



04 March 2019

ENGR. METODIO U. TURBELLA Director ENVIRONMENTAL MANAGEMENT BUREAU (EMB) DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES (DENR) DENR Compound, Visayas Avenue, Diliman, Quezon City

> Attention : Engr. Esperanza A. Sajul Chief, EIAM Division

Subject : Request for Public Scoping of the proposed Silica Sand Quarry Expansion Project

Dear Director Turbella:

We respectfully submit the following documents in support of our Request for Public Scoping in relation to the ECC amendment application of the proposed Silica Sand Quarry Expansion Project:

- 1. Project Description for Scoping (PDS);
- 2. Proof of Conduct of IEC;
- 3. Pre-Public Scoping Participatory Data Gathering (KII, FGD, and Initial Perception Survey);
- 4. Proposed list of invitees for the public scoping;
- 5. Draft invitation letter (to be signed by EMB) and IEC materials in preparation for the public scoping; and
- 6. Draft presentation of the project during public scoping.

We hope you find everything in order.

Thank you.

Sincerely yours,

B. Tenefrancia Atty. Deni President

National Highway, South Poblacion, San Fernando, Cebu Tel No (032) 234 1543, Telefax No (032) 234 1539



SILICA SAND QUARRY EXPANSION PROJECT

REQUEST FOR PUBLIC SCOPING REQUIREMENTS



ARHR Consult Services, Inc.

MARCH 2019

ATTACHMENT 1

PROJECT DESCRIPTION FOR SCOPING

SILICA SAND QUARRY EXPANSION PROJECT

PROJECT DESCRIPTION FOR SCOPING



A RHR Consult Services, Inc.

MARCH 2019

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PROJECT FACT SHEET

1.1 PROPOSED PROJECT CO	VERAGE					
Project Name	:	Silica Sand Quarry Expansion				
Project Type	:	Quarrying – Extraction of Non-metallic minerals				
Project Location	:	Barangays Lut-od, Punod and Duangan in the Municipality of Pinamungajan				
Project Scale/Limit		Total extraction rate: Increase from 200,000 to 660,000 MT				
		Total area (No changes): 389.44 hectares				
		 MPSA 314-2010-VII = 84 hectares 				
		 MPSA 323-2010-VII = 305.44 hectares 				
Major Project Components	:	i. Quarry Areas				
		ii. Overburden/topsoil stockyard				
		iii. Haul roads, Admin Bldg., Nursery				

1.2 PROFILE OF THE PROPONENT

Name of the Company	:	Solid Earth Development Corporation (SEDC)
Contact Person	:	Atty. Dennis B. Tenefrancia
		President
Office Address	:	9th Floor Insular Life Business Center, Cebu Business Park, Cebu City
Contact Details	:	Tel. No.: (032) 350 2908
		Fax. No. (032) 234 2795

1.3 PROFILE OF THE EIA PREPARER

Name of the Company	:	RHR Consult Services, Inc.
Contact Person	:	Jess M. Addawe
		Project Director
Office Address	:	Unit 606, FSS Building II, 18 Scout Castor cor. Scout Tuazon,
		Barangay Laging Handa, Quezon City
Contact Details	:	Tel. No.: (02) 798 0020



1 PROJECT DESCRIPTION

SEDC is the proponent of Silica Sand Quarrying Operations and Permit Holder of Mineral Production Sharing Agreement (MPSA) denominated as MPSA No. 314-2010-VII and MPSA No. 323-2010-VII which covers a contract area of 84.1453 and 1,257.1831 hectares respectively.

The project involves quarrying and exploitation of silica sand deposits as raw materials necessary for the cement manufacturing plant of Taiheiyo Cement Philippines, Inc. (TCPI), a sister company of Solid Earth Development Corporation (SEDC).

On 17 June 2016, an Environmental Compliance Certificate (ECC) was issued to SEDC for the Silica Sand Quarrying Project (ECC Ref. No. ECC-CO-1512-0027). With the planned increase in demand of cement due to the government's infrastructure programs, SEDC is planning to increase the annual production rate from 200,000 MT to 660,000 MT of silica sand.

1.1 PROJECT LOCATION AND AREA

The project area is located at Barangays Lut-od, Punod and Duangan in the Municipality of Pinamungajan, southwestern part of Cebu, 70 kilometers away from the Cebu City within MPSA 314-2010-VII and MPSA 323-2010-VII. The Silica Sand Quarry area is located about 21 kilometers from the TCIP's Cement Plan in San Fernando, Cebu. The quarry is situated at an estimated elevation of 60m to 270m above sea the location map of the quarry site. Figure 1 shows the general location of the quarry area, Figure 2 shows the current ECC and Production Area.

1.1.1 PROJECT ACCESSIBILITY

1.1.1.1 ROAD ACCESS

The project can be reached via the Cebu South Road through the Naga-Toledo- Pinamungajan access road or the Manipis Road along the Mananga watershed. Travel time from Pinamungajan is about two hours from Cebu City, depending on the traffic. It would take another 10 minutes to reach Brgy Lut-od, the nearest section claim. Buses and other public utility vehicles are plying the Cebu City-Pinamungajan route. Also, to be able to reach the mountainous areas, one can hire motorbike, locally known as "habal-habal".

1.1.1.2 AIR ACCESS

The project site has no airport facility. The nearest airport to the site is the Mactan-Cebu International Airport (MCIA) situated in Lapu-Lapu City. Also, another nearest airport from the project site is the Dumaguete-Sibulan Airport. There are various commercial airlines regularly flying from Cebu City and to other major cities in the archipelago and other neighboring countries via the Mactan Cebu International Airport.

1.1.1.3 SHIPPING

Due to the location of the quarry site, the project area does not have a shipping facility. However, the site can be reached by sea travel by means of cargo/vessel traveling from Cebu City to nearby cities such as Manila, Dumaguete and Bohol.

1.1.1.4 QUARRY

Solid Earth Development Corporation (SEDC) a registered domestic corporation engaged in mining and quarrying of cement raw materials, with plant office at Barangay South Poblacion, Cebu approximately 29 kilometers south of Cebu City. The two Mineral Production Sharing Agreements (MPSA Nos.: 314-2010-VII and 323-2010-VII which covers contract area of approximately 84.15 hectares and 1,257.18, respectively. Geographical Coordinates of the two MPSAs are presented Table 1, Table 2 and Table 3.





POINT	LATITUDE	LONGTITUDE
1	10°15'30"	123°37'30"
2	10°16'00.00"	123°37'31"
3	10°16'00.00"	123°38'00"
4	10°15'30"	123°38'00"

Table 1. Geographical Coordinates of MPSA 314-2010-VII

Table 2. Geographical Coordinates of MPSA 321-2010-VII (Area 1)

POINT	LATITUDE	LONGTITUDE
1	10°16'00.00"	123°37'00"
2	10°17'00.00"	123°37'00"
3	10°17'00.00"	123°37'30"
4	10°16'30.00"	123°37'30"
4A	10°16'21.41"	123°37'36.35
4B	10°16'15.23"	123°37'37.07"
4C	10°16'12.49"	123°37'38.37"
4D	10°16'10.59"	123°37'43.79"
4E	10°16'11.36"	123°37'44.05"
4G	10°16'14.08"	123°37'45.15"
4H	10°16'16.22"	123°37'41.57"
41	10°16'21.55"	123°37'38.70"
4J	10°16'21.41"	123°37'36.35"
4K	10°16'30.00"	123°37'36.43
5	10°16'30.00"	123°38'00"
6	10°17'00.00"	123°38'00"
7	10°17'00.00"	123°39'00"
8	10°16'00.00"	123°39'00"

Table 3 Geographical Coordinates of MPSA 323 (Area 2)

POINT	LATITUDE	LONGTITUDE
1	10°14'00.00"	123°37'00"
2	10°15'30.00""	123°37'00"
3	10°15'30.00""	123°37'30"
4	10°15'00.00"	123°37'30"
5	10°15'00.00"	123°38'00.00"
6	10°14'30.00"	123°38'00.00"
7	10°14'30.00"	123°38'30.00"
8	10°15'00.00"	123°38'30.00"
9	10°15'00.00"	123°39'00.00"
10	10°14'00.00"	123°39'00.00"





Figure 1. General Location Map of Silica Quarry Area







1.2 PROJECT RATIONALE

On February 2010, the Government through the Department of Environment and Natural Resources (DENR) entered into a Mineral Production Sharing Agreement (MPSA) with Solid Earth Development Corporation (SEDC). The MPSA was duly registered with the Mines and Geosciences Bureau (MGB) Regional Office No. VII and has a term of twenty five (25) years, which is renewable once for the same period.

The land area defined by the project MPSAs contain limestone and silica deposits that are technically and economically viable for the manufacture of cement, an important material in present day construction of physical infrastructures such as commercial, institutional and residential buildings, roads and bridges thus is an important material in the government's Build Build Build Program.

Presently, the Philippines imports cement to supply rapid increase in domestic demand. The demand for cement in the Philippines continued to increase since 2010 to date, with the annual volume of local sales and imports consistently remaining higher than the total Philippine cement production. In 2013, the domestic sales and export of the commodity was reported at 19,445MT, while local sales and import was at 19,604 MT. Cement is important in the construction industry.

The construction industry accounts for about 4% - 5% of the Gross Domestic Product and of the Gross National Income respectively, and the annual growth rate in local sales was 7% and import growth was 8% for the same period. Private and public investments in construction continue to increase as the Philippine economy continues to grow from foreign investments and remittances.

The project will provide direct and indirect economic benefits to the host LGU and adjoining municipalities and cities. Likewise, the investment of SEDC to the project will assure the full benefits to the community, people, professionals and/or suppliers in terms of employment, effects to the support industries and businesses and the sustained growth.

1.3 PROJECT ALTERNATIVES

Alternative use of area natural resources is explored in Table 4 with the subtext that population and economics are already currently exerting pressure on the area natural resources because of the geographic location of the project site and the current national economic situation. The project location particularly the siting of the quarry area depends on the occurrence of minerals that meet the technical requirements for SEDC cement processing. The main project components are limited to the quarry or earth material extraction and materials transport by land.

Area Resources	Economic Potential of Resources	Potential Project	Possible Environmental Impact		
Siliceous earth	Raw materials for cement	Supply contracts to fill the	Uncertain. Environmental compliance		
materials for	manufacture	requirements of local	requirements for small scale quarry		
cement		cement manufacturing	operations are not closely monitored or		
manufacture		plants	controlled.		
Land for	Marginal agricultural	Subsistence food crop	High sediment level in surface run off wi		
agricultural	production	production continue, eventually to aggrade			
cultivation			streams and cause bank erosion during		
			heavy rainfall, forecasted for Cebu in		
			PAGASA climate change scenarios.		
Mineralized	Unknown. At present	Possible future mining	The area is confirmed by the Mines and		
land	other minerals occurring	project for other minerals Geosciences Bureau as mineral			
	in SEDC MPSAs are not		lands and in time will be subject to mining.		
	economically viable for		Actual mining impact will to certain extents		
	mining.				

Table 4. Project Alternative and Possible Environmental Impact





Area Resources	Economic Potential of Resources	Potential Project	Possible Environmental Impact		
			involve disturbances similar to the		
			disturbances ensuing from this project.		

1.3.1 TECHNOLOGY SELECTION / OPERATION PROCESSES AND DESIGN SELECTION

The nature, location of the ore, the host matrix earth form and characteristics, prevailing environmental requirements and economic conditions defined the project and its components. The quarry method most suitable for sandy materials particularly with thin overburden is surface extraction. The method of extracting the target materials by benching and terracing the affected surface area entails less environmental consequences than random excavation targeting only the desired silica grades, as observed to be utilized by applied by small scale quarries in the area.

This project involves simple extraction of surface earth materials for cement manufacturing, by excavators and pay loaders; loading of extracted materials to waiting dump trucks for hauling to the cement manufacturing plant approximately eleven (11) km away; stabilization and rehabilitation of mined-out areas. The equipment and manpower skills needed are readily available on site as SEDC has been undertaking the activity since the past decade. This project does not include any processing of the extracted silica sand. No other facilities need to be established for this project as the manufacturing cement plant already exists. For this reason, this simple project technology is preferred by the Proponent.

1.3.1.1 Two Stages of Mining Operation

1.3.1.1.1 DEVELOPMENT STAGE

This involves the construction of sub-access and main access roads leading towards the targeted elevation of the minable area. Upon reaching the desired elevation, undesirable overburden is stripped off to expose the needed rock materials using backhoe or bulldozer if needed. Stripped waste materials loaded to dump trucks and stockpiled.

1.3.1.1.2 PRODUCTION STAGE

Prepared benches are then scheduled for cutting by backhoe hoe and will be loaded directly. Front end loader is also utilized to load the excavated rock materials to the dump trucks which are then delivered to the crusher.

1.3.1.2 DESCRIPTION OF THE MINING METHOD

A conventional method of Open Cut Mining shall be continued with the utilization of bulldozers, back hoe, dump trucks and payloader for earthworks. Benches are designed as 10 meters in height.

Pit bottom of mining activity is program up to 40 meters above sea level (masl). This is the elevation of the existing quarry raw material stockyards.

1.3.2 RESOURCE

1.3.2.1 POWER REQUIREMENT

No generator set will be necessary as the project is right beside the Provincial road and power supply from the Visayas Electric Company (VECO) is readily available. The project will also operate primarily using day light, with operations at most starting at 6am and ending in 6pm in maximum condition. Back-up illumination of one or two LED beacon lights are expected to be used for lighting dusk operations (at 6pm) only if these become necessary.





1.3.2.2 WATER REQUIREMENT

Water requirement on worst case is 288.8 m³ per day. Likewise, the Project will pursue progressive compensation planting to fulfill the requirements of EO 26, and to offset project carbon emissions in support of the Philippine Government programs to address climate change as called-for by Republic Act 9729, and both activities will require water resources. The requirement for dust suppression in 1 was confirmed after the conduct of an inventory of particulate matter emissions and the GHG emissions from operation that will require carbon sequestration and thus the watering of additional tree plantations.

The Project personnel will also be utilizing water for day stay at the office (i.e., washing, domestic use), and sprinkling of active quarry sections. For these an estimated volume of about 13.2 m3/day will be needed. Drinking water will be brought-in from a local purified water supplier.

1.4 PROJECT COMPONENTS

1.4.1 QUARRY

Applying a threshold limit of at least 0.1 (10%), 0.2 (20%) and 0.3 (30%) for the inferred mineral resource, indicated mineral resource and measured mineral resource respectively. The quarry operations will be limited to the designated production area (see Figure 2).

An initial quarry area of 40 hectares has been defined taking into account the presence of roads, minimizing direct impact on creeks, houses, schools, farms, etc. Its pit bottom will either be the nearest public road or creek level, whichever is shallower.

The proponent will exploit the mineral resources by mechanical extraction from open surface, cutting by benches. The average overburden is 10cm and waste material accounts for about 2%. Silica sand weighs about 1,220 kg per cubic meter, with about 20% moisture content.

The first phase of mining will be concentrated in Lut-od-Duangan Area where the small scale quarry is located and the computed mineable reserve according to the subject exploration report is 60,000,000 MT.

1.4.1.1 QUARRY DESIGN CONSIDERATIONS

The quarry parameters being considered are as follows:

- Average Bench Width: ± 6meters
- Average Bench Height : ± 5 meters
- Working batter slope : 70 °
- Final Base to Apex Slope : Maximum 45°
- Final pit bottom will not be lower than existing national road elevation
- Cut-off drainage channels with baffles or rock pile velocity decelerators / sediment settling sumps will be created to separate background surface run-off from project quarry areas, channel these to natural surface drainage systems to reduce the load and silt spill over from project settling ponds
- A canal or depression will be provided within the quarry zone adjacent to and parallel to the public roadway to prevent project sediment overtopping on public road
- Surface drainage course within the quarry zone are to be maintained freely flowing
- Settling Pond Surface Area are always to be equivalent to 10% of opened areas
- Total Settling Pond Capacity per sub-catchment area is to be equivalent to 110% of highest normal monthly rainfall volume for the disturbed quarry area
- Topsoil and Waste stockpiles will not be situated on areas with live trees





Figure 2. Site Development Map of Quarry Area





1.4.2 HAUL ROADS

The quarry area has existing access roads that connect to barangay and provincial roads that directly connect to the Natalio B. Bacalso South National Highway along which the TCPI processing plant is located, with total length of about twenty-one (21) kilometers. The Provincial Road traversing the quarry site has average width of approximately seven (7) meters. For materials sourced from Pinamungajan and San Fernando quarries, this haul road may be capable of handling the volume of haul trucks serving the quarry site. Minimal new access road openings are perceived to bring production to the main road, as the quarry is close to the main road.

1.4.3 TOP SOIL AND WASTE MATERIAL STOCKPILES

The stockpiles that will be created will be of organically-rich topsoil for compensation planting and nursery operations, and for the waste materials which are set aside of road maintenance and for use by the public needing backfill materials for land development, with estimated volume of 34,000 cubic meters.

Topsoil stockpiles and waste materials stockpiles will be properly situated in locations with minimal additional disturbed area, areas with minimal tree and vegetation cover, will require no tree cutting and in relatively higher elevation that is easy to provide earth bunds or surrounding compacted embankment soil barriers. Three stockpile sites will be located within the quarry area for efficient operations for sectional rehabilitation, and within the buffer zone. While each stockpile area may hold the top soil overburden and the waste materials, these two items will not be allowed to mix, physical the stockpile slope will be kept at low angle and safe height to minimize slumping. The proposed height of the stockpile will be finally determined by the angle-of-repose of the materials, observed to average approximately three meters. Angle of repose is the maximum angle of descent or dip of the stockpile slope relative to the horizontal plane. This is to ensure that the maximum volume materials will be stockpiled without sacrificing safety.

1.4.4 QUARRY ADMINISTRATION BUILDING

SEDC will construct one small site management office with footprint area of approximately one hundred square meters, and a small maintenance shed made for emergency on-site materials requirement. The site office will be equipped with sanitary facilities for use of the project staff and occasional visitors. Construction of these structures will be in accordance with the National Building Code.

1.4.5 NURSERY

Small "satellite" nurseries proximate to the planting area and near a surface water source will need to be established and will be stocked with fruit and forest trees through contract planting and maintenance with landowner-partners living in the local community. Recommended tree species under the NGP and native species originally found in the Project site will be propagated in the nurseries

1.4.6 WASTE MANAGEMENT

SEDC implements its Waste Management Procedure to ensure proper handling, segregation, collection and disposal of all types of waste generated from SEDC's administrative and operational activities. Also to provide guidelines and requirements necessary for the efficient, effective and compliant waste management. Presented below is SEDC's Waste Management Procedure.





SECTION 1 | PROJECT DESCRIPTION

No.	Flow Chart	Responsibility	Procedure
01	Vaste Identification A Waste Segregation	All Employees All Employees	01. Identify wastes generated from your office. Refer to Definition of Terms as to its type.02. Segregate wastes accordingly. Place them in their respective receptacles
03.	Segregated? Yes A	Pollution Control Officer Pollution Control Officer	 provided. Ensure that storage and segregation of wastes in the MRF is practiced. 03. Segregated wastes shall proceed to collection and disposal. Non-segregated wastes shall be retained for segregation.
04.	Waste Collection & Disposal	Administration Manager Pollution Control Officer	 04. For office wastes, coordinate with TCPI – Admin to ensure that wastes are collected as per schedule. All other wastes shall be coordinated with LGU to ensure timely collection and disposal. Recyclables and Hazardous waste are to be coordinated to accredited buyers/ treaters for a separate collection.

Figure 3. Flowchart of Waste Segregation and Responsible Personnel

1.4.7 DRAINAGE

Drainage from the quarry sections will be through the contour canals along the base of the slope face. Benches would be cut to allow the bench floor for positive drainage (5-degree fall away from the cut surface), approximately 0.5m x 0.5m (contour canal cross-section), to reduce surface water flow over the cut face and bench, and limit soil erosion potential. Surface run-off from benches would be directed to rock-lined water channels forming a drainage system on quarry floor as necessary and directed toward the settling ponds designed sufficiently contain expected surface run-off from the opened quarry area. Background area surface run-off will be directed toward the natural waterways.

Due to the nature of the deposits which occur consistently from elevation ± 50 masl to ± 120 masl, the quarry activities will be a continuous extraction process until a pre-determined elevation and quarry boundary limit is attained, after which quarry rehabilitation activities commence at each elevation level.

1.4.8 QUARRYING EQUIPMENT

Minerals extracted from the quarry will be transported by dump trucks to the cement manufacturing plant using the provincial road connecting the quarry site to the Cebu South Road. The equipment to be used in the project operation are listed in Table 5. Additional equipment will be provided as necessary.





Equipment	Capacity	No. of Unit	Consuption per unit (gal/yr)	Power rating (Hp)	Hourly Rate per Unit		Ave. Operating Hours/day
Bulldozer	8 metric tons	2	19,929	105		Cubic mtr/hr	4
Backhoe/ Excavator	1.5 m3 bucket	2	21,127.20	164	96	Cubic mtr/hr	12
Payloader	4.5 metric tons	1	35,872.20	189	360	Cubic mtr/hr	4
Road Grader		1	25,623.00	135	30,000	m2	3
Dump Trucks	8 metric tons	10	22,776.00	120	23.04	MT	5.92\1
Water Truck	12,000 L	1	33,215	175	30,000	m2	3

Table 5. List of Quarrying Equipment

1.5 PROCESS / TECHNOLOGY

The nature, location of the ore, the host matrix earth form and characteristics, prevailing environmental requirements and economic conditions defined the project and its components. The quarry method most suitable for sandy materials particularly with thin overburden is surface extraction. The method of extracting the target materials by benching and terracing the affected surface area entails less environmental consequences than random excavation targeting only the desired silica grades, as observed to be utilized by applied by small scale quarries in the area.

1.5.1 QUARRYING

This project involves simple extraction of surface earth materials for cement manufacturing, by excavators and pay loaders; loading of extracted materials to waiting dump trucks for hauling to cement manufacturing plant approximately eleven (11) kms away; stabilization and rehabilitation of mined-out areas. The equipment and manpower skills needed are readily available on site as the Proponent has been undertaking the activity since the past decade. This project does not include any processing of the extracted silica sand. No other facilities need to be established for this project as the manufacturing cement plant already exists. For this reason, this simple project technology is preferred by the Proponent. The general quarry process is shown in Figure 4.







Figure 4. Quarry Operations Activity Flowchart

1.6 PROJECT SIZE

Based on the result of the exploration conducted by SEDC, the two (2) MPSAs has total combined mineable reserve of silica sand deposit of about 6, 000,000 Metric Tons with an average grade of 75% SiO2 and a cut-off grade of 70%. Increase in annual production of 660,000 MT from 200,000 MT shall be sourced from the existing production area of 229.50 hectares. A summary is presented in the table below:

	MPSA 314	MPSA 323		
Location	Duangan	Lut-od, Punod		
	Exis	sting = 389.44		
ECC Area	84 ha	305.44		
	389.44 (No changes)			
Existing Production Area (ha)	Existing = 229.50			
For Amendment Production Area	229.5	0 (No changes)		
Annual Draduction	Existing= 200,000MT			
Annual Production	For Amendment ECC = 660,000 MT			
	2,000,000	4,000,000		
ivineral Reserves	Total Silica = 6,000,000MT			

1.7 DEVELOPMENT PLAN, DESCRIPTION OF PROJECT PHASES AND CORRESPONDING TIMEFRAMES

1.7.1 OPERATION PHASE

1.7.1.1 CLEARING OF VEGETATED TOPSOIL OR OVERBURDEN

Land clearing would entail clearing, balling and transfer of trees less than 15cm diameter at breast height (DBH), timber recovery of trees above 15cm DBH, chipping/mulching of removed vegetation to be added to top soil heap, separation and haul out of humus (top soil). Bulldozers, front-end loaders, and trucks would be deployed





to undertake this work. Stockpiling of the removed materials at designated areas for future re-use would preserve the mulched vegetation and the topsoil.

1.7.1.2 OVERBURDEN REMOVAL

With the use of appropriate heavy equipment (i.e. bulldozers, backhoe, etc.) the overburden layer would be removed from the ground, loaded on 10-ton haul trucks, and piled at waste stockpile areas or for benching and contouring of quarried out areas.

1.7.1.3 QUARRY / MATERIAL EXTRACTION

The overburden in the production area is declared by the Proponent to be very thin, averaging 10cm. The waste material is reported to be nil, estimated to be 2%. After the overburden is stripped, the silica sand will be excavated using an excavator in backhoe mode. In view of the moderately rolling terrain of the land form hosting the target materials; quarrying or material extraction will start from mid-elevation (bench elevation +80m) in Lutod, progressing downward to the last bench at elevation +30m. Extraction shall progress downwards. The quarry elevation equivalent to the top bench will be gradually totally extracted, and. Then a lower bench shall be begun, and the enter bench will again be extracted before the next level is begun. If the slope is too steep for safe digging, the slope will be dozed down in horizontal layers until a staging platform is achieved.

Once extracted, the materials will be loaded in waiting dump trucks. Material quality control will aim to ensure haulage of suitable materials to the plant and avoid sending silica sand to the waste dumps. Suitable materials will be immediately hauled to the TCPI cement plant. There will be no stock piling at the quarry site. Waste materials will be hauled out to the stockpile location within the quarry, for later use in final slope rehabilitation. At each bench level where applicable, a plateau will be created, and mined-out upper slopes will be stabilized by contouring and benching. Temporary slopes in advancing the working face inland will have an over-all slope of about 80[®] from toe to top of the quarry section. The batter slope angle shall be between 60 deg to 75 deg. Levels of terraces will result as the quarry elevation progresses downward. The resulting land form shall be similar to an engineered valley, designed to be stable and having efficient drainage design, so as not to exclude the possibility for the area to be suitable for housing development. The final pit elevation will not be lower than the nearest road and slightly higher than the surface water course (creek) that drains the area. The land surface will be sloped to drain toward the creek.

1.7.2 DECOMMISSIONING / ABANDONMENT / REHABILITATION

A final mine rehabilitation and decommissioning plan will be prepared for the project that will address concerns on planned closure, unplanned closure, and care and maintenance scenarios. The plan will be consistent with the provisions and relevant rules and regulations of the Philippine Mining Act of 1995.

Decommissioning activity will commence after the operating life of the project. Decommissioning activity will involve dismantling of company infrastructures and machineries. Simultaneously, rehabilitation activity will be carried out. In addition to rehabilitation activity that are conducted progressively with the operation, final mine rehabilitation activity will be carried out after the operating period of the project. Rehabilitation will include stabilization of steep slopes, backfilling, grading and reforestation of mined-out areas, among others.

To ensure that the program will be implemented as planned, the corresponding financial budget will be deposited, progressively, in a government depository bank. The fund will be established in line with the provisions of the Mining Act.

MANPOWER 1.8

The total operational workforce for the port and quarry operations is as follows:





Description	(Pr	Quarry, oducti	/ on	9	Services Security		Hauling		Total Gender						
	No	М	F	No	М	F	No	М	F	No	М	F	No	М	F
Manager	1	х	х	0			0			0			1	1	1
Safety Officer	1	х	х	0			0			0			1	1	1
Supervisor	1	х	х	1	х	х	1	х	х	1	х	х	4	4	4
Foreman	0			1	х	х	0			0			1	1	1
Mechanic	4	х		0			0			1	х		3	3	0
Equipment	3	х		0			0			0			3	3	0
Operators															
Drivers	10	х		2	х	х	0			4	х		16	7	1
Welder	2	х		0			0			0			2	1	0
Electrician	2	х		0			0			0			2	1	0
Equipment	2	х	х	0			0			0			2	2	2
Spotters															
Utility Aide	2	х	х	4	x	х	0			4	х		6	6	4
Survey Aide	0			8	х	х	0			0			8	8	8
Accounting Staff	2		х	0			0			0			2	2	2
Administrative	2	х	х	0			0			0			2	2	2
Staff															
Plant Nursery Staff	0			2	х	х	0			0			2	2	2
Security Guards	0			0			14	х	х	0			14	14	14
TOTAL	32	19	7	18	10	10	15	8	8	10	5	1	69	58	42

Table 7. List of Manpower

As may be observed from Table 7, employment opportunities supported by this project totals 69 positions. Out of 69 positions, 69 may be filled by males and only 42 are recommended for females. The constraints for female employees in certain positions are listed in Table 7. Workforce to fill employee replacements or fill day-work (extra) job opportunities are sourced by SEDC from a pool of qualified workers recommended from the Local Government Units.

1.9 INDICATIVE INVESTMENT COST

The investment for the project is estimated at PhP 20,250,000.00 for Mining Properties and Equipment.





ATTACHMENT 2

PROOF OF CONDUCT OF IEC

PRE-EIS Information and Education and Communications (IEC) Campaign Documentation Report for the Silica Quarry Expansion Project (MPSA 314, MPSA 323)

I. Objective

In compliance with DAO 2017-15 or the Guidelines on Public Participation under the Philippine Environmental Impact Statement System, Information and Education and Communications (IEC) Campaign Activities on the Silica Quarry Expansion Project (MPSA 314, MPSA 323) was conducted from November 14 – December 3, 2018 in various locations in Pinamungajan, particularly in the Impact Barangays and with Key Stakeholders.

II. Activities

The IEC Activities conducted were the following:

- Courtesy Calls and Consultations with :

 Municipal LGU Official and Personnel
 Barangay Officials and Personnel
- 2. Project Description Presentation and Discussions with Key Stakeholders and Stakeholder Representatives;
- 3. Distribution of Brochures
- 4. Placement of Posters

III. Time Frame and Duration

The time frame and duration of the IEC activities was from November 12 – December 3, 2018.

- The Courtesy Calls and Consultations with Municipal LGU Official and Personnel, as well as Barangay Officials and Personnel were conducted within November 14 December 3, 2018.
- The Project Description Presentation and Discussion with the Impact Barangay LGUs was on November 15, 2018 Wednesday at 10am.
- The Project Description Presentation and Discussion with the Municipal LGU was on November 29, 2018 Thursday at 10am-12 noon.
- The distribution of brochures was conducted from November 26 December 3, 2018.
- The placement of posters was conducted from November 26 December 3, 2018.

IV. Locations and Venues

The locations and venues of the IEC Activities were in the ff:

- 1. Impact Barangays
 - a. Duangan
 - b. Punod
 - c. Lut-od
 - d. Guimbawian
- 2. Pinamungajan Municipal Hall

V. Contents

The content of the IEC Discussions and material were the following:

- 1. Philippine Environmental Impact Statement System (PEISS)
- 2. Project Description
- 3. Proponent Details
- 4. Other General Project Related Information

As these were just the initial IEC Activities held, more in-depth and broad activities are lined up in the following days and months up to until, during, and even following the completion of the project.

Project	Silica Quarry Expansion Project (MPSA 314, MPSA 323) Pre-Public Scoping IEC					
Subject	Silica Quarry Expansion Project (MPSA 314, MPSA 323)					
Objective	Silica Quarry Expansion Project (MPSA 314, MPSA 323) Pre-Public Scoping					
	Public Participation Compliance as per DAO 2017-15 or the Guidelines on Public					
	Participation under the Philippine Environmental Impact Statement System					
Activities	1. Courtesy Calls and Consultations with:					
	a. Municipal LGU Official and Personnel					
	b. Barangay Officials and Personnel					
	2. PEISS and Project Description Presentation with Key Stakeholders and					
	Stakeholder Representatives,					
	3. Distribution of Brochures					
	4. Placement of Posters					
Time frame/Duration	• November 14 – December 3, 2018					
	• 3 weeks					
Location	Municipality of Pinamungajan					
	1. Brgy. Duangan					
	2. Brgy. Punod					
	3. Brgy. Lut-od					
	4. Brgy. Guimbawian					
	5. Pinamungajan Municipal Hall					
Contents	1. Philippine Environmental Impact Statement System (PEISS)					
	2. Project Description					
	3. Proponent Details					
	4. Other General Project Related Information					

Summary Matrix for the Pre-Public Scoping IEC

Summary Matrix for the Pre-Public Scoping IEC Activities

#	IEC Activities Conducted	Time Frame/ Duration	Location/ Venue	Remarks
1	Courtesy Calls and Consultations with Barangay Officials	November 14 – December 3, 2018	Brgy. Halls	
2	PEISS and Project Description Presentation with Key Stakeholders and Stakeholder Representatives - Barangay. LGUs	November 15, 2018	Duangan Brgy. Hall	Attendance: 8 Total Pax, 5 Brgys.
3	PEISS and Project Description Presentation with Key Stakeholders and Stakeholder Representatives - Municipal LGUs	November 29, 2018 10am-12noon	Pinamungajan Mun. Hall Conf. Rm.	Attendance: 11 Pax Total Audience; 20 Pax Total Participants
4	Brochure Distribution	November 26 – December 3	Pinamungajan • Mun. Hall	

#	IEC Activities Conducted	Time Frame/ Duration	Location/ Venue	Remarks
			 Impact Brgys (4) 	
5	Placement of Posters	November 26- December 3	Brgy. Halls	

VI. Comments, Issues and Concerns, and Suggestions Raised

#	Issues and Concerns	Participant	Response	Respondent
1	Distribution and flow of Tax Proceeds and Payment is directly to National (Offices)	Mayor Balicuatro – Office of the Municipal Mayor - Pinamungajan	Yes	Mr. Campo – VP Operations – SEDC
2	How many blocks?	Mayor Balicuatro – Office of the Municipal Mayor - Pinamungajan	15 blocks;1,500 Ha	Mr. Campo – VP Operations – SEDC
3	How many/How big is the mined out area? What is being done to the mined out area? Is there a mined out area already?	Mayor Balicuatro – Office of the Municipal Mayor - Pinamungajan	Yes, there is a mined out area already. We are undertaking treeplanting in Duangan	Mr. Campo – VP Operations – SEDC
4	Provide photos of mined Out Areas, especially of programs and rehabilitation	Mayor Balicuatro – Office of the Municipal Mayor - Pinamungajan	Yes, OK.	Mr. Sombelon – Mining Dept. Mgr. - SEDC
5	How's the start and process of the rehabilitation?	Mayor Balicuatro – Office of the Municipal Mayor - Pinamungajan	No rehabilitation yet. Not yet time. Technical Studies are ongoing.	Mr. Sombelon – Mining Dept. Mgr. - SEDC
6	The project is considered environmentally critical?	Mayor Balicuatro – Office of the Municipal Mayor - Pinamungajan	Yes, based on the location and activity	Mr. Campo – VP Operations – SEDC
7	Is there an MMT?	Mayor Balicuatro – Office of the Municipal Mayor -	Yes	Mr. Sombelon – Mining Dept. Mgr. - SEDC
		Pinamungajan	The mayor will be part of the MMT. Or the mayors office will assign within the LGU to represent the LGU.	Mr. Campo – VP Operations – SEDC
8	How are the soil studies? Especially with regards to plants and vegetation	Mayor Balicuatro – Office of the Municipal Mayor - Pinamungajan	Plus NGOs The soil studies are ongoing. It is part of the operations. More will be conducted, such as soil classification, acidity, etc, to know	Mr. Sombelon – Mining Dept. Mgr. - SEDC

#	Issues and Concerns	Participant	Response	Respondent
			which plans are compatible.	
9	Are there any successful soil studies implemented?	Mayor Balicuatro – Office of the Municipal Mayor -	In Magsico	Mr. Sombelon – Mining Dept. Mgr. - SEDC
		Pinamungajan	Prior and during operations, soil studies are being conducted. Especially with regards to the top- soil, like with acidity etc, and also what will ultimately be the top soil used once treeplanting/for treeplanting	Mr. Campo – VP Operations – SEDC
10	Tree Growing (It's supposed to be)	Mayor Balicuatro – Office of the Municipal Mayor – Pinamungajan	Yes, it is not just for planting trees and then leaving them, but to ensure their growth	Mr. Campo – VP Operations – SEDC
			We've tested different species for growth, and so far those with success are acacia, lomboy, some narra and about 4 others. Other species do not survive and die.	Mr. Sombelon – Mining Dept. Mgr. - SEDC
11	What about the farmlands in the MPSA Areas? What about the farmers there?	Mr. Canino - MPDC – Pinamungajan	That will be regarding the surface rights There will be	Ms. Carin – HRA Div. Mngr. – SEDC Mr. Campo –
			compensation and relocation	VP Operations – SEDC
12	A common/perennial problem is the issue of siltation	Mr. Canino - MPDC – Pinamungajan	This is addressed thru the use of sedimentation ponds. All the water released from it will be passing regulations. The silt will then be used for other purposes. Monitoring will be	Mr. Campo – VP Operations – SEDC Ms. Carin –
			done by the MMT	HRA Div. Mngr. – SEDC
13	What about the destruction, repair and rehabilitation of the interior barangay roads?	Mayor Balicuatro – Office of the Municipal Mayor - Pinamungajan	As of now, the operation is still small scale, and thereby no large scale destruction/disrepair	Mr. Campo – VP Operations – SEDC

#	Issues and Concerns	Participant	Response	Respondent
#	Issues and Concerns	Participant	Responseof roads due to use.But still the smallscale operators willshare responsibilitybut are able toaddress it slowly andnot in a large scale atonce. But once weget into commercialoperations, then itwill be a large scale –in accordance withour MPSA, and weshall then be the oneresponsible. As ofnow, even if not yetin large scaleoperations, we areproviding assistanceand materialsOnce we start ourcommercialoperations, we areobligated by law toimplement a SocialDevelopment andManagementProgram (SDMP). Itshall be included inthe operationalbudget. The biggerthe operationalbudget, the biggerthe budget for theSDMP.The SDMP can helpthru (projects for):- Infra(structure)- Livelihood- Education- HealthAlthough asmandated, it (SDMP)will be bigger in thehost communities.But it will not be	Respondent Ms. Carin – HRA Div. Mngr. – SEDC
			But it will not be limited to them. The Municipality and other brgys. will benefit as well.	
14	Assistance is not recorded as	Mayor Balicuatro –	There shall be excise	Ms. Carin –
	Income of the LGU. The point is for the LGU to have income that can	Office of the	tax, as well business	HRA Div. Mngr. – SEDC

#	Issues and Concerns	Participant	Response	Respondent
	be implemented for other	Municipal Mayor -	tax, that will go to	
-	projects.	Pinamungajan	the LGU	
15	We are encouraging SEDC to be	Mayor Balicuatro –	Noted	Ms. Carin –
	part of the lobbying group seeking	Office of the		HRA Div. Mngr. –
	that tagx payments be made	Municipal Mayor -		SEDC
10	directly to or thru the LGO	Pinamungajan	Vac you will be	Mc Carin
10	for/included in the Permits?	Mun Eng'g -	res, you will be	HPA Div Mogr -
	for mendeed in the Permits:	Pinamungaian	information You will	SEDC
17	To be noted for permitting and	Mayor Balicuatro –	also be a resource	5250
- /	zoning (-do-)	Office of the	person for the EIS	
		Municipal Mayor -	Study	
		Pinamungajan		
18	We also need the locations and	Mr. Canino -		
	areas, so we can integrate it in the	MPDC –		
	CLUP	Pinamungajan		
19	On the DR (Delivery Receipt),	Ms. Erames -	To the Brgy.	Mayor Balicuatro
	there should be transparency. To	SB Sec –	Treasurer	– Office of the
	whom is it submitted to? So as to	Pinamungajan		Municipal Mayor -
	know the correct income we			Pinamungajan
	should be receiving.			Mr. Compo
				VP Operations -
				SEDC
20	Require the supplier to attach DR	MPDC	We submit quarterly	Mr. Campo –
_	Documents	-	to the Province, with	VP Operations –
21	Including the Volume	Mayor Balicuatro –	the rate being	SEDC
		Office of the	P20/cubic meter	
		Municipal Mayor -		
		Pinamungajan		
22	Address the DR Documents to the	Mayor Balicuatro –		
	Treasurer	Office of the		
		Municipal Mayor -		
22	Ensure that what happened to	Pinamungajan Ma Framas	Maagurag will be	Mr. Compo
23	Ensure that what happened to	SP Soc	undortakon	VP Operations -
	Naga udesh t happen (again/here)	Dinamungaian	unuentaken	
24	Avoid hazardous practices such as	Mayor Balicuatro –	We shall be careful	Mr. Campo –
- ·	what may have happened in Apo	Office of the	and study soils and	VP Operations –
	Cement	Municipal Mayor -	slopes before and as	SEDC
		Pinamungajan	we proceed, and	
			adjust accordingly.	
			Over-stockpiling	
			while continuing to	
			aggressively expand	
			even around the	
			Stockpile Area is	
1		1	Dangerous.	1

VII. Photo Documentation during the IEC Activity



Figure 1. Consultation/Courtesy Calls, PEISS and Project Description Presentation



Figure 2. Placement of Posters



Figure 3. Distribution of Brochures

ATTACHMENT 3

PRE-PUBLIC SCOPING PARTICIPATORY GATHERING

PRE-PUBLIC SCOPING PARTICIPATORY DATA GATHERING Documentation Report for the Silica Quarry Expansion Project (MPSA 314, MPSA 323)

I. Objective

In compliance with DAO 2017-15 or the Guidelines on Public Participation under the Philippine Environmental Impact Statement System, Participatory Data Gathering Activities on the Silica Quarry Expansion Project (MPSA 314, MPSA 323) was conducted from November 14 – December 3, 2018 in various locations in San Fernando and Pinamungajan, particularly in the Impact Barangays and with Key Stakeholders.

II. Activities

The Participatory Data Gathering Activities conducted were the following:

- 1. Key Informant Interviews (KIIs)
- 2. Focus Group Discussions (FGDs)
- 3. Perception Survey

III. Time Frame and Duration

The time frame and duration of the Participatory Data Gathering Activities was from November 12 – December 3, 2018.

- The Key Informant Interview was held on November 19, 2018 Wednesday in the afternoon.
- The Focus Group Discussion was held on November 15, 2018 Thursday at 10am.
- The Perception Survey was conducted from November 22 November 30, 2018.

IV. Locations and Venues

The locations and venues of the Participatory Data Gathering Activities were in the Impact Barangays.

Project	Silica Quarry Expansion Project (MPSA 314, MPSA 323)				
Subject	ilica Quarry Expansion Project (MPSA 314, MPSA 323) Pre-Public Scoping the Participatory Data				
	Gathering				
Objective	Silica Quarry Expansion Project (MPSA 314, MPSA 323) Pre-Public Scoping the Participatory Data				
	Gathering as per DAO 2017-15 or the Guidelines on Public Participation under the Philippine				
	Environmental Impact Statement System				
Activities	1. Key Informant Interviews (KIIs)				
	2. Focus Group Discussions (FGDs)				
	3. Perception Survey				
Time frame/	November 14 – December 3, 2018				
Duration	• 3 weeks				
Location	Municipality of Pinamungajan				
	1. Brgy. Duangan				
	2. Brgy. Punod				
	3. Brgy. Lut-od				
	4. Brgy. Guimbawian				
	5. Pinamungajan Brgy. Hall				

Summary Matrix for the Pre-Public Scoping the Participatory Data Gathering

#	Participatory Data Gathering Activities Conducted	Time Frame/ Duration	Location/ Venue	Remarks
2	Key Informant Interviews (KIIs)	November 19, 2018	Duangan Brgy. Hall	Respondents:
				Brgy. Secretary
3	Focus Group Discussions (FGDs)	November 15, 2018	Duangan Brgy. Hall	Participants:
		10am-12noon		Brgy. Officials
				6 participants
4	Perception Survey	November 21 – November	Impact Brgys:	Purposive
		30, 2018	1. Duangan	Sampling
			2. Punod	
			3. Lut-od	100 respondents
			4. Guimbawian	

Summary Matrix for the Pre-Public Scoping Participatory Data Gathering Activities

V. Demographic Data of respondents in the impact barangays



Figure 1. Age of the respondents







Figure 3. Source of Income



Figure 4. Monthly Income of the respondents









Figure 7. Place of Birth of the respondents



Figure 8. Ethnic Origin of the respondents



Figure 9. Length of Stay

Figure 10. Tenurial Status of Residence



Figure 17. Toilet Facility

VI. Issues and Concerns raised during the KII

1. Perceived Negative Impacts/Concerns of the Project

- a. Erosion and Landslide/Safety Concern
- b. Dust
- c. Damage to Roads

2. Perceived Positive Impacts/Concerns of the Project

- a. Additional Livelihood
- b. Support in Brgy. Programs
- c. Increased IRA
- d. Employment

Pinamungajan Impact Barangays LGUs Focus Group Discussion (FGD) on Silica Quarry Expansion Project (MPSA 314, MPSA 323)

Documentation Report

I. Activity Summary

Project/s	1. Silica Quarry Expansion Project (MPSA 314, PSA 323)	
	2. Clay and Silica Quarry Expansion Project (MPSA 131, MPSA 330, MPSA 348)	
Activity	Activity Participatory Data Gathering – Focus Group Discussion (FGD)	
Date	Date November 15, 2018 Thursday 10am – 12 noon	
Venue	Brgy. Duangan Barangay Hall Compound, Pinamungajan	
Participants	Brgy. Officials of 4 Brgys.: Duangan. Guimbawian, Punod, Lut-od	
Proponent	Solid Earth Development Corporation (SEDC)	
Rationale	DENR DAO 2017-15	
Attendance	Total: 6	
Languages	Primary Language Used : Cebuano/Visaya	
Used	Secondary Language/s Used: English;Filipino	

II. Attendance Summary

	Office / Designation	Representative	
1	Brgy. Punod LGU	Brgy. Capt. Felix Bagahansol	
2	Brgy. Guimbawian LGU	Brgy. Capt. Rolando L. Alia	
3	Brgy. Lut-od LGU	Brgy. Capt. Godofredo L. Abellar	
4	Brgy. Duangan LGU	Brgy. Sec. Dogie Maris A. Batiancila	
5	Brgy. Duangan LGU	Brgy. Treas. Marciana Bariga	
6	Brgy. Duangan LGU	Brgy. Personnel Alexander Ygay	

III. Profiles of Participants:

Ages: Range: 30-62; Ave.: 48.16 Gender: Males: 4; Females: 2 Monthly Income (PhP): Range: 3.8k – 11.5k; Ave: 6.3k Educational Attainment: High School: 4; College Level: 2 Religion: Roman Catholic: 5; Christian: 1

IV. Notable Situation/s in the Area

1. Tenurial Status of Residences

*Most owned Lands are Tax Declaration

*Most residences are just tenants, occupying the lands with permission from the owners

2. Sources of Water

*Most water supply are from water wells and spring water

V. Perceptions on the Expansion Project

A. General Overall Perception on the Project

The project is perceived to have an overall general net positive impact. On a scale of -10 - + 10, the FGD showed the project to have an aggregate rating of + 1.5.

B. Perceived Positive Impacts:

- 1. Employment
- 2. Brgy. Income
- 3. Improvement of Communications Network

On scale of 1-10 with 10 being the highest, the participants rated the perceived positive impacts as 9.167, with 8 being the lowest rating provided and 10 being the highest rating provided.

C. Perceived Negative Impacts:

- 1. Damage to Road Network
- 2. Landslide/Erosion
- 3. Damage to nearby houses
- 4. Noise Pollution

On scale of 1-10 with 10 being the highest, the participants rated the perceived negative impacts as 7.67, with 7 being the lowest rating provided and 9 being the highest rating provided.

D. Suggestions with regards to the proposed expansion:

- 1. Take care of dangerous/accident prone/hazardous areas
- 2. Avoid Landslides
- 3. Signage in dangerous/accident prone/hazardous areas
- 4. Tree planting as protection against landslides in other areas
- 5. Provide access roads. Separate for the hauling, and for the community
- 6. Relocation and housing to those affected
- 7. Tree Replacement/Reforestation/Rehabilitation
- 8. Concrete Slope Protection
- 9. Petition for a flower garden in Lut-od
- 10. In rehabilitation, create/gear towards tourist spot or eco-park
- 11. Deepen/Strengthen the community relations

VI. Photo Documentation



Figure 1. Focus Group Discussion and Key Informant Interview



Figure 2. Perception Survey

ATTACHMENT 4

PROPOSED LIST OF INVITEES

LIST OF INVITEES FOR THE PUBLIC SCOPING

Agency/Institution	Name of Representative	Designation	Address
National Agencies			
DENR EMB Central	Engr. Metodio U. Turbella	EMB Director	DENR Compound, Visayas Avenue, Diliman, Quezon City
EMB EIAMD	Engr. Esperanza A. Sajul	Chief	DENR Compound, Visayas Avenue, Diliman, Quezon City
Mines and Geosciences Bureau	Atty. Wilfredo G. Moncano	Acting Director	MGB Compound, North Avenue, Diliman, Quezon City
Regional Agencies			
DENR R7	Gilbert C. Gonzales	Regional Director	National Government Center, Sudlon, Lahug, Cebu City, Cebu
EMB R7	Engr. William P. Cuñado	EMB Regional Director	Greenplains Subdivision, Banilad Mandaue City, Cebu
MGB R7	Engr. Efren B. Carido	OIC - Regional Director	Greenplains Subdivision, Banilad Mandaue City, Cebu
Provincial Agencies			
Cebu Provincial LGU	Hon. Hilario Davide III	Governor	N. Escario St., Cebu Capitol, Cebu City
	Hon. Agnes Almendras Magpale	Vice governor	N. Escario St., Cebu Capitol, Cebu City
	Mr. Rodel C. Bontuyan	Provincial Planning and Development Officer	3rd Floor East Wing, Executive Bldg., Cebu Capitol
	Mr. Jayson P. Lozano	Provincial Environment and Natural Resources Office	Ground Floor West Wing, Executive Bldg., Cebu Capitol
PENRO-Cebu	For. Jose Cleo Cary Colis	OIC, PENR Officer	Green Plains Subdivision, Banilad, Mandaue City
Municipal Agencies			
Pinamungajan Municipal Government	Hon. Glenn Baricuatro	Mayor	Municipal Building, Pinamungajan, Cebu

Agency/Institution	Name of Representative	Designation	Address
	Hon. Maria Honeylette	Vice Mayor	Municipal Building,
	Lingad		Pinamungajan, Cebu
	-	Municipal Council Members	Municipal Building,
			Pinamungajan, Cebu
	Mr. Oscar M. Canino	Municipal Planning and Development	Municipal Building,
		Officer	Pinamungajan, Cebu
	Mr. Marlon B. Aniñon	Municipal Agriculturist Officer /	Municipal Building,
		Municipal Environment and Natural	Pinamungajan, Cebu
		Resources Officer	
	Ms. Maria Eleanor P. Gigante	Municipal Health Office	Municipal Building,
		Representatives	Pinamungajan, Cebu
	Ms. Bernadette Atil		
	Rodolfo P. Patong	Municipal Engineering Office	Municipal Building,
			Pinamungajan, Cebu
	To All Department Heads	Department Heads	Municipal Building,
			Pinamungajan, Cebu
CENRO-Argao	Mr. Roldan R. Cotejo	OIC, CENR Officer	Lamacan, Argao, Cebu
Barangay Agencies			
Barangay Lut-od, Pinamungajan	Hon. Godofredo Albellor	Punong Barangay	Barangay Lut-od, Pinamungajan
	-	Kagawad, Barangay Councilors, and	
		Personnel	
Barangay Punod, Pinamungajan	Hon. Felix Bagahansol	Punong Barangay	Barangay Punod, Pinamungajan
	-	Kagawad, Barangay Councilors, and	
		Personnel	
Barangay Duangan,	Hon. Annette Navarro	Punong Barangay	Barangay Punod, Pinamungajan
Pinamungajan	-	Kagawad, Barangay Councilors, and	
		Personnel	
Other barangays of	-	Punong Barangay, Kagawad,	Pinamungajan, Cebu
Pinamungajan		Barangay Councilors, and Personnel	
Interest Groups			

Agency/Institution	Name of Representative	Designation	Address
Fisherfolk group/organization on Impact Barangays/Municipalities	-	Representative	Pinamungajan, Cebu
Senior Citizen group/organization on Impact Barangays/ Municipalities	-	Representative	Pinamungajan, Cebu
Women's group/organization on Impact Barangays/Municipalities	-	Representative	Pinamungajan, Cebu
Youth's Group / Organization on Impact Barangays/ Municipalities	-	Representative	Pinamungajan, Cebu
Elementary School on Impact Barangays/Municipalities	-	Principal, Duangan Elementary School Principal, Lut-od Elementary School Principal, Punod Elementary School	Pinamungajan, Cebu
Secondary School on Impact Barangays/Municipalities	-	Principal, Pinamungajan National High School Lut-od National High School	National Hi-way, Pinamungajan, Cebu Lut-od, Pinamungajan, Cebu
Tertiary School on Impact Barangays/Municipalities	-	Principal	Pinamungajan, Cebu
Churches on Impact Barangays/Municipalities	-	Representative	Pinamungajan, Cebu
Hospitals on Impact Barangays/Municipalities	-	Representative	Pinamungajan, Cebu

ATTACHMENT 5

DRAFT INVITATION LETTER AND IEC MATERIALS FOR THE PUBLIC SCOPING

NAME OF REPRESENTATIVE Designation INSTITUTION / ORGANIZATION Address

Dear Sir/Ma'am:

We are pleased to invite you to the Public Scoping for the ECC amendment application of the Silica Sand Quarry Expansion Project of Solid Earth Development Corp. (SEDC) located at Barangays Lut-od, Punod, and Duangan, Municipality of Pinamungajan, Cebu. The Public Scoping will be held on (Date), (Time) at (Venue).

This Public Scoping is a part of the Environmental Impact Assessment (EIA) process per Presidential Decree (P.D.) 1586, (Environmental Impact Statement System) and its Implementing Rules and Regulations to solicit and address issues and concerns about the project.

A copy of the Project Description Report for Scoping is downloadable at our website: www.emb.gov.ph (kindly access the Notice of Public Scoping link found at the lower right portion of our website) while hard copies are available in ______.

For more details, please contact the EMB Central Office at DENR Compound, Visayas Avenue, Diliman, Quezon City or telephone no. 920-22-32.

We look forward to your participation.

Sincerely yours,

Safety and Health Policy

We are committed to manage a safe and responsible mining and port operations by providing safe and healthy working conditions to our employees and service providers and adhering to safety and health standards.

Under this policy, incident prevention is the ultimate goal to eliminate/minimize potential pre-determined hazards and risks associated in each stage of our operations through established operational controls and strategies for continual development.

Environmental Policy

SOLID EARTH DEVELOPMENTAL CORPORATION is committed to the continual Environmental Management System improvement through responsible extraction, development and utilization of mineral resources. Implement activities that can address operational aspects, impacts and socio-economic programs to co-exist with stakeholders. Cebu 🔛 Cebu City

To ensure that the associated impacts concerning our activities are not detrimental to the environment. we shall;

- Conduct activities in compliance with all applicable environmental regulations.
- Establish a systematic environmental management that is geared to the delivery of quality raw materials and people development as well as protection of Mother Earth within the framework of sustainable development.
- Enhance environmental protection programs through systematic development and efficient continual energy/ material conservation efforts.
- Ensure implementation of pollution control and prevention programs
- Educate, train and motivate stakeholders to carry out tasks in an environmentally responsible manner.
- Implement environmental protection among vendors and any of the interested parties with consideration to the life cycle impacts of their aspects.



SEDC

SEDC PINAMUNGAJAN 389. 44 HA SILICA QUARRY EXPANSION PROJECT (MPSA 314, MPSA 323)

PROJECT INFORMATION

PROJECT NAME:	SEDC PINAMUNGAJAN 389. 44 SILICA QUARRY EXPANSION PROJECT
PROJECT TYPE:	QUARRYING – EXTRACTION OF NON- METALLIC MINERALS
PROJECT LOCATION:	DUANGAN, PUNOD, LUT-OD PINAMUNGAJAN CEBU
PROJECT SIZE:	389.44 HA
MANPOWER REQUIREMENTS:	EXISTING +- 150; ADDITIONAL +- 50
COMPONENTS:	 PRODUCTION AREA OVERBURDEN/TOPSOIL/STOCKYARD RAW MATERAIALS STOCKYARD (LIMESTONE, CLAY, SILICA, POZZOLAN POLLUTION CONTROL FACILITIES (DRAINAGE SYSTEM, SILT POND AND OIL WATER SEPARATORS WATER TRUCKS)
	WATER SEPARATORS, WATER TRUCKS),

PROPONENT PROFILE

PROPONENT:	SOLID EARTH DEVELOPMENT CORPORATION (SEDC)
REPRESENTATIVE:	ATTY. DENNIS B. TENEFRANCIA
DESIGNATION:	PRESIDENT
ADDRESS:	9TH FLOOR INSULAR LIFE BUSINESS CENTER,CEBU BUSINESS PARK, CEBU CITY
CONTACT DETAILS:	TEL NO.: (032) 340-8146 TELEFAX NO.: (032) 340-6313
RASON	

ARON PAGPADAYON SA PAG-SUPPLY OG SILICA PARA SA PAGHIMO OG SEMENTO.

PAGKINAHANGLAN SA PROYEKTO PAG-SUPORTA SA PADAYON NGA PANGINAHANGLAN OG LIMESTONE, CLAY OG SILICA

TUYO

ANG PAGKUHA OG SILICA SUBAY SA BALAOD SA GOBYERNO KABAHIN SA KALIKOPAN NGA GILATID SA IYANG MPSA NGA ADUNAY LABING DAKO NGA PAGHUNA-HUNA SA PAGSANTA SA **BISAN UNSA MAN NGA DILI MAAYO NGA EPEKTO SAMTANG** MAGPALAMBO SA MAAYO NGA EPEKTO SA NATURAL OG PISIKAL NGA PALIBOT APIL NA ANG KATILINGBANONG EKONOMIYA TUMONG

PAGPALAPAD SA KASAMTANGANG PRODUKSYON NGA LUGAR GIKAM SA 229.50 EKTARYAS NGADTO SA TINUIG NGA **PRODUKSYON NGA 660,000 TONELADAS**

MGA BENEPISYO

PROGRAMA PARA SA KATILINGBANONG KALAMBOAN, PANARBAHO, MGA PROYEKTO NGA MAPANGINABUHIAN OPORTUNIDAD NGA MOKITA, KITA SA LOKAL NGA GOBYERNO **O MUNISIPYO PINAAGI SA BUHIS**

DENR ADMINISTRATIVE ORDER 2017-15 GUIDELINES ON PUBLIC PARTICIPATION UNDER THE PHILIPPINE ENVIRONMENTAL IMPACT STATEMENT (EIS) SYSTEM

Consistent with the State Policies and Principles of the Philippine Constitution on the right of the people to a balanced and healthful ecology and on encouraging non¬governmental, community-based, or sectoral organizations that promote the welfare of the nation, the provisions of PD 1151 and PD 1586 on the implementation of the Philippine EIS System and the 1992 Declaration of United Nations Conference on Environment and Development (UNCED) emphasizing that environmental issues are best handled with the participation of all concerned citizens as well as with the thrust of the Department of Environment and Natural Resources (DENR) to promote social justice, the following guidelines on Public Participation are hereby promulgated.

Section 1. Basic Policy and Principles

It is hereby declared a policy that amidst the country's economic development initiatives, common good shall be promoted through public participation in the implementation of the Philippine EIS System. It shall employ the following basic principles.

- a) Public Participation should be initiated early and sustained at the various stages of the EIAProcess.
- Public Participation should be well planned and should involve the stakeholders in the assessment, management and monitoring of environmental impacts
- c) Timely public disclosure of all necessary relevant information especially to the stakeholders who shall be made to understand and appreciate the specific purpose and context of their participation for each stage of the process.

Section 2. Objectives and Outcome

The objective of this Administrative Order is to improve and rationalize Public Participation under the Philippine EIS System by incorporating best practice principles and standardizing the procedures and requirements.

The intended outcome of this order is to achieve meaningful public participation under the Philippine EIS System at the various stages of the EIA Process through:

- a) An adequate, timely and effective information disclosure and feedback mechanism for:
 - The gathering of all relevant baseline data / information, issues and concerns that should be included in the EIA study
 - The review of the contents of the EIS
 - The management and monitoring of environmental impacts of projects/undertakings
- b) Consideration of the needs of the vulnerable and disadvantaged and of gender concerns.
- c) Discussion of relevant views of the affected people and other stakeholders for incorporation into the decision-making, such as project alternatives/design, mitigation measures, the sharing of development benefits and opportunities and implementation issues.
- d) Defined roles and empowered citizens in taking responsibility in environmental protection

Section 3. Scope of Public Participation Requirement Public participation under the Philippine EIS system shall be required for the entire EIA Process from social preparation prior to scoping to impact management and monitoring during project implementation/abandonment. **Environment** - shall refer to the totality of the external conditions affecting life, development and survival of organisms including the surrounding air, water (both ground and surface), land, flora, fauna, humans and their interrelations.

Environmental Aspects - elements of an organization's activities, products or services that can interact with the environment.

Environmental Compliance Certificate (ECC) - is a document that may be issued after thorough review of the EIA Report. It certifies that the proposed project has complied with the requirements of the EIS System and that the proponent has committed to implement its approved Environmental Management Plan (EMP) to address the environmental impacts and to operate within the best environmental practice.

Environmental Impact Assessment (EIA) - a process that involves predicting, monitoring and evaluating the impacts of a project (including cumulative impacts) on the environment during construction, commissioning, operation and abandonment. It also includes designing appropriate preventive, mitigating and enhancement measures to address these consequences to protect the environment and the community's welfare.

Environmental Impact Statement (EIS) - an EIA Report type that is required to be submitted for ECC application for proposed ECPs and other project types that are expected to have a high degree of environmental impact significance.

Project or Undertaking -any activity, regardless of scale or magnitude, which may have significant impact on the environment.



THE EIA PROCESS

SOLID EARTH

DEVELOPMENT CORPORATION



SEDC PINAMUNGAJAN 389.44 HA SILICA QUARRY EXPANSION PROJECT (MPSA 314, MPSA 323)

Para sa Kahiluwasan, Panglawas, Kalikupan Ug Pagdumala.

lsip usa ka responsabling kompanya sa mina, ang SEDC mipatuman ug misunod sa kinatas-ang basehan sa kahiluwasan,panglawas, kalikupan ug pagdumala.

Maoy labing unang priyuridad ang kahiluwasan sa mga tao ug sa komunidad kung asa kami nag-operate.

> Kahiluwasan ang Una - Sajety First -

ATTACHMENT 6

DRAFT PRESENTATION OF THE PROJECT DURING PUBLIC SCOPING

SILICA SAND QUARRY EXPANSION PROJECT

PUBLIC SCOPING

PROPOSED PROJECT COVERAGE

Project Name	Silica Sand Quarry Expansion Project		
Project Type	Quarrying – Extraction of Non-metallic minerals		
Project Location	Barangays Lut-od, Punod and Duangan in the Municipality of Pinamungajan		
Project Scale/Limit	Total extraction rate: Increase from 200,000 to 660,000 MT Total area: 389.44 hectares MPSA area (NO CHANGES) • • MPSA 314 = 84 hectares • • MPSA 323 = 305.44 hectares •		
Major Project Components	i. Quarry Areas: MPSA 314 and MPSA 323 ii. Overburden/topsoil stockyard iii. Haul roads, Admin Bldg., Nursery		

PROFILE OF THE PROPONENT

Name of the Company	Solid Earth Development Corporation (SEDC)
Contact Person	Atty. Dennis B. Tenefrancia
	President
Office Address	9th Floor Insular Life Business Center, Cebu Business
	Park, Cebu City
Contact Details	Tel. No.: (032) 350 2908
	Fax. No. (032) 234 2795



PRC	JECT ALTERNAT	TVES	
Area Resources	Economic Potential of Resources	Potential Project	Possible Environmental Impact
Siliceous earth materials fo cement manufacture Land fo agricultural cullivation	Raw materials for cement manufacture Marginal agricultural production	Supply contracts to fill the requirements of local cement manufacturing plants Subsistence food crop production	Uncertain. Environmental compliance requirements for small scale quarry operations are not closely monitored or controlled. High sediment level in surface run off will continue, eventually to aggrade the streams and cause bank erosion during heavy rainfall, forecasted for Cebu in PAGASA climate change scenarios.
Mineralized land	Unknown. At present other minerals occurring in SEDC MPSAs are not economically viable for mining.	Possible future mining project for other minerals	The area is confirmed by the Mines and Geosciences Bureau as mineral bearing lands and in time will be subject to mining. Actual mining impact will to certain extents involve disturbances similar to the disturbances ensuing from this project.

PROJECT COMPONENTS

QUARRY AREA

- ▶ <u>Total area:</u> 389.44 hectares MPSA area
 - MPSA 314 = 84 hectares
 - MPSA 323 = 305.44 hectares



