


MANAGEMENT UNIT (MU) (LOCATION)	MANAGEMENT OBJECTIVES	MANAGEMENT STRATEGIES	ISSUE/IMPORTANCE/REASON	RESPECTIVE RESPONSIBLE AGENCIES
MU08	Conservation Area <ul style="list-style-type: none"> Conservation of Environmentally Sensitive Area (ESA) 	<ul style="list-style-type: none"> It has been proposed as a Ramsar Site. To conserve as a State Park Should be minimal disturbance in this area. In the middle of MU08, there is oil palm cultivated in an area of around 1200 ha bounded by a bund. There should be no more expansion of this cultivation area. 	<ul style="list-style-type: none"> An Environmentally Sensitive Area (ESA) 	<ul style="list-style-type: none"> JPNPk JPS
	River mouths <ul style="list-style-type: none"> Maintain river mouth for navigation to important fishing landing site 	<ul style="list-style-type: none"> The channel should be dredged to at least -0.5m below MSL to allow access for small sampans and fishing boats that are using the jetties. Dredging should be done every 5 years or when required (see Appendix Outlets Require Maintenance). 	<ul style="list-style-type: none"> Insufficient depth 	

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MU08	Marine Capture Fisheries <ul style="list-style-type: none"> To ensure high standards of fish quality, enhanced food safety and nutritional value through provision of better fisheries infrastructures and facilities. 	<ul style="list-style-type: none"> Upgrade the fisheries infrastructure at respective fish landing points (Pasir Hitam, Sg. Kerang and Sg. Kelubong) 	<ul style="list-style-type: none"> Lack of fisheries infrastructure at most fish landing points 	<ul style="list-style-type: none"> Lembaga Kemajuan Ikan Malaysia (LKIM)
	<ul style="list-style-type: none"> To promote sustainable fishing methods and practices. 	<ul style="list-style-type: none"> Strengthen the surveillance and enforcement. 	<ul style="list-style-type: none"> Utilization of unsustainable fishing gear as a common fishing method practice. 	<ul style="list-style-type: none"> Malaysian Maritime Enforcement Agency Department of Fisheries
	Aquaculture <ul style="list-style-type: none"> To minimize the potential of water quality degradation from aquaculture activities. To promote sustainable aquaculture practice. 	<ul style="list-style-type: none"> Provision of proper wastewater treatment facilities at aquaculture farms to reduce discharge of untreated water directly into the river. Regular maintenance of the wastewater treatment facilities. Encourage aquaculture farmers to get MyGAP certification. 	<ul style="list-style-type: none"> Degradation of water quality due to the untreated wastewater discharge from brackishwater pond culture. 	<ul style="list-style-type: none"> Department of Fisheries

	<ul style="list-style-type: none"> To promote sustainable aquaculture practice. 	<ul style="list-style-type: none"> Promote programmes related to the restoration and replanting of suitable mangrove species Prohibition of new development plans within mangrove areas. Restoration of abandoned farms as an alternative to minimize the development of new aquaculture farms. Reforestation of abandoned shrimp farms. 	<ul style="list-style-type: none"> Aquaculture activities or coastal modification contributes to mangrove degradation. 	<ul style="list-style-type: none"> Department of Forestry Department of Fisheries PLANMalaysia Perak
	<ul style="list-style-type: none"> To conserve cockle farming through protection of mudflat areas. 	<ul style="list-style-type: none"> Mudflats and natural spatfall areas gazetted as fisheries protected area. Propose Aquaculture Industrial Zone (AIZ) for cockle farming. Protect the mudflat areas due to its importance as cockle farming area. 	<ul style="list-style-type: none"> Lack of protection of the cockle farming activities within mudflat areas 	<ul style="list-style-type: none"> Department of Fisheries

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MU08	<ul style="list-style-type: none"> Achieving Sustainable Development through Integrated Land Use Planning and Management 	<ul style="list-style-type: none"> Environmental conservation and forest conservation (ESA level 1) 	<ul style="list-style-type: none"> Matang Mangrove Forest Reserve (MMFR) – full protection forest (hutan baru & hutan darat) & production forest (virgin jungle) 	<ul style="list-style-type: none"> JPNPk Local Authority: MPT Council Perak State Government
		<ul style="list-style-type: none"> Environmental conservation and forest conservation (ESA level 2) 	<ul style="list-style-type: none"> Matang Mangrove Forest Reserve – production forest (Mangrove Forest) 	<ul style="list-style-type: none"> JPNPk Local Authority: MPT Perak State Government
		<ul style="list-style-type: none"> Environmental conservation and forest conservation (ESA level 3) 	<ul style="list-style-type: none"> Matang Mangrove Forest Reserve (MMFR) Unproductive land (estuaries areas) 	<ul style="list-style-type: none"> JPNPk Local Authority: MPT Council Perak State Government
	<ul style="list-style-type: none"> Resilient Green Economic Growth 	<ul style="list-style-type: none"> Proposed Fisheries Zone 	<ul style="list-style-type: none"> Fisheries zone and livestock shell in Kuala Sepetang 	<ul style="list-style-type: none"> DoF LKIM

*Similar to MU07

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MU08	Mangroves <ul style="list-style-type: none"> To protect, conserve and rehabilitate the mangrove areas. To facilitate mangrove regeneration by implementation of appropriate tools and methods. 	<ul style="list-style-type: none"> Prohibit land use conversion within MMFR into other development projects. Prohibit land reclamation activities off the MMFR coastlines. 	<ul style="list-style-type: none"> Extensive protected mangroves area i.e., Matang Mangrove Forest Reserve (MMFR). 	<ul style="list-style-type: none"> Land Office
		<ul style="list-style-type: none"> Rehabilitation, restoration and replanting of suitable mangrove species at the affected areas. 	<ul style="list-style-type: none"> Degradation of mangroves area at some part within Perak coastline due to the coastal erosion. 	
		<ul style="list-style-type: none"> Strengthen the surveillance and enforcement. 	<ul style="list-style-type: none"> Development or encroachment of oil palm plantation within mangrove areas. 	
	Mudflats <ul style="list-style-type: none"> To protect and conserve the mudflat areas. 	<ul style="list-style-type: none"> Mudflats and natural spatfall areas gazetted as fisheries protected area. Protect mudflat areas due to its importance as cockle farming area. 	<ul style="list-style-type: none"> Mudflat areas serve as important grounds for cockle farming off Pasir Hitam 	<ul style="list-style-type: none"> Department of Fisheries
	Marine Mammals <ul style="list-style-type: none"> To conserve and protect marine mammals 	<ul style="list-style-type: none"> Minimize large-scale coastal developments and modifications near identified core habitats of cetaceans. Minimize coastal modifications i.e., coastal shrimp farming, coastal reclamation, and the clearing of fringing mangrove forests in Matang. 	<ul style="list-style-type: none"> Potential marine mammals' disturbance due to coastal developments and modifications. 	<ul style="list-style-type: none"> PlaNMalaysia Perak Department of Fisheries Department of Forestry Land Office

		<ul style="list-style-type: none"> • Implement and enforce fisheries regulation to restrict the use of high-risk bycatch gears especially within marine mammals' hotspot areas. • Promote utilization of sustainable fishing gears within Important Marine Mammal Area (IMMA). 	<ul style="list-style-type: none"> • Utilization of unsustainable fishing gear could impose significant threat towards marine mammals within Perak coastline. 	<ul style="list-style-type: none"> • Department of Fisheries
		<ul style="list-style-type: none"> • Collect and analyse data to help inform effective mitigation to reduce vessel collisions with marine mammals within MMFR. 	<ul style="list-style-type: none"> • Marine mammals are susceptible to injury and mortality from vessel collisions. 	<ul style="list-style-type: none"> • Department of Fisheries • Marine Department
	Avifauna <ul style="list-style-type: none"> • To protect and conserve important bird areas. 	<ul style="list-style-type: none"> • Enhance and promote the sustainable ecotourism for birdwatching at MMFR. 	<ul style="list-style-type: none"> • MMFR and its mudflats areas serve ecological importance as important staging sites and stopover location for coastal migratory waterbirds and migrant forest birds along the West Coast of Peninsular Malaysia. 	<ul style="list-style-type: none"> • PERHILITAN
		<ul style="list-style-type: none"> • Prohibit land reclamation activities within MMFR 	<ul style="list-style-type: none"> • Coastal development possesses adverse impacts towards important bird areas within Perak coastline especially within MMFR 	<ul style="list-style-type: none"> • PlaNMalaysia Perak

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MU08	<ul style="list-style-type: none"> The mangrove forests must be preserved. Provide individual septic tanks (IST) for each household in the fishermen's' village upstream of Kuala Sungai Sepetang at Port Weld to avoid polluting the estuaries. 	<ul style="list-style-type: none"> No development or conversion of the mangrove forest to other uses. Only research activities are allowed. The oil palm plantation in the middle of the mangrove forest must be reforested to avoid further destruction to the mangrove forests. 	<ul style="list-style-type: none"> Untreated sewerage discharge Runoff containing fertilizers and pesticides from the oil palm plantation would affect the mangrove forests and also the habitats that depends on the mangrove and mudflat ecosystems. 	<ul style="list-style-type: none"> Department of Environment Department of Fisheries Department of Forestry Local Council Indah Water Konsortium