PROJECT FACT SHEET

Project Name:	Eureka Resorts, Inc.
Project Location:	Sitio Tebey, Brgy. Sibaltan, El Nido, Palawan
Geographic Location:	

	North Latitude	***East Longitude***
Beach Resort Proper	11.29322807068211	119.5672105194136
	11.29207490909022	119.5639761333118
	11.28906497833168	119.5657476239222
	11.29072373456685	119.5676890999276
	11.29183184875072	119.5681340139987
Road Network	11.2880091725179	119.5583226122826
	11.28789221890255	119.5583247945608
	11.28759748865943	119.5602396418483
	11.28824301724845	119.5622525331385
	11.28884243641093	119.5648518093704
	11.28902335549103	119.5650574353956
	11.28949056714905	119.5655157632225
	11.2895385538141	119.5654372916411
	11.2889903485636	119.5648313374078
	11.28833859383977	119.5621593714718
	11.2877035644188	119.560196034009

Nature of Project:	Tourism/Leisure Project
Project Size:	Total Land Area: 100,962.00 square meters Total Floor Area: 15,936.05 square meters
Proponent Name:	Eureka Resorts, Inc. Contact Person: Ms. Gemmalyn Crosby President
Proponent Address	Unit 212, 2F Commerce Center, Filinvest Avenue cor. East Asia Drive, Alabang, Muntinlupa City

EXECUTIVE SUMMARY

1. Brief Project Description

The Eureka Resorts, Inc. proposes to construct and operate a 10.10-hectare beach resort in Barangay Sibaltan, El Nido, Palawan to enhance the tourism industry and contribute to the economic development in the area. At the same time, the Proponent seeks to promote conservation and protection of the environment by highlighting the natural wonders and scenic views of the locality.

The company is proposing to operate its project with the following components:

Table ES- 1. Summary of proposed project components.

Classification	Component	Number of Units	Area (sqm)/ capacity	Specification/ Description/ Remarks
Major Components	Hidden Garden	1	300.00	
	Front House	1	796.38	
	Back House	1	747.42	
	Organic Farm	1	2,500.00	
	Cable Car	1	150.00 meters	
	Alpine Coaster	1	500.00 meters	
	Adventure Park Café	1	257.40	
	Kids' Playground	1	900.00	
	Event and Yoga Pavilion	1	211.24	
	Beachside Restaurant	1	1,184.81	
	Clubhouse and Fine Dining	1	815.00	
	Fitness center	1	208.00	
	VIP Lounge and Bar	1	288.00	
	Signature Spa	1	780.00	
	Island Rock Bar and Grill	1	470.00	
	Beachside Island Pool	1	575.00	
	Water Sports Center	1	94.00	
	Boat Dock	1	40.00 meters	
	Oceana villa	30	3,732.60	
	Oceana villa	10	1,200	
Pollution Control Devices	Wastewater treatment facility	1	105.00	m^3/day
	Materials Recovery Facility	1	25.0	
	Rainwater Harvesting Facility	2	4.0	m^3
Support Facilities	Fire Station	1	90.00	kva
	Electrical Substation	1	360.00	
	Generator Set Room	1	120.00	
	Guard House	1	20.0	
	Guest Parking	1	560.00	
	Road Access (Private)	1	5,064.00	

3. Brief Summary of Project's EIA Process

3.1. The EIA Team

The Environmental Impact Assessment (EIA) team utilized methods in identifying issues, assessing impacts, and designing environmental protection measures i.e. review of other relevant studies and examples of environmental impacts of similar projects, interviews and actual observations.

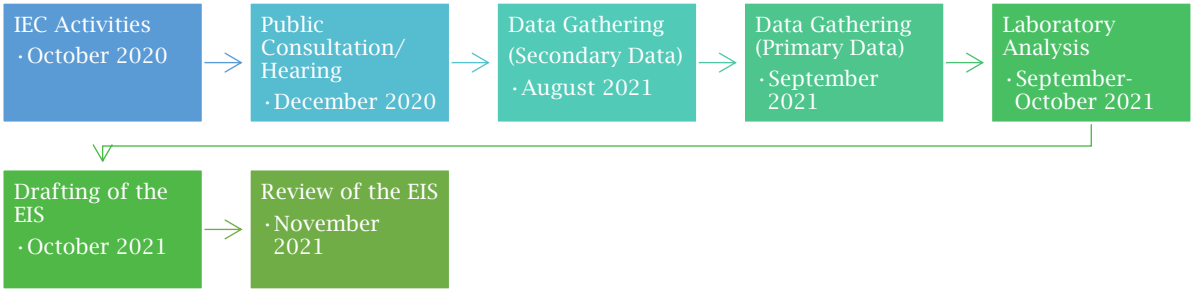
The EIA Team is composed of the following members with their corresponding contributions:

Table ES-2. EIA Team Composition.

Name of EIA Preparer	Role/ Responsibility
Ms. Maritess D. Garcia, Ph.D.	Team Leader
EnP. Eunice Rhelen G. Punzalan, MM	Environmental Study and Analysis, Terrestrial and Freshwater Ecologist
Mr. Karl Dwayne N. Infante	Marine Biologist
Ms. Ana Cariza G. Ilan	Researcher, Socio-Economic Study

3.2. The EIA Schedule

The following figure summarizes the EIA study schedule for the project. Completed activities are the Information, Education and Communication activities, Public Consultation, and conduct of additional baseline studies, and drafting of the EIA Report.



3.3. The EIA Study Area

The study area or impact area was identified based on the project's potential environmental impacts that may be generated during construction and operation phases. These environmental impacts may include:

- Dust generation or increase in suspended particle level that may degrade ambient air quality,
- Increase noise level and vibration,
- Increase in generation of solid wastes due to excess and waste materials to be used in the installation of equipment,
- Waste water generation,
- Contamination of the nearest natural surface drainage, and
- Exposure to plan personnel and neighboring public to these impacts.

3.4. Methodology

Module	Methodology
Land Use and Classification	The assigned land classification and allowable use for the existing and proposed project areas were characterized by reviewing available and relevant secondary information from the approved Comprehensive Land Use Plan (CLUP) of the municipality of El Nido; National Mapping and Resource Information Authority (NAMRIA); Philippine Institute of Volcanology and Seismology (PHILVOLCS); Department of Environment and Natural Resources (DENR); Palawan ECAN 2015-2020). A walk-through survey was conducted to ground truth the data gathered from the aforementioned secondary sources. The results were then compared to relevant national guidelines.
Geology/ Geomorphology	Geologic information on topography, stratigraphy, structural geology, tectonic history and geohazard vulnerability of the existing and proposed project areas were described using secondary information from NAMRIA; PHIVOLCS; MGB; Department of Science and Technology – Nationwide Operational Assessment of Hazards (DOST-Project NOAH, and the report of the BACS Construction Services and Engineering Consultancy in 2020.
Pedology	Secondary information were gathered in the for the baseline characteristics of the soil. Soil fertility information was gathered by collecting samples and sending them to an environmental testing laboratory for analysis.

Module	Methodology
Terrestrial Ecology	Primary data were obtained through ocular site inspection and survey within the facility to validate the secondary data and evaluate the existing environmental conditions. Field surveys and sampling/ measurement at pre-identified locations were also conducted.
Hydrology/Hydrogeology	Hydrogeologic data including groundwater occurrence and aquifer characteristics were gathered from the published study by the then NEDA MIMAROPA in 2021 on Groundwater Availability. Data on watersheds were also collected from the 2015 ECAN Resource Management Plan of El Nido, Palawan.
Water Quality	Surface water quality (Siwangwang River) was evaluated by obtaining samples upstream, midstream and downstream of the proposed project. The samples were then analyzed by a DENR recognized laboratory and results were discussed in comparison to DAO 2016-08.
Coral Reef	The coral reef survey was conducted using the Point Intersect Transect Method to identify the types of reef substratum. According to Facon et al (2016), when carrying out impact studies, it is better to perform the survey using Point Intercept Transect (PIT) Method rather than the Line Intercept Transect (LIT) Method. Thus, the said method was employed for the primary data collection for coral reef cover.
Marine Ecology	Following the transect lines at the four sites, fish identification was conducted using the Underwater Fish Visual Census. After conducting the Point Intersect Transect Method to identify the types of reef substratum, a period of 10 minutes was waited before proceeding with the Fish Visual Census. Fishes within 2.5 meters on the left side of the transect were identified to family level, counted, and noted first. After this, the same method was used for the right side of the transect. This would cover an area of 5 meters x 50 meters or 250 square meters. Photos were also taken to help with the fish identification to genus level. All findings were listed in the table below.
Meteorology	Meteorological data were gathered from DOST-PAGASA.
Air Quality and Noise	The ambient air quality at the project site was determined by sampling by a DENR accredited sampler and samples analyzed by a DENR recognized laboratory.
Socio-Economic (The People)	During the course of this study, a series of stakeholder engagement activities were held in the LGU of El Nido which have interest in the actual development of the Project. These activities provide the people of the impact communities a venue where they could understand the Project scope; identify how the Project can affect or influence their lives, and ultimately where they were given a chance to address these emergent concerns to the Proponent. Stakeholders were afforded a chance to actively participate in open and transparent dialogue with the Proponent, to actively participate in the development of the Project themselves.

3.5. Public Participation

Public participation was done through a series of IEC activities, public consultation and hearing, and a perception survey. Demographics were taken into consideration. Both positive and negative perceptions of the host community on the project was noted.

4. Summary of Baseline Characterization

The following table (Table ES-5) summarizes the results of baseline characterization conducted for the project.

Module	Baseline Characterization
Land Use and Classification	On December 11, 2017, the project area was reclassified by the Municipality of El Nido as Commercial Area as per Sangguniang Bayan Ordinance # 103 series of 2017.
Geology/ Geomorphology	The geology of El Nido is composed mainly of sedimentary and metamorphic rocks of the Paloezoic and Mesozoic era. Some geological faults were identified in the south-to-north faults on the Villa Libertad – Pasadeña boundary which gave rise to the Makinit hot springs. In the report of BACS Construction Services and Engineering Consultancy in 2020, it was stated that in southern portion area of the project site, metamorphic rocks formation can be found. The area is also partly composed of sedimentary rock Formation, alluvium of unconsolidated gravel, sand, pebbles, silt and clays. Some ultramafic rocks of the Palawan Ophiolite Complex also characterize the area. The northern part is comprised of ultramafic rocks. In particular, the area is characterized by metamorphic rocks consisting of quartz-feldspathic and mica schists, phyllites, slate and quartzites. The ultramafic rocks consist of unaltered serpentinite peridotite, dunite and pyroxenite.
Pedology	Soil types present in the municipality of El Nido are mostly of the clay loam and sandy clay loam type It was found out that the soil sample collected from the construction site has low fertility and is not suitable for farming activities.
Terrestrial Ecology	Most of the existing and evaluated species has a least-concern status which translates as not being a focus of species conservation because the specific species is still plentiful in the wild. They do not qualify as threatened, near threatened, or (before 2001) conservation dependent.
Hydrology/Hydrogeology	El Nido has thirteen (13) major river systems which drain several watersheds in the municipality. Due to El Nido"s limited water sources, the local government of El Nido has proposed to utilize other watersheds in the area such as: Barok river and Garo river in 2015 ECAN RESOURCE MANAGEMENT PLAN OF EL NIDO, PALAWAN 17 Barangay Mabini; Madurian Falls in Barangay San Fernando; Manlag River and Bulalacao waterfalls in Barangay Pasadeña; Siwangwang falls in Barangay Sibaltan; Magwawa falls and Cataban Falls in Barangay Villa Paz; and also the Buyong falls located in the municipality of Taytay.
Water Quality	Water quality of Siwangwang River is still generally within the standard of DAO 2016-08 for Class C Freshwater.
Coral Reef	Using the data from the survey, the percentage cover for each site was computed. It shows that the area is mostly covered with algae with 56% to 64% coverage. Then, 18% to 24% of these sites were covered with dead corals with algae. Sand was also a component of the area with 4 to 12 percentage cover. Generally, the sites were covered with algae at an average of 59.50% coverage. Specifically, the algae found in the sites was *Sargassum* (Phaeophyta) which is type of brown macroalgae.
Marine Ecology	There were six families of coral reef fishes that were identified: Pomacentridae, Siganidae, Lutjanidae, Teraponidae, Chaetodontidae, and Ephippidae. From the family Pomacentridae, the species *Abudefduf sexfaciatus, Abudefduf vaigeinsis,* and *Hemiglyphidodon* sp were identified. *Chaetodon* and *Heniochus* sp were identified from the family Chaetodontidae. Only one genus per family was identified for the others – *Siganus* for Siganidae, *Lutjanus* for Lutjanidae, *Terapon* for Teraponidae, and *Platax* for Ephippidae.
Meteorology	The climate of El Nido belongs to the Type 1 climate which has two distinct seasons: the dry season from December to May and the wet season from June to November. The driest month is April, while the rainiest is August. The two prevalent winds are buffeted by stronger northwest monsoons which blow from June to November and hits the municipality's north-south axis at an approximate angle of 12 to 20 degrees with softer northeast monsoon winds approaching the municipality at an approximate angle of 12 to 20 degrees from the same reference axis that blows generally

Module	Baseline Characterization
	in the months of November through February to provide cooler weather. From late March to early October, sea voyage is most favorable since the seas are generally calm during this period (DENR IV-B, 2015). the average annual temperature of the municipality ranges from seasonal flows dipping between 20˚C to 25˚C in July, while high rise in temperature occur in May and April with 24˚C to 32˚C and 25˚C to 32˚C, respectively. The months of June, July and August bring the highest of rainfall for El Nido. In relation to that, the precipitation in the municipality occurs in the months of June (351 mm), July (435 mm) and August (375 mm) which is the same with the months having the most rainfall events
Air Quality and Noise	TSP, CO, SO2, NO2 emissions will not have significant environmental impact to the ambient air quality. Noise level is within the allowable level for the commercial area
Socio-Economic (The People)	The municipality of El Nido, Palawan has a land area of 923.26 square kilometers or 356.47 square miles which constitutes 6.30% of Palawan's total area. The household population of El Nido in the 2015 Census was 41,319 broken down into 9,490 households or an average of 4.35 members per household. According to the 2015 Census, the age group with the highest population in El Nido is *5 to 9*, with 4,945 individuals. Conversely, the age group with the lowest population is *80 and over*, with 208 individuals. Before El Nido became saturated with tourists, fishing and harvesting swift nests ("Nido") were the main source of income. Nowadays tourism has become the municipality's main source of revenue. The employment rate of the municipality is 96.22% while the unemployment rate is 3.78%. Since El Nido is considered as a tourist destination, different establishments like pension houses, hotels and restaurants provide employment. The respondents' perceive benefits from the proposed expansion project are: • Possible employment opportunities • Improvement of government services (through community projects) • Progress in the community On the other hand, the only perceived negative effect of the project to the community is the Negative effect/Damage of the surrounding environment.

5. Summary of Impact Assessment and Environmental Management Plan

Table 3. Environmental Management Plan

Project Phase/ Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention, Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements	Schedule of Implementation
CONSTRUCTION PHASE							
Site clearing and excavation	The Land – Soil fertility	Soil erosion	• Excavated soil to be used as backfill material within the terminal vicinity	Contractor	-	-	-
	The Water- Water quality	Siltation of waterways	• Spraying of water to mud accumulated in truck tires prior to exit to the project site • Provision for barrier or silt traps to avoid siltation in drainage	Contractor	P 20,000	Incorporated in contract price	Daily (spraying) Weekly (silt trap)
Dust emissions from site preparation, excavation, material handling and other constructions at the site	The Air - Air quality	Minor negative impact inside the premises (short term) No Negative impact outside the project site	• Spraying of water to minimize dust emission	Contractor	P 20,000	Incorporated in contract price	Daily (spraying)
Solid wastes generated due to construction activities and spoils	The Land – Soil quality	Degradation of soil quality	• Separate waste bins for segregation of office, bunkhouse and construction waste • Reusable and recyclables will be sold to interested buyers. • Segregated waste to be stored prior to disposal to landfill	Contractor (safety officer)	P 10,000	Incorporated in contract price	Daily
Trees to be cut to give way to construction activities	The Land – Terrestrial Ecology	Habitat destruction Elimination of endemic or important fauna or flora	• Designation of a plantation of new vegetation in the area for reforestation activities. • Protection of flora and fauna species by delineating a buffer zone/ no construction zone; avoiding disturbance or cutting of important tree species; implementation of a sustainable architecture and design planning	Pollution Control Officer	P 2,000.00	Monitoring Fund	Semi-Annually

Project Phase/ Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention, Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements	Schedule of Implementation
Domestic wastewater	The Water – water quality	Degradation of the water quality of ground and surface water due to untreated sewage	• Workers to use portable toilet/CR • Installation of multi-chambered septic tanks to treat the sewage prior to discharge to the environment	Contractor	P 150,000	Incorporated in contract price	Weekly
Water consumption	The People - Water resource	Resource competition with the local community	• Strictly require the contractor and its workers to observe water conservation	Contractor, Laborers, Management	--	--	Daily
Emissions of exhaust from heavy equipment	The Air - Air Quality	Elevated levels of particulates and other pollutants in ambient air	• Preventive maintenance of equipment. Use vehicles that passed emission testing requirement • Vehicles transporting sand or similar materials will be provided with tarpaulin cover to prevent emission of fugitive dust • Spray water at the tracks of vehicles operating within the project site • Use of clean fuel	Contractor	P 10,000	Incorporated in contract price	Monthly
Noise generated from construction activities, operation of construction equipment and traffic	The Air - Noise	Minor negative impact near noise generation sources inside premises No significant impact on ambient noise levels at sensitive receptors	• Use of ear muffs by the operators of the noise generation sources (equipment) • Limiting the construction hours during the locally allowable hours for construction (daytime)	Contractor	P 10,000	Incorporated in contract price	Daily
Oil/ fuel and waste spills	The Land – Soil quality	Soil contamination	• Employ preventative measures such as proper maintenance and checking of equipment and materials • Providing a emergency spill kits in conspicuous places in the project site • Designating an area with a secondary containment for the storage of oil/fuel and wastes	Management Contractor	P 20,000	Incorporated in contract price	Daily
	The Water- Water quality	Degradation of the water quality of ground and surface water					
Land Development	The Land – Land use and aesthetics	Increase in land valuation	• Preservation of the aesthetics of the land by designating no-construction zones	Management Contractor	--	--	Daily

Project Phase/ Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention, Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements	Schedule of Implementation
Site Development	The Land – Topography and Geology	Slight change in the topography of the project site to give stability to the structures to be erected There is no significant impact anticipated on the local topography and geology of the host barangay and municipality	• Construction activities will proceed in a manner so as to maintain the natural slope of the area by proper leveling of land, as and when required.	Contractor	--	--	Daily
Habitat disturbance during construction activities	Ecology – Flora and Fauna	Minor negative impact on the local flora and fauna near the project site	• Delineation of buffer zones from the areas with significant wildlife	Management, Contractor	--	--	Daily
Increased job opportunity for locals	The People – Socio-economy	Overall positive impact for the locality of Brgy. Sibaltan	• Prioritizing residents of the Brgy. Sibaltan and adjacent barangays in offering job opportunities during construction period • Through the local government, workers may be screened based on skills and work ethics	Management	P 12,000,000	Contract Price	Whole construction period
Truck movement	The People – Traffic pattern	Possibility of traffic congestion outside site access road	• Scheduling of the movement of materials during allowable time periods, dependent on the local rules and ordinances	Contractor Supplier	--	--	Daily
OPERATIONS PHASE							
Improper handling and disposal of wastes or accidental spills from conveyance/ handling	The Land - Pedology	Change in soil quality/ fertility Soil contamination	• Waste management measures for solid wastes, domestic wastes, and hazardous wastes are already in place and strictly implemented to manage, segregate, store and properly dispose wastes generated during the operations period. Proper housekeeping measures such as use of drip pans during vehicle or equipment repair and clean-up and bunding of liquid/hazardous waste storage areas will be conducted. In the event of accidental spills or containment breaches, spill clean-up measures will be	Pollution Control Officer, housekeeping	P 10,000 per monitoring semi-annually	Monitoring Fund	Operations

Project Phase/ Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention, Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements	Schedule of Implementation
			rapidly implemented to prevent contamination.				
Increase in movement and human activities	The Land – Terrestrial Ecology	Pollution effects on species Vegetation and wildlife residing within buffer area and emissions from vehicles. Examples of adverse impacts include discoloration of leaves and degradation of plant health. Elimination of endemic or important fauna or flora	• Vegetation and wildlife within the vicinity of the plant buffer will be monitored at least semi-annually in terms of total assemblage and diversity. • Reports or incidences of plant health deterioration will be recorded and investigated. If source of plant health degradation is proven to be dispersion of contaminants from the resort operations, additional measures will be employed. • Protection of flora and fauna species by delineating a buffer zone/ no activity zone	Pollution Control Officer	P 2,000.00	Monitoring Fund	Semi-Annually
Improper waste management and accidental spills	The Water - Water Quality	Degradation of groundwater quality Ground and surface water contamination.	• Waste management measures for solid wastes, domestic wastes, and hazardous wastes are already in place and strictly implemented to manage, segregate, store and properly dispose wastes generated during the operations period. • Proper housekeeping measures such as use of drip pans during vehicle or equipment repair and clean-up and bunding of liquid/hazardous waste storage areas will be conducted. In the event of accidental spills or containment breaches, spill clean-up measures will be rapidly implemented to prevent contamination. • To ensure groundwater resources are not adversely impacted by operations activities, annual monitoring to check physico-	Pollution Control Officer/ Safety Officer	P50,000.00	Operations and Maintenance Cost	Monthly

Project Phase/ Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention, Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements	Schedule of Implementation
			chemical parameters, in addition to supply and bacteriological parameters, will be undertaken. • To ensure freshwater resources are not adversely impacted by operations activities, quarterly monitoring to check physico-chemical parameters, in addition to supply and bacteriological parameters, will be continued.				
Waste generation	The water - Aquatic ecology	Pollution effects on species Improper storage and handling of wastes from operations and spills associated with the treatment and operations may cause contaminants to end up at proximate freshwater and marine water bodies and may, in turn, affect the health of aquatic organisms.	• Proponent will strictly implement its waste management system to properly store, handle, transfer and dispose solid wastes, domestic wastes, and hazardous wastes and prevent contaminants from polluting nearby water resources. • In the event that adverse findings are discovered from the monitoring data and these are proven to be caused by resort operations, root cause analysis will be immediately conducted, source of contamination will be contained and clean-up will be enforced until conditions normalize. Monitoring frequency will be increased until baseline levels are reached.	Pollution Control Officer, management	P15,000.00	Operating Expenses	Monthly
Greenhouse gas emissions	The Air – Climate	Contribution in terms of greenhouse gas emissions	• Regular/ Periodic maintenance of diesel stand-by generator set • Use of renewable energy (solar panels) in the Phases 2 and 3 of the project • Implementation of energy saving measures within the facility	Management Housekeeping	P5,000.00 per vehicle P2.5M	Operating Expenses Capital Expenditure	Annual Phase 2 and 3

Project Phase/ Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention, Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements	Schedule of Implementation
Emissions from resort vehicles	The Air – Air quality	Degradation of air quality with the emissions of SOx, NOx, CO, particulates and heavy metals	• Installation and maintenance of air pollution control device • Regular/ Periodic maintenance of service vehicles	Management	P7,000.00	Capital Expenditure	Semi-annual
Day-to-day operations of the project	The People – Socio-economy	Threat to delivery of basic services	• Creation of employment opportunities and CSR/ community enhancement programs/ activities	Management	P150,000.00	Operating Expenses	Monthly
		Threat to resource competition	• Installation of own electrical substation	Management	P6,000,000.00	Capital Expenditure	Operations Phase
		Threat to public health and safety	• Hiring of security services	Management	P50,000.00	Operating Expenses	Monthly
Generation of local benefits from the Project	The People – Socio-economy	Benefits that can be generated from the project include the following: • Real property tax • Income tax • Business tax • Opportunities for direct and indirect employment • Education and technology transfer	Proponent should maintain regular communications with their stakeholders particularly through barangay assemblies and coordination meetings with local government units	Management	P100,000.00	Operating Expenses	Monthly
Abandonment Phase							
Plant Closure	The People	Loss of livelihood of local workforce	Provide and develop alternative livelihood training programs	Management	P1,000,000.00	SDP budget	Three months prior to project abandonment/ closure

Table 4. Impacts Management Plan.

Project Phase/ Environmental Aspect	Potential Impact	Options for Prevention, Mitigation or Enhancement	Target Efficiency
CONSTRUCTION PHASE			
Site clearing and excavation	(The Land) Soil erosion	• Excavated soil to be used as backfill material within the terminal vicinity	100% compliance to soil conservation-related regulations
	(The Land) Siltation of waterways	• Spraying of water to mud accumulated in truck tires prior to exit to the project site • Provision for barrier or silt traps to avoid siltation in drainage	100% compliance to DENR air quality standards and RA 8749
Dust emissions from site preparation, excavation, material handling and other constructions at the site	(The Air) Minor negative impact inside the premises (short term) (The Air) No Negative impact outside the project site	• Spraying of water to minimize dust emission	100% compliance to DENR air quality standards and RA 8749
Solid wastes generated due to construction activities and spoils	(The Land) Degradation of soil quality	• Separate waste bins for segregation of office, bunkhouse and construction waste • Reusable and recyclables will be sold to interested buyers. • Segregated waste to be stored prior to disposal to landfill	100% compliance to RA 9003
Trees to be cut to give way to construction activities	(The Land) Habitat destruction (The Land) Elimination of endemic or important fauna or flora	• Designation of a plantation of new vegetation in the area for reforestation activities. • Protection of flora and fauna species by delineating a buffer zone/ no construction zone; avoiding disturbance or cutting of important tree species; implementation of a sustainable architecture and design planning	100% compliance to RA 9147 Wildlife Resources Conservation and Protection Act
Domestic wastewater	(The Water) Degradation of the water quality of ground and surface water due to untreated sewage	• Workers to use portable toilet/CR • Installation of multi-chambered septic tanks to treat the sewage prior to discharge to the environment	100% compliance to RA 9275; 100% collection of wastewater
Water consumption	(The People) Resource competition with the local community	• Strictly require the contractor and its workers to observe water conservation	100% compliance to water conservation-related regulations
Emissions of exhaust from heavy equipment	(The Air) Elevated levels of particulates and other pollutants in ambient air	• Preventive maintenance of equipment. Use vehicles that passed emission testing requirement • Vehicles transporting sand or similar materials will be provided with tarpaulin cover to prevent emission of fugitive dust	100% compliance to DENR air quality standards and RA 8749

Project Phase/ Environmental Aspect	Potential Impact	Options for Prevention, Mitigation or Enhancement	Target Efficiency
		• Spray water at the tracks of vehicles operating within the project site • Use of clean fuel	
Noise generated from construction activities, operation of construction equipment and traffic	(The Air) Minor negative impact near noise generation sources inside premises (The Air) No significant impact on ambient noise levels at sensitive receptors	• Use of ear muffs by the operators of the noise generation sources (equipment) • Limiting the construction hours during the locally allowable hours for construction (daytime)	100% compliance to DENR air quality standards; RA 8749; and local ordinances
Oil/ fuel and waste spills	(The Land) Soil contamination (The Water) Degradation of the water quality of ground and surface water	• Employ preventative measures such as proper maintenance and checking of equipment and materials • Providing a emergency spill kits in conspicuous places in the project site • Designating an area with a secondary containment for the storage of oil/fuel and wastes	100% compliance to RA 6969
Land Development	(The Land) Increase in land valuation	• Preservation of the aesthetics of the land by designating no-construction zones	100% compliance to local ordinances
Site Development	(The Land) Slight change in the topography of the project site to give stability to the structures to be erected (The Land) There is no significant impact anticipated on the local topography and geology of the host barangay and municipality	• Construction activities will proceed in a manner so as to maintain the natural slope of the area by proper leveling of land, as and when required.	100% compliance to local ordinances
Habitat disturbance during construction activities	(The Land) Minor negative impact on the local flora and fauna near the project site	• Delineation of buffer zones from the areas with significant wildlife	100% compliance to RA 9147 Wildlife Resources Conservation and Protection Act and related regulations
Increased job opportunity for locals	(The People) Overall positive impact for the locality of Brgy. Sibaltan	• Prioritizing residents of the Brgy. Sibaltan and adjacent barangays in offering job opportunities during construction period • Through the local government, workers may be screened based on skills and work ethics	100% compliance to Labor Code of the Philippines; 100% implementation of social development plan; 100% compliance to local ordinances
Truck movement	(The People). Possibility of traffic congestion outside site access road	• Scheduling of the movement of materials during allowable time periods, dependent on the local rules and ordinances	100% compliance to local ordinances
OPERATIONS PHASE			

Project Phase/ Environmental Aspect	Potential Impact	Options for Prevention, Mitigation or Enhancement	Target Efficiency
Improper handling and disposal of wastes or accidental spills from conveyance/ handling	(The Land) Change in soil quality/ fertility (The Land) Soil contamination	• Waste management measures for solid wastes, domestic wastes, and hazardous wastes are already in place and strictly implemented to manage, segregate, store and properly dispose wastes generated during the operations period. Proper housekeeping measures such as use of drip pans during vehicle or equipment repair and clean-up and bunding of liquid/hazardous waste storage areas will be conducted. In the event of accidental spills or containment breaches, spill clean-up measures will be rapidly implemented to prevent contamination.	100% compliance to RA 9003 and RA 6969
Increase in movement and human activities	(The Land) Pollution effects on species (The Land) Vegetation and wildlife residing within buffer area and emissions from vehicles. Examples of adverse impacts include discoloration of leaves and degradation of plant health. (The Land) Elimination of endemic or important fauna or flora	• Vegetation and wildlife within the vicinity of the plant buffer will be monitored at least semi-annually in terms of total assemblage and diversity. • Reports or incidences of plant health deterioration will be recorded and investigated. If source of plant health degradation is proven to be dispersion of contaminants from the resort operations, additional measures will be employed. • Protection of flora and fauna species by delineating a buffer zone/ no activity zone	100% compliance to local ordinances
Improper waste management and accidental spills	(The Water) Degradation of groundwater quality (The Water) Ground and surface water contamination	• Waste management measures for solid wastes, domestic wastes, and hazardous wastes are already in place and strictly implemented to manage, segregate, store and properly dispose wastes generated during the operations period. • Proper housekeeping measures such as use of drip pans during vehicle or equipment repair and clean-up and bunding of liquid/hazardous waste storage areas will be conducted. In the event of accidental spills or containment breaches, spill clean-up measures will be rapidly implemented to prevent contamination. • To ensure groundwater resources are not adversely impacted by operations activities, annual monitoring to check physico-	100% compliance to RA 9003 and RA 6969

Project Phase/ Environmental Aspect	Potential Impact	Options for Prevention, Mitigation or Enhancement	Target Efficiency
		chemical parameters, in addition to supply and bacteriological parameters, will be undertaken. • To ensure freshwater resources are not adversely impacted by operations activities, quarterly monitoring to check physico-chemical parameters, in addition to supply and bacteriological parameters, will be continued.	
Waste generation	(The Water) Pollution effects on species (The Water) Improper storage and handling of wastes from operations and spills associated with the treatment and operations may cause contaminants to end up at proximate freshwater and marine water bodies and may, in turn, affect the health of aquatic organisms.	• Proponent will strictly implement its waste management system to properly store, handle, transfer and dispose solid wastes, domestic wastes, and hazardous wastes and prevent contaminants from polluting nearby water resources. • In the event that adverse findings are discovered from the monitoring data and these are proven to be caused by resort operations, root cause analysis will be immediately conducted, source of contamination will be contained and clean-up will be enforced until conditions normalize. Monitoring frequency will be increased until baseline levels are reached.	100% compliance to RA 9003 and RA 6969
Greenhouse gas emissions	(The Air) Contribution in terms of greenhouse gas emissions	• Regular/ Periodic maintenance of diesel stand-by generator set • Use of renewable energy (solar panels) in the Phases 2 and 3 of the project • Implementation of energy saving measures within the facility	100% compliance to RA 8749
Emissions from resort vehicles	(The Air) Degradation of air quality with the emissions of SOx, NOx, CO, particulates and heavy metals	• Installation and maintenance of air pollution control device • Regular/ Periodic maintenance of service vehicles	100% compliance to RA 8749

Project Phase/ Environmental Aspect	Potential Impact	Options for Prevention, Mitigation or Enhancement	Target Efficiency
Day-to-day operations of the project	(The People) Threat to delivery of basic services	• Creation of employment opportunities and CSR/ community enhancement programs/ activities	100% compliance to Labor Code of the Philippines; 100% implementation of social development plan
	(The People) Threat to resource competition	• Installation of own electrical substation	100% compliance to renewable energy regulations
	(The People) Threat to public health and safety	• Hiring of security services	100% implementation of social development plan
Generation of local benefits from the Project	(The People) Benefits that can be generated from the project include the following: • Real property tax • Income tax • Business tax • Opportunities for direct and indirect employment • Education and technology transfer	• Proponent should maintain regular communications with their stakeholders particularly through barangay assemblies and coordination meetings with local government units	100% compliance to Labor Code of the Philippines; 100% implementation of social development plan; 100% compliance to local ordinances
ABANDONMENT PHASE			
Project Closure	(The People) Loss of livelihood of local workforce	Provide and develop alternative livelihood training programs	100% compliance to Labor Code of the Philippines; 100% implementation of social development plan

6. Summary of Environmental Monitoring Plan

Key Environmental Aspects per Project Phase	Potential Impacts per Environmental Sector	Parameter to be monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
			Method	Frequency	Location			EQPL Range			Management Measure		
								Alert	Action	Limit	Alert	Action	Limit
Construction Phase													
Site clearing and excavation	(The Land) Soil erosion (The Land) Siltation of waterways	Soil erosion monitoring	Ocular monitoring measuring extent of exposed erosional surfaces	Twice a month and immediately after high rainfall events	Entire project footprint	Contractor or in-house structural or civil engineer	Part of construction costs	Erosional surface exposed (e.g., scoured soil surface, impounded water, surface creep)	Continuous occurrence of creep, enlargement of erosional surface, and impoundment of water	Deeply scoured surface and occurrence of surface creep. Cracking of ground surface misalignment of beams, structures, pavement	Conduct housekeeping/clean-up to even out erosional surface and allow impounded water to drain.	Monitor rate of movement for surface creep to determine if there is a deep-seated structural issue or ground movement. Fill erosional surface with soil/backfill material and drain impounded water	Temporary cessation of construction and earthmoving activities to determine potential subsurface issues on site; Backfill erosional surface and consider abandonment or relocation of facilities that are being constructed as necessary
Dust emissions from site preparation, excavation, material handling and other constructions at the site	(The Air) Minor negative impact inside the premises (short term) (The Air) No Negative impact outside the project site	Particulates • TSP • PM10	Hi-volume/ Gravimetric/ AAS/ ICP/ UV-VIS 1-hour Averaging or Measured in Automatic air monitoring station	Quarterly, or as required by EMB	Designated ambient air quality monitoring stations	PCO	Included in monitoring budget	Noticeable dust and/ or presence of haze or 75% of DENR limit	Complaint lodged by community or 85% of DENR limit	90% of DENR limit	Continue monitoring and investigate possible causes of increase of particulates and gaseous pollutants	• Check efficiency of dust suppression systems and conduct routine preventive maintenance. • Investigate cause of complaint and determine and address the root cause. • Increase frequency of dust suppression	• Consider modifications to dust suppression system (i.e. changes to spray nozzle type, upgrade to air-and-water dust suppression system, etc). • Conduct smoke emission tests of vehicles and construction equipment, as necessary. • Review traffic management guidelines
Solid wastes generated due to construction activities and spoils	(The Land) Degradation of soil quality	Soil quality • pH • Organic matter • NPK	Grab sampling from soil observation sites	Semi-annual	Three soil observations sites at nearby plots	PCO	Included in monitoring budget	Noticeable Discoloration of soil	Exceedance of baseline values for nutrients in soil by 50%	Occurrence of spill or loss of containment of hydrocarbons and other hazardous wastes	Conduct housekeeping/cleanup in vicinity of monitoring site to prevent or stop contamination. Continue monitoring to determine cause of changes.	Check for leaks within the vicinity of the soil observation site to determine potential source of contaminants. Continue monitoring at semi-annual frequency	Conduct site clean-up and decontamination immediately. After decontamination, conduct monitoring until baseline levels are met
Trees to be cut to give way to construction activities	(The Land) Habitat destruction (The Land) Elimination of endemic or important fauna or flora	Survival Rate/Mortality Rate for offset sites	Quadrat Method	Semi-annual and annual reporting	Reforestation sites designated to Eureka Resorts, Inc.	Proponent	Included in monitoring budget	30% reduction in the abundance of total plant species recorded from the baseline data 20% plant Mortality rate in rehabilitation/	50% reduction in the abundance of total plant species recorded from the baseline data 40% plant Mortality rate	60% reduction in the abundance of total plant species recorded from the baseline data 60% plant Mortality rate	Management measures to be established but will follow the general protocol of: • Conduct inspection at said station	Rapidly conduct site assessment in cooperation with DENR-CENRO to determine the cause of deterioration.	Rapidly conduct site assessment in cooperation with DENR-CENRO to determine the cause of deterioration. If previous measures for pest

Key Environmental Aspects per Project Phase	Potential Impacts per Environmental Sector	Parameter to be monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
			Method	Frequency	Location			EQPL Range			Management Measure		
								Alert	Action	Limit	Alert	Action	Limit
								reforestation area	in rehabilitation/ reforestation area	in rehabilitation/ reforestation area	• Determine possible source (coordinate with relevant office) • If source is not Eureka Resorts, Inc,, inform barangay and MMT regarding possible source of disturbance/destruction for the group's investigation and coordination with LGU • If source is Eureka Resorts, Inc, inform Eureka Resorts, Inc. management to intensify mitigating measures based on identified impacts Coordination with Barangay Officials (joint investigation, if needed)	If related to pests infestation, apply appropriate measures to control infestation and eliminate pests. Enforce monitoring monthly for succeeding months until conditions have normalized. If reduction in abundance or increase in mortality is related to human disturbance (e.g., cutting, swidden farming), escalate concern to LGUs to enforce patrols and prevent cutting.	control (if related to pests) or measures to control swidden farming practices (if related to human disturbance) were not effective, consider coordinating with LGUs to scout for suitable offset areas to continue reforestation activities.
Domestic wastewater	(The Water) Degradation of the water quality of ground and surface water due to untreated sewage	BOD, fecal coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants	In-situ measurement, grab sampling, and laboratory analyses	Quarterly	Groundwater monitoring wells an designated surface wate monitoring stations	PCO	Included in monitoring budget	75% of DENR limit	85% of DENR Limit	90% of DENR Limit	Continue monitoring activities to determine cause of increase of GW and SW parameters	Check if STP tanks are compromised . If there are breaches in containment, isolate tanks and repair leaks for STP or cease use until repaired.	Temporarily stop activities within the vicinity of the tanks that exhibit abnormal parameters.
Water consumption	(The People) Resource competition with the local community	No. of complaints received	Feedback method/ interview	Quarterly	Communi ty/ Brgy. Sibaltan	Managemen t	Included in monitori ng	Receipt of community complaint once in a quarter	Receipt of community complaint thrice in a	Receipt of community complaint through the	Continue monitoring activities to determine cause of complaint in	Continue monitoring activities to determine cause	Coordinate with local water district for the investigation of the complaint; consider

Key Environmental Aspects per Project Phase	Potential Impacts per Environmental Sector	Parameter to be monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
			Method	Frequency	Location			EQPL Range			Management Measure		
								Alert	Action	Limit	Alert	Action	Limit
							budget		quarter	LGU	coordination with barangay officials	of complaint in coordination with barangay officials; Coordinate with local water district	other engineering measures
Emissions of exhaust from heavy equipment	(The Air) Elevated levels of particulates and other pollutants in ambient air	Particulates • TSP • PM10	Hi-volume/ Gravimetric/ AAS/ ICP/ UV-VIS 1-hour Averaging or Measured in Automatic air monitoring station	Quarterly, or as required by EMB	Designated ambient air quality monitoring stations	PCO	Included in monitoring budget	Noticeable dust and/ or presence of haze or 75% of DENR limit	Complaint lodged by community or 85% of DENR limit	90% of DENR limit	Continue monitoring and investigate possible causes of increase of particulates and gaseous pollutants	• conduct routine preventive maintenance. • Investigate cause of complaint and determine and address the root cause.	• Conduct smoke emission tests of vehicles and construction equipment, as necessary. • Review traffic management guidelines
Noise generated from construction activities, operation of construction equipment and traffic	(The Air) Minor negative impact near noise generation sources inside premises (The Air) No significant impact on ambient noise levels at sensitive receptors	Noise level, dB	Approved method of noise measurement (AS 1055.1-1998)	Quarterly, or as required by EMB	Co-located with air-quality monitoring stations	PCO	Included in monitoring budget	Negative feedback reported	Complaint lodged by community and/or by contractor employees	Multiple complaints lodged by community and/or by contractor or employees	Investigate or inspect subject of negative feedback	Investigate or inspect cause of complaint, determine and address the root cause	Conduct noise audit of equipment and machineries that generate noise Consider installation of noise suppression devices to equipment and machineries that generate noise
Oil/ fuel and waste spills	(The Land) Soil contamination	Soil quality • pH • Organic matter • NPK • Other necessary parameters	Grab sampling from soil observation sites	Semi-annual	Three soil observations sites at nearby plots	PCO	Included in monitoring budget	Noticeable discoloration of soil	Exceedance of baseline values for nutrients in soil by 50%	Occurrence of spill or loss of containment of hydrocarbons and other hazardous wastes	Conduct housekeeping/ cleanup in vicinity of monitoring site to prevent or stop contamination. Continue monitoring to determine cause of changes.	Check for leaks within the vicinity of the soil observation site to determine potential source of contaminants. Continue monitoring at semi-annual frequency	Conduct site clean-up and decontamination immediately. After decontamination, conduct monitoring until baseline levels are met.
	(The Water) Degradation of the water quality of ground and surface water	BOD, Fecal coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants	In-situ measurement, grab sampling, and laboratory analyses	Quarterly	Groundwater monitoring wells an designated surface wate monitoring stations	PCO	Included in monitoring budget	75% of DENR limit	85% of DENR Limit	90% of DENR Limit	Continue monitoring activities to determine cause of increase of GW and SW parameters	Check if storage areas are compromised. If there are breaches in containment, isolate tanks and repair leaks for storage areas or cease use until repaired.	Temporarily stop activities within the vicinity of the storage areas that exhibit abnormal parameters.
Land Development	(The Land) Increase in land valuation	Zoning Classification, Zonal Value	Interview	Annual	Municipal Assessor's Office	Liaison Officer	Included in monitoring budget	N/A	N/A	N/A	N/A	N/A	N/A
Site Development	(The Land) Slight change in the topography of the project site to give stability to the	Liquefaction and ground subsidence monitoring	Ocular monitoring of ground stability	Quarterly	Areas of major earthmoving activities	In-house structural or civil engineer	Part of construction costs	Noticeable ground subsidence and surface creep	Continuous occurrence of ground subsidence and creep;	Significant ground subsidence and surface creep; Formation of cracks	Increase in monitoring frequency and measurement of the magnitude of movement	Address the ground subsidence through backfill or application of	Significant ground subsidence that cannot be addressed by retrofitting means the problem is

Key Environmental Aspects per Project Phase	Potential Impacts per Environmental Sector	Parameter to be monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
			Method	Frequency	Location			EQPL Range			Management Measure		
								Alert	Action	Limit	Alert	Action	Limit
	structures to be erected (The Land) Liquefaction and ground subsidence monitoring								Formation of small persistent cracks in walls and floors	in columns, beams, pavement; Misalignment of structures; Impoundment of water due to liquefaction	for cracks and surface creep	grout/shotcrete to prevent continued subsidence. Commission a civil/geotechnical/ structural engineer to check buildings for any signs of weakness or damage and if there are any found, enforce repairs.	deep-seated and extensive. This entails temporary cessation of operations and abandonment of the site where the subsidence occurs as necessary. Facilities located on the affected land should be relocated. Damaged structures that are not necessary to be relocated will be retrofitted.
Habitat disturbance during construction activities	(The Land) Minor negative impact on the local flora and fauna near the project site	Survival Rate/Mortality Rate for offset sites	Quadrat Method	Semi-annual and annual reporting	Reforestation sites designated to Eureka Resorts, Inc.	Proponent	Included in monitoring budget	30% reduction in the abundance of total plant species recorded from the baseline data 20% plant Mortality rate in rehabilitation/ reforestation area	50% reduction in the abundance of total plant species recorded from the baseline data 40% plant Mortality rate in rehabilitation/ reforestation area	60% reduction in the abundance of total plant species recorded from the baseline data 60% plant Mortality rate in rehabilitation/ reforestation area	Management measures to be established but will follow the general protocol of: • Conduct inspection at said station • Determine possible source (coordinate with relevant office) • If source is not Eureka Resorts, Inc,, inform barangay and MMT regarding possible source of disturbance/destruction for the group's investigation and coordination with LGU • If source is Eureka Resorts, Inc, inform Eureka Resorts, Inc. management	Rapidly conduct site assessment in cooperation with DENR-CENRO to determine the cause of deterioration. If related to pests infestation, apply appropriate measures to control infestation and eliminate pests. Enforce monitoring monthly for succeeding months until conditions have normalized. If reduction in abundance or increase in mortality is related to human disturbance (e.g., cutting, swidden farming), escalate	Rapidly conduct site assessment in cooperation with DENR-CENRO to determine the cause of deterioration. If previous measures for pest control (if related to pests) or measures to control swidden farming practices (if related to human disturbance) were not effective, consider coordinating with LGUs to scout for suitable offset areas to continue reforestation activities.

Key Environmental Aspects per Project Phase	Potential Impacts per Environmental Sector	Parameter to be monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
			Method	Frequency	Location			EQPL Range			Management Measure		
								Alert	Action	Limit	Alert	Action	Limit
											to intensify mitigating measures based on identified impacts Coordination with Barangay Officials (joint investigation, if needed)	concern to LGUs to enforce patrols and prevent cutting.	
Increased job opportunity for locals	(The People) Overall positive impact for the locality of Brgy. Sibaltan	Number of locals employed	Human Resources Records	Quarterly	Office	Human Resources	Part of monitoring costs	70% of workers are locally employed	50% of workers are locally employed	20% of workers are locally employed	Monitor the employment status of local workers	Coordination with Barangay Officials (joint investigation, if needed) Coordinate with LGU for local employment	Coordination with Barangay Officials (joint investigation, if needed) Coordinate with LGU for local employment Conduct trainings
Truck movement	(The People). Possibility of traffic congestion outside site access road	No. of complaints received	Feedback method/ interview	Quarterly	Community/ Brgy. Sibaltan	Community Relations Officer	Included in monitoring budget	Receipt of community complaint once in a quarter	Receipt of community complaint thrice in a quarter	Receipt of community complaint through the LGU	Continue monitoring activities to determine cause of complaint in coordination with barangay officials	Continue monitoring activities to determine cause of complaint in coordination with barangay officials;	Coordinate with local officials for the investigation of the complaint; Implement SDP
OPERATIONS PHASE													
Improper handling and disposal of wastes or accidental spills from conveyance/ handling	(The Land) Change in soil quality/ fertility (The Land) Soil contamination	Soil quality • pH • Organic matter • NPK Other necessary parameters	Grab sampling from soil observation sites	Semi-annual	Three soil observations sites at nearby plots	PCO	Included in monitoring budget	Noticeable discoloration of soil	Exceedance of baseline values for nutrients in soil by 50%	Occurrence of spill or loss of containment of hydrocarbons and other hazardous wastes	Conduct housekeeping/ cleanup in vicinity of monitoring site to prevent or stop contamination. Continue monitoring to determine cause of changes.	Check for leaks within the vicinity of the soil observation site to determine potential source of contaminants. Continue monitoring at semi-annual frequency	Conduct site clean-up and decontamination immediately. After decontamination, conduct monitoring until baseline levels are met.
Increase in movement and human activities	(The Land) Pollution effects on species (The Land) Vegetation and wildlife residing within buffer area and emissions from vehicles. Examples of adverse impacts include discoloration of leaves and	Survival Rate/Mortality Rate for offset sites	Quadrat Method	Semi-annual and annual reporting	Reforestation sites designated to Eureka Resorts, Inc.	Proponent	Included in monitoring budget	30% reduction in the abundance of total plant species recorded from the baseline data 20% plant Mortality rate in rehabilitation/ reforestation area	50% reduction in the abundance of total plant species recorded from the baseline data 40% plant Mortality rate in rehabilitation/ reforestation area	60% reduction in the abundance of total plant species recorded from the baseline data 60% plant mortality rate in rehabilitation/	Management measures to be established but will follow the general protocol of: • Conduct inspection at said station • Determine	Rapidly conduct site assessment in cooperation with DENR-CENRO to determine the cause of deterioration. If related to pests infestation,	Rapidly conduct site assessment in cooperation with DENR-CENRO to determine the cause of deterioration. If previous measures for pest control (if related to pests) or

Key Environmental Aspects per Project Phase	Potential Impacts per Environmental Sector	Parameter to be monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
								EQPL Range			Management Measure		
			Method	Frequency	Location			Alert	Action	Limit	Alert	Action	Limit
	degradation of plant health. (The Land) Elimination of endemic or important fauna or flora									reforestation area	possible source (coordinate with relevant office) • If source is not Eureka Resorts, Inc,, inform barangay and MMT regarding possible source of disturbance/destruction for the group's investigation and coordination with LGU • If source is Eureka Resorts, Inc, inform Eureka Resorts, Inc. management to intensify mitigating measures based on identified impacts Coordination with Barangay Officials (joint investigation, if needed)	apply appropriate measures to control infestation and eliminate pests. Enforce monitoring monthly for succeeding months until conditions have normalized. If reduction in abundance or increase in mortality is related to human disturbance (e.g., cutting, swidden farming), escalate concern to LGUs to enforce patrols and prevent cutting.	measures to control swidden farming practices (if related to human disturbance) were not effective, consider coordinating with LGUs to scout for suitable offset areas to continue reforestation activities.
Improper waste management and accidental spills	(The Water) Degradation of groundwater quality (The Water) Ground and surface water contamination	BOD, fecal coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants	In-situ measurement, grab sampling, and laboratory analyses	Quarterly	Groundwater monitoring wells and designated surface water monitoring stations	PCO	Included in monitoring budget	75% of DENR limit	85% of DENR Limit	90% of DENR Limit	Continue monitoring activities to determine cause of increase of GW and SW parameters	Check if storage areas are compromised. If there are breaches in containment, isolate tanks and repair leaks for storage areas or cease use until repaired.	Temporarily stop activities within the vicinity of the storage areas that exhibit abnormal parameters.

Key Environmental Aspects per Project Phase	Potential Impacts per Environmental Sector	Parameter to be monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
								EQPL Range			Management Measure		
			Method	Frequency	Location			Alert	Action	Limit	Alert	Action	Limit
Waste generation	(The Water) Pollution effects on species (The Water) Improper storage and handling of wastes from operations and spills associated with the treatment and operations may cause contaminants to end up at proximate freshwater and marine water bodies and may, in turn, affect the health of aquatic organisms.	Composition, abundance, and distribution	Fish visual census, photo-quadrat for corals, fish catch composition for capture fisheries	Semi-annual	Sibaltan Bay	PCO	Included in monitoring budget	Decrease in the ecological indices measured with corresponding change in category based on Hilomen et al (2000) Decrease in live coral cover with corresponding change in category based on Gomez et al (1994) Significant decline in catch per unit effort	Decrease in the ecological indices for two consecutive monitoring periods with corresponding change in category based on Hilomen et al (2000) Decrease in live coral cover for two consecutive monitoring periods with corresponding change in category based on Gomez et al (1994) Significant decline in catch per unit effort and change in fish catch composition	Decrease in the ecological indices for four consecutive monitoring periods with corresponding change in category based on Hilomen et al (2000) Decrease in live coral cover for two consecutive monitoring periods with corresponding change in category based on Gomez et al (1994); bleaching of corals in the Outfall station Significant decline in catch per unit effort and change in fish catch composition and complaints from local fisherfolks	Continue monitoring and investigate possible cause of decrease. Continue monitoring activities as decline might be attributed to seasonality of fish catches	Continue monitoring and investigate cause of decline. Coordinate with MMT and Local Government Unit. Continue monitoring activities and identify possible cause of decline and change in catch composition. Investigate illegal fishing (dynamite, cyanide, use of fine mesh net) activities in the community.	Check marine water quality status. Coordinate with MMT, LGU, and DENR. Verify and address complaints from the local fisherfolks. Investigate illegal fishing (dynamite, cyanide, use of fine mesh net) activities in the community. Eureka Resorts, Inc. will compensate fisherfolks on lost income, if the Project operations are the caused in the decline and change in fish catch. Compensation will be based on declared fisheries income from fisheries survey and investigation of the incident. All waste management facilities and pollution control devices, including waste storage sites, oil-water separators, STP and drains, will be investigated. If spills or leaks are detected, use of these facilities will be ceased immediately and repairs and clean up will be enforced.
Greenhouse gas emissions	(The Air) Contribution in terms of greenhouse gas emissions	Greenhouse gas inventory	Greenhouse gas inverntory	Annual	Project site	PCO	Included in monitoring budget	20% increase in GHG	50% increase in GHG	70% increase in GHG	Continue monitoring and investigate possible causes of increase of GHG emissions	Implement conservation measures	Implement conservation measures; switch to renewable sources
Emissions from resort vehicles	(The Air) Degradation of air quality with the emissions of SOx, NOx, CO, particulates and heavy metals	Particulates - TSP - PM10 Gaseous pollutants - SO2, - NO2	Hi-volume/ Gravimetric/ AAS/ ICP/ UV-VIS 24-hour & 1-hour averaging	Quarterly, or as required by EMB	ambient air quality monitoring stations	PCO	Included in monitoring budget	Noticeable dust and/or presence of haze Or 75% of DENR limit	Complaint lodged by community Or 85% of DENR limit	90% of DENR limit	Continue monitoring and investigate possible causes of increase of particulates and gaseous pollutants	Check efficiency of dust suppression systems and conduct routine preventive maintenance.	Check efficiency of dust suppression systems and conduct routine preventive maintenance.

Key Environmental Aspects per Project Phase	Potential Impacts per Environmental Sector	Parameter to be monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
								EQPL Range			Management Measure		
			Method	Frequency	Location			Alert	Action	Limit	Alert	Action	Limit
			Gas Bubbler/ Pararosaniline Method (SO2) Gas Bubbler Griess-Saltzman Method 24-hour & 1-hour averaging									Investigate cause of complaint and determine and address the root cause. Increase frequency of dust suppression	Investigate cause of complaint and determine and address the root cause. Increase frequency of dust suppression
Day-to-day operations of the project	(The People) Threat to delivery of basic services	No. of complaints received	Feedback method/ interview	Quarterly	Community/ Brgy. Sibaltan	Community Relations Officer	Included in monitoring budget	Receipt of community complaint once in a quarter	Receipt of community complaint thrice in a quarter	Receipt of community complaint through the LGU	Continue monitoring activities to determine cause of complaint in coordination with barangay officials	Continue monitoring activities to determine cause of complaint in coordination with barangay officials; Coordinate with local water district	Coordinate with local officials for the investigation of the complaint; Implement SDP
	(The People) Threat to resource competition	No. of complaints received	Feedback method/ interview	Quarterly	Community/ Brgy. Sibaltan	Community Relations Officer	Included in monitoring budget	Receipt of community complaint once in a quarter	Receipt of community complaint thrice in a quarter	Receipt of community complaint through the LGU	Continue monitoring activities to determine cause of complaint in coordination with barangay officials	Continue monitoring activities to determine cause of complaint in coordination with barangay officials;	Coordinate with local officials for the investigation of the complaint; Implement SDP
	(The People) Threat to public health and safety	No. of complaints received	Feedback method/ interview	Quarterly	Community/ Brgy. Sibaltan	Community Relations Officer	Included in monitoring budget	Receipt of community complaint once in a quarter	Receipt of community complaint thrice in a quarter	Receipt of community complaint through the LGU	Continue monitoring activities to determine cause of complaint in coordination with barangay officials	Continue monitoring activities to determine cause of complaint in coordination with barangay officials; Coordinate with local water district	Coordinate with local officials for the investigation of the complaint; Implement SDP
Generation of local benefits from the Project	(The People) Benefits that can be generated from the project include the following: • Real property tax • Income tax • Business tax • Opportunities for direct and indirect employment • Education and technology transfer	Improvement of the socioeconomic conditions of host barangays as a result of project benefits	Socioeconomic survey Coordination with Municipal LGU and monitoring of payment of taxes Evaluation of efficacy of SDP programs though survey of beneficiaries and monitoring of status of recipients	Every three years from first year of operations	Host Barangay (Brgy. Sibaltan)	Community Relations Officer	Part of Operations Cost	Negative feedback or perception from socioeconomic survey comprising 20% of respondents	Negative feedback or perception from socio-economic survey comprising 40% of respondents Formal complaint lodged by the community	Multiple complaints filled by the community Legal complaints filed against proponent	Investigate cause of negative feedback and coordinate with impacted sector on how to improve delivery of community programs and project benefits. Document lessons learned and actions taken and relay these to the host communities through the barangay government units and the MMT	Coordinate with host barangays and municipality to determine root cause of negative feedback. Arrange a townhall meeting to gather inputs and feedback from stakeholders. Agree on improvements that will be taken and report these to concerned LGUs and stakeholders. Conduct another survey after 1 year to determine	Conduct barangay assembly and coordinate with host municipality to release official statement regarding publicized complaint and actions taken. Coordinate with MMT and report nature of complaint and actions taken to close issue. As applicable, respond to legal complaint and document response/ action taken for stakeholder information

Key Environmental Aspects per Project Phase	Potential Impacts per Environmental Sector	Parameter to be monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
								EQPL Range			Management Measure		
			Method	Frequency	Location			Alert	Action	Limit	Alert	Action	Limit
												efficacy of measures undertaken	Arrange a townhall meeting to gather inputs and feedback from stakeholders. Agree on improvements that will be taken and report these to concerned LGUs and stakeholders. Conduct another survey after 1 year to determine efficacy of measures undertaken
ABANDONMENT PHASE													
Project Closure	(The People) Loss of livelihood of local workforce	No. of complaints received	Feedback method/ interview	At the nd of project lifespan	Project area	Human Resources	Abandonment Cost	Receipt of community complaint o	Receipt of multiple community complaints	Receipt of community complaint through the LGU	Continue monitoring activities to determine cause of complaint in coordination with barangay officials	Continue monitoring activities to determine cause of complaint in coordination with barangay officials; Conduct training and capability enhancement to the laid off workers	Coordinate with local officials for the investigation of the complaint; Implement SDP

7. EMF and EGF Commitments

7.1. Environmental Monitoring Fund

The proponent will open an account for the Environmental Monitoring Fund of the PROJECT for the exclusive use of the monitoring activities. The amount shall correspond to the expenses incurred by the MMT for the period such as cost of transportation, board and lodging, MMT meetings, sampling, shipment/transport of samples, documentation (photos, videos, etc.) including preparation and distribution of monitoring reports, laboratory analysis, lease/rental of monitoring equipment, hiring of outside experts/subcontracting of a monitoring work to a neutral party, training of the MMT, public information campaign/dissemination and other such activities relating to the operation of the MMT.

The EMF that will be allocated for the Project will cover all quarterly and semi-annual monitoring activities and laboratory costs. Eureka Resorts, Inc. commits to establish an EMF amounting to Three Million Pesos (PHP3,000,000.00) (direct from co. + budget for MMT) annually to support the activities of the MMT as described in the EMB-approved Annual Work and Financial Plan (AWFP). However, the actual amount that will be allocated for EMF will be finalized during the completion of the DED phase and with consultation of the MMT.

7.2. Environmental Guarantee Fund

An environmental guarantee fund (EGF) will be established in accordance with the guidelines of the DAO 2003-30 through a MOA with EMB Regional Office and the proponent. Generally, EGF has two major components, as follows:

a. The Trust Fund amounting to Five Million Pesos (Php 5,000,000) will be established to compensate aggrieved parties for any damages to life or property, undertake community-based environmental programs, conduct environmental research aimed at strengthening measures to prevent environmental damage, and to finance restoration and rehabilitation of environmental quality of the project-affected area
b. The Environmental Guarantee Cash Fund amounting to One Million Pesos (Php 1,000,000) will be used for immediate rehabilitation and compensation of affected communities in case of damage or accidents. This can also be utilized for community-based environmental programs and information campaign. The Environmental Guarantee Cash Fund will also be used to cover the operational costs of the EGF Committee, in line with the Project's MMT Manual of Operations that will be approved prior to project implementation.

7.3. EMF and EGF Administration and Management

The EMF will be managed and administered by the MMT Executive Committee of the Project. The disbursement of the EMF will be carried out according to the annual monitoring work and financial plan submitted by the MMT, which will be reviewed and concurred with by the Proponent and approved by EMB. An EGF Committee will be formed to manage, control, and operate the EGF in accordance with the agreed internal procedures established regarding the mechanisms for fund disbursement, processing, validation, accounting and documentation. The committee will be composed of the MMT Officers, with the EMB Regional Director as the Chairperson.