

**FOR RESORTS AND OTHER TOURISM PROJECTS**  
**ENVIRONMENTAL MANAGEMENT PLAN**

POTENTIAL IMPACT PER PROJECT ACTIVITY PER PROJECT PHASE	MITIGATING MEASURES	RATING/ PERFORMANCE OF MITIGATING MEASURES
<b>A. Construction Phase</b>		
A.1 Site Development including excavation (Clearing and Grubbing)		
Degradation of water quality due to contamination from domestic wastewater	<ul style="list-style-type: none"> <li>Provision of portalets for construction workers</li> </ul> <p><i>Note: at least one (1) portalet for 60 workers where the number of male workers exceeds 500 (as per IRR-Industrial Hygiene, PD 856 Amending Administrative Order 111 Series of 1991)</i></p> <p><i>Note: at least one (1) portalet for 25 workers where the number of male workers exceeds 100 (as per IRR-Industrial Hygiene, PD 856 Amending Administrative Order 111 Series of 1991)</i></p> <ul style="list-style-type: none"> <li>Provision of septic tank or wastewater collection system for workers</li> <li>Collection of wastewater from portalets/septic tanks by third party shall be covered by a licensed/permit from LGU and with valid Discharge Permit for the wastewater treatment facility</li> </ul>	100% no discharge of domestic wastewater to nearby bodies of water, soil, and subsoil
Dust generation from site preparation	<ul style="list-style-type: none"> <li>Maintain a misty access road surface/project site by sprinkling of water at least twice (2x) a day during the dry season</li> </ul>	100% no dust generation
Generation of spoils	<ul style="list-style-type: none"> <li>Spoil materials shall be collected by third party collection with approved permit/clearance from LGU</li> <li>Trucks should be thoroughly washed before leaving from the project site to avoid the transfer of mud/dirt in the road</li> <li>Hauling trucks should be fully covered to avoid spillage of spoils generated from the grading and excavation activities.</li> <li>Proper onsite storage of spoils.</li> </ul>	100% no spoil materials will be left unattended and no mud/dirt will be transferred in the road
Potential siltation of nearby bodies of water due to surface water run-off	<ul style="list-style-type: none"> <li>Construction of soil erosion control measures (e.g. ripraps geotextiles, etc.)</li> <li>Provision of siltation pond to collect water run-off</li> </ul>	100% no siltation
A.2 Construction of Roads and Drainage systems, Housing Units, Cottages, Huts, Institutional and Recreation Areas, and Water Supply System		

Potential siltation of nearby bodies of water due to surface water run-off	<ul style="list-style-type: none"> <li>• Provison of sediment trap/siltation pond</li> </ul>	100% no siltation
Dust generation due to construction	<ul style="list-style-type: none"> <li>• Implement speed limit for heavy equipment/vehicles</li> <li>• Maintain a misty access road surface within project site by sprinkling water at least (2x) twice a day during dry season</li> </ul>	100% no dust generated
Noise pollution from heavy equipment facilities	<ul style="list-style-type: none"> <li>• Use of mufflers and exhaust silencers</li> </ul>	100% compliance to NPCC MC 02 Series of 1980
Generation of hazardous waste (i.e used oil from motor pool, empty paint cans, etc.)	<ul style="list-style-type: none"> <li>• Provision of hazardous waste storage facility/area; transported, treated, and disposed by hazardous wastes DENR accredited third party transporter and treater</li> </ul>	100% compliant to RA 6969
Generation of construction debris	<ul style="list-style-type: none"> <li>• Proper collection of construction debris and implementation of Solid Waste Management Program in compliance to RA 9003</li> <li>• Collection of construction debris third party hauler with valid permit/clearance from LGU</li> </ul>	100% construction debris collected/hauled
A.3 Land modification by landscaping and hardscaping (including installation of ornaments and other utilities such as lightings, etc.		
Potential soil erosion and run-off (upon rainfall)	<ul style="list-style-type: none"> <li>• Provision of temporary and permanent siltation ponds/catchment areas</li> <li>• Provision of engineering and/or environmental measures to control possible erosion and surface runoff brought by the land modification activity.</li> </ul>	100% prevention of erosion/siltation that might be brought by the site development.
A.4 Beach development (including construction of mooring facilities and other coastal development structures)		
Potential siltation of coastal marine waters	<ul style="list-style-type: none"> <li>• Establishment of delineated buffer zones and installation of silt curtains</li> </ul>	100% prevention of siltation that might be brought by the site development
<b>B. Operation/Implementation Phase</b>		
B.1 Operation of commercial area, institutional area and occupied housing units		
Generation of wastewater	<p>Provision of Sewage Treatment Facility or connection to sewerage treatment plant (if available) to treat the collected wastewater.</p> <p><input type="checkbox"/> Hygienic septic tank (for 212 occupants / staff or less – DILG MC 2019-62) with regular desludging by third party contractor (the contractor must have a valid discharge permit of its treatment facility)</p> <p><input type="checkbox"/> Wastewater treatment facility</p>	100% Compliance to DENR effluent standards

	<p>(for more than 212 occupants / staff – DILG MC 2019-62)</p> <p>Note: For 98L per person per day water consumption; 80% will become wastewater – hence for 300 persons; at least 23.52 cubic meter per day WTF capacity shall be installed and operated</p>	
Generation of solid waste	<ul style="list-style-type: none"> <li>• Provision of waste bins and proper implementation of solid waste segregation</li> <li>• Provision of Material Recovery Facility (MRF)</li> <li>• Collection of domestic solid waste by LGU or third-party collector with permit/clearance from LGU for proper disposal</li> <li>• Composting of Organic Wastes</li> </ul>	100% compliant to RA 9003
Generation of hazardous waste (i.e used oil from motor pool, empty paint cans, etc.)	<ul style="list-style-type: none"> <li>• Provision of hazardous waste storage facility/area; transported, treated, and disposed by hazardous wastes DENR accredited third party transporter and treater</li> </ul>	100% compliant to RA 6969
Degradation of air quality due to use of air pollution sources <i>(if any)</i>	<ul style="list-style-type: none"> <li>• Provision of air pollution control equipments / facility</li> <li>• Regular maintenance of pollution control equipment</li> </ul>	100% compliance to RA 8749
<b>B.2 Operation of beach area</b>		
Generation of solid waste	<ul style="list-style-type: none"> <li>• Provision of waste bins and proper implementation of solid waste segregation</li> </ul>	100% compliant to RA 9003
Potential disturbance of marine species and other coastal resources	<ul style="list-style-type: none"> <li>• Install boat mooring buoys at sites for use of dive boats, and ban boat anchoring on coral substrate</li> <li>• Designate limited area for recreational activities</li> </ul>	100% prevention of habitat fragmentation
Generation of effluents due to wastewater generation	<ul style="list-style-type: none"> <li>• Monitoring of the following significant effluent quality parameters (based on PSIC Code 681): <ul style="list-style-type: none"> <li>☑ BOD</li> <li>☑ Fecal Coliform</li> <li>☑ Ammonia</li> <li>☑ Nitrate</li> <li>☑ Phosphate</li> <li>☑ Oil and Grease</li> <li>☑ Surfactants</li> </ul> </li> </ul>	100% compliance with DENR effluent standards (RA 9275); (i.e.DAO 2016-08 and DAO 2021-19)