RESORTS AND OTHER TOURISM / LEISURE PROJECTS

II. ENVIRONMENTAL IMPACT AND MANAGEMENT PLAN

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Environmental/Social impacts		Cost integrated in the construction /operation	n cost	
LAND			,	
✓ Consistency with land use	Current land use w/in 1km radius (as per zoning ordinance): Residential Commercial/ Institutional Industrial Agricultural/ Recreational Protected Areas Others, specify Actual land uses w/in 1km radius: Residential Commercial/ Institutional Industrial Agricultural/ Recreational Protected Areas Others, specify Others, specify	 □ See attached proof of compatibility with land use □ Limit project activities to what is compatible to the land use □ Others, specify 	Actual land uses w/in 1km radius: Residential Commercial/ Institutional Industrial Agricultural/ Recreational Protected Areas Others, specify	

Possible	Baseline Environment	Preventive/Mitigating Measures Monitoring Parameters/ Implementation	Remarks
Environmental/Social Impacts		Cost integrated in the construction /operation cost	
Land tenure / compatibility issue	Identify tenure/ compatibility issues: CARP CADC/ CADT/ CALC/ CALT ROW Informal settlers Ecologically sensitive or protected area Others, specify	□ Obtain the following clearances/ permits from concerned agencies: ☑ Regularly monitor presence/absence of complaints ☑ Regular coordination with LGU or appropriate agencies ☑ Others, specify □ Resettlement Plan prepared □ Others, specify □ Provide relocation/disturbance compensation packages □ Ensure participation of IPs in consultations and dialogues □ MOA prepared/signed □ Provide adequate buffer □ Others, specify	
Disturbance to wildlife due to vegetation clearing	Existing vegetation in the area: Forestland Marshland Grassland Mangrove Wetland Others, specify	 ✓ Comply with conditions of DENR/LGU SLUP, Tree Cutting Permit, ROW, PCA Permit ☐ Limit land clearing as much as possible ☐ Provide temporary fencing for vegetation that will be retained ☐ Promote restoration of damaged or destroyed vegetation where possible (e.g., tree planting) ☐ Provide adequate buffer zone 	

Possible	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
□ Change in surface landform/ topography/ terrain/slope □ Soil Erosion	Slope: Flat (0-3%) Gently sloping to rolling (3-18%) Steep (>18%) Is the project site located in an area identified by MGB/PAGASA/ PHIVOLCS as hazard prone? Yes No	Considering the natural hazards and climate projections in the area: Employ erosion control and slope protection measures Designate a spoils storage area, with topsoil set aside for later use and allow maximum re-use of spoils Construct during dry season Stabilize embankment with grasses or other soil cover Conduct Engineering Geological and Geo-hazard Assessment (EGGA) and implement corresponding recommendation Others, specify	Regular inspection of slope protection measures in erosion-prone areas Regular inspection for new eroded areas near the site Others, specify	IXCIIIAIRS
Improper solid waste disposal leading to: Impairment of visual aesthetics	Solid Waste Management Scheme in the area: SLF MRF Composting Regular Collection of Solid Wastes Presence of visually significant	 ☐ Implement recovery re-use and recycling of waste materials ☐ Provide receptacles / bins for solid wastes ☐ Composting of Organic Wastes ☐ Coordinate with the municipal / city waste collectors ☐ Implement landscaping and other beautification measures 	 ✓ Daily inspection of waste handling including segregation in waste/recycling bins ✓ Weekly inspection of waste accumulation and disposal ☐ Regular inspection of landscaping and other beautification activities ☐ Regular monitoring of buffer zones ✓ Regular monitoring for 	

Possible	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Environmental/Social Impacts		Cost integrated in the construction /operation	cost	
	landforms/landscape/structures ?	 □ Provide adequate buffer □ Compensate adjacent property owners □ Others, please specify 	presence/absence of complaints from adjacent property owners Others, specify	
WATER				
 ☐ Increased siltation due to project activities ☑ Water quality degradation ☐ Others, specify 	Specify nearest/receiving water body:	 □ Set up proper and adequate sanitary facilities □ Ensure strict observance of proper waste handling and disposal and proper sanitation including by the contractors and its workers (if any) □ Strictly observe proper waste 	Regular (ocular) inspection of: Drainage / canal systems Wastewater treatment facility Regular monitoring of ambient water quality:	
	Distance to nearest/receiving water body: □ 0 to less than 0.5 km □ 0.5 to 1 km □ More than 1 km Classification of nearest/receiving water body:	handling and disposal ✓ Provide wastewater treatment facility for domestic wastewater, please specify type of treatment facility:	Parameter Frequency ☑ pH ☐ Annual ☐ Semi-annual ☐ Quarterly ☑ TSS ☐ Annual Concentrat ion ☐ Semi-annual ☐ Quarterly	
	Freshwater	 □ Set up silt trap/silt curtains to minimize downstream siltation during construction □ Installation of drainage canals □ Others, specify 	BOD	

Possible	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Environmental/Social Impacts		Cost integrated in the construction /operation	cost	
Possible Environmental/Social Impacts	Baseline Environment D Current Water Use: Fishery Tourist Zone / Park Recreational Industrial Agricultural Distance of project area to the nearest well used: O to less than 0.5 km O.5 to 1 km More than 1 km Use of the nearest well: Drinking/Domestic Industrial Agricultural		Implementation	Remarks
			☐ Quarterly ☐ Total ☐ Coliform ☐ Semi-annual ☐ Quarterly	

Possible	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Possible Environmental/Social Impacts Competition in water use Depletion of water resources	Size of population using proposed water source: ✓ ≤ 1,000 persons ✓ >1,000 and ≤ 5,000 persons ✓ >5,000 persons Current Use of water source : ☐ Fishery ☐ Tourist Zone / Park	Preventive/Mitigating Measures ✓ Cost integrated in the construction /operation ✓ Implement rainwater harvesting and similar measures as an alternative source of water ✓ Observe water conservation measures ✓ Carefully select project site to avoid disruption of traditional water uses ✓ Obtain Water Permit from NWRB ✓ Improve efficiency of water supply and distribution system	Implementation	Remarks
	 □ Recreational □ Industrial □ Agricultural □ Others, specify Available/nearest water source. □ Deep well □ Water district/LGU □ Surface water □ Others, specify 	 ✓ Use drought resistant species which require less water input and hence have less impact on water tables ☐ Others, specify 		

Possible	Baseline Environment	Preventive/Mitigating Measures Monitoring Parameters/ Implementation	Remarks
Environmental/Social Impacts		Cost integrated in the construction /operation cost	
☐ Increased occurrence of flooding	Is the project site located in an area identified by MGB/ PAGASA as flood prone? Yes No	 Use appropriate design for project facilities Implement appropriate drainage system Regularly remove debris and other materials that may obstruct water flow ✓ Use appropriate technology (e.g., raised hand-pumps) to protect drinking water from flood contamination Others, specify ✓ Regular monitoring for presence/absence of complaints ✓ Regular monitoring for presenc	
AIR / NOISE			
☐ Impact to Air quality	Distance to nearest community: □ 0 to less than 0.5 km □ 0.5 to 1 km □ More than 1 km Is the wind direction blowing towards the nearest community most of the year? □ Yes □ No	 □ Properly operate and maintain all emission sources (e.g. vehicles, generator, etc) □ Install, when applicable, the appropriate air pollution control device/s □ Strictly enforce good housekeeping practices □ Control vehicle speed to lessen suspension of road dust □ Conduct water spraying to suppress dust sources and minimize discomfort to nearby residents □ Use covered vehicles to deliver materials that may generate dust □ Others, specify Regular monitoring for presence/absence of complaints Regular (ocular) inspection of: □ Absence of white or black smoke from vehicles, generator, etc. □ Presence of truck cover during deliveries 	

Possible	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Environmental/Social Impacts		Cost integrated in the construction /operation	cost	
□ Nuisance due to noise generation	Distance to nearest community:	 □ Properly operate and maintain all noise sources (e.g., vehicles, generator, etc.) □ Install when applicable, the appropriate noise control device/s (e.g., mufflers, silencer, sound barriers, etc.) □ Implement appropriate operating hours □ Provide adequate buffer (e.g., Perimeter planting of trees to serve as sound buffer and greenbelt) □ Others, specify 	 □ Regular monitoring for presence/absence of complaints □ Regular monitoring of buffer zones □ Quarterly monitoring of noise level 	
PEOPLE & CULTURE				
 □ Displacement of residents including indigenous people (if any) in the project site and within its vicinity □ Enhanced employment and/or livelihood opportunities □ Reduced employment and/or livelihood opportunities □ Increased revenues for LGU 	Size of population of host barangay/s:	 □ Provide relocation/disturbance compensation packages □ Prioritize local residents for employment □ Promptly pay local taxes and other financial obligations □ Regular coordination with LGU □ Conduct prior consultation and coordination to minimize disruption of 	 □ Regular monitoring for presence/absence of complaints □ Regular coordination with LGU □ Others, specify 	

Possible	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Environmental/Social Impacts		Cost integrated in the construction /operation	cost	
 □ Disruption/Competition in delivery of public services (e.g., education, peace and order, etc.) □ Enhanced delivery of public services (e.g., education, peace and order, etc.) □ Increase in traffic volume and worsening of traffic flow 	Classification of host barangay: Urban Rural Employment/Livelihood Opportunity Rate in the host Municipality: High Low Description:	daily domestic activities Ensure participation of IPs in consultations and dialogues & consider IP rights and cultural practices in the provision of relocation/disturbance compensation packages Provide appropriate traffic/warning signs, lighting, etc Others, specify		
	the host barangay: Schools (e.g. elementary, high school, college)			
	☐ Health facilities (e.g., clinics, hospitals, etc.)			
	☐ Peace and order (e.g., police outpost, Brgy. Tanod, etc.)			
	☐ Recreation and sports facilities			

Possible	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Environmental/Social Impacts		Cost integrated in the construction /operation	cost	
	☐ Others, specify			
□ Destruction/disturbance of physical cultural resources. (✓ if project site has been identified to have such by NM, NHCP, NCAA and LGUs)	Physical Cultural resources within the vicinity of the project site:	☐ Implement appropriate protocols based on NM, NHCP, NCAA and LGU guidelines including those for chance finds (if any). Specify:	☐ Regular coordination with NM, NHCP, NCAA and LGU	
□ Impacts on community health and safety □ Safety Risks □ Fire	Source of risks (please specify) Flammable substances: Others, specify	 □ Regular coordination with LGU □ Provide appropriate warning signs, lighting and barricades, whenever practicable □ Observe proper housekeeping □ Provide on-site medical services for any emergency. □ Participate in public awareness programs on health and safety □ Implement appropriate safety programs for both community and workers □ Strictly comply with fire, safety and similar regulatory requirements □ Strictly comply with requirements of RA 6969 	 □ Regular monitoring for presence/absence of complaints □ Regular monitoring of buffer zones □ Regular coordination with LGU □ Regular submission of reports to concerned agency □ Others, specify 	
		 Strictly comply with requirements 		

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		☑ Cost integrated in the construction /operation cost	cost	