

MANAGEMENT UNIT (MU) (LOCATION)	MANAGEMENT OBJECTIVES	MANAGEMENT STRATEGIES	ISSUE/IMPORTANCE/REASON	RESPECTIVE RESPONSIBLE AGENCIES
MU09	<b>Setback</b> <ul style="list-style-type: none"> <li>Necessary deviations to allow for existing infrastructures and predicted movement of shorelines.</li> </ul>	<ul style="list-style-type: none"> <li>Setback have been determined based on the coastal features and important infrastructure. Generally, the DID guidance of landward of the tree line 400m for mangroves and 60m landward of the Highest Astronomical Tide contour for sandy beaches is followed. However, deviations were necessary to allow for existing infrastructures such as roads and bunds where the authorities will be required to maintain the line. In such cases, the setback is placed landward of the infrastructure (see Appendix Bund Mangrove Cover and Setback).</li> <li>The DSS should be used to determine the setback required for future developments.</li> </ul>	<ul style="list-style-type: none"> <li>Allow for movement of the shoreline.</li> </ul>	<ul style="list-style-type: none"> <li>JPS</li> </ul>

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MU09	<b>Marine Capture Fisheries</b> <ul style="list-style-type: none"> <li>To ensure high standards of fish quality, enhanced food safety and nutritional value through provision of better fisheries infrastructures and facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Upgrade the fisheries infrastructure at respective fish landing points.</li> </ul>	<ul style="list-style-type: none"> <li>Lack of fisheries infrastructure at most fish landing points</li> </ul>	<ul style="list-style-type: none"> <li>Lembaga Kemajuan Ikan Malaysia (LKIM)</li> </ul>
	<ul style="list-style-type: none"> <li>To improve the navigation of fishing vessels at the affected areas.</li> </ul>	<ul style="list-style-type: none"> <li>Undertake maintenance dredging with proper planning and mitigation measures.</li> </ul>	<ul style="list-style-type: none"> <li>Siltation problem at Sg. Batu have prevented safe passage for fishing vessel during low tides.</li> </ul>	<ul style="list-style-type: none"> <li>JPS</li> <li>Marine Department</li> <li>Department of Fisheries</li> </ul>
	<ul style="list-style-type: none"> <li>To promote sustainable fishing methods and practices.</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen the surveillance and enforcement.</li> </ul>	<ul style="list-style-type: none"> <li>Utilization of unsustainable fishing gear as a common fishing method practice.</li> </ul>	<ul style="list-style-type: none"> <li>Malaysian Maritime Enforcement Agency</li> <li>Department of Fisheries</li> </ul>

	<b>Aquaculture</b> <ul style="list-style-type: none"> <li>To minimize the potential of water quality degradation from aquaculture activities.</li> <li>To promote sustainable aquaculture practice.</li> </ul>	<ul style="list-style-type: none"> <li>Provision of proper wastewater treatment facilities at aquaculture farms to reduce discharge of untreated water directly into the river.</li> <li>Regular maintenance of the wastewater treatment facilities.</li> <li>Encourage aquaculture farmers to get MyGAP certification.</li> </ul>	<ul style="list-style-type: none"> <li>Degradation of water quality due to the untreated wastewater discharge from brackishwater pond culture.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Fisheries</li> </ul>
	<ul style="list-style-type: none"> <li>To promote sustainable aquaculture practice.</li> </ul>	<ul style="list-style-type: none"> <li>Promote programmes related to the restoration and replanting of suitable mangrove species</li> <li>Prohibition of new development plans within mangrove areas.</li> <li>Restoration of abandoned farms as an alternative to minimize the development of new aquaculture farms.</li> <li>Reforestation of abandoned shrimp farms.</li> </ul>	<ul style="list-style-type: none"> <li>Aquaculture activities or coastal modification contributes to mangrove degradation.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Forestry</li> <li>Department of Fisheries</li> <li>PLANMalaysia Perak</li> </ul>
	<ul style="list-style-type: none"> <li>To conserve cockle farming through protection of mudflat areas.</li> </ul>	<ul style="list-style-type: none"> <li>Mudflats and natural spatfall areas gazetted as fisheries protected area.</li> <li>Maintain the mudflats from Bagan Panchor to Pantai Remis as Aquaculture Industrial Zone (AIZ).</li> </ul>	<ul style="list-style-type: none"> <li>Lack of protection of the natural spatfall and cockle farming activities within mudflat areas off Perak waters.</li> <li>Mudflat areas serve as important grounds for cockle farming.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Fisheries</li> </ul>
	<b>Recreational Fisheries</b> <ul style="list-style-type: none"> <li>To promote good fishing practices in recreational fishing activities.</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen the surveillance and enforcement.</li> </ul>	<ul style="list-style-type: none"> <li>Unregistered fishing boat for recreational fishing activities can lead to unsustainable fishing and safety issues.</li> </ul>	<ul style="list-style-type: none"> <li>Malaysian Maritime Enforcement Agency</li> </ul>

		<ul style="list-style-type: none"> <li>• Provision of sufficient garbage bins and portable toilets at the Bagan Panchor and Sg. Batu.</li> <li>• Promote public awareness by organizing environmental talks on coastal cleanliness and protection of coastal habitats.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of solid waste disposal infrastructure and portable toilets</li> </ul>	<ul style="list-style-type: none"> <li>• Local Authority</li> <li>• Department of Fisheries</li> </ul>
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MU09	<ul style="list-style-type: none"> <li>Accelerate the growth of industry, tourism, agriculture, and commerce</li> </ul>	<ul style="list-style-type: none"> <li>Expanding industrial areas</li> </ul>	<ul style="list-style-type: none"> <li>The proposed growth of new industrial areas in the Manjung district will prioritise strategic places that are adjacent to existing infrastructure and utilities. The area selection criterion will be soil density, highway connectivity, and manpower density.</li> <li>To meet the demand for industrial land in Manjung district.</li> <li>The proposal corresponds to the industry's estimated needs, which demand for an additional 372.5 hectares of new industrial land use by 2030.</li> <li>Diversify industry activities that serve as a developer of major economic activities in Manjung District.</li> </ul>	<ul style="list-style-type: none"> <li>Manjung Municipal Council</li> </ul>
	<ul style="list-style-type: none"> <li>Ensure infrastructure reliability</li> </ul>	<ul style="list-style-type: none"> <li>Reduce the risk of floods (Floodplain corridor)</li> </ul>	<ul style="list-style-type: none"> <li>The process of rejuvenating as well as reviving Sungai Beruas &amp; Sungai Lekir.</li> <li>Reduce the incidence of floods that occur almost every year in this basin area.</li> </ul>	<ul style="list-style-type: none"> <li>JPS</li> </ul>
		<ul style="list-style-type: none"> <li>Reduce the risk of floods (tidal control gate)</li> </ul>	<ul style="list-style-type: none"> <li>Control the flow of water in and out of the rivers during tidal phenomena.</li> </ul>	
	<ul style="list-style-type: none"> <li>Ensure that land development and urban structure are in sync</li> </ul>	<ul style="list-style-type: none"> <li>Expanding urban boundaries in Manjung district (Pekan</li> </ul>	<ul style="list-style-type: none"> <li>Based on current land use changes and future demand.</li> </ul>	<ul style="list-style-type: none"> <li>Local Authority: MPM</li> </ul>

		Pantai Remis – Pengkalan Baharu)	<ul style="list-style-type: none"> <li>Wider and clearer urban boundaries are needed to control future urban development and expansion</li> </ul>	
		<ul style="list-style-type: none"> <li>Optimizing land use (Pekan Pantai Remis – Pengkalan Baharu)</li> </ul>	<ul style="list-style-type: none"> <li>To revitalize the city through existing and proposed economic activities.</li> <li>Equip and improve public facilities in major Cities.</li> </ul>	
	<ul style="list-style-type: none"> <li>Improving the quality of livability</li> </ul>	<ul style="list-style-type: none"> <li>Provide adequate, quality and easily accessible community facilities (religious facilities)</li> </ul>	<ul style="list-style-type: none"> <li>Improve the Al-Aliah Mosque's facilities and restore the damage that has been discovered.</li> <li>Based on the proposed development project of the Perak SUK Office.</li> </ul>	
		<ul style="list-style-type: none"> <li>Strengthen the identity and image of the city (Pekan Pantai Remis – Pangkalan Baharu)</li> </ul>	<ul style="list-style-type: none"> <li>The urban structure in this area needs to be streamlined through more structured urban layout planning and effective development control to ensure that urban renewal can be implemented.</li> <li>Identify the types of development and appropriate activities needed in this urban area to increase land use.</li> <li>A more modern fishing complex and able to manage marine catches more efficiently and systematically.</li> <li>The integration of the fishing complex and fish landing jetty facilitates fishermen and marine product operators to manage their marine catch more efficiently and systematically.</li> <li>The provision of urban design elements in the city center needs to be well prepared to achieve the image of a fishing town.</li> </ul>	

Based on management objectives and strategies for MU09, it focuses on economic growth such as through acceleration of industry growth, improving public facilities and also strengthen the identity and image of the city. According to the table above, there are already 5% land use of industry activity in MU09. However, MU09 has a rock quarry in the existing permanent forest reserve of Segari Melintang, which may have a negative effect on turtler landing areas in both MU09 and MU10.

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MU09	<b>Mangrove</b> <ul style="list-style-type: none"> <li>To protect, conserve and rehabilitate the mangrove areas.</li> <li>To facilitate mangrove regeneration by implementation of appropriate tools and methods.</li> </ul>	<ul style="list-style-type: none"> <li>Gazettement of mangroves areas as Permanent Forest Reserve at state land mangrove forests.</li> </ul>	<ul style="list-style-type: none"> <li>Mangrove serves various ecological importance such as providing protection and habitat for a wide diversity of aquatic species of different taxonomic groups.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Forestry</li> </ul>
		<ul style="list-style-type: none"> <li>Rehabilitation, restoration and replanting of suitable mangrove species at the affected areas.</li> </ul>	<ul style="list-style-type: none"> <li>Degradation of mangroves area at some part within Perak coastline due to the coastal erosion.</li> </ul>	
		<ul style="list-style-type: none"> <li>Promote programmes related to the restoration and replanting of suitable mangrove species</li> <li>Provision of buffer zone between mangrove and development areas.</li> <li>Restoration of abandoned farms as an alternative to minimize the development of new aquaculture farms.</li> <li>Reforestation of abandoned shrimp farms.</li> </ul>	<ul style="list-style-type: none"> <li>Potential mangrove forest degradation due to coastal and aquaculture developments.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Forestry</li> <li>Land Office</li> <li>PLANMalaysia Perak</li> <li>Department of Fisheries</li> </ul>
	<b>Mudflats</b> <ul style="list-style-type: none"> <li>To protect and conserve the mudflat areas.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize coastal developments in respect to mudflat areas.</li> </ul>	<ul style="list-style-type: none"> <li>Coastal development within Perak coastline possesses adverse impacts towards adjacent mudflat areas.</li> </ul>	<ul style="list-style-type: none"> <li>Pejabat Tanah dan Galian (PTG) Perak</li> </ul>



		<ul style="list-style-type: none"> <li>Maintain the mudflats from Bagan Panchor to Pantai Remis as Aquaculture Industrial Zone (AIZ).</li> </ul>	<ul style="list-style-type: none"> <li>Mudflat areas serve as important grounds for cockle farming.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Fisheries</li> </ul>
	<b>Marine Mammals</b> <ul style="list-style-type: none"> <li>To conserve and protect marine mammals.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize large-scale coastal developments and modifications near identified core habitats of cetaceans</li> <li>Minimize coastal modifications i.e., coastal shrimp farming, coastal reclamation, and the clearing of fringing mangrove forests.</li> </ul>	<ul style="list-style-type: none"> <li>Potential marine mammals' disturbance due to coastal developments and modifications.</li> </ul>	<ul style="list-style-type: none"> <li>PlaNM Malaysia Perak</li> <li>Department of Fisheries</li> <li>Department of Forestry</li> <li>Land Office</li> </ul>
		<ul style="list-style-type: none"> <li>Implement and enforce fisheries regulation to restrict the use of high-risk bycatch gears especially within marine mammals' hotspot areas.</li> <li>Promote utilization of sustainable fishing gears within IUCN Important Marine Mammal Area (IMMA).</li> </ul>	<ul style="list-style-type: none"> <li>Utilization of unsustainable fishing gear could impose significant threat towards marine mammals within Perak coastline.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Fisheries</li> </ul>
		<ul style="list-style-type: none"> <li>Collect and analyse data to help inform effective mitigation to reduce vessel collisions with marine mammals within MMFR.</li> </ul>	<ul style="list-style-type: none"> <li>Marine mammals are susceptible to injury and mortality from vessel collisions.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Fisheries</li> <li>Marine Department</li> </ul>

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MU09 (Pantai Remis)	<ul style="list-style-type: none"> <li>To develop and manage the area as tourist destination more systematically</li> </ul>	<ul style="list-style-type: none"> <li>Provide tourist facilities at the beach</li> <li>Do engagement with the local community to develop the beach as a tourist destination</li> </ul>	<ul style="list-style-type: none"> <li>There is no proper tourism development in the area</li> </ul>	<ul style="list-style-type: none"> <li>Local Authority: MPM</li> <li>Tourism Malaysia</li> <li>Tourism Perak</li> </ul>

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MU09	<ul style="list-style-type: none"> <li>Control of effluent and wastewater discharge from industries and agricultural areas.</li> <li>Control of sewage discharge from residential areas.</li> </ul>	<ul style="list-style-type: none"> <li>Use of more environmentally friendly/biodegradable pesticides and herbicides.</li> <li>New industrial, agricultural and residential projects that fall under the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015 must submit the EIA report to the Department of Environment for approval.</li> <li>New industrial, agricultural and residential projects that do not fall under the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015 shall submit their development proposal to the Local Authority and conditions on discharge</li> </ul>	<ul style="list-style-type: none"> <li>Effluent, sewage discharge and wastewater discharge</li> </ul>	<ul style="list-style-type: none"> <li>Department of Environment</li> <li>Department of Agriculture</li> <li>Local Council</li> <li>Indah Water Konsortium</li> </ul>

		<p>should be imposed on the operators.</p> <ul style="list-style-type: none"><li>• Existing agricultural activities that are found to cause pollution by discharging untreated wastewater shall be warrant with a stop work order.</li></ul>		
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