



Comments and Response Report

The Proposed Stabilisation of a Portion of the Keurbooms River Embankment South of the Plettenberg Bay Angling Club on the Remainder of RE 1 of the Farm Hangklip No. 305.

COMMENTS	RESPONSE
COMMENTS RECEIVED IN RESPONSE TO THE PRE-APPLICATION REPORT -	
STATE DEPARTMENTS	
Department of Environmental Affairs and Development Planning (DEA&DP) – Development Management – Steve Kleinhans – 29 July 2024	
1. The pre-application Basic Assessment Report dated July 2024 compiled on your behalf by your appointed Environmental Assessment Practitioner ("EAP"), Ms. Samantha Teeluckdhari (EAPASA No: 2023/6443) and assisted by Candidate EAP, Ms. Lizelle Genade (EAPASA No: 2023/7793) of <i>Eco Route Environmental Consultancy</i> ("Ecoroute"), as received by the Directorate: Development Management (Region 3) ("this Directorate") on 28 June 2024, refers.	

2. This Directorate has reviewed the information in the pre-application BAR and provides the following comment:

2.1. *Applicable listed activities*

Please be reminded that the onus is on the proponent / applicant to ensure that all the applicable listed activities are applied for and assessed as part of the Basic Assessment process.

According to the information provided in the pre-application BAR the proposed includes the placement of a reno-mattress below the riverbed which will extend approximately 3m into the river from the bank. In this regard this Directorate is of the considered view that the site on which the proposed stabilisation will occur is located within *coastal public property*. According to Section 7 of the National Environmental Management: Integrated Coastal Management Act, (Act No. 24 of 2008, as amended) ("NEM: ICMA") the composition of coastal public property consists of *inter alia*:

a) coastal waters:

b) land submerged by coastal waters, including –

- i. land flooded by coastal waters which subsequently becomes part of the bed of coastal waters; and
- ii. the substrata beneath such land.

In light of the above, this Directorate is of the considered opinion that **Activity no. 15** of the EIA Regulations, 2014 Listing Notice 1 is triggered by the proposed stabilisation of the embankment.

Therefore, you are strongly advised to include and assess the activity during the formal application process.

2.1 The EAP agrees. Listed Activity no.15 of the EIA Regulations, 2014 Listing Notice 1 has been included in the EIA application.

<p>2.2. Coastal management aspects:</p> <p>According to the information the proposed structure is located seaward of both the Coastal Management Line ("CML") and the Coastal Protection Zone ("CPZ") and is located below the Estuarine Functional Zone ("EFZ"). Furthermore, according to the figures included in Section G: 3.5 the site is identified as Very High risk for coastal and estuarine flood risk. Moreover, with reference to Point 2.1 above the site is considered to be located in coastal public property.</p> <p>In light of the above, you are required consider and motivate the need for the proposed stabilisation in terms of Section 63 of the NEM: ICMA.</p>	<p>2.2 Refer to the BAR: Section E point 7</p> <p>The Keurbooms Estuary Estuarine Management Plan (2023) states the following:</p> <p>"The Keurbooms estuary is prone to episodic flooding that has catastrophic consequences for landowners and infrastructure and poses a risk to human safety. Floodwaters cause extensive erosion, particularly in the lower reaches where land has been cleared to make way for residential developments and resorts. The removal of riparian vegetation weakens the banks' stability causing it to be undercut and ultimately collapse into the estuary. The effects of these floods have been exacerbated in recent times by the accumulation of debris in the catchment, mostly from forestry and alien clearing projects. The greatest damage occurs in the Keurbooms arm below the N2 bridge, as this is where the most development has occurred and where vegetation has been cleared. However, most structures adjacent to the estuary are affected to some extent...Recommendations: Bank stabilization to repair existing damage and to minimize impacts from future events."</p> <p>The activity is supported by specialist findings, incorporates mitigation, and balances public and environmental interest in line with Section 63 of ICMA.</p>
<p>2.3. Sensitive marine fauna and flora</p> <p>This Directorate notes the possible presence of sensitive Species of Conservation Concern ("SCC")</p> <p><i>Hippocampus capensis</i> (Knysna Seahorse), <i>Zostera capensis</i> (eelgrass) and <i>Cotula myriophylloides</i> (floating buttons). Of these the presence of eelgrass has confirmed in the specialist Estuarine and Plant Species Assessment.</p> <p>Furthermore, it is understood that the terrestrial component of the proposal consists of a large, open grass lawn comprising mostly of invasive grass namely <i>Clandestinus cenchrus</i> (kikuyu) and indigenous grass specie <i>Cynodon dactylon</i> (kweek). According to the information the inter-tidal zone habitat is very narrow and is used to moor boats along the shoreline.</p>	<p>2.3 The EAP agrees. For this purpose, a qualified Environmental Compliance Officer must be appointed to conduct regular site visits, as prescribed by the authority to ensure Environmental training is undertaken prior to commencement of the activity to ensure compliance of the EMMP thereafter.</p>

<p>In light of the above, and with due consideration that activities will be undertaken within coastal public property, the recommendations and mitigation measures proposed by the specialists must be strictly implemented and adhered to.</p>	
<p>2.4. Environmental Management Programme:</p> <p>The contents of the EMPr must meet the requirements outlined in Section 24N (2) and (3) of the NEMA (as amended) and Appendix 4 of GN No. R. 982 of 4 December 2014. The EMPr must address the potential environmental impacts of the activity throughout the project life cycle, including an assessment of the effectiveness of monitoring and management arrangements after implementation (auditing).</p> <p>This Department has reviewed the EMPr as included and received as part of the pre-application BAR. The following aspects must be addressed:</p> <p>● <i>Environmental Auditing and Environmental Monitoring:</i></p> <p>According to the EMPr the Environmental Control Officer ("ECO") must on a weekly basis submit Environmental Auditing Reports to all relevant authorities. Please revise this terminology to reflect "Environmental Monitoring Reports" also known as "ECO reports".</p>	<p>Noted. The relevant changes have been made to the EMMP.</p>

<p>Please be advised that a clear distinction must be made in the EMPr between an <i>environmental monitoring report</i> (to be compiled by the ECO) and an <i>environmental audit report</i> (to be undertaken and compiled by independent person with the relevant environmental auditing expertise). In this regard, please note that the responsibilities associated with environmental auditing cannot be fulfilled by the EAP or the ECO.</p> <p>Typically, an ECO must be appointed to—</p> <ul style="list-style-type: none"> • ensure compliance with the EMPr and the conditions contained in the Environmental Authorisation; and • keep record of all activities on the site; problems identified; transgressions noted and a task schedule of tasks undertaken by the ECO. <p>and the ECO report / environmental monitoring report must reflect how the above has been achieved / dealt with.</p> <p>Whereas the environmental auditing requirements with regard to compliance with the environmental authorisation and EMPr is described under Regulation 34 of the EIA Regulations, 2014 (as amended). The contents of the environmental audit report must comply with Appendix 7 of the EIA Regulations. In this regard, the EMPr must be amended to ensure compliance with the requirements.</p>	<p>This has been specified in the EMMP.</p>
<p>2.5. Public Participation Process (PPP)</p> <p>In accordance with sub-regulation 7(2) of the EIA Regulations, 2014 (as amended), the EAP must consult with every organ of state that administers a law relating to a matter affecting the environment relevant to that application for an environmental authorisation.</p>	<p>All authorities, organs of state and municipality listed were included in the PPP.</p> <p>See Appendices F1 and F4 of the BAR.</p>

<p>Notwithstanding the provisions of the regulations pertaining to PPP, considering the location of the site in proximity to the coastal public property and estuary, the EAP must ensure that the following organs of state are consulted and provide written comment on the proposed development, namely:</p> <ul style="list-style-type: none"> • Department Fisheries, Forestry and the Environment (DFFE): Oceans and Coast • DEA&DP: Coastal Management. • Bitou Municipality, specifically with regard to the management of the estuary • CapeNature. 	
<p>3. Please note that a listed activity may not commence prior to an environmental authorisation being granted by the Department. It is an offence in terms of Section 49A of the National Environmental Management Act, 1998 (Act no. 107 of 1998) ("NEMA") for a person to commence with a listed activity unless the competent authority has granted an environmental authorisation for the undertaking of the activity. A person convicted of an offence in terms of the above is liable to a fine not exceeding R10 million or to imprisonment for a period not exceeding 10 years, or to both such fine and imprisonment.</p>	<p>Agreed. The applicant has been made aware of this.</p>
<p>4. Kindly quote the above-mentioned reference number in any future correspondence in respect of this matter.</p>	<p>Noted.</p>
<p>5. This Department reserves the right to revise or withdraw initial comments or request further information from you based on any information received.</p>	<p>Noted.</p>
<p>Department of Environmental Affairs and Development Planning (DEA&DP) – Biodiversity & Coastal Management – Mercia Liddle – 01 August 2024</p>	

<p>Your request for comment from the Sub-directorate: Coastal Management on the abovementioned pre-application basic assessment report received on 28 June 2024, refers.</p>	
<p>1. CONTEXT</p> <p>1.1. The Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("NEM: ICMA") is a Specific Environmental Management Act under the umbrella of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"). The NEM: ICMA sets out to manage the nation's coastal resources, promote social equity and best economic use of coastal resources whilst protecting the natural environment. In terms of Section 38 of the NEM: ICMA, the Department of Environmental Affairs and Development Planning ('the Department') is the provincial lead agency for coastal management in the Western Cape as well as the competent authority for the administration of the "Management of public launch sites in the coastal zone (GN No. 497, 27 June 2014) "Public Launch Site Regulations".</p>	<p>1.1 Noted and agree, as listed activities are triggered authorisation needs to be obtained from DEA&DP prior to commencing the proposed activities.</p>

<p>1.2. The Department, in pursuant of fulfilling its mandate, is implementing the Provincial Coastal Management Programme ("PCMP"). The PCMP is a five (5) year strategic document, and its purpose is to provide all departments and organisations with an integrated, coordinated and uniform approach to coastal management in the Province. The Department has developed the next generation PCMP that includes priority objectives for the next 5 years. This PCMP was adopted on 19 May 2023 and may be viewed at Western Cape PCMP 2022-2027.</p>	<p>1.2 As per the above point from DEA&DP Coastal Management the PCMP page 21 states the following: Where an environmental authorisation is required for listed activities within the coastal zone, the competent authority must take into account all relevant factors listed in Section 63(1) of the ICM Act. Ensure that where an environmental authorisation is not required for coastal activities, the Minister considers listing activities that may require a permit or license in terms of Section 63(6).</p>
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<p>1.3. A key priority of the PCMP is the Estuary Management Programme, which is predominantly implemented through the Estuary Management Framework and Implementation Strategy ("EMFIS") project. The Department is implementing estuary management in accordance with the NEM: ICMA and the National Estuarine Management Protocol ("NEMP"). Relevant guidelines, Estuarine Management Plans, Mouth Management Plans need to be considered when any listed activities are triggered in the Estuarine Functional Zone. The Department is in the process of approving a series of Estuarine Management Plans. Both draft and approved plans may be viewed at <u>DEA&DP: Coastal Management</u>.</p>	<p>1.3. As per the approved Keurbooms Management Plan 2023: The Protocol identifies CapeNature as the RMA, responsible for the development of the Keurbooms Estuary EMP as well as being responsible for the co-ordination of its implementation. However, the Bitou Municipality, as is the case with other Municipalities along the coast, is responsible for many aspects of estuarine management. This has specific reference to the part of the estuary that falls outside of the Keurbooms River Nature Reserve. The two entities should come to agreement via a signed Memorandum of Understanding to co-manage the estuary.</p> <p>As per the approved Keurbooms Management Plan 2023:</p> <p>4.2.3 Land Use & Infrastructure</p> <ul style="list-style-type: none"> • Regulate all activities within 100 m of the high-water mark in accordance with the EIA Regulations, within the Coastal Management Line (CML) in accordance with the ICM Act and its Regulations as well as the Seashore Act 5.è
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<p>1.4. The facilitation of public access to the coast is an objective of the NEM: ICMA as well as a Priority in the WC PCMP. The Department developed the Provincial Coastal Access Strategy and Plan, 2017 ("PCASP") and commissioned coastal access audits per municipal district to assist municipalities with identifying existing, historic, and desired public coastal access. These coastal access audits also identify hotspots or areas of conflict to assist the municipalities with facilitating public access in terms of Section 18 of the NEM: ICMA. The PCASP as well as the coastal access audits are available on the Departmental website at DEA&DP: Coastal Management.</p>	<p>1.4 Although a portion of the bank stabilisation will be within CPP, the current use by the public (mooring of boats) of the embankment is exacerbating the banks erosion. The proposal includes the prohibition of mooring boats along the embankment.</p> <p>The activity is supported by specialist findings, incorporates mitigation, and balances public and environmental interest in line with Section 63 of ICMA.</p>
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<p>2. COMMENT</p> <p>2.1. The sub-directorate: Coastal Management ("SD: CM") has reviewed the information as specified above and have the following commentary:</p> <p>2.1.1. The applicant is proposing the construction of engineered embankment stabilisation which will be 55m in length along a section of the Keurbooms River Estuary (Farm RE/1/305). The applicant stated that the proposed stabilisation of the embankment aligns with the management and protection of the property from future erosion due to storm surge events and the impact of the construction activities will be minimal as the development will most probably improve the natural functions of the river once erosion is reduced. Furthermore, according to the aquatic specialist (April 2024) the proposal is consistent with other bank stabilisation structures that have been implemented at other locations along the same estuary and thus will entail reprofiling of the bank using sand bags and covering them with a 0.3m x 0.3m reno mattress.</p>	<p>2.1.1 Agreed.</p>
<p>2.1.2. The applicant accurately identified critical biodiversity and ecological support areas in relation to the subject property and in accordance with to the Western Cape</p>	<p>2.1.2 Agreed.</p>

<p>Biodiversity Spatial Plan (2017). Furthermore, according to the Estuarine Assessment Report (September 2023) the proposed development aligns with the management objectives of CBAs, as the proposed stabilisation will assist in the absorption of impacts from storm surges and high tides and will not interfere with seasonal migration of animals, hydrological regimes and also not cause habitat transformation, degradation and fragmentation which occur primarily through changes in land use or pressures which impact negatively on habitat conditions. The applicant thus stated that the proposed development should be authorised as it will promote natural functions of the river, reduce erosion and impact is minimal as post construction, the environment will restore itself.</p>	
<p>2.1.3. The applicant noted Farm RE/1/305 location in relation to the Coastal Protection Zone ("CPZ") as defined in Section 16 of the NEM: ICMA and noted the purpose of the CPZ as well as the relevance of Section 62 and Section 63 of the NEM: ICMA.</p>	<p>2.1.3 Agreed. The proposed activity's aim is to conserve the Coastal Protection Zone for current and future generations, not to destroy it. This has been reiterated by the Estuarine Impact Assessment as pointed out by yourself in point 2.1.2.</p>
<p>2.1.4. Be advised that Farm RE/1/305 is located seaward of the Garden Route District Coastal Management Line ("CML"). The technical delineation of the CML was to ensure that development is regulated in a manner appropriate to risks and sensitivities in the coastal zone. The CML was informed by various layers of information including biodiversity, estuarine</p>	<p>2.1.4 The proposed activity is line with the principal purpose of the CML, to protect public property and public safety; to protect the Coastal Protection Zone. The effects of climate change are being seen in this area as the banks are eroding by natural causes and storm surges pose a threat to human safety. To ignore the erosion taking place in the affected area would be directly opposing the purpose of the CML. The activity is supported by specialist findings, incorporates mitigation, and balances public and environmental interest in line with Section 63 of ICMA.</p>

<p>functionality, risk flooding, wave run-up modelling, <i>inter alia</i> and was delineated in conjunction with and supported by other organs of state including Local and District municipalities as well as CapeNature and all other organs of state represented on the steering committee for the Garden Route District CML project. The principal purpose of the CML is to protect coastal public property, private property, and public safety; to protect the coastal protection zone; and to preserve the aesthetic value of the coastal zone. The use of CMLs is of particular importance in response to the effects of climate change, as it involves both the quantification of risks and proactive planning for future development.</p>	
<p>2.1.5. The subject property falls within the estuarine functional zone ("EFZ") which equates to the 5m contour along an estuary as it encapsulates the most dynamic areas influenced by long-term estuarine sedimentary processes. It provides a buffer zone that allows an estuary to swell within the floodplain of an estuary in the event of flood events, inundation as well as sea-level rise due to climate change. It also allows for the inclusion of some terrestrial fringe vegetation that contribute detritus to the system and refuge areas for many animal species during floods.</p>	<p>2.1.5 As addressed within the BAR, the vegetation of the assessment area has been historically changed and does not contain terrestrial vegetation of sensitivity significance; the area contains grass as it has been previously developed. In terms of aquatic vegetation, the Estuarine Impact Assessment has shown that the bank stabilisation (and jetty construction) that had occurred on the eastern bank of the Keurbooms Estuary has not had a serious impact on <i>Z. capensis</i> beds which are still present post construction.</p> <p>In addition, the Estuarine Impact Assessment has addressed the impact of sedimentation of the estuary during construction activities. The impact assessment found the significance to be minor (without mitigation) and negligible (with mitigation) for all 3 options. The specialist is confident that the mitigation measures proposed will result in a negligible outcome.</p> <p>The Keurbooms Estuary Estuarine Management Plan (2023) states the following:</p> <p><i>"The Keurbooms estuary is prone to episodic flooding that has catastrophic consequences for landowners and infrastructure and poses a risk to human safety. Floodwaters cause extensive erosion, particularly in the lower reaches where land has been cleared to make way for residential developments and resorts. The removal of riparian vegetation weakens the banks' stability causing</i></p>

	<p>it to be undercut and ultimately collapse into the estuary. The effects of these floods have been exacerbated in recent times by the accumulation of debris in the catchment, mostly from forestry and alien clearing projects. The greatest damage occurs in the Keurbooms arm below the N2 bridge, as this is where the most development has occurred and where vegetation has been cleared. However, most structures adjacent to the estuary are affected to some extent...Recommendations: Bank stabilization to repair existing damage and to minimize impacts from future events."</p>
<p>2.1.6 Be advised that the Western Cape EMFIS Best Practice Activity Guidelines (2019) recommends in item 1.3. that no development should be approved to take place in the EFZ or the highly littoral active zone. These Guidelines further recommend that development must take into consideration any adopted CMLs and applicable controls, and/or coastal risk lines where high risk areas are identified. Appendix A2 clearly depicts the subject property in relation to the very high-risk coastal flood risk zone as submitted by the applicant.</p> <p>Avoiding development in at-risk or sensitive areas will support the ecological integrity of the estuarine environment, prevent disruption of the natural coastal processes, maintain aesthetic quality, and ultimately protect coastal developments and people. Any infrastructure regardless of its nature or purpose must in alignment with the Estuarine Management Plan.</p>	<p>2.1.6 As pointed out above, the proposed activity is not development for recreational purposes but is an activity proposed to avoid future damage to property and risk to public safety. The outcomes of the proposed activity are in line with the recommendations made in the Keurbooms Estuary Estuarine Management Plan 2023 as a means of protecting and conserving the coastal environment from "catastrophic consequences", not to destroy it. You have pointed out Appendix A2 which depicts a very-high coastal flood risk – this is the very reason why it is extremely important to mitigate the negative impacts caused by the very fact that the subject area is prone to high flooding occurrences, and the mitigation is to ensure that bank stabilisation is implemented where future negative outcomes are noted currently, prior to a severe flood occurrence in which irreplaceable damage is done to properties and/or human life is lost.</p>
<p>2.1.7 The SD: CM noted that the applicant referred to the Keurbooms-Bitou Estuarine Management Plan (2017) in this application. Be advised that an updated version of the Keurbooms Estuarine Management Plan was approved in 2023. This EMP specifically recommends that no new developments should be approved in the EFZ/below the 5m and planting of vegetation along the estuarine banks where it has been cleared would be preferred to rehabilitate riverbanks. Although flooding may have been a factor, it should be noted that severe erosion along the Keurbooms River Estuary may have been exacerbated through the initial removal of stabilising vegetation. Furthermore, engineered stabilising structures may</p>	<p>2.1.7 The BAR has been corrected to site the latest Keurbooms Estuary Estuarine Management Plan. As cited above:</p> <p>The Keurbooms Estuary Estuarine Management Plan (2023) states the following:</p> <p><i>"The Keurbooms estuary is prone to episodic flooding that has catastrophic consequences for landowners and infrastructure and poses a risk to human safety. Floodwaters cause extensive erosion, particularly in the lower reaches where land has been cleared to make way for residential developments and resorts. The removal of riparian vegetation weakens the banks' stability causing it to be undercut and ultimately collapse into the estuary. The effects of these floods have been exacerbated in recent times by the accumulation of debris in the catchment, mostly from forestry and alien clearing projects. The greatest</i></p>

<p>offer short-term solutions to erosion but are not feasible in the long term and as such any such proposal must be considered in the context of the Municipal IDP as well as Disaster Risk Management Plans for the subject area.</p>	<p><i>damage occurs in the Keurbooms arm below the N2 bridge, as this is where the most development has occurred and where vegetation has been cleared. However, most structures adjacent to the estuary are affected to some extent...Recommendations: Bank stabilization to repair existing damage and to minimize impacts from future events."</i></p> <p>Further to the above, the proposal has been amended to include a section where bank reshaping and vegetation planting could occur instead of implementing a hard structure. Please consult the BAR and Appendix G1.</p>
<p>2.1.8 The environmental reserve determination study conducted for the Keurbooms estuarine system in 2007 identified that the estuary had been significantly degraded through anthropogenic activities. This includes infill, inappropriate stabilisation, various roads, old bridge piers and transformation of riverine vegetation buffers. Restoration of critical areas is thus an important recommendation toward restoring estuarine integrity.</p>	<p>2.1.8 The activity is being proposed for the restoration of a critical area. Due to the severe erosion at the subject property, vegetation planting alone to stabilise the embankment would not suffice. The bank is eroded to a point where engineered structures are required. The gabion baskets will allow for suitable aquatic vegetation to be planted in the rehabilitation process which will not only increase the visual aesthetics of the coastal environment but will increase the ecological significance of the coastal environment.</p> <p>Further to the above, the proposal has been amended to include a section where bank reshaping and vegetation planting could occur instead of implementing a hard structure. Please consult the BAR and Appendix G1.</p>
<p>2.1.9 In terms of the Departmental Circular: DEA&DP 0004/2021 regarding 'The consideration of coastal risk in land use decisions as well as the way forward with respect to the establishment and implementation of Coastal Management Lines in terms of the NEM: ICMA', a precautionary approach must be adopted with respect to land use decisions within risk areas and EFZs. The Circular also recommends development parameters to be considered for general risk and general estuarine risk areas. This includes maintaining coastal quality; reducing public liability; reducing risk to human life; preventing intensification of development in general risk areas but allow exercising of existing rights within reason; prevention of encroachment that will impact on the integrity of the shoreline ecology; and enables safe evacuation in an emergency. The Circular further states historic development within the EFZ has resulted in an increased need to actively manipulate ecological processes, such as breaching of an estuary, to protect human life. To ensure the resilience of coastal communities, especially within the EFZ, development and densification of urban areas within this zone should be prohibited as far as possible.</p>	<p>2.1.9 The matter of development in terms on urban densification and/or recreation has been addressed above.</p>

<p>2.1.10 Considering the above, the applicant must be reminded that the erection of any protection measures against erosion or accretion is prohibited in terms of Section 15 of the NEM: ICMA, which states:</p> <p><i>(1) No person, owner or occupier of land adjacent to the seashore or other coastal public property capable of erosion or accretion may require any organ of state or may require any organ of state or any other person to take measures to prevent the erosion or accretion of the seashore or such other coastal public property, or of land adjacent to coastal public property, unless the erosion is caused by an intentional act or omission of that organ of state or other person;</i></p> <p><i>(2) No person may construct, maintain or extent any structure, or take measures on coastal public property to prevent or promote erosion or accretion of the seashore except as provided for in this Act, the NEMA or any other specific environmental management Act.</i></p> <p>Erosion protection or bank stabilisation should only be considered in exceptional circumstances where such measures are in the interest of the whole community (which includes fauna and flora).</p>	<p>2.1.10 As the Plettenberg Bay Angling Club is community based, it should be deemed that the protection of the club is in the interest of the whole community.</p> <p>In addition, as per the Estuarine Impact Assessment:</p> <p><i>"Reno mattress will essentially replace the existing eroded estuary bank and a thin section of inter-tidal mud/sand bank. This will alter habitat for burrowing benthic macroinvertebrates. The modification to habitat should however not have any negative impact on the potential occurrence of H. capensis given its known utilisation of artificial reno mattress habitat. This section of the estuary is however unlikely to be heavily utilised by larger vertebrate estuarine fauna due to the pre-existing high frequency of boat traffic. Impacts for all three options are minor although Option 2 has slightly lower impacts due to it more natural profile (compared to Option 1) and because spaces in between the rocks packed in the reno mattress offers better potential habitat options for macroinvertebrates (compared to Option 3). Impacts for the No-Go option are also minor given that ongoing erosion of the bank will result in sub-optimal habitat."</i></p> <p>Further to the above, the proposal has been amended to include a section where bank reshaping and vegetation planting could occur instead of implementing a hard structure. Please consult the BAR and Appendix G1.</p> <p>Although Section 15 of ICMA generally prohibits structures in Coastal Public Property, the proposed activity qualifies as a public-interest, environmentally sensitive intervention. It is supported by estuarine management policy, designed to enhance coastal resilience, and does not restrict public access or serve private commercial interests. The activity should therefore be considered permissible under the exceptions framework of ICMA, particularly when read with Sections 63 and 65.</p>
<p>2.1.11 The Western Cape EMFIS Best Practice Activity Guidelines (2019) further states that any disturbance to the bank of a natural river or estuary may alter the hydrodynamics of the system, leading to a change in river flow conditions and subsequent channel modifications. Incorrectly designed structures could reflect wave action or stream flow, thereby increasing potential damage to nearby unprotected banks. It is therefore imperative that consultation and detailed investigation precede the</p>	<p>2.1.11 As per the Estuarine Impact Assessment:</p> <p><i>"Due to the frequency of flooding events the Keurbooms/Bitou Estuary Management Plan (DEADP, 2017) recommended that structures and privately owned and developed land be managed in such a way as to prevent further bank erosion during flood events. It also recommends that a standardised methodology be adopted for the purposes of bank stabilization. In this respect the method proposed for this development is consistent with that adopted in neighbouring estates."</i></p>

<p>planning and implementation of erosion management to correctly identify the cause of the erosion and ensure the selection of ecologically appropriate and effective bank stabilisation methods in conjunction with erosion mitigation, where management of erosion itself is not possible. It must be acknowledged that properties located along estuaries or riverbanks are subject to natural processes such as flooding, storm surges and inundation and as such adequate buffers must be preserved to allow natural processes to be unrestricted.</p>	<p><i>Hydrological armouring of stream banks (e.g. wooden retaining wall, rip rap or reno mattress constructions) is a common technique used to stabilise banks for erosion protection. They can cause problems further downstream in that these hardened structures tend to increase the speed of water flow along an armoured reach, as the water has no points of friction to come up against and nothing to slow it down. This additional strength of flow can cause problems further downstream, as water is deflected off the hardened surface and directed at other points of the riverbank. The increased strength and speed of the water can increase erosive forces at these new locations, the result of which is the necessity of installing additional armouring, which merely moves the problem further down the stream.</i></p> <p><i>The sloping profile of Option 2 and the porous nature of the reno mattress revetment will improve the ability of the bank to absorb and dissipate the energy associated with large flooding events in comparison to the vertical profile of Option 1 and the less porous Option 3. Furthermore, this construction provides a longer-term solution to stabilizing the bank against flooding events and persistent tidal flow, due to a reduced risk of structural failure.</i></p> <p><i>There have been a number of incidents of serious bank erosion related to flooding events in the past and the risk of bank erosion associated with the No-Go option therefore represents a similar impact."</i></p>
<p>2.1.12 The SD: CM notes as part of the proposed stabilisation, that the applicant did not indicate where the sand for these sandbags would be sourced from. Sand used for protection measures must be sourced from the same environment and from areas with sufficient sand, it cannot be sourced from any dunes nor from other relatively undisturbed areas.</p> <p>2.1.13 Based on the above the SD: CM does not support the proposed bank stabilisation on Farm RE/1/305 along the Keurbooms River Estuary.</p>	<p>Sand will be sourced from the construction site.</p>
<p>3. The applicant must be reminded of their general duty of care and the remediation of environmental damage, in terms of Section 28(1) of NEMA, which, specifically states that: "...Every person who causes, has caused or may cause significant pollution or</p>	<p>Noted and agreed. Specialist mitigation measures are to be strictly implemented.</p>

<p><i>degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment..."</i> together with Section 58 of the NEM: ICMA which refers to one's duty to avoid causing adverse effects on the coastal environment.</p>	
<p>4. The SD: CM reserves the right to revise or withdraw its comments and request further information from you based on any information that may be received.</p>	<p>Noted.</p>

ORGANS OF STATE	
Breeder-Olifants Catchment Management Agency (BOCMA) – Rabokale Mphahlele – 31 st July 2024	
<p>The Breede Olifants Catchment Management Agency has assessed the above referenced BAR dated April 2024, and the following comments are applicable.</p> <p>1. The proposed activity does not trigger any water uses in terms of 21 (c) and (i) of the National Water Act (Ac No. 36 of 1998) (NWA) as it does not impact on any watercourses. Therefore, it is not required to acquire a water use authorization as contemplated in section 22 of NWA prior commencement with the activity.</p>	<p>1. Noted. Thank you for providing clarity.</p>
<p>2. However, suitable measures to reduce sedimentation must be implemented. Any construction that exposes bare slopes and surfaces to the elements must include erosion control measures such as covers, silt barriers, sandbags, and earthen berms.</p>	<p>2. Agreed. Mitigation measures provided by the Estuarine specialist have been included in the EMPr to reduce sedimentation of the estuary during construction.</p>
<p>3. No pollution of water resources may occur due to activities on the property.</p>	<p>3. Agreed. The EMPr has included measures to control pollution.</p>
<p>4. The conditions and mitigation measures as outlined in an Environmental Management and Programme (Appendix H) must be strictly enforced and complied with. Compliance to the final approved EMPr must be audited regularly by the designated Environmental Control Officer.</p>	<p>4. Agreed. This has been stipulated in the BAR.</p>
CapeNature - CONSERVATION INTELLIGENCE: LANDSCAPE EAST – Megan Simons – 11 February 2025	
<p>1. The Spatial Development Framework for Bitou Municipality emphasizes that the estuary is a key focus area to preserve and encourage habitat connectivity. The proposed development will prevent this connectivity through habitat replacement. Furthermore, the IDP advocates for protection of environment; ecological corridor establishment; manage development along coastline using sustainable and precautionary principles.</p>	<p>The embankment has been severely eroded and in its current state, prohibits habitat connectivity. Please refer to the findings of the specialists in Appendix G.</p> <p>Further to this, the proposed development has already been conducted on a greater scale at other locations of the river - the locations where similar developments have taken place are San Marino Estate and Silverstreams River Estate on the opposite bank. These developments involved streambank stabilisation and jetties.</p>

2. The proposed infrastructure will increase downstream erosion as energy from flow events will be dissipated to adjacent areas of the installed infrastructure.	As per impact 4 in the Estuarine and Plant Species assessment (Appendix G1), this impact was assessed as Minor – largely due to the relatively short section of the shoreline that will be affected.
3. The proposed infrastructure does not promote natural functioning of the estuary bank or shore. There is no infrastructure supporting the estuary shore which need protection. Furthermore, the proposed infrastructure is not of a rehabilitation type as it will alter the habitat permanently.	The proposal has been amended to incorporate the reshaping of a portion of the bank to limit transformation of the habitat. In addition, on recommendation by the Estuarine specialist, the EAP has included a condition in the BAR for mooring of boats to be prohibited from the bank. Please consult the Draft BAR.
4. The development objectives of the Estuarine Management Plan are poorly referenced and exclude the non-support of further marina developments, management of private land to prevent erosion (see boat activity removal impacts).	The BAR has been updated to fully reflect and align with the development objectives of the Keurbooms EMP (2023), particularly those relating to the importance of managing private land use, and the removal of boating-related erosion pressures. The proposed activity is consistent with the intent and recommendations of the EMP, as clarified through the revisions.
5. Removal of all boating activity to existing infrastructure on the applicant property would be more beneficial than any installed infrastructure.	<p>As per the amended Estuarine and Plant Species assessment (May 2025): <i>“Even if boat mooring and pedestrian traffic are to be controlled, the close proximity of the tarred car park to the edge of the re-profiled estuary bank would most likely compromise the integrity of the bank in the long-term. This option would however be preferable downstream of the tarred car park as there will be sufficient space to accommodate and protect the re-profiled bank.”</i></p> <p>Further to the above, consultation with the specialist refers: <i>“Even if boats are removed from the area immediately adjacent to the streambank stabilisation, boat traffic into and out of the existing marina will still continue and will continue to present an erosion risk to the banks of the estuary.”</i></p>
6. The most impactful factor causing erosion is boating activities (landing), if they were removed, the erosion would be considered natural and acceptable due to the lack of infrastructure adjacent to the site. This application must consider that these activities are contribution to erosion.	<p>Response as per the estuarine specialist:</p> <p>It is agreed that boating activities are likely a contributing factor to erosion of the bank. Removal of the boating activities would however not mean that the erosion could now be considered natural. Removal of moored boats along the shore may help, but boats accessing the existing marina are likely to continue contributing to shoreline erosion.</p>
7. The alternatives have not considered the removal of boating activities which are the primary cause for erosion of the riverbank. Neither has floating jetties been considered as an alternative with maximum of two bank anchoring sites, which would allow for natural rehabilitation of the bank and likely assist with lowering wave generated erosion. Also, a floating jetty would allow natural estuary littoral zone activities to continue.	<p>The proposal has been amended to include reshaping a portion of the bank and removing mooring of boats.</p> <p>Input from the Plettenberg Bay Angling Club: It is worth noting that the boats being moored along the embankment do not belong to members of the PBAC, but private individuals; therefore, the PBAC is not prepared to install floating jetties.</p>

The applicant must consider these alternatives and not rely on high impact infrastructure.	
8. It appears that the site is within the Coastal Public Property (CPP) and should therefore be considered against the principles of the CPP.	Although Section 15 of ICMA generally prohibits structures in Coastal Public Property, the proposed activity qualifies as a public-interest, environmentally sensitive intervention. It is supported by estuarine management policy, designed to enhance coastal resilience, and does not restrict public access or serve private commercial interests. The activity should therefore be considered permissible under the exceptions framework of ICMA, particularly when read with Sections 63 and 65.