:	• Inform all staff about the sensitivity of marine and terrestrial species and the suitable disposal of waste. • Suitable handling and disposal protocols must be clearly explained and sign boarded. • Reduce, reuse, recycle.	• Inform all staff about the sensitivity of marine and terrestrial species and the suitable disposal of waste. • Suitable handling and disposal protocols must be clearly explained and sign boarded.	

	• Litter bins should be strategically placed in the construction zone. • Litter bins to have baboon proof lids • Litter bins and construction waste to be removed daily from site • The construction phase should be used as an opportunity to clean-up any litter already present in the area.	• Reduce, reuse, recycle. • Litter bins should be strategically placed in the construction zone. • Litter bins to have baboon proof lids • Litter bins and construction waste to be removed daily from site • The construction phase should be used as an opportunity to clean-up any litter already present in the area.	
Residual impacts:	None expected	None expected	
Cumulative impact post mitigation:	None identified	None identified	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (Low positive impact can be achieved as a result of clean-up)	Low (Low positive impact can be achieved as a result of clean-up)	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Socio-economic aspects**	11. Construction employment opportunities.		
Nature of impact:	Positive	Positive	Neutral
Extent and duration of impact:	Local extent and Short term	Local extent and Short term	If no development takes place, no new employment opportunities can be created.
Consequence of impact or risk:	Substantial improvement for affected persons	Substantial improvement for affected persons	
Probability of occurrence:	Definite. The path would need to be constructed using manual labour	Definite. The path would need to be constructed using manual labour	
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable	Not applicable	
Degree to which the impact can be reversed:	Positive impact – no need to reverse	Positive impact – no need to reverse	
Indirect impacts:	Community upliftment and reduced poverty, albeit on very small scale.	Community upliftment and reduced poverty, albeit on very small scale.	
Cumulative impact prior to mitigation:	Many local community members are without work and do not have the opportunity to develop and learn new skills.	Many local community members are without work and do not have the opportunity to develop and learn new skills.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low-Med - positive	Low-Med - positive	
Degree to which the impact can be avoided:	No avoidance needed.	No avoidance needed.	
Degree to which the impact can be managed:	High	High	

Degree to which the impact can be mitigated:	Low	Low	
Proposed mitigation:	As many as possible local community members should be employed. This will ensure that there are skills transfer for the benefit of possible future employment.	As many as possible local community members should be employed. This will ensure that there are skills transfer for the benefit of possible future employment.	
Residual impacts:	Skills investment.	Skills investment.	
Cumulative impact post mitigation:	Temporary construction jobs are of great value. Not only will money be invested into the local community, but also new skills can be learnt and implemented elsewhere in the future. This will result in a positive socio-economic impact.	Temporary construction jobs are of great value. Not only will money be invested into the local community, but also new skills can be learnt and implemented elsewhere in the future. This will result in a positive socio-economic impact.	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Med - positive	Med - positive	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Socio-economic aspects	12. Temporary restriction of access to Poole's Bay shore - see Marine Impact Assessment, Appendix G		
Nature of impact:	Negative	Negative	Neutral
Extent and duration of impact:	Local extent and Short term Could occur during specific times of the day, on certain days and in selected months Feb-June, i.e. outside of bird (November to January) and whale breeding seasons (July to December).	Local extent and Short term Could occur during specific times of the day, on certain days and in selected months Feb-June, i.e. outside of bird (November to January) and whale breeding seasons (July to December).	If no development takes place, current informal access will not be restricted in any way.
Consequence of impact or risk:	Slight	Slight	
Probability of occurrence:	Unlikely	Unlikely	
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable	Not applicable	
Degree to which the impact can be reversed:	High	High	
Indirect impacts:	None identified	None identified	
Cumulative impact prior to mitigation:	None	None	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	High	High	
Degree to which the impact can be managed:	High	High	

Degree to which the impact can be mitigated:	Not applicable	Not applicable	
Proposed mitigation:	None required	None required	
Residual impacts:	None	None	
Cumulative impact post mitigation:	None identified	None identified	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Cultural-historical aspects**	13. Loss of archaeological resources – old steps on eastern side of proposed connection path, shell middens, cave below western connection		
Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Site specific but permanent – only where the resource occurs	Site specific but permanent – only where the resource occurs	
Consequence of impact or risk:	The consequence would be of moderate significance	The consequence would be of moderate significance	
Probability of occurrence:	Highly improbable.	Highly improbable.	
Degree to which the impact may cause irreplaceable loss of resources:	High	High	
Degree to which the impact can be reversed:	The impact cannot be reversed if it occurred	The impact cannot be reversed if it occurred	
Indirect impacts:	None identified	None identified	
Cumulative impact prior to mitigation:	Not applicable	Not applicable	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium	Medium	
Degree to which the impact can be avoided:	High	High	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	High	High	
Proposed mitigation:	The mentioned resources would not be affected as a direct result of the path, but could be damaged by accident. Should identified resources need to be removed, the impact would be real but not substantial in relation to other impacts, little mitigation would be required.	The mentioned resources would not be affected as a direct result of the path, but could be damaged by accident. Should identified resources need to be removed, the impact would be real but not substantial in relation to other impacts, little mitigation would be required.	
Residual impacts:	None expected	None expected	
Cumulative impact post mitigation:	Not applicable	Not applicable	

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Noise aspect**	14. Noise emanating from construction workers, equipment and activities may be a nuisance to neighbouring residents during the construction phase. See also impact no 4 - Disturbance / displacement of avifauna, small mammals and macrofaunal invertebrates above for noise aspect in relation to animals		
Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Local extent and Temporary in nature (Construction phase only)	Local extent and Temporary in nature (Construction phase only)	
Consequence of impact or risk:	Moderate (nuisance)	Moderate (nuisance)	
Probability of occurrence:	Probable	Probable	
Degree to which the impact may cause irreplaceable loss of resources:	The noise emanating from constructing will not result in the irreplaceable loss of resources.	The noise emanating from constructing will not result in the irreplaceable loss of resources.	
Degree to which the impact can be reversed:	The impact is temporary and fully reversible.	The impact is temporary and fully reversible.	
Indirect impacts:	None expected.	None expected.	
Cumulative impact prior to mitigation:	Should more than one construction project be undertaken at the same time in the vicinity, this would result in cumulative noise impacts.	Should more than one construction project be undertaken at the same time in the vicinity, this would result in cumulative noise impacts.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	Unavoidable	Unavoidable	
Degree to which the impact can be managed:	Medium High	Medium High	
Degree to which the impact can be mitigated:	High	High	
Proposed mitigation:	Natural mitigation of noise from waves As per the EMPr / MMP: • Construction activities should be restricted to normal working hours. • Due to nature of access to the area, it is unlikely that large machinery would be used and activities would be restricted to manual labour, which would reduce construction noise significantly	Natural mitigation of noise from waves As per the EMPr / MMP: • Construction activities should be restricted to normal working hours. • Due to nature of access to the area, it is unlikely that large machinery would be used and activities would be restricted to manual labour, which would reduce construction noise significantly	

Residual impacts:	None	None	
Cumulative impact post mitigation:	Very low	Very low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

PLANNING, DESIGN AND DEVELOPMENT PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Visual aspect	15. Visual intrusion of construction activities See also Visual Impact Statement, Appendix G5		
Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Site specific and temporary in nature	Site specific and temporary in nature	
Consequence of impact or risk:	Moderate - nuisance to neighbouring residents	Moderate - nuisance to neighbouring residents	
Probability of occurrence:	It is probable that this impact will occur at some stage of the development.	It is probable that this impact will occur at some stage of the development.	
Degree to which the impact may cause irreplaceable loss of resources:	This activity will not result in the irreplaceable loss of resources.	This activity will not result in the irreplaceable loss of resources.	
Degree to which the impact can be reversed:	Completely reversible at the end of the construction phase.	Completely reversible at the end of the construction phase.	
Indirect impacts:	Unsightly environment.	Unsightly environment.	
Cumulative impact prior to mitigation:	None	None	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	Medium high	Medium high	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	The impact can be mitigated.	The impact can be mitigated.	
Proposed mitigation:	As the site is out of the public eye, visual intrusion is expected to be minimal, except for a construction laydown / site area on the open space next to Erf 12257 and at Kraal Rock Parking. It can still be mitigated as per the EMPr / MMP: • Implement measures for visual screening where appropriate e.g. shade cloth and fencing to screen sites • Construction activities should be limited to "normal working hours". • Implement litter control measures.	As the site is out of the public eye, visual intrusion is expected to be minimal. No site camp is required for this alternative, only ablution facilities placed as discreetly as possible at the open space next to Erf 12257. It can be further mitigated as per the EMPr / MMP: • Implement measures for visual screening where appropriate e.g. shade cloth and fencing to screen work area	

	• Ensure housekeeping at construction area and site camp	• Construction activities should be limited to "normal working hours". • Implement litter control measures. • Ensure housekeeping at construction area	
Residual impacts:	None expected	None expected	
Cumulative impact post mitigation:	Very low	Very low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Negligible	Negligible	

4.2 Post Development (Operational) Phase

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Waste aspect**	16. Pollution - litter (litter from sea and path assessed as one impact in Marine assessment, but noted that path only would have lower impact)		
Nature of impact:	Negative	Negative	Negative
Extent and duration of impact:	The impact may affect only specific areas on site but would likely occur on an ongoing basis (from the sea)	The impact may affect only specific areas on site but would likely occur on an ongoing basis (from the sea)	The impact of litter from the sea would occur, even if the development does not go ahead, but there is no obligation on the Applicant to apply mitigation.
Consequence of impact or risk:	Moderate - litter from path would be less than from the sea Consequence from sea (fishing line, nets etc) could have severe consequence	Moderate - litter from path would be less than from the sea Consequence from sea (fishing line, nets etc) could have severe consequence	
Probability of occurrence:	It is probable that even with mitigation in place, it could occur due to neglect or ignorance of path users. Litter would also be washed up from the sea, which is very likely	It is probable that even with mitigation in place, it could occur due to neglect or ignorance of path users. Litter would also be washed up from the sea, which is very likely	
Degree to which the impact may cause irreplaceable loss of resources:	Path: Low Sea: Medium	Path: Low Sea: Medium	
Degree to which the impact can be reversed:	Medium	Medium	
Indirect impacts:	Entanglement of animals in litter	Entanglement of animals in litter	
Cumulative impact prior to mitigation:	Low – the formalisation of the path would make a negligible difference to littering already occurring in the area.	Low – the formalisation of the path would make a negligible difference to littering already occurring in the area.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Path: Low Sea: Medium	Path: Low Sea: Medium	

Degree to which the impact can be avoided:	High (littering from path users) Low (sea litter),	High (littering from path users) Low (sea litter),	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	Path: High Sea: Medium	Path: High Sea: Medium	
Proposed mitigation:	Provision of litter bins, regular clean ups, awareness signage	Provision of litter bins, regular clean ups, awareness signage	
Residual impacts:	Not applicable	Not applicable	
Cumulative impact post mitigation:	Low	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Path: Very low Sea: Medium-Low	Path: Very low Sea: Medium-Low	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Biological aspects**	17. Disturbance of animals and birds as a result of movement (see Marine Impact Assessment Appendix G4)		
Nature of impact:	Negative	Negative	Negative
Extent and duration of impact:	Site Specific, short term	Site Specific, short term	The impact would occur, even if the development does not go ahead through continued use of the area.
Consequence of impact or risk:	Slight risk	Slight risk	
Probability of occurrence:	Unlikely	Unlikely	
Degree to which the impact may cause irreplaceable loss of resources:	Negligible	Negligible	
Degree to which the impact can be reversed:	High, as disturbance would be temporary	High, as disturbance would be temporary	
Indirect impacts:	None - insignificant scale	None - insignificant scale	
Cumulative impact prior to mitigation:	Not applicable	Not applicable	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	High	High	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	Medium	Medium	
Proposed mitigation:	Signage for awareness and sensitivity to animal and bird encounters, keeping dogs on leash	Signage for awareness and sensitivity to animal and bird encounters, keeping dogs on leash	
Residual impacts:	None expected	None expected	
Cumulative impact post mitigation:	None identified	None identified	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very low	Very low	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Biological aspects:	18. Habitat Fragmentation and animal movement barrier (mainly periwinkle or rock horax) (See also Marine Impact Assessment, Appendix G4)		
Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Site specific, short term Periwinkle would eventually occupy balustrade wall, rock horax would move around it.	Site specific , short term	
Consequence of impact or risk:	Slight risk	Slight risk	
Probability of occurrence:	Unlikely	Highly Improbable - the movement of species is not expected to be limited as they will be able to travel across under the elevated structures	
Degree to which the impact may cause irreplaceable loss of resources:	Negligible	Negligible	
Degree to which the impact can be reversed:	Low	Low	
Indirect impacts:	None – insignificant scale	None – insignificant scale	
Cumulative impact prior to mitigation:	None identified	None identified	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low	Very Low	
Degree to which the impact can be avoided:	Low	Low	
Degree to which the impact can be managed:	Low	Low	
Degree to which the impact can be mitigated:	Not applicable	Not applicable	
Proposed mitigation:	No mitigation deemed necessary		
Residual impacts:	None expected	None expected	
Cumulative impact post mitigation:	Not applicable	Not applicable	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Not applicable	Not applicable	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Biological aspects	19. Disturbance / displacement of avifauna, small mammals and macrofaunal invertebrates (see Marine Impact Assessment, Appendix G4)		
Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Site specific, short term Periwinkle would eventually occupy ballustrade wall, rock horax would move around it.	Site specific , short term	
Consequence of impact or risk:	Slight risk	Slight risk	

Probability of occurrence:	Unlikely	Highly Improbable - not expected to displace the periwinkle	
Degree to which the impact may cause irreplaceable loss of resources:	Negligible	Negligible	
Degree to which the impact can be reversed:	Low	Low	
Indirect impacts:	None – insignificant scale	None – insignificant scale	
Cumulative impact prior to mitigation:	None identified	None identified	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low	Very Low	
Degree to which the impact can be avoided:	Low	Low	
Degree to which the impact can be managed:	Low	Low	
Degree to which the impact can be mitigated:	Not applicable	Not applicable	
Proposed mitigation:	Include using materials that will ensure the recolonisation of the walls.	No mitigation deemed necessary	
Residual impacts:	None expected	None expected	
Cumulative impact post mitigation:	Not applicable	Not applicable	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Not applicable	Not applicable	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1 (not applicable, no boardwalk was proposed for this alternative)	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Biological aspects associated with boardwalk over wetland areas	20. Disturbance of wetland habitat Disturbance of wetland habitat during the operational phase would be associated with the indiscriminate use of the cliff path and, in particular, users wandering off the path and trampling wetland vegetation.- see Detailed Freshwater Assessment, Appendix G2)		
Nature of impact:	Not applicable	Negative	See 4.1 A. above
		WITHOUT MITIGATION / **WITH MITIGATION**	
Extent of impact:		Local / Local	
Duration of impact		Long term / Short term	
Consequence of impact or risk:		Negative / Negative	
Intensity		Medium / Low	
Probability of occurrence:		Probable / Improbable	
Indirect impacts:		N/a / N/a	
Cumulative impacts		High / High	
Significance rating of impact		Med (-ve) / Low (-ve)	
Degree to which the impact may cause irreplaceable loss of resources:		Low (while there is remnant natural habitat and as such may contain some irreplaceable resources the minor level of disturbance is not anticipated to cause any actual loss of any resources).	
Degree to which the impact can be reversed:		Fully Reversible	

Degree to which the impact can be avoided:		Medium	
Degree to which the impact can be managed:		Medium	
Degree to which the impact can be mitigated:		• Medium	
Proposed mitigation		• Ensure that the base of the timber boardwalk remains at least 600 mm above the natural ground level; • Ensure that the planks making up the base of the boardwalk remain with 30 mm gaps between each plank; • Formulate and implement an EMP for the operational phase which includes the following specifications: • Erect and maintain signage indicating that users and their pets should remain on the cliff path and may not enter the wetland areas; • Erect and maintain signage indicating that littering is an offence.	
Residual impacts:		None	

POST DEVELOPMENT (OPERATIONAL) PHASE				
Alternative:	Alternative 1 (not applicable, no boardwalk was proposed for this alternative)	Alternative 2 (Preferred Alternative)		No-go Alternative
Potential impact and risk: **Physical aspects associated with boardwalk over wetland areas**	21. Alteration of wetland natural flow regime The presence of the 300mm diameter upright poles, each with below-ground concrete bases, would have the effect of slightly impeding and diverting flow within the wetland. This potential impact would be most pronounced during times of low-flow because during high flow periods the pattern of flow is already significantly altered - see Detailed Freshwater Assessment, Appendix G2			
Nature of impact:	Not applicable	Negative		See 4.1 A. above
		WITHOUT MITIGATION	**WITH MITIGATION**	
Extent of impact:		Local	*Mitigation not required*	
Duration of impact		Long term		
Consequence of impact or risk:		Negative		
Intensity		Very low		
Probability of occurrence:		Definite		
Indirect impacts:		N/a		
Cumulative impacts		High		
Significance rating of impact		Very low (-ve)		
Degree to which the impact may cause irreplaceable loss of resources:		Low		
Degree to which the impact can be reversed:		Reversable (if the structure is removed the natural flow regime will be restored)		
Degree to which the impact can be avoided:		Low (there is no practical way that the wetlands can be traversed without inserting upright poles in the wetlands)		
Degree to which the impact can be managed:		Low		
Degree to which the impact can be mitigated:		Low		

Proposed mitigation		None required	
Residual impacts:		Very low (-ve)	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Socio-economic aspects	22. Improved access (incl pedestrian safety) to coastal resources (for local community as well as tourism) through the formalisation of the path		
Nature of impact:	Positive	Positive	Indirectly Negative
Extent and duration of impact:	Site specific and permanent (lifetime of path)	Site specific and permanent (lifetime of path)	No development would not result in improved safe accessibility for the public.
Consequence of impact or risk:	This is a substantial positive impact to which there is no real alternative to achieving this benefit	This is a substantial positive impact to which there is no real alternative to achieving this benefit	
Probability of occurrence:	Very likely	Very likely	
Degree to which the impact may cause irreplaceable loss of resources:	None	None	
Degree to which the impact can be reversed:	Positive impact – no need to reverse	Positive impact – no need to reverse	
Indirect impacts:	Economic benefit for tourism Improved safety of pedestrians	Economic benefit for tourism Improved safety of pedestrians	
Cumulative impact prior to mitigation:	Linking the existing Hermanus Cliff path, would add to its appeal to local as well as other users.	Linking the existing Hermanus Cliff path, would add to its appeal to local as well as other users.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium	Medium	
Degree to which the impact can be avoided:	Positive – no avoidance needed.	Positive – no avoidance needed.	
Degree to which the impact can be managed:	Medium-high	Medium-high	
Degree to which the impact can be mitigated:	The impact can be enhanced through constant maintenance of infrastructure	The impact can be enhanced through constant maintenance of infrastructure	
Proposed mitigation:	Warnings regarding tide conditions / demarcation of a safe path Routine maintenance of the pathway and signage.	Warnings regarding tide conditions / demarcation of a safe path Routine maintenance of the pathway and signage.	
Residual impacts:	None applicable	None applicable	
Cumulative impact post mitigation:	The proposed connection path would be approximately 850m long, but would enhance access to the overall Cliff path which is about 12km long. From a Health and Safety perspective, given the evident high energy of wave action in the area, this initiative is of considerable	The proposed connection path would be approximately 850m long, but would enhance access to the overall Cliff path which is about 12km long. From a Health and Safety perspective, given the evident high energy of wave action in the area, this	

	value to minimize risks to human life when using this area.	initiative is of considerable value to minimize risks to human life when using this area.	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High	High	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Socio-economic aspects	**23.** Increased security and privacy for the local landowners through the formalisation of the path		
Nature of impact:	Positive	Positive	Neutral
Extent and duration of impact:	Site specific and permanent	Site specific and permanent	No change to current situation
Consequence of impact or risk:	Moderate as it may be convenient to have improved security access to an area which is otherwise difficult to access	Moderate as it may be convenient to have improved security access to an area which is otherwise difficult to access	
Probability of occurrence:	Although it cannot be guaranteed, it is very likely that pedestrians would adhere to the demarcated path and not wander onto private property if the path is safer and clearly demarcated. Although it is possible that criminals would also use the path, security may be better able to pursue them.	Although it cannot be guaranteed, it is very likely that pedestrians would adhere to the demarcated path and not wander onto private property if the path is safer and clearly demarcated. Although it is possible that criminals would also use the path, security may be better able to pursue them.	
Degree to which the impact may cause irreplaceable loss of resources:	None	None	
Degree to which the impact can be reversed:	Positive impact – no need to reverse	Positive impact – no need to reverse	
Indirect impacts:	Decrease in crime, reduced trespassing	Decrease in crime, reduced trespassing	
Cumulative impact prior to mitigation:	This positive impact would occur along the length of the connection path, which would be almost 1km	This positive impact would occur along the length of the connection path, which would be almost 1km	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	Positive – no avoidance needed.	Positive – no avoidance needed.	
Degree to which the impact can be managed:	Medium	Medium	
Degree to which the impact can be mitigated:	The impact can be enhanced even further through additional security	The impact can be enhanced even further through	

	measures such as continued patrols by security guards	additional security measures such as continued patrols by security guards	
Proposed mitigation:	Routine maintenance of the pathway.	Routine maintenance of the pathway.	
Residual impacts:	None	None	
Cumulative impact post mitigation:	Overall improvement of security on the Hermanus Cliff path	Overall improvement of security on the Hermanus Cliff path	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: Socio-economic aspects	**24.** Employment creation		
Nature of impact:	Positive	Positive	Neutral
Extent and duration of impact:	Local extent and Short term	Local extent and Short term	If no development takes place, no new employment opportunities can be created.
Consequence of impact or risk:	Substantial improvement for affected persons	Substantial improvement for affected persons	
Probability of occurrence:	Definite. The path would need maintenance manual labour	Definite. The path would need maintenance using manual labour	
Degree to which the impact may cause irreplaceable loss of resources:	Not applicable	Not applicable	
Degree to which the impact can be reversed:	Positive impact – no need to reverse	Positive impact – no need to reverse	
Indirect impacts:	Community upliftment and reduced poverty, albeit on very small scale.	Community upliftment and reduced poverty, albeit on very small scale.	
Cumulative impact prior to mitigation:	Many local community members are without work and do not have the opportunity to develop and learn new skills.	Many local community members are without work and do not have the opportunity to develop and learn new skills.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low-Med - positive	Low-Med - positive	
Degree to which the impact can be avoided:	No avoidance needed.	No avoidance needed.	
Degree to which the impact can be managed:	High	High	
Degree to which the impact can be mitigated:	Low	Low	
Proposed mitigation:	As many as possible local community members should be employed. This will ensure that there are skills transfer for the benefit of possible future employment.	As many as possible local community members should be employed. This will ensure that there are skills transfer for the benefit of possible future employment.	

Residual impacts:	Skills investment.	Skills investment.	
Cumulative impact post mitigation:	Temporary construction jobs are of great value. Not only will money be invested into the local community, but also new skills can be learnt and implemented elsewhere in the future. This will result in a positive socio-economic impact.	Temporary construction jobs are of great value. Not only will money be invested into the local community, but also new skills can be learnt and implemented elsewhere in the future. This will result in a positive socio-economic impact.	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Med - positive	Med - positive	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Visual aspect**	25. Visual impact of the development. Once established, the new pathway structures will be visible within the landscape as part of the greater Cliff Path system along the Hermanus coastline. This will not result in any significant visual impact		
Nature of impact:	Neutral to Positive	Neutral to Positive	Neutral
Extent and duration of impact:	Site specific and Permanent	Site Specific and Permanent	No development will result in no visual change.
Consequence of impact or risk:	Moderate as it will become part of the landscape and become a recognisable feature in Hermanus.	Moderate, as it will blend into the landscape over time, becoming a recognisable feature in Hermanus.	
Probability of occurrence:	Definite	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	None - negligible impact on visual amenity	None – minimal impact on visual amenity	
Degree to which the impact can be reversed:	Moderate - the landscape will weather and visually absorb the proposed structures over time	Moderate – the landscape will weather and visually absorb aspects of the proposed structures over time	
Indirect impacts:	None	None	
Cumulative impact prior to mitigation:	Low	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Negligible	Low	
Degree to which the impact can be avoided:	Positive – no avoidance needed.	Positive – no avoidance needed.	
Degree to which the impact can be managed:	Low (minimal management necessary)	Moderate (mitigation measures and recommendations should be implemented)	
Degree to which the impact can be mitigated:	Minimal mitigation necessary. Routine maintenance will ensure that the development will not cause visual disturbance.	Moderate to High – refer to Visual Statement for mitigation measures and recommendations for final design. Routine maintenance will ensure that the development will not cause visual disturbance.	

Proposed mitigation:	The effective upkeep and maintenance of the connection path is necessary.	Refer to Section 8 of the Visual Statement for mitigation measures and recommendations for final design. Routine maintenance will ensure that the development will not cause visual disturbance.	
Residual impacts:	None	None	
Cumulative impact post mitigation:	Low	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Negligible	Negligible	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Visual aspect**	26. Visual impact of pedestrians using the newly erected cliff path.		
Nature of impact:	Neutral to Positive	Neutral to Positive	Neutral
Extent and duration of impact:	Site specific and Temporary	Site specific and Temporary	No development will result in no visual change to what is currently being experienced. People are already using the Cliff Path informally and have similar visual impact than what any of the two alternatives would have. The impact would occur, even if the development does not go ahead through continued use of the area. No development therefore also have low negative impact, but without the possibility of mitigation (signage).
Consequence of impact or risk:	Low. There is extensive precedent for use of the existing cliff paths by pedestrians (tourists, locals etc.) in Hermanus. This impact affects only a handful of viewers and is an acceptable part of life along the coastline for hundreds of their neighbours.	Low. There is extensive precedent for use of the existing cliff paths by pedestrians (tourists, locals etc.) in Hermanus. This impact affects only a handful of viewers and is an acceptable part of life along the coastline for hundreds of their neighbours.	
Probability of occurrence:	Probable	Probable	
Degree to which the impact may cause irreplaceable loss of resources:	None	None	
Degree to which the impact can be reversed:	Fully reversible during the evening, and at times when the route is temporarily closed for access.	Fully reversible during the evening, and at times when the route is temporarily closed for access.	
Indirect impacts:	None	None	
Cumulative impact prior to mitigation:	Low	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	Neutral / Positive – no avoidance needed.	Neutral / Positive – no avoidance needed.	
Degree to which the impact can be managed:	High – Access control[3]	High – Access control	
Degree to which the impact can be mitigated:	Routine maintenance, appropriate signage and	Routine maintenance, appropriate signage and access	

[3] Note that this is the opinion of the specialist. Access control would undermine the objective of providing access to Poole's Bay. Access is only proposed to be controlled during dangerous sea conditions that may endanger pedestrians.

	access management will ensure that the use of the path by pedestrians will not cause visual disturbance.	management will ensure that the use of the path by pedestrians will not cause visual disturbance.	
Proposed mitigation:	Access control and appropriate signage.	Access control and appropriate signage.	
Residual impacts:	None	None	
Cumulative impact post mitigation:	Low	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Noise aspect**	27. Noise emanating from workers, equipment and activities may be a nuisance to neighbouring residents when maintenance is undertaken. See also impact no 4 under development phase - Disturbance / displacement of avifauna, small mammals and macrofaunal invertebrates above for noise aspect in relation to animals		
Nature of impact:	Negative	Negative	Neutral – No impact
Extent and duration of impact:	Local extent and Temporary in nature (during maintenance activities only)	Local extent and Temporary in nature (during maintenance activities only)	
Consequence of impact or risk:	Moderate (nuisance)	Moderate (nuisance)	
Probability of occurrence:	Probable	Probable	
Degree to which the impact may cause irreplaceable loss of resources:	The noise emanating from maintenance activities will not result in the irreplaceable loss of resources.	The noise emanating from maintenance activities will not result in the irreplaceable loss of resources.	
Degree to which the impact can be reversed:	The impact is temporary and fully reversible.	The impact is temporary and fully reversible.	
Indirect impacts:	None expected.	None expected.	
Cumulative impact prior to mitigation:	Should other construction projects be undertaken at the same time in the vicinity, this would result in cumulative noise impacts.	Should other construction projects be undertaken at the same time in the vicinity, this would result in cumulative noise impacts.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	
Degree to which the impact can be avoided:	Unavoidable	Unavoidable	
Degree to which the impact can be managed:	Medium High	Medium High	
Degree to which the impact can be mitigated:	High	High	
Proposed mitigation:	Natural mitigation of noise from waves As per the EMPr / MMP: • Maintenance activities should be restricted to normal working hours.	Natural mitigation of noise from waves As per the EMPr / MMP: • Maintenance activities should be restricted to normal working hours.	

	• Due to nature of access to the area, it is unlikely that large machinery would be used and activities would be restricted to manual labour, which would reduce construction noise significantly	• Due to nature of access to the area, it is unlikely that large machinery would be used and activities would be restricted to manual labour, which would reduce construction noise significantly	
Residual impacts:	None	None	
Cumulative impact post mitigation:	Very low	Very low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	Low	

POST DEVELOPMENT (OPERATIONAL) PHASE			
Alternative:	Alternative 1	Alternative 2 (Preferred Alternative)	No-go Alternative
Potential impact and risk: **Noise aspect as a result of people using the path**	None expected, due to natural mitigation of noise from waves	None expected natural mitigation of noise from waves	None expected due to natural mitigation of noise from waves

4.3 Decommissioning Phase

DECOMMISSIONING AND CLOSURE PHASE
EAP'S NOTE: *The proposed project would not have operational phase activities to be decommissioned or closed. Should structures be demolished, this would have construction related impacts - refer to section 4.1.*

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

1.	Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.

VISUAL IMPACT STATEMENT by Filia Visual (2021)

Findings:
The study found that the proposed development will result in limited change in the visual character of the area and an overall low level of intrusion on landscapes and scenic resources. The proposed development is not expected to erode the sense of place or landscape character of the receiving environment. In conclusion, the proposed development will have an overall Minimal Visual Impact. The connecting cliff path will more likely enhance the scenic, cultural and heritage value of the Coastal Strip Heritage Protection Overlay Zone (HPOZ) by enabling more equitable access to the historic route, the cultural history of the coastline and the scenic resources. This will result in an overall positive impact.

Impact management measures:
The investigation did not discover any fatal flaws or significant negative impacts. Aspects of the proposed development that were identified as problematic or inappropriate in any way have been addressed through the following proposed mitigation measures in Section 7 of the specialist report:
Conceptual design

- Long sections of elevated pathway and continuous concrete platforms should be kept to a minimum. Columns should not exceed +-2m in height above footings.
- Keep interventions as close to the ground as possible, to allow natural vegetation to soften the edges and re-establish within the new micro-climates introduced by the proposed structures (refer to Figure 70).
- The proposed walkway should be designed to fit into the surrounding landforms, stepping down as the natural topography steps down.
- The route should avoid visually prominent and exposed areas as far as possible, and new structures must be sited to avoid visually sensitive, steep slopes (greater than 1:4) or elevated promontories, ridgelines, and crests.
- Proposed structures must be designed to blend with the natural setting so that the landscape appears to flow through the site, and structures should not appear to be imposed atop it.
- The scale of structures should be appropriate for their use, and low-key, sloping walkways without balustrades should be favoured over steps and elevated walkways wherever possible.

Colours materials and finishing:

- The colour palette for materiality and finishes must draw on the colouring of the natural environment (refer to Figure 73).
- If natural material such as stone is used, the stone must be locally sourced and match the colouring (and, if possible, the geological origins) of the site and receiving environment.
- Materials and finishes may not consist of bright colours or highly reflective surfaces. The use of exposed metal must be kept to a bare minimum, and any potentially shiny or reflective surfaces must be avoided altogether, or covered with matte, non-reflective finishes.
- Where possible, use rocks and existing landscape features as steps instead of pouring new steps out of concrete (Refer to Figure 73).
- Concrete finishes should imitate the local examples (tidal pools, fisherman's bridges etc.) in construction method and mix, allowing the weathering process to blend the structures into the landscape over time

(Refer to Figure 74). Black aggregate, for example, is not an appropriate material to be included in the cement mix.

- The use of timber balustrades is supported but should be used sparingly. Timber elements should not be stained or varnished darkly but be allowed to weather naturally as far as possible (maintenance allowing).
- The metal modular unit proposed in Alternative 2 (Rectagrid) is acceptable in terms of visual appropriateness, and the project team should consider the possibilities of reducing the size and bulk of the columns and footings where these structures are specified (see Figure 77 of Visual study)
- Widening/tapering the bases instead of meeting the footings at right angles;
- Reducing the mass of the column into slimmer or rounded columns (but remain wary of creating a profusion/pattern of columns in the landscape);
- Curving the edges of the columns into an ovate shape to avoid rectilinear surfaces and edges, which are not unprecedented in the receiving environment, but should be softened to imitate the natural weathering of the surrounding sandstone
- Signage should however remain visually unobtrusive, located against a backdrop to avoid silhouette effects on the skyline.
- Signs should be fixed to the proposed structures or embedded in the landscape where possible to avoid the proliferation of poles.
- Lighting must be kept to a minimum where necessary for safety and security
- All lighting shall be located and controlled so as to avoid direct illumination, glare or reflection onto any adjoining property or the landscape surrounding the proposed development.
- Provide precisely directed illumination to reduce light "spillage" beyond the immediate surrounds of the light source.
- Low level 'bollard' type lights or limited downlighting on steps and pathways may be appropriate to illuminate key portions of the route for safety and security reasons.
- No post top lighting, flood lights, peripheral/boundary security lights or uncovered luminaires of any kind should be allowed.
- Lighting should preferably be movement activated.

The recommendations and mitigation measures also serve to guide future detailed design and will ensure that the findings of this visual statement remain relevant.

It is the opinion of the specialist that no further or more detailed visual assessment will be required.

FRESHWATER ECOLOGY ASSESSMENT by Enviroswift (2022)

Findings

Two wetlands were identified within the proposed site and delineated.

Wetland 1 is fed by the wetlands situated within the Hermanus Golf Course and included a small clearly defined stream of approximately 1.8m in width. The banks of the stream exhibited extensive wetland vegetation and soil indicators on both sides (refer to Figure 6 below) and the watercourse was therefore classified as a channelled valley bottom wetland.

Vegetation on the banks was dominated by the indigenous sedge *Cyperus textilis* and the alien grass *Pennisetum clandestinum* with alien *Nasturtium officinale* dominating the stream channel. Upstream, where the wetland is within private erven, it has been extensively landscaped. It is likely that seawater enters the lower portion of the

wetland channel during exceptional spring high tides or during a storm, but the presence of aquatic plants with a relatively low salinity tolerance (such as *Nasturtium officinale)* indicates that such events are rare and that freshwater predominates.

The soil throughout Wetland 1 was found to have a high organic content and exhibited orange mottling and iron oxide deposits along root channels, indicative of the wetland seasonal and temporary zone, except within the channel which forms the permanent zone. At the pebbled beach, the channel ends and the wetland simply flows over and through the pebbles and cobbles, next to a historical concrete pipe casing. In this area, it is no longer classified as a wetland.

Wetland 2, in contrast with Wetland 1, is not associated with a drainage line, but rather with a hillslope and was classified as a hillslope seep. The wetland was dominated by *Ficinia nodosa* with *Orphium frutescen*s and *Xanthedescia aethiopica* also present. The soil was noticeably sandier and mottling was sparse (indicative of temporary wetland conditions), but the soil was moist and balled easily.

The fenced property upslope of the portion of wetland within the proposed site also exhibited extensive wetland vegetation on both the low ground and high ground, despite the recent construction of a central drainage channel and the presence of a historical drainage pipe that both empty into the wetland within the proposed site. The wetland is however significantly larger than the area directly augmented by drainage from the fenced property upslope and it is evident that much of the water within the fenced property upslope still percolates through the sandy soils into the wetland below as per the natural wetland hydrological regime.

The wetland extends over the highwater mark where the terrain changes to the rocky shore. No vegetation exists below the splash zone as this area is subject to wave action which has eroded all soil away leaving rocks of various sizes. It is evident that once the water that flows through the hillslope seep reaches the rocky shore, it flows through fissures and holes in the rock and then into the sea.

Two wetlands were identified within the proposed site and delineated.

Wetland 1 is fed by the wetlands situated within the Hermanus Golf Course and included a small clearly defined stream of approximately 1.8m in width. The banks of the stream exhibited extensive wetland vegetation and soil indicators on both sides (refer to Figures 5 below) and the watercourse was therefore classified as a channelled valley bottom wetland.

Vegetation on the banks was dominated by the indigenous sedge Cyperus textilis and the alien grass Pennisetum clandestinum with alien Nasturtium officinale dominating the stream channel. Upstream, where the wetland is within private erven, it has been extensively landscaped. It is likely that seawater enters the lower portion of the wetland channel during exceptional spring high tides or during a storm, but the presence of aquatic plants with a relatively low salinity tolerance (such as Nasturtium officinale) indicates that such events are rare and that freshwater predominates.

The soil throughout Wetland 1 was found to have a high organic content and exhibited orange mottling and iron oxide deposits along root channels, indicative of the wetland seasonal and temporary zone, except within the channel which forms the permanent zone. At the pebbled beach, the channel ends and the wetland simply flows over and through the pebbles and cobbles, next to a historical concrete pipe casing. In this area, it is no longer classified as a wetland.

Wetland 2, in contrast with Wetland 1, is not associated with a drainage line, but rather with a hillslope and was classified as a hillslope seep. The wetland was dominated by *Ficinia nodosa* with *Orphium frutescens* and Xanthedesci*a aethiopica* also present. The soil was noticeably sandier and mottling was sparse (indicative of temporary wetland conditions), but the soil was moist and balled easily.

The fenced property upslope of the portion of wetland within the proposed site also exhibited extensive wetland vegetation on both the low ground and high ground, despite the recent construction of a central drainage channel and the presence of a historical drainage pipe that both empty into the wetland within the proposed site. The wetland is however significantly larger than the area directly augmented by drainage from the fenced property upslope and it is evident that much of the water within the fenced property upslope still percolates through the sandy soils into the wetland below as per the natural wetland hydrological regime.

The wetland extends over the highwater mark where the terrain changes to the rocky shore. No vegetation exists below the splash zone as this area is subject to wave action which has eroded all soil away leaving rocks of various sizes. It is evident that once the water that flows through the hillslope seep reaches the rocky shore, it flows through fissures and holes in the rock and then into the sea.
ecologically sensitive or of high conservation concern and the much larger scale of the ocean relative to the very small scale of the wetlands and their respective discharges, coupled with significant dispersion effects exacerbated by wave action, would suggest that minor impacts to the wetlands would translate into negligible coastal ecological impacts.

Impact Management measures:

Essential mitigation measures for the development/construction phase disturbance of wetland habitat:

- Declare the area outside of the construction corridor of 3m as a No-Go area to construction personnel, materials and equipment;
- Prior to commencement, Contractor to demarcate the boundary of the No-Go area within which with wire mesh fencing fitted with shade cloth (which must be removed at the end of each day and restrict all construction activities to within this demarcated area;
- Prior to commencement, ECO to demarcate the boundary of each wetland at the HWM with danger tape or other suitable, non-invasive method (e.g. coloured stakes);
- The ECO must identify a suitable location for the temporary storage of construction materials and any equipment within the 3m wide construction corridor and at least 20m from the wetland edge;
- Access to the No-Go area may only be authorised by the ECO following the approval by the ECO of a Method Statement detailing the activity that will be undertaken in the No-Go area including how the area will be accessed;
- Collect and remove any construction waste (waste packaging, concrete or litter) at the end of each construction day that may have been accidentally deposited into the wetland area as a result of construction activities and dispose of at an appropriate registered facility;
- Ensure that any timber hoarding placed to allow construction personnel, materials and equipment access across the wetland areas are removed daily;
- When excavating to insert the upright poles that support the timber boardwalk within the wetland areas, remove topsoil separately and temporarily store topsoil in ECO-designated stockpile area offsite if not replaced on the same day;
- Following casting of footings replace the topsoil and compact to natural soil compaction levels; and
- Rehabilitate any part of the wetland area that may have been damaged as a result of construction activities to the satisfaction of the ECO. Depending on the extent of damage the method of rehabilitation may need input from a freshwater specialist. This will be at the discretion of the ECO.

Essential mitigation measures to address alteration of flow regime during the development/construction phase:

- Avoid the impact as far as is practically possible by undertaking construction during the dry summer season.

Essential mitigation measures to address the development phase impact of erosion and sedimentation:

- Avoid the impact as far as is practically possible by undertaking construction during the dry summer season;
- Formulate and implement a Development/Construction phase EMP which includes the following specifications:
    - The ECO shall designate the site for temporary stockpiling. No stockpiles may be located within 20m of the on-site wetlands;
    - Protect soil stockpiles, if required, from erosion using a tarp or erosion blankets;
    - Ensure that any part of the wetland area that is damaged as a result of construction activities is suitably and timeously rehabilitated to the satisfaction of the ECO.

Essential mitigation measures to reduce water quality impairment associated with construction activities:

- As far as is practically possible, undertake construction during the dry summer season, to allow the concrete footings to set rapidly with minimal wet cement contamination of the wetlands.
- Formulate and implement an EMP for the development/construction phase which includes the following specifications:
    - Where cement is mixed in a cement mixer ensure that the cement mixer operates at all times within a bunded area with an impermeable base;
    - Where cement is mixed by hand, ensure that the cement is mixed at all times in impermeable containers or in a bunded area with an impermeable base;
    - All wet and dry cement deposits outside the contained areas are to be cleaned at the end of each day and disposed of as rubble;
    - If fuel, chemicals and other hazardous substances are required ensure these are transported in suitable, sealed containers;
    - No fuel, chemicals or hazardous substances may be stored on-site;
    - If equipment requires re-fuelling ensure that any re-fuelling takes place at a location designated by the ECO that may not be within the No-Go area and may not be within 20m of the wetlands;
    - Clean up any spillages (e.g. concrete, oil, fuel), immediately. Remove contaminated soil and dispose of it appropriately;
    - Dispose of used oils, wash water from cement and other pollutants at an appropriate licensed landfill site. Disposal of any of these waste materials into the wetlands or No-Go areas is strictly prohibited;
    - Dispose of concrete and cement-related mortars in an environmental sensitive manner as they can be toxic to aquatic life. Washout may not be discharged into the wetlands;
    - At the end of each working day any construction solid waste and litter within the wetland areas shall be removed off-site and disposed of in a responsible manner.

Essential mitigation measures to minimise the loss of biota associated with the development phase:

- Formulate and implement an EMP for the development/construction phase which includes the following specifications:
    - Declare the area outside the 3m construction corridor as a No-Go area to construction personnel, and equipment.
    - ECO to demarcate the wetland areas prior to commencement with danger tape or other suitable means.
    - ECO to designate stockpile areas and areas for temporary storage of construction materials and equipment. No such areas to be within 20m of the wetlands.
    - Should timber hoarding be used to allow personnel, materials and equipment to cross over the wetland areas, ensure that the hoarding is removed at the end of each day. This is to ensure that shading effects of the hoarding do not cause wetland plants to die-back.

Essential mitigation measures to reduce the disturbance of wetland habitat during the operational phase:

- Formulate and implement an EMP for the operational phase which includes the following specifications:
    - Erect signage indicating that users and their pets should remain on the cliff path and may not enter the wetland areas;
    - Erect signage indicating that littering is an offence;
    - Ensure that the base of the timber boardwalk is at least 600 mm above the natural ground level; and
    - Ensure that the planks making up the base of the boardwalk are placed with 30 mm gaps between each plank.

HERITAGE SCREENING FOR NOTICE OF INTENT TO DEVELOP by Dr Jason Orton (2019)

Findings:

There are a number of buildings older than 60 years in the area and the tidal pool adjacent to erf 6337 is also older than 60 years (though now heavily modified). No structures will be impacted, although it may be necessary to install the walkway along the modern lip of the tidal pool.

Two Later Stone Age (LSA) archaeological sites were located. One was a scatter of shells and quartzite flakes near the east end of the study area (waypoint 1759 in the figure below). An existing old footpath goes through the site but it appears to be only a very light scatter that extends under the bushes in this area. A second site was identified only by a few marine shells in an area of lawn and garden midway along the proposed pathway but above the HWM on private property (waypoint 1767). A few shells were seen on steep ground in a disturbed

context at waypoint 1769. Their source could not be ascertained and no obvious location for an archaeological site was evident. Note that the survey followed the existing informal path which is often above the HWM since it was clear that no archaeological materials (with the possible exception of maritime archaeological items) would be found below the HWM. The LSA site at waypoint 1759 will be only very slightly impacted since the new path will be built along the alignment of the existing informal pathway. The site at waypoint 1767 is in a private garden and will not be impacted by the new works which will be seaward of the erf. No maritime archaeology was seen, although an old anchor lying near the swimming pool at waypoint 1765 was brought in from elsewhere for display purposes. It will not be affected.

Figure 7: Waypoints relating to heritage findings

The only negative impacts would therefore likely to be in the vicinity of the existing historical pathway where this exists in the northeast. The impacts would relate to the removal of existing historical fabric (stones and cement) during the upgrade work and the possible disturbance of some shells and stone artefacts from the LSA shell scatter that occurs there.

The Cliff Path is a resource valued by the local community for its aesthetic significance. The existing pathway will not be affected but by linking the west and east sections there will be a significant positive impact.

The specialist did not identify a need for a full heritage impact assessment, and it was confirmed by Heritage Western Cape and SAHRA.

(*EAP's note - the steps would be left and used as is, the proposed connection path would end just below them. The cave on the western side would also not be affected as the preferred alternative is proposed to be constructed over the gully where the cave is located.*)

Impact Management measures:
None required.

AVIAN SURVEY by Dr Rob Simmons (2020, revised 2022)

The Survey that was commissioned confirmed the occurrence of important birds in the area, with two red data species observed on the island at the western entrance of the proposed path. The survey was undertaken in March 2019, towards the end of the breeding season for most birds in the area. The survey provided a snapshot of which avian species may occur in the Poole's Bay area, and by definition rare species were less likely to be recorded

Findings:

There was no evidence of threatened species such as African Penguins *Spheniscus demersus* or Black Oystercatchers breeding along the proposed path.

The following specific findings were made;

- The visitation rate of human visitors over six hours [on a Sunday] at the west end of the proposed path indicates that the proposed path is likely to be regularly used by visitors to Hermanus.
- The number of birds on the beach itself was relatively low at 49 of 14 species, none of which were threatened Red Data species.
- Kraal Rock island was the most active area with hundreds of cormorants roosting there at high tide.
- The island also provided a refuge for two Red Data species – the oystercatchers and the Cape Cormorants.
- These species were not disturbed by the presence of the specialists on the nearby mainland.
- No fatal flaws for the proposed pathway from an avian point of view that may compromise the birds' presence or possible breeding were found.

The Study concluded that based on evidence at the time, little negative disturbance to the avifauna will result from the provision of a walkway between the two existing cliff top pathways, and judging by the number of human visitors, such a path would be regularly used by tourists and local inhabitants alike.

Upon later inquiry about breeding season concerns, Dr Simmons indicated that at the time of their survey, migratory birds had not yet left, and they also surveyed for birds with youngsters, which were not found (R Simmons pers comm. 2022).

Impact Management measures:

If any nests were found, construction should avoid the breeding season of whichever species are found. Oystercatchers or White-fronted plover that do breed will adapt to a walkway and disturbance would be temporary as people would be restricted to a path rather than walking all over the beach (R Simmons pers comm. 2021).

COASTAL ATTRIBUTES

Coastal Attributes were initially investigated by the EAP from online resources and the following information is presented in addition to the Marine impact assessment summary that follows:

The shoreline areas of the Overberg coastline are rugged and characterized by a range of habitats including rocky headlands, boulder beaches, wave cut platforms, sandy beaches, subtidal soft sediment habitats, pocket beaches, kelp forests, estuaries, sub tidal reefs and pelagic habitat (DEA&DP 2015:2). The Poole's Bay area in particular consists mostly of rocky outcrops (as also indicated on the topographical map in **Appendix A**), but some small gravel coves and pebble beaches with kelp washed up in many places are also found along the connection path.

Figure 8: Rocky outcrops

Figure 9: Gravel in small coves

Figure 10: Pebble beach

Figure 11: Tidal pool and pebbles / gravel

MARINE IMPACT ASSESSMENT by Anchor Environmental (2021)

Findings:
The marine organisms occurring in this region reflect the prevailing physical conditions and are found to be generally distributed as such. The rocky shoreline provides a resting place for seabirds that frequent the coast, but most of these are widely distributed throughout South Africa. This also includes some seabirds that are of national importance such as the Swift tern (*Thalasseus bergii*), Kelp gull (*Larus dominicanus*), Hartlaub's gull (*Larus hartlaubii*) and the Cape Cormorant (*Phalacrocorax capensis*). Whales can frequently be seen from the shores in Hermanus from July to December.

The study area (defined as the footpath itself, a 5 – 10 m study area on either side of the path, and the Island) was not found to be ecologically sensitive or of high conservation concern. The study area is situated outside of the Fernkloof Nature Reserve and any Protected or Critical Biodiversity Area, except for The Island which lies in the seasonal Marine Protected Area. The study area was found to be frequented by many people, degraded or physically transformed along much of its length, and to be largely devoid of natural vegetation alongside the path. Only five species of conservation concern were recorded within the study area, although none are expected to be severely impacted. These include two coastal bird species, i.e., the "Least Concern" African Black oystercatcher and the "endangered" Cape cormorant; two coastal plant species, i.e., the "Near Threatened" Christmas Berry and the protected coastal White Milkwood; and the "Near Threatened" Cape Clawless otter (Anchor Environmental, 2021).

Marine fauna and flora present in the nearshore environment around Poole's Bay was found to be typical of the region and exhibited a zonation pattern similar to that seen elsewhere and described in Section 5.2 of the MIA. Anemones, urchins, gastropods and algae were a common sight in the subtidal and rock pools and the lower intertidal zone.

The mid intertidal zone was dominated by the alien Mediterranean mussel, *M. galloprovincialis* (C). This mussel is the most widespread and ecologically important invasive alien species along the South African coast, occupying over 2000 km of coastline (Robinson *et al.* 2005). Its presence in this area does therefore not come as a surprise.

The high intertidal zone in most areas were occupied by several species of barnacles and limpets (D), while the splash zone was characterised by large numbers of the southern periwinkle, *Affrolittorina knysnaensis*. As this gastropod is highly tolerant to desiccation, it is commonly found above the intertidal zone (E). As no other marine species were recorded to occur within or above this zone along the length of the path, the presence of this species along the shoreline was used as a proxy for the upper boundary of the splash zone. Coastal plants were characteristic of the coastal zone (F), along with the occasional hyrax.

High tide very seldomly extends to the HWM and was observed to be far lower during the field survey for most of the length of the path. The "normal" splash zone (i.e., outside of extreme storm events) was located approximately 5 m below the proposed pathway for most of the length of the path.

The marine specialist study identified ten potential negative impacts, five which would occur during construction and the other five during operation (post development) phase. Out of the ten, eight were rated as low and two as medium significance. Significant impacts associate with construction of the path includes alteration, fragmentation or destruction of habitat; creating a barrier to the movement of species; disturbance and/or displacement of biota due to noise and frequent movement through the area; the generation of waste and pollution; a decrease in water quality and the restriction of public access.

Impact Management measures:

A summary of the most important **Essential mitigation measures** that have been identified for this study include:

- Care should be taken to not damage, destroy or move the coastal Milkwood tree or Christmas Berry both pre-construction and during construction. All areas supporting these plants should be identified and clearly marked as "no-go" areas. Should pruning be absolutely necessary, a permit will first have to be obtained from the relevant authority.
- Limit movement within the area and ensure that construction materials, infrastructure and workers stay within the demarcated buffer zones.
- Adherence to an environmental monitoring programme (EMPr) that works to restore affected habitat/vegetation.
- Emergency management and spill contingency planning must be put into place.
- Suitable handling and disposal protocols must be clearly explained, and sign boarded.
- Limit construction times so they occur outside of bird and whale breeding seasons.
- Where possible, try not to disturb any animal in the region unnecessarily.
- Inform all staff about the sensitivity of marine and terrestrial species and the suitable disposal of waste.
- Place litter bins and signs in designated areas to encourage path users to dispose of litter properly and clean up litter already present or washed up on the beach.
- It is recommended that routine inspections and maintenance be done on the path as needed to reduce potential impacts.

A summary of the **Suggested mitigation measures** that have been identified for this study include:

- Use the construction of the pathway as an opportunity to clean up litter and remove rubble, and upgrade and reinforce the elevated areas below the properties to prevent further erosion and pollution.
- Limit the removal of vegetation.
- Limit access of construction materials to either end of the footpath.
- Secure materials brought into the construction site and immediately clear the debris.

- Where possible, move any macrofaunal species (such as the southern periwinkle) to a safe area within the intertidal, but outside of the construction zone.
- Subject equipment to noise tests at commencement and periodically throughout the construction phase.
- Noise should be kept to a minimum by preassembling materials off-site and using hand tools instead of power tools as far as possible.
- Litter bins should be strategically placed in the construction zone and the Reduce, reuse, recycle principle should be implemented.
- People should be informed to respect the environment and not disturb animals.
- Beach clean-ups should be encouraged.
- Natural materials such as rock, wood and/ or green concrete should be considered if it is feasible to do so according to the engineers.

2.	List the impact management measures that were identified by all Specialist that will be included in the EMPr

All of the above impact management measures listed under each specialist study have been incorporated into the EMPr.

3.	List the specialist investigations and the impact management measures that will **not** be implemented and provide an explanation as to why these measures will not be implemented.

Not applicable.

4.	Explain how the proposed development will impact the surrounding communities.

The surrounding community in this context is defined to be the residents in the area, that has / will have immediate access to and use of the area. The following is expected, provided that the conditions and other precautionary and mitigation measures stipulated in both this BAR and the attached EMPr are complied with:

- It would reduce risk of injury to people using a formalised path instead of an informal and indistinctly demarcated pathway.
- It would improve health, safety and general sense of place for users of the path, as they would be less affected by noise and pollution by using the sidewalk along the R43, which is the main route through Hermanus connecting other towns in the region.
- The area would likely benefit from this development and the proposal has merit because it will result in improved utilisation of tourism infrastructure (Hermanus Cliff path). It is presumed to contribute positively towards tourism (extent unknown), which is a major income source for the town of Hermanus as the path would be uninterrupted along approximately 13km of coastline.
- Visually, the impact would be localised and is not expected to negatively impact on sense of place for the surrounding communities.

5.	Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.

The proposed development would be located below the high-watermark. The effects of climate change may put the structure at risk as it may become more regularly submersed over time. More frequent storm events would pose a risk of damage to infrastructure. The design and materials to be used however considers this and caters for severe sea conditions.

Pedestrian safety would also be at risk during severe storm events. Use of the current informal path is however already subject to this risk. Safety warnings and informative information and temporary closure of the path during high storm events are all ways to limit this risk. This cannot currently be implemented as there is no formalised path through Poole's Bay.

In a coastal engineering study done to inform the concept design of Alternative 2, the following was indicated in terms of the potential impact on coastal structures as a result of sea level rise along the South African Coastline:

- For those sections of the path located at ground level or slightly above ground level it is suggested that within the next 20 years sea level rise may have a low impact causing some inconvenience. It is suggested that provision be made for 0,3m higher sea level in the planning of such structures.
- For the proposed elevated sections, which would rely on more permanent concrete structures the impact of sea level rise may be more significant, especially if concrete pillars were to be considered for the elevated sections. It is suggested that provision be made for 0,6m rise in sea level, as SLR may have a medium to high impact on such structures within the next 20 to 50 years.

The applicant is prepared to invest in the infrastructure so the area can be accessed more safely at least in the short-medium term. The above considerations will be taken into account in the detail design phase and is to be signed off by a coastal engineer to ensure maximum durability and lifetime of the proposed structures. Eventually the path alignment would need to be reconsidered and amended when the HWM have moved sufficiently, and the current alignment is no longer usable.

6.	Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.

Marine Impact Assessment recommendation –
It was recommended that the proposed development be permitted to proceed with the implementation of strict environmentally responsible practices as outlined in the Essential mitigation measures, with the second design alternative as the preferred alternative.

Visual Statement Recommendation –
The successful implementation of the mitigation measures recommended for Alternative 2 will not result in visual impact lower than that of Alternative 1, but will reduce the overall impact of Alternative 2 nevertheless. Notwithstanding the above, both Alternatives are expected to result in Minimal/Low visual impact. The recommendations and mitigation measures as included in the Visual Statement (Section 7) and the design phase EMPr requirements serve to guide future detailed design and will ensure that the findings of this visual statement remain relevant.

Avian study recommendation –
No fatal flaws for the proposed pathway were found from an avian point of view that may compromise the birds' presence or possible breeding. The only recommendation included was to keep dogs on leash and in further discussions with the specialist, the requirement for surveying presence of nests and temporary halt of construction if nests were found was included in the EMPr.

Freshwater Ecology recommendation –
in terms of comparing the proposal to formalise the path with the leaving the path in its current condition, from a purely freshwater ecological perspective, the "No-Go" alternative is the most preferred alternative. However, given that other factors need to be considered to reach a triple-bottom-line conclusion in this regard, it is the opinion of the specialist, that, from a freshwater ecological perspective, there are no reasons not to authorise the construction of the Poole's Bay footpath as proposed, provided that the recommended mitigation measures are implemented (see Section 5.3 of Specialist report as also included in the EMPr).

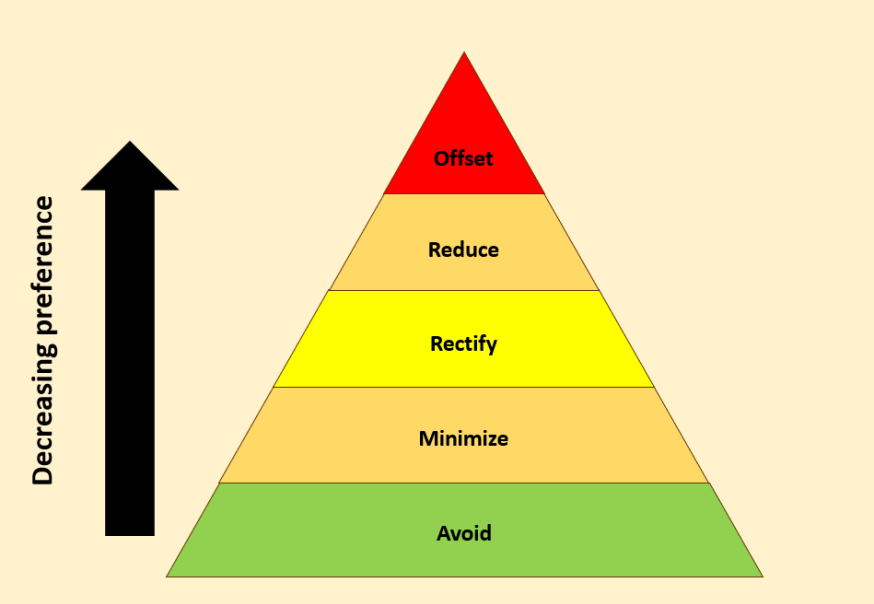
The mitigation measures as proposed by the various specialists were not found to be in conflict with each other. Refer also to Section I 1 above which lists the various mitigation measures as recommended by the specialists.

7.	Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.

The recommendations on mitigation have been incorporated into the EMPr as follows in order to limit impacts:

- Planning phase - Measures to ensure financial guarantees so the project can be carried through and maintained.
- Design phase - measures to limit visual impact and impact to wetlands, and ensure structural soundness, including approval of the final designs by a coastal engineer
- Construction phase - freshwater ecology, avian and marine impact considerations (e.g. avoidance of pollution, erosion, disturbance of fauna and flora)
- Post development - maintenance considerations

8.	Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.



IMPACT	MITIGATION	HIERARCHY LEVEL
DESIGN / CONSTRUCTION PHASE		
1. Structure in the landscape	Design sensitive to topography	Minimise
2. Reduced sea water quality (sedimentation)	Implement EMPr impact management measures (relevant specifications / Method statement)	Minimise
3. Alteration of wetland natural flow regime		
4. Increased erosion and sedimentation in wetlands		
5. Water quality impairment		
6. Disturbance of wetland habitat		
7. Loss of wetland biota		
8. Loss of indigenous vegetation and habitat	Implement EMPr impact management measures (no-go areas)	Minimise
9. Disturbance / displacement of avifauna, small mammals and macrofaunal invertebrates	Implement EMPr impact management measures (seasons, design)	Minimise
10. Waste generation and pollution of marine environment	Implement EMPr impact management measures (waste management)	Avoid

11. Construction employment opportunities	Utilise local labour, training	Positive therefore maximise
12. Temporary restriction of access to Poole's Bay shore	Implement EMPr impact management measures (relevant specifications- constructing hours)	Minimise
13. Loss of archaeological resources	Design to incorporate existing steps / EMPr impact management measures (relevant specifications- archaeology)	Avoid
14. Noise (refer also to impact)	Implement EMPr impact management measures (relevant specifications- constructing hours and seasons)	Minimise
15. Visual intrusion of construction activities	Implement EMPr impact management measures (relevant specifications- constructing hours and seasons, housekeeping)	Minimise

POST DEVELOPMENT (OPERATIONAL) PHASE		
16. Pollution - Litter from path	Implement EMPr impact management measures (waste management)	Minimise
17. Disturbance of animals and birds as a result of movement	None applicable	N.a.
18. Habitat Fragmentation and animal movement	Implement EMPr impact management measures (relevant specifications-waste control)	Minimise
19. Disturbance / displacement of avifauna, small mammals and macrofaunal invertebrates	Implement EMPr impact management measures (relevant specifications-maintenance)	Minimise
20. Disturbance of wetland habitat		
21. Alteration of flow regime		
22. Improved access to coastal resources	Implement EMPr impact management measures (relevant specifications-signage)	Positive therefore maximise
23. Increased security and privacy for the local landowners	None applicable	Positive therefore maximise
24. Alteration of flow regime	Utilise local labour, training	Positive therefore maximise
25. Visual impact of the development	Implement EMPr impact management measures (relevant specifications-maintenance)	N.a.
26. Visual impact of pedestrians using the path	Implement EMPr impact management measures (relevant specifications-maintenance)	N.a.
27. Noise from maintenance activities	Implement EMPr impact management measures (relevant specifications- constructing hours and seasons)	Minimise

SECTION J: GENERAL

1. Environmental Impact Statement

1.1.	Provide a summary of the key findings of the EIA.

The intention of the Applicant is to improve physical access in this part of the coast (Poole's Bay) through formalisation of the current informal footpath in the least disruptive and most practical way so people may have the option of continuing on the existing Cliff path along the coast instead of walking next to the R45 for this section.

Due to the locality, coastal sensitivity including the marine and coastal environment, birds, archaeology, visual and heritage aspects were investigated. Although specialists have identified features of significance (e.g. wetland areas landward side of the proposed pathway, historical steps and shell middens, presence of birds such as Black Oyster catchers), it is possible to minimize, or even avoid impacts to these features. Where impacts are unavoidable, it has been found overall to be of low significance after mitigation through design or implementation of the EMPr.

Climate change risks are real and have been considered, but the Applicant prepared to invest in the infrastructure so the area can be accessed more safely at least in the short-medium term. The proposal would therefore result in the optimal utilisation of the site with minimal adverse impacts on the ecological environment.

Positive socio-economic impacts can also result from the proposal, which includes limited job creation during the construction and post development (operational) phases and enhancing the character and usage of the existing Hermanus Cliff path.

The site locality and context do not provide for many alternatives and alternatives are restricted to design which comes down to the way in which structures would be secured in the landscape (buttressed against steep cliff sides, or secured on pillars). The impact assessments for the two development alternatives are similar and both can be regarded as reasonable and feasible.

As there is not a notable difference in the significance of impact associated with them, the main consideration for the preferred alternative would be cost and implementation, as it would be less costly and easier to implement.

Should the No-go alternative be approved, none of the positive impacts associated with the proposed development identified would realize.

1.2.	Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)
	Refer to **Appendix B** in this regard.
1.3.	Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.
	See tables that follow

Table 8: Planning, Design and Development (Construction) Phase Impact Summary

	IMPACT	ALTERNATIVE	SIGNIFICANCE	
PLANNING, DESIGN AND DEVELOPMENT (CONSTRUCTION) PHASE	1. Structure in the landscape	Alternative 1	Without mitigation	Very Low +
			With mitigation	Very Low +
		Alternative 2	Without mitigation	Very Low +
			With mitigation	Very Low +
	2. Reduced water quality (sedimentation)	Alternative 1	Without mitigation	Low -
			With mitigation	Very low -
		Alternative 2	Without mitigation	Low -
			With mitigation	Very Low -
	3. Alteration of wetland natural flow regime	Alternative 1	Not applicable	N.a.
		Alternative 2	Without mitigation	Very low -
			With mitigation	Very low -
	4. Erosion and sedimentation in wetlands	Alternative 1	Not applicable	N.a.
		Alternative 2	Without mitigation	Low -
			With mitigation	Very low -
	5. Water quality impairment in wetlands	Alternative 1	Not applicable	N.a.
		Alternative 2	Without mitigation	Low -
			With mitigation	Very low -
	6. Wetland water quality impairment	Alternative 1	Not applicable	N.a.
		Alternative 2	Without mitigation	Med -
			With mitigation	Low -
	7. Loss of wetland biota	Alternative 1	Not applicable	N.a.
		Alternative 2	Without mitigation	Low -
			With mitigation	Very low -
	8. Loss of indigenous coastal vegetation and habitat	Alternative 1	Without mitigation	Low -
			With mitigation	Very low -
		Alternative 2	Without mitigation	Low -
			With mitigation	Very Low -
	9. Disturbance / displacement of avifauna, small mammals and macrofaunal invertebrates	Alternative 1	Without mitigation	Low -
			With mitigation	Very low -
		Alternative 2	Without mitigation	Low -
			With mitigation	Very Low -
	10. Waste generation and pollution of marine environment	Alternative 1	Without mitigation	Med -
			With mitigation	Low -
		Alternative 2	Without mitigation	Med -
			With mitigation	Low -
		Beach Clean-ups can result in		Low +
	11. Construction employment opportunities	Alternative 1	Without mitigation	Low-Med +
			With mitigation	Med +
		Alternative 2	Without mitigation	Low-Med +
			With mitigation	Med +
	12. Temporary restriction of access to Poole's Bay shore	Alternative 1	Without mitigation	Low -
			With mitigation	Low -
		Alternative 2	Without mitigation	Low -
			With mitigation	Low -
	13. Loss of archaeological resources	Alternative 1	Without mitigation	Med -
			With mitigation	Low -
		Alternative 2	Without mitigation	Med -
			With mitigation	Low -

	14. Noise (refer also to impact 4)	Alternative 1	Without mitigation	Low -
			With mitigation	Low -
		Alternative 2	Without mitigation	Low -
			With mitigation	Low -
	15. Visual intrusion of construction activities	Alternative 1	Without mitigation	Low -
			With mitigation	Negligible
		Alternative 2	Without mitigation	Low -
			With mitigation	Negligible

Table 9:Planning, Design and Development (Construction) Phase Impact Summary

	IMPACT	ALTERNATIVE	SIGNIFICANCE	
POST DEVELOPMENT (OPERATIONAL) PHASE	16. Pollution - Litter from path (Note that litter from the sea was also be considered but will not be as a result of the path. Impact of litter from the sea is Med- and after mitigation through beach clean-ups Med-Low-)	Alternative 1	Without mitigation	Low -
			With mitigation	Very low -
		Alternative 2	Without mitigation	Low -
			With mitigation	Very Low -
	17. Disturbance of animals and birds as a result of movement	Alternative 1	Without mitigation	Low -
			With mitigation	Very low -
		Alternative 2	Without mitigation	Low -
			With mitigation	Very Low -
	18. Habitat Fragmentation and animal movement barrier (mainly periwinkle or rock horax)	Alternative 1	Without mitigation	Very low -
			With mitigation	N.a.
		Alternative 2	Without mitigation	Very low -
			With mitigation	N.a.
	19. Disturbance / displacement of avifauna, small mammals and macrofaunal invertebrates	Alternative 1	Without mitigation	Very low -
			With mitigation	N.a.
		Alternative 2	Without mitigation	Very low -
			With mitigation	N.a.
	20. Disturbance of wetland habitat	Alternative 1	Not applicable	N.a.
		Alternative 2	Without mitigation	Med -
			With mitigation	Low -
	21. Alteration of wetland flow regime	Alternative 1	Not applicable	N.a.
		Alternative2	Without mitigation	Very low -
			With mitigation	No mitigation req
	22. Improved access to coastal resources (incl reduced risk of injury)	Alternative 1	Without mitigation	Med +
			With mitigation	High +
		Alternative 2	Without mitigation	Med +
			With mitigation	High +
	23. Increased security and privacy for the local landowners	Alternative 1	Without mitigation	Low +
			With mitigation	Low +
		Alternative 2	Without mitigation	Low +
			With mitigation	Low +
	24. Employment creation	Alternative 1	Without mitigation	Low-Med +
			With mitigation	Med +
		Alternative 2	Without mitigation	Low-Med +
			With mitigation	Med +
	25. Visual impact of the development	Alternative 1	Without mitigation	Negligible
			With mitigation	Negligible
		Alternative 2	Without mitigation	Low neutral- +
			With mitigation	Negligible

	26. Visual impact of pedestrians using the newly erected cliff path	Alternative 1	Without mitigation	Low neutral-+
			With mitigation	Low neutral-+
		Alternative 2	Without mitigation	Low neutral-+
			With mitigation	Low neutral-+
	27. Noise from maintenance activities	Alternative 1	Without mitigation	Low -
			With mitigation	Low -
		Alternative 2	Without mitigation	Low -
			With mitigation	Low -

If the **NO-GO OPTION** is implemented:

If no action is taken to formalise the current informal pathway in this section along the coast, the following:

- No positive impact of rehabilitation in disturbed areas
- Waste impact would occur, even if the development does not go ahead
- No new employment opportunities can be created during construction or maintenance
- No improvement in safer accessibility for the public
- No visual impact of structure, but people using the area would still be visible
- No noise from maintenance activities
- No further enhancement of the character and usage of the existing Hermanus Cliff path.

Table 10: Freshwater impacts associated with the no-go option:

CRITERIA	WITHOUT MITIGATION	WITH MITIGATION
Extent of impact:	Local	N.a. to the No-Go alternative
Duration of impact	Long term	
Consequence of impact or risk:	Negative	
Intensity	Very low	
Probability of occurrence:	Highly probable	
Indirect impacts:	N.a.	
Cumulative impacts	High	
Significance rating of impact	Very low (-ve)	
Degree to which the impact may cause irreplaceable loss of resources:	LOW	
Degree to which the impact can be reversed:	REVERSIBLE (habitat degradation can be reversed through rehabilitation)	
Degree to which the impact can be avoided:	LOW (continued environmental degradation is an inevitable trend for biodiversity in urban areas due primarily to significant edge effects)	
Degree to which the impact can be managed:	MEDIUM (while the local authority could undertake measures to manage ongoing degradation this has not occurred, presumably due to a lack of resources)	
Degree to which the impact can be mitigated:	MEDIUM (while the local authority could undertake measures to mitigate ongoing degradation this has not occurred, presumably due to a lack of resources)	
Residual impacts:	VERY LOW (-ve)	

2. Recommendation of the Environmental Assessment Practitioner ("EAP")

2.1.	Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr

The Environmental Management Programme (EMPr) serves as a mechanism to prevent or minimise environmental impacts. The document provides a description of the methods and procedures for mitigating and monitoring impacts to reduce or eliminate negative impacts throughout the construction phase (Construction EMP).

The objective of the EMPr is to provide consistent information and guidance for implementing the management - and monitoring measures to help achieve environmental policy goals. An effective EMPr is concerned with both the immediate outcome as well as the long-term impacts of the project. The EMPr further includes a Maintenance Management Plan for future maintenance work within 100m of the HWM of the sea. It is a requirement that a Maintenance Management Plan (MMP) is submitted for adoption in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), and the Environmental Impact Assessment Regulations, 2014 (as amended).

The EMPr aims to have the following broad outcomes:

- To provide a structure or framework within which the environmental management requirements will be implemented, audited and reported on, in order to ensure that potential impacts on the environment are minimised.
- To set out the mitigation measures and environmental management actions which are required to be implemented during the various phases of the development in order to minimise the extent of environmental impacts, to manage environmental impacts and where possible to improve the condition of the environment.
- To state standards and guidelines that are required to be achieved in terms of environmental legislation and authorization conditions.
- To provide a clear indication of the environmental management requirements of each of the role players involved.

Mitigation and Monitoring measures included in the EMPr aims to achieve the following more specific outcomes:

Planning and Design Phase -

Resulting from concerns raised and studies undertaken over the past three years, several management actions are required in the design phase already to ensure that impacts expected during the development and post-development phase are avoided or minimised. The outcomes of the design phase considerations include:

- reduce visual impact in development and post development phase,
- ensure structural integrity in post development phase,
- limit impacts to the wetlands to be traversed during development and post development and maintenance,
- ensure financial back-up for completion of construction and maintenance issues going forward.

Construction Phase –

- Controlled Access and Construction Traffic
    - Construction access to this site is limited to the existing cliff path (by foot) on either end of the new path section, as accessed via Main Road and Protea Road parking areas. Access via private properties would need to be specifically negotiated between the contractors and the respective property owners, should this be desired. Construction vehicles are not to hinder the access of other road users in the area (public roads and public parking places) e.g. during off loading or due to obstructive parking. Maintain traffic safety at all times and station flagmen when required. All

parking, delivery and access points and routes must be approved by the Principal Agent and the ECO.
    - Appropriately secure transported materials to ensure safe passage between destinations. This includes cleaning running boards of loose debris before vehicles leave site and covering trucks carrying sand with shade cloth/canvas covers to avoid loss en-route.
    - Any lost materials/sand/debris on the surrounding public road network or cliff path as a result of the contractors' activities shall be cleared immediately. These shall be swept up and removed and not left on the side of the road or path.
- Effective Site Demarcation and adherence to avoidance of No-Go Areas
    - No staff, materials, equipment, damage or dumping of materials or waste is allowed outside of the agreed work site boundaries (5 meters path work area width SEAWARD from HWM, unless otherwise agreed per an approved Method Statement) except where used to specifically rehabilitate/repair an area off-site.
    - Private properties are considered no-go areas (unless access has been specifically negotiated and formalized in writing between the contractor and the owner) and wherever possible pegs shall be used to demarcate the extent the work area where this abuts private property so that staff have a visual guide/reminder.
- No long term on-site or unauthorised stockpiling of materials
    - The contractor shall obtain approval from the landowner/municipality for any area used for temporary (on the day) stockpiling/deliveries. All materials shall be stored off site (e.g. industrial area)
- Effective management of fuel and plant
    - Should fuel be required (e.g. for generator) jerry cans of fuel on site shall be placed in leak-proof drip trays, well away from combustible materials and at least 20 meters away from the stream and wetland areas as indicated on plan.
    - Mop up or treat (bio-remediate) any spills immediately.
    - Provide drip trays (placed strategically to avoid incidental spillage of oils and fuels onto the ground) for any plant/equipment e.g. generators and concrete mixers that leak during refuelling or operation.
- Appropriate Housekeeping and Waste Management
    - The Contractor shall provide for the ECO's approval a Waste Management Plan Register indicating the anticipated construction waste types, sorting and storage and disposal/recycling methods.
    - Provide sufficient bins/bags on site in which to store the solid waste. Storage facilities shall not be allowed to become overfull. Bins/bags/waste stockpiles must be covered with lids/shade cloth to prevent redistribution of the waste in high wind conditions where this is a risk due to the type of waste stored.
    - The site shall be kept neat and tidy. No littering on site - litter shall be collected daily into bins or more frequently as required to prevent it from blowing onto adjacent properties/areas.
    - Waste shall be disposed of at licensed waste disposal sites. Recyclable/re-usable waste shall be stored/bagged separately for recycling. No waste may be disposed of on site by burning or burying. Remove staff food waste from site minimum daily.
    - The Contractor is responsible for maintaining records to demonstrate that waste has been lawfully disposed of by the Contractor – this shall be kept on the Contractor's site file and checked by the ECO. Records shall detail who removed the waste (Contractor directly or a third-party service provider), date removed from site, type, quantity and destination/treatment of waste e.g. recycling/landfill, and where obtainable, receipts/proof of delivery to a licensed landfill or waste management service provider.
    - Stockpile all building rubble in central locations on site and remove this as soon as it constitutes a practical load. Keep clean building rubble separate from 'soft' waste to minimize dumping costs and allow for recycling e.g. at an off-site crusher facility.
- Available Emergency Procedures

- Fire - Advise the relevant authority of a fire as soon as one starts and do not wait until it can no longer be controlled. All site staff to be made aware of the procedure to be followed in the event of a fire.
- Spills - Mop up all fuel/oil/chemical/sewage spills and keep all contaminated earth and mop up materials in a sealed drum for removal to a hazardous waste disposal site periodically/at end of contract. Alternatively, treat in-situ with a bio-remedial product. Report all spills and treatment to the ECO.

- Properly managed Concrete and Cement Works
  - Give preference to pre-cast concrete elements as opposed to on-site batching/casting wherever practically possible.
  - Avoid any cement contaminated runoff into the environment. Create/provide an impermeable plastic/plastic-lined sump if required to hold any cement contaminated water.
  - Remove any concrete spills from the surrounding area immediately.
  - No mixing/ placing concrete products on unprotected terrain – use of mixing trays/pans/boards only.
  - Collect empty cement bags from the working areas at the end of every day and store in a windproof container and remove from site for disposal daily.
- Properly managed Paints/Hazardous Substances
  - No paint products, chemical additives or solvents such as thinners and turpentine or any other hazardous substances may be disposed of on site.
  - Store all hazardous substances in sealed, well labelled containers when on site and remove from site at the end of every working day. Liquid substances containers shall be placed on a drip tray/bunded area to safely contain any accidental spillages

Post development (Operational Phase) –

- Continued Infrastructure maintenance
  - Regular maintenance of infrastructure and signage
  - The CEMP management specifications contained within the EMPr must be applicable to any construction work required as part of maintenance work, including ECO appointment if the work scope is longer than 2 weeks.
- Adherence to No-go areas
  - Maintenance workers and staff shall not access private properties at any time
  - Signage shall be installed and maintained to discourage public access into private properties from the pathway and trampling of vegetation.
- Effective Alien Invasive Plant Management
  - The area within 2 meter width of the new cliff path shall be kept free of alien invasive plants as listed in the Alien Invasive Species Regulations (2016 and any subsequent amendments) of the National Environmental Management: Biodiversity Act (of 2004).
  - These shall be pulled out by hand as seedlings and the plants removed from the area for disposal.
- Effective Waste Management
  - Provision of litter bins
  - Periodic litter clean ups
- Ensuring safety and awareness of path users
  - Safety/indemnity signage is recommended to make path users aware of safety risks due to terrain and location within the HWM of the sea.
  - Interpretative signage, encouraging environmental/conservation awareness is encouraged.
  - Signage and infrastructure shall be aesthetically pleasing (and thus maintained in good condition).
- Utilisation of Local labour
  - Wherever possible, local labour shall be used for maintenance work.

Please refer to the attached EMPr for more details (**Appendix H**).

2.2.	Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.

- Physical / geographical aspects - the development footprint must be below the HWM
- Biological - wetland areas, birds and mammals require specific mitigation measures, which have been included in the EMPr
- Financial - Guarantees to be obtained to ensure completion of construction and continued maintenance
- Liability - identified as a concern and to be addressed through public liability insurance that must be in place with the developer

2.3.	Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.

Although the information contained in this report is considered to be adequate for authorities to reach a decision, the remaining public participation process for this report may inform them of any additional issues arising, which first need to be addressed before a decision can be made.

Due to the relatively small extent of this project (approximately 850m long and approximately 1,2m wide upon completion to form part of a 12km existing amenity), no significant negative impacts to the environment or affected parties are expected after mitigation. Judging from the number of supportive comments received during the process thus far, the proposed development would be considered to be advantageous to the public and visitors to Hermanus.

After consideration of the issues raised, requirements from authorities and specialist findings, and provided that the recommended mitigation measures are implemented, it is our opinion that there is no reason why the project should not be authorized.

Conditions to be included in the authorisation:

- Final design of the path is to be approved by a Coastal Engineer before construction may commence.
- Final building plans to be submitted to the Municipality
- Public liability insurance must be taken out by the Applicant and proof must be provided to the DEA&DP, Cape Nature, the Municipality and Department of Public Works (if requested by the Department) before construction may commence.
- The Applicant must provide the DEA&DP with a Financial guarantee for the cost of construction works and at least 5 year's maintenance costs before construction may commence. This budget shall be confirmed and revised as necessary after completion of construction and every 3 years after the first maintenance period.
- No Organ of State shall be liable for maintenance or rehabilitation as a result of natural / unnatural disaster, or be liable for maintenance of the path, unless otherwise agreed to in a Memorandum of Agreement between the relevant Organ of State and the Applicant.
- An agreement must be made between the Municipality and the Applicant were the formalised path traverses Municipal land.
- A General Authorisation for Section 21 (c) and (i) water uses for the construction of a boardwalk to traverse two wetland areas along the path must be registered under the National Water Act.
- An application for a Seashore lease as per current requirements should be submitted to CapeNature for structures below the HWM, and be in place before construction may commence.
- A permit under the National Heritage resources Act must be obtained for alteration to any existing structures older than 60 years as a result of the development of the path.

- The EMPr which includes the mitigation measures as specified in the specialist reports, must be adhered to, including the appointment of an ECO during construction and any future maintenance, should activities for maintenance exceed a period of two weeks.
- All activities on the development site must be restricted to below the HWM and as described in the EMPr.

2.4.	Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

Gaps in knowledge

- Tourism benefits that will result because of formalisation of the path through Poole's Bay are not known to the EAP, however it is not believed to be a gap in knowledge.
- Gaps in knowledge include issues that may arise from the ongoing public participation process which have not been identified by the EAP.
- Future changes in circumstances and legislation can also not be accounted for at this stage.

Underlying Assumptions

General

- It is assumed that all information on which this report is based is truthful and correct.
- All the relevant design and mitigation measures specified in this report must be implemented in order to achieve an acceptable level of impact and to ensure minimal impact on the surrounding environment.
- It is assumed that the Public Participation Process undertaken as part of the Basic Assessment Process will be sufficient and adequate. Every effort has been made to inform all potential stakeholders of the proposed development (notification through letters, advertisements, site notices) and registered stakeholders will. The demography, language preferences or social standing of some potential I&AP's cannot always be catered for despite best efforts.
- All organs of state and I&APs with the intent to comment on the documentation will do so within the prescribed timeframes, or, failing this, that they do not have any comment
- The high-water mark has been resurveyed during September 2021 as per maps in Appendix B and will be used as the reference HWM for the purpose of this process.

Freshwater ecology study assumptions and limitations

- The Freshwater Specialist Study focussed on the area between the High-water Mark and the intertidal zone identified on-site as the area devoid of terrestrial vegetation and comprising either beach or exposed rock. The area landward of the High-water Mark (i.e. private land) was only assessed insofar as enabling a meaningful wetland delineation and characterisation. For the two wetlands identified this entailed delineating wetland extent for a distance of 10 – 15m landward of the High-Water Mark. Observations of the character of the wetlands beyond this were documented. This is considered adequate for the purposes of identifying potential freshwater impacts associated with the proposed development.
- The site was visited on two occasions, initially on 31th of March 2019 and the again on 23 September 2021. This means that the site was visited during both the dry and the wet seasons so hydrology could be confirmed.
- The proposed site is in the opinion of the specialist a difficult site to assess due to its coastal setting in which freshwater and coastal processes interact. This results in temporal variability in the extent of the wetland, particularly along its seaward edge. This is because wetlands which require the presence of hydromorphic soils and hydrophytic vegetation, will not occur in areas where wave action causes (a) soil to be absent because all fines between rock material are eroded and (b) without soil hydrophytic vegetation will not survive. The wetland delineation has therefore been conservative (i.e. the full extent of the wetland has been over-estimated rather than under-estimated). The application of the precautionary principle in this regard, in the opinion of the specialist, addresses the temporal variability in wetland extent.

- Freshwater features have been delineated using a Garmin Etrex 20 with an expected accuracy of within 3m. It is however the opinion of the specialist that this limitation is of no material significance and, given that the precautionary principle has been applied (see above bullet), the potential freshwater constraints, have been adequately identified.
- This study is limited to the upper 50cm of soil in accordance with the Updated Manual for Identification and Delineation of Wetland and Riparian Areas (Department of Water Affairs and Forestry - DWAF, 2008) and the Application of the DWAF (2008) Method to Wetland Soils of Western Cape (Job et. al. 2009).

Marine Impact Assessment assumptions and limitations:

- The study, its results and conclusions are based on all available information provided by the EAP, reports, peer reviewed literature, the field survey and on the specialist's expertise. It cannot account for any information that has not been made public either in person, in the literature or in a report.
- The study is based on the two alternative path designs that have been provided. Should another alternative option be considered, an additional Marine Impact Assessment will be required for that alternative.
- The disadvantage of a single site visit is that some mobile organisms may be overlooked. As many intertidal species are sessile in nature, the specialist is confident that the site visit was sufficient in recording the most common and important marine and coastal species in the area.

Visual study assumptions and limitations

- The author assumes that where information is supplied by others, this information is correct and up to date unless otherwise stated by the client, project team or source. No responsibility is accepted by Filia Visual for incomplete or inaccurate data supplied by others;
- Filia Visual's assessment of the significance of impacts of the proposed project on the receiving environment has assumed that the activities will be confined to the areas for which impacts have been anticipated;
- Where detailed information is not available, the precautionary principle, i.e., a conservative approach that overstates negative impacts and understates benefits, has been adopted;
- Filia Visual assumes that the applicant will in good faith implement the mitigation measures identified in this report and elsewhere. In this regard, it is assumed that the applicant will commit sufficient resources and employ suitably qualified personnel to undertake such mitigation;
- It is assumed that the 3D model is an accurate approximation of the proposed development's eventual built form.
- The viewshed analysis is based on the available Digital Elevation/Surface Model datasets available (SRTMGL1 V003 from NASA Shuttle Radar Topography Mission Global 1 arc second – 30m). It should be noted that viewshed analyses are not absolute indicators of either visibility of the level of significance (magnitude) of the impact in the view, but a statement of the fact of potential visibility. Visual analysis using the available Digital Elevation/Surface Models as a dataset only establish the lines of sight (LoS) between the observer and the proposed development and does not consider trees, buildings and other visual barriers that constitute solid protrusions. Empirical testing to take into account the visibility of view-limiting structures within urban space (be it a city or cultural landscape), requires either a precise Digital Surface Model (DSM, with raster resolution at most 2 x 2 m), or on-site LoS testing supported by 3D modeling. LiDAR (Light Detection and Ranging) improves the accuracy of viewsheds and visibility analyses by including these elements, especially for visual studies conducted in urban areas. South Africa does not have LiDAR data available. For this reason, a viewshed analysis using LiDAR data could not inform this report. However, the assumption is that the GIS Viewshed and LoS methods of analysis employed in this report will satisfy the requirements of the brief.

- The Coordinate system used is the Pseudo Mercator (EPSG: 3857).
- Please note that the simulations and 3D models overlaid on to the photogrammetry site model do not indicate site clearance or removal of vegetation. The impression of visual absorption capacity will therefore be higher than that of the actual development.
- Additionally, readers should note that the aim of photography and photomontage in visual studies is to represent the receiving environment under consideration and the proposed development, both as accurately as is practical. However, two-dimensional photographic images and photomontages alone cannot capture or reflect the complexity underlying the visual experience and should therefore be considered an approximation of the three-dimensional visual experiences that an observer would receive in the field.
- This study assumes that the development proposal will not be amended significantly after the issue of this report, and that any guidelines or recommendations will be interpreted in ways not significantly deviating from the interpretation of this study.
- Finally, when determining the significance of the visual impact of the Project (with mitigation), the assumption is that the mitigation measures proposed in this report are correctly and effectively implemented and managed throughout the life of the project.

Notwithstanding the above, the author is confident that these assumptions and limitations will not compromise the overall findings of this report

Avian survey assumptions and limitations

- Specialists rely on SABAP data to provide an insight into the birds likely to occur.
- Duration of the site visit can only give a snapshot of what species may occur, as rarer birds, by definition, may be missed.
- Shorebirds are generally sedentary at this time of year and the palearctic birds leave our shores towards the end of March and early April.
- Resident birds such as the African Black Oystercatcher would have bred in November- January so, a March visit would have missed this peak breeding season. To judge breeding activity, young/immature birds (with dull plumage and brown bills) searched for during observations.

Uncertainties

- The impacts have been identified and assessed to the EAP's best ability. Any other impacts not identified are currently unknown.

2.5.	The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.

It is recommended that the activity commences within three years of the date of authorisation. Funding, liability insurance, sign-off on detail design and contractor procurement would need to be secured before construction could commence.

Construction activities should be concluded within five years of commencement taking into consideration the following constraints:

- Main Construction period for major work, drilling etc. would be limited to between February and June.
- During the whale breeding season (July - December), construction activities must be limited to non-obtrusive activities (e.g. finishing) and avoid those that cause loud noise and vibration.
- Activities could be further limited during November-January, which coincides not only with the builder's holiday, but also the breeding season of Black Oyster catchers and white fronted Plovers. Should any nests be found during this period, construction should be halted until fledglings have left the nests.

As the structure would require ongoing (albeit minimal) maintenance, no specific end date for post construction monitoring can be stipulated as this application is seeking to also adopt an ongoing maintenance management plan.

3. Water

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.

During development phase water would be required for concrete mixing. As there is no water supply along the coast (seawater cannot be used), the contractor would have to procure water for this purpose. The EMPr specifies that the use of potable water needs to be avoided as far as practically possible. Should it not be possible, the contractor would have to provide a detailed motivation for using such.

4. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.

An integrated waste management approach will be utilised that is based on waste minimisation and incorporates reduction, recycling and re-use where appropriate. The impacts of cement-rich runoff/spills can be mitigated through comprehensive containment of the working area and for contaminated water to be removed off-site.

5. Energy Efficiency

8.1.	Explain what design measures have been taken to ensure that the development proposal will be energy efficient.

Not applicable

SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

Note: Duplicate this section where there is more than one Applicant.

I, Jobre Stassen, ID number 6311200036086 in my personal capacity or duly authorised thereto hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, and any relevant Specific Environmental Management Act and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;

- I am aware that it is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;

- I appointed the Environmental Assessment Practitioner ("EAP") (if not exempted from this requirement) which:
  - meets all the requirements in terms of Regulation 13 of the NEMA EIA Regulations; or
  - meets all the requirements other than the requirement to be independent in terms of Regulation 13 of the NEMA EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the NEMA EIA Regulations;

- I will provide the EAP and any specialist, where applicable, and the Competent Authority with access to all information at my disposal that is relevant to the application;

- I will be responsible for the costs incurred in complying with the NEMA EIA Regulations and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any legitimately person contracted by the EAP;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the NEMA EIA Regulations;
  - Legitimate costs in respect of specialist(s) reviews; and
  - the provision of security to ensure compliance with applicable management and mitigation measures;

- I am responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority, hereby indemnify, the government of the Republic, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which I or the EAP is responsible in terms of the NEMA EIA Regulations and any Specific Environmental Management Act.

Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

Signature of the Applicant: J Stassen Date: 27/5/2022

Cliff Path Action Group

Name of company (if applicable):

CLIFF PATH ACTION GROUP

RESOLUTION

It is recorded that at the annual general meeting of 22 April 2022 that the chairperson, Jobre Stassen (id 6311200038086) can act in a representative capacity of the Cliff Path Action Group by signing the necessary forms and declarations as part of the Environmental and Water Use Authorisation Process as well as an application for a lease in terms of the Seashore Act, or other related documentation as required.

.....

Jobre Stassen

Chairperson

.....

Johan de Waal

Signed on this 22 day of April 2022 in Cape Town.

DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I **Kozette Myburgh** EAPASA Registration number **2019/1346** as the appointed EAP hereby declare/affirm the correctness of the:

- Information provided in this **Draft Basic Assessment Report** and any other documents/reports submitted in support of this BAR;
- The inclusion of comments and inputs from stakeholders and I&APs;
- The inclusion of inputs and recommendations from the specialist reports where relevant; and
- Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties, and that:
- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the activity or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another EAP that meets the general requirements set out in Regulation 13 of NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review EAP must be submitted);
- In terms of the remainder of the general requirements for an EAP, am fully aware of and meet all of the requirements and that failure to comply with any the requirements may result in disqualification;
- I have disclosed, to the Applicant, the specialist (if any), the Competent Authority and registered interested and affected parties, all material information that have or may have the potential to influence the decision of the Competent Authority or the objectivity of any report, plan or document prepared or to be prepared as part of this application;
- I have ensured that information containing all relevant facts in respect of the application was distributed or was made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- I have ensured that the comments of all interested and affected parties were considered, recorded, responded to and submitted to the Competent Authority in respect of this application; (To be continued in the application phase of this process)
- I have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, where relevant;
- I have kept a register of all interested and affected parties that participated in the public participation process (ongoing); and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations;

27 May 2022

Signature of the EAP: Date:

Ecosense CC

Name of company (if applicable):

DECLARATION OF THE REVIEW EAP - *Not applicable*

I ……, EAPASA Registration number …….. as the appointed Review EAP hereby declare/affirm that:

- I have reviewed all the work produced by the EAP;
- I have reviewed the correctness of the information provided as part of this Report;
- I meet all of the general requirements of EAPs as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE SPECIALIST ***- see individual specialist studies under Appendix G***

Note: Duplicate this section where there is more than one specialist.

I ……, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or

  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);

- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;

- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and

- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE REVIEW SPECIALIST ***- Not applicable***

I ……., as the appointed Review Specialist hereby declare/affirm that:

- I have reviewed all the work produced by the Specialist(s):
- I have reviewed the correctness of the specialist information provided as part of this Report;
- I meet all of the general requirements of specialists as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the review EAP (if applicable), the Specialist(s), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):