

## FISHERY / AQUACULTURE PROJECTS

### II. ENVIRONMENTAL IMPACTS AND CLIMATE CHANGE RISK MANAGEMENT PLAN

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
<b>LAND</b>				
<input checked="" type="checkbox"/> Consistency with land use	Current land use w/in 1km radius (as per zoning ordinance): <input type="checkbox"/> Residential <input type="checkbox"/> Commercial/ Institutional <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural/ Recreational <input type="checkbox"/> Protected Areas <input type="checkbox"/> Others, specify     Actual land uses w/in 1km radius: <input type="checkbox"/> Residential <input type="checkbox"/> Commercial/ Institutional <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural/ Recreational <input type="checkbox"/> Protected Areas <input type="checkbox"/> Others, specify	<input checked="" type="checkbox"/> See attached proof of compatibility with land use  <input checked="" type="checkbox"/> Limit project activities to what is compatible to the land use	Actual land uses w/in 1km radius: <input type="checkbox"/> Residential <input type="checkbox"/> Commercial/ Institutional <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural/ Recreational <input type="checkbox"/> Protected Areas <input type="checkbox"/> Others, specify	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
<input type="checkbox"/> Disturbance to wildlife due to vegetation clearing	Existing vegetation in the area: <input type="checkbox"/> Forestland <input type="checkbox"/> Marshland <input type="checkbox"/> Grassland <input type="checkbox"/> Mangrove <input type="checkbox"/> Wetland <input type="checkbox"/> Others, specify	<input checked="" type="checkbox"/> Comply with conditions of DENR/LGU SLUP, Tree Cutting Permit, ROW, PCA Permit <input checked="" type="checkbox"/> Limit land clearing as much as possible <input checked="" type="checkbox"/> Provide temporary fencing for vegetation that will be retained <input checked="" type="checkbox"/> Promote restoration of damaged or destroyed vegetation where possible (e.g., tree planting) <input type="checkbox"/> Provide adequate buffer zone	<input checked="" type="checkbox"/> Annual inspection of area replanted/ re-vegetated  <input type="checkbox"/> Others, specify	
<input type="checkbox"/> Change in surface landform/ topography/ terrain/slope <input type="checkbox"/> Soil Erosion	Slope: <input type="checkbox"/> Flat (0-3%) <input type="checkbox"/> Gently sloping to rolling (3-18%) <input type="checkbox"/> Steep (>18%)  Is the project site located in an area identified by MGB/PAG-ASA/ PHIVOLCS as hazard prone? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Employ appropriate soil erosion control and slope protection measures (e.g. contour farming, hedgerow planting, etc.) considering the natural hazards and climate projections in the area  <input type="checkbox"/> Stabilization of embankment with grasses or other soil cover  <input type="checkbox"/> Construct during dry season <input type="checkbox"/> Others, specify   <input type="checkbox"/> Comply with the DENR Administrative Order No. 2003-30 and DENR Administrative Order No.	<input type="checkbox"/> Regular inspection of slope protection measures in erosion-prone areas  <input type="checkbox"/> Regular inspection for new eroded areas near the site  <input type="checkbox"/> Others, specify	

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		<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
		2000-28, Implementing Guidelines on Engineering Geological and Geo-hazard Assessment (EGGA).		
<input type="checkbox"/> Impairment of visual aesthetics <input type="checkbox"/> Devaluation of land values	Presence of visually significant landforms/landscape/structures? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Implement landscaping and other beautification measures <input type="checkbox"/> Provide adequate buffer <input type="checkbox"/> Compensate adjacent property owners <input type="checkbox"/> Others, specify	<input type="checkbox"/> Regular inspection of landscaping and other beautification activities <input type="checkbox"/> Regular monitoring of buffer zones <input checked="" type="checkbox"/> Regular monitoring for presence/absence of complaints from adjacent property owners	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring										
<b>WATER</b>														
<input type="checkbox"/> Water quality degradation <input type="checkbox"/> Others, specify	<p>Current Water Use:</p> <p><input type="checkbox"/> Fishery</p> <p><input type="checkbox"/> Tourist Zone / Park</p> <p><input type="checkbox"/> Recreational</p> <p><input type="checkbox"/> Industrial</p> <p><input type="checkbox"/> Agricultural</p> <p>Distance of project area to the nearest well used:</p> <p><input type="checkbox"/> 0 to less than 0.5 km</p> <p><input type="checkbox"/> 0.5 to 1 km</p> <p><input type="checkbox"/> More than 1 km</p> <p>Use of nearest well:</p> <p><input type="checkbox"/> Drinking/Domestic</p> <p><input type="checkbox"/> Industrial</p> <p><input type="checkbox"/> Agricultural</p>	<input checked="" type="checkbox"/> Set up proper and adequate sanitary facilities <input checked="" type="checkbox"/> Strictly observe proper waste handling and disposal	<p>Regular (ocular) inspection of:</p> <p><input type="checkbox"/> Drainage / canal systems</p> <p><input type="checkbox"/> Water treatment facility (i.e., grease trap, septic tank, etc.)</p> <p>Regular monitoring of the following:</p> <table border="1"> <thead> <tr> <th>Parameter</th><th>frequency</th></tr> </thead> <tbody> <tr> <td><input type="checkbox"/> BOD</td><td> <input type="checkbox"/> Annual  <input type="checkbox"/> Semi-annual  <input type="checkbox"/> Quarterly  <input type="checkbox"/> Monthly               </td></tr> <tr> <td><input type="checkbox"/> Color</td><td> <input type="checkbox"/> Annual  <input type="checkbox"/> Semi-annual  <input type="checkbox"/> Quarterly  <input type="checkbox"/> Monthly               </td></tr> <tr> <td><input type="checkbox"/> pH</td><td> <input type="checkbox"/> Annual  <input type="checkbox"/> Semi-annual  <input type="checkbox"/> Quarterly  <input type="checkbox"/> Monthly               </td></tr> <tr> <td><input type="checkbox"/> TSS concentration</td><td> <input type="checkbox"/> Annual  <input type="checkbox"/> Semi-annual  <input type="checkbox"/> Quarterly  <input type="checkbox"/> Monthly               </td></tr> </tbody> </table>	Parameter	frequency	<input type="checkbox"/> BOD	<input type="checkbox"/> Annual <input type="checkbox"/> Semi-annual <input type="checkbox"/> Quarterly <input type="checkbox"/> Monthly	<input type="checkbox"/> Color	<input type="checkbox"/> Annual <input type="checkbox"/> Semi-annual <input type="checkbox"/> Quarterly <input type="checkbox"/> Monthly	<input type="checkbox"/> pH	<input type="checkbox"/> Annual <input type="checkbox"/> Semi-annual <input type="checkbox"/> Quarterly <input type="checkbox"/> Monthly	<input type="checkbox"/> TSS concentration	<input type="checkbox"/> Annual <input type="checkbox"/> Semi-annual <input type="checkbox"/> Quarterly <input type="checkbox"/> Monthly	
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<input type="checkbox"/> Increased occurrence of flooding	<p>Is the project site located in an area identified by MGB/PAGASA as flood prone?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<input type="checkbox"/> Use appropriate design for project facilities <input type="checkbox"/> Implement appropriate drainage system	<input checked="" type="checkbox"/> Regular monitoring for presence/absence of complaints <input checked="" type="checkbox"/> Regular coordination with concerned agencies	<input checked="" type="checkbox"/> Cost integrated in the construction/ operation cost										

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
		<input type="checkbox"/> Regularly remove debris and other materials that may obstruct water flow <input type="checkbox"/> Use appropriate technology (e.g., raised hand-pumps) to protect drinking water from flood contamination <input type="checkbox"/> Others, specify	<input checked="" type="checkbox"/> Regular monitoring for increased frequency of flooding <input type="checkbox"/> Others, specify	
<input type="checkbox"/> Displacement of residents in the project site and within its vicinity <input type="checkbox"/> Displacement of Indigenous Peoples <input type="checkbox"/> Enhanced employment and/or livelihood opportunities <input type="checkbox"/> Reduced employment and/or livelihood opportunities <input type="checkbox"/> Increased revenues for LGU <input type="checkbox"/> Disruption/ Competition in delivery of public services (e.g., education, peace and order, etc.) <input type="checkbox"/> Enhanced delivery of	Size of population of host barangay: <input type="checkbox"/> ≤ 1,000 persons <input type="checkbox"/> >1,000 and ≤ 5,000 persons <input type="checkbox"/> >5,000 persons  Classification of host barangay: <input type="checkbox"/> Urban <input type="checkbox"/> Rural  Available services within/near the host barangay: <input type="checkbox"/> Schools (e.g. elementary, high school, college) <input type="checkbox"/> Health facilities (e.g., clinics, hospitals, etc.) <input type="checkbox"/> Peace and order (e.g., police outpost, Brgy. Tanod, etc.) <input type="checkbox"/> Recreation and sports facilities <input type="checkbox"/> Others, specify	<input type="checkbox"/> Provide relocation/disturbance compensation packages <input checked="" type="checkbox"/> Prioritize local residents for employment <input checked="" type="checkbox"/> Promptly pay local taxes and other financial obligations <input checked="" type="checkbox"/> Regular coordination with LGU <input type="checkbox"/> Prior consultation and coordination to minimize disruption on daily domestic activities & to ensure respect for IP rights and cultural practices <input type="checkbox"/> Ensure participation of IPs in consultations and dialogues <input type="checkbox"/> Provide appropriate traffic/warning signs, lighting, etc <input type="checkbox"/> Others, specify	<input checked="" type="checkbox"/> Presence/Absence of complaints <input checked="" type="checkbox"/> Regular coordination with LGU <input type="checkbox"/> Others, specify	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
<p>public services (e.g., education, peace and order, etc.)</p> <p><input type="checkbox"/> Increase in traffic volume and worsening of traffic flow</p> <p><input type="checkbox"/> Depletion of local fish populations by stocking of wild fry/fingerlings in ponds</p>				