

# Coastal & River

MANAGEMENT UNIT (MU)	ISSUE/IMPORTANCE	OBJECTIVE	ACTION/STRATEGY	RESPONSIBLE AGENCIES
MU06	Eroding Coastline Cat 2	<ul style="list-style-type: none"> <li>To track shoreline changes, analyze seasonal impacts, identify flood &amp; erosion risks and support sustainable management.</li> </ul>	<ul style="list-style-type: none"> <li>Preparation for strengthening coastal protection and other mitigation works (if necessary).</li> </ul>	JPS Melaka JPS Daerah
	<ul style="list-style-type: none"> <li>Coastal Protection</li> </ul>			
	<ul style="list-style-type: none"> <li>Setback</li> </ul>	<ul style="list-style-type: none"> <li>Ensure new developments are positioned at a safe distance from the shoreline to allow for natural shoreline movement and protect properties.</li> <li>Allow flexibility in setback policies to respond to changing shoreline conditions.</li> <li>Enhance the effectiveness of setbacks by combining them with natural shoreline protection strategies.</li> <li>Ensure that setbacks remain effective by regularly monitoring shoreline changes and adapting management practices.</li> <li>Minimize the impact of new developments on the shoreline and support natural processes.</li> <li>Raise awareness about the importance of setbacks and involve stakeholders in shoreline management efforts.</li> <li>Ensure compliance with setback requirements and protect the shoreline effectively.</li> </ul>	<ul style="list-style-type: none"> <li>Develop Comprehensive Setback Guidelines, i.e., Conduct scientific assessments &amp; develop flexible setback guidelines.</li> <li>Incorporate Adaptive Setback Practices, i.e., Design setback areas with buffers &amp; Implement zoning regulations.               <ul style="list-style-type: none"> <li>Muddy Shoreline                   <ul style="list-style-type: none"> <li>With existing bunds; <i>Coastal setback follows the alignment of the bund.</i></li> <li>In already developed areas; <i>Setback is defined by the seaward edge of the development.</i></li> <li>In undeveloped mangrove areas: <i>Setback is established at the landward boundary of the mangroves.</i></li> </ul> </li> <li>Sandy Shoreline                   <ul style="list-style-type: none"> <li>Erosion occurs at a slower rate.</li> <li>In unprotected areas: <i>Setback can be reduced to 30 meters.</i></li> <li>Where roads or critical</li> </ul> </li> </ul> </li> </ul>	

			<p>infrastructure exist: <i>Setback may be positioned seaward of existing structures.</i></p> <ul style="list-style-type: none"> <li>› In areas with revetments: <i>Setback should align with the revetment line.</i></li> <li>› Setback lines in this study have been adjusted to allow for existing infrastructures and predicted movement of shorelines.</li> <li>• Integrate Natural Erosion Control Measures, i.e., Restore and protect natural habitats &amp; Plant native vegetation</li> <li>• Enhance Shoreline Monitoring and Management, i.e., Conduct periodic shoreline surveys &amp; Adjust setback requirements</li> <li>• Promote Sustainable Development Practices, i.e., Encourage low-impact development techniques &amp; Limit construction activities</li> <li>• Educate and Engage Stakeholders, i.e., Conduct outreach and education programs &amp; Involve stakeholders in planning and decision-making</li> <li>• Implement and Enforce Regulations, i.e., Enforce setback regulations &amp; Review and update regulations regularly</li> <li>• Setback determination shall be guided by the recommendations provided in the Decision Support System (DSS).</li> </ul>	
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### Marine Habitats and Biodiversity

The proposed development management strategies for marine habitats and biodiversity at MU06 are as follow.

MANAGEMENT UNIT (MU) (LOCATION)	MANAGEMENT OBJECTIVES	MANAGEMENT STRATEGIES	ISSUE/IMPORTANCE/REASON	RESPECTIVE/ RESPONSIBLE AGENCIES
<ul style="list-style-type: none"> <li>MU06 (Kem Terendak)</li> </ul>	Turtle Nesting Beach <ul style="list-style-type: none"> <li>To conserve and preserve turtle landing sites.</li> </ul>	<ul style="list-style-type: none"> <li>Expedite plans to gazette turtle landing site at Kem Terendak as protected area.</li> </ul>	<ul style="list-style-type: none"> <li>Turtle landing/nesting site in Kem Terendak.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Fisheries,</li> <li>NGOs,</li> <li>Majlis Bandaraya Melaka Bersejarah (MBMB),</li> <li>MOTAC Melaka,</li> <li>Department of Town and Planning,</li> <li>Developers.</li> </ul>
		<ul style="list-style-type: none"> <li>Promote sustainable coastal development at turtle nesting beach.</li> <li>Provision of solid waste disposal infrastructure.</li> <li>Increase the 'do not litter' signboards at turtle nesting beach.</li> <li>Promote turtle awareness and educational programmes in collaboration with relevant agencies.</li> <li>No coastal reclamation projects allowed at or adjacent to turtle nesting beaches.</li> </ul>	<ul style="list-style-type: none"> <li>Turtles are susceptible to various stressors from rapid coastal developments and tourism activities i.e., noise disturbance, light spill, and potential solid waste disposal.</li> </ul>	

# Water Quality

MANAGEMENT UNIT (MU) (LOCATION)	MANAGEMENT OBJECTIVES	MANAGEMENT STRATEGIES	ISSUE/IMPORTANCE/REASON	RESPECTIVE RESPONSIBLE AGENCIES
MU06	Waste Control <ul style="list-style-type: none"> <li>Solid waste and Scheduled Waste Control</li> </ul>	<ul style="list-style-type: none"> <li>Compliance to Malaysian Marine Water Quality Standard</li> <li>Compliance to Standard Kebangsaan Kualiti Air Rekreasi Semulajadi dan Garispanduan bagi Pemantauan Air Rekreasi Semulajadi</li> <li>Environmental Quality (Scheduled Waste) Regulations 2005</li> </ul>	<ul style="list-style-type: none"> <li>MU06 marks the beginning of districts Melaka Tengah from the west until Umbai at the east.</li> <li>The whole MU06 falls under the jurisdiction of the military. It houses 2 major camps, namely Kem Terendak and Kem Sg Udang.</li> <li>The WQI for MU06 varies from Moderate to Excellent</li> </ul>	<ul style="list-style-type: none"> <li>Department of Environment</li> <li>Local Authority</li> </ul>

## Land Use

MANAGEMENT UNIT (MU) (LOCATION)	MANAGEMENT OBJECTIVES	MANAGEMENT STRATEGIES	ISSUE/IMPORTANCE/REASON	RESPECTIVE/ RESPONSIBLE AGENCIES
Human Settlement				
MU06	<ul style="list-style-type: none"> <li>To manage and control any land use changes along the coast</li> </ul>	<ul style="list-style-type: none"> <li>Define coastal zoning categories (including residential, commercial, conservation, and mixed-use areas).</li> <li>Establish zoning regulations</li> <li>Control the allowable density type for any development along the coast.</li> <li>Limit land conversion and approval for TOL permit</li> </ul>	<ul style="list-style-type: none"> <li>Increase of population along the coastline may impact the existing infrastructure (including road, utilities, and traffic)</li> </ul>	<ul style="list-style-type: none"> <li>MBMB</li> <li>PTD Melaka Tengah</li> <li>PTG Melaka</li> <li>JKR</li> <li>JPS</li> <li>IWK</li> <li>SAMB</li> <li>TNB</li> </ul>
	<ul style="list-style-type: none"> <li>To prevent and control erosion.</li> <li>To ensure compliance with environmental regulations regarding hydraulic impact assessments and erosion control.</li> </ul>	<ul style="list-style-type: none"> <li>Construct proper erosion control structures such as retaining walls and sediment control barriers.</li> <li>Conduct regular hydrological studies to identify high-risk erosion zones.</li> <li>Enforce guidelines for land development near water bodies to minimize erosion risks.</li> </ul>	<ul style="list-style-type: none"> <li>Impact from the hydraulic can cause erosion to the settlement</li> </ul>	<ul style="list-style-type: none"> <li>JPS</li> </ul>
	<ul style="list-style-type: none"> <li>To reduce environmental impact caused by the construction activities on the site</li> </ul>	<ul style="list-style-type: none"> <li>Prepare an Environmental Impact Assessment (EIA) for any major projects along the coast (based on the DOE requirements).</li> <li>Manage thorough evaluations of EIA before approving construction projects.</li> <li>Adhere to the Environmental Managing Plan (EMP) recommendations as part of the mitigation major.</li> <li>Conduct periodical inspection during and after construction.</li> </ul>	<ul style="list-style-type: none"> <li>Any changes to land use due to construction may affect the environment.</li> </ul>	<ul style="list-style-type: none"> <li>MBMB</li> <li>DOE</li> </ul>

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	<ul style="list-style-type: none"> <li>To monitor coastal development</li> </ul>	<ul style="list-style-type: none"> <li>Conduct periodical inspection.</li> <li>Regulate the law related to any developments along the coast.</li> <li>Implement sustainable zoning regulations to prevent excessive land reclamation.</li> </ul>	<ul style="list-style-type: none"> <li>Coastal development within Melaka coastline possesses adverse impacts towards adjacent mudflat areas.</li> </ul>	<ul style="list-style-type: none"> <li>MBMB</li> <li>PTD Melaka Tengah</li> <li>PTG Melaka</li> </ul>