

PRE FEASIBILITY REPORT OF PANJAMADEVI SAND QUARRY FOR OVER AN EXTENT OF 1.21.0 Ha IN PANJAMADEVI VILLAGE, MANMANGALAM TALUK, KARUR DISTRICT AND TAMILNADU OF THE EXECUTIVE ENGINEER, PUBLIC WORKS DEPARTMENT, WRD, MINING AND MONITORING DIVISION, TIRUCHIRAPPALLI - 1.

(Under the Guidelines of Ministry of Environment and Forests in terms of the provisions of EIA Notification 2006 and Specifically in Circular No J-11013/41/2006-IA.II (I) Dated 30th December, 2010)

1.0 EXECUTIVE SUMMARY OF THE PROJECT

The total extent of the Area is 1.21.0 Ha in Government land (Amaravathy River), survey field No. 1129 (Part) at Panjamadevi Village, Manmangalam Taluk, Karur District.

It is a new Sand Quarry Project. The lease applied area exhibits slightly undulated topography.

The conventional Eco-friendly quarry operation is proposed to carry out with open cast semi mechanized quarrying by deploying Excavator without drilling and blasting.

The quarry operation is proposed up to a depth of 1.0 m from above the theoretical river bed level only.

Average Height of Sand Shoals = 1.00 m (Avg)

The Total Geological reserve is about 75,052 m³ of Sand including shoals for a period of Two Years only.

The Total Mineable reserve is about 12,116 m³ of Sand including shoals for a period of Two Years only.

The proposed quantity of reserve is about 12,100 m³ of Sand including shoals for a period of Two Years only.

The Mining license applied for period of Two Years only.

The Life of the quarry is Two Years only.

The project area does not fall in 'HACA' region.

There is no Interstate boundary within the radius of 10 Km.

There is no Western Ghats within the radius of 10 Km.

The project area does not fall in CRZ.

There are no Bird sanctuaries, wild life sanctuaries as per Wild Life Production Act 1972, within the radius of 6 km.

There is no habitation situated within the radius of 300 m.

There are no abandoned quarries within the radius of 500 m.

0.3 KLD of water for labour drinking and domestic purpose will be available from nearby village through package drinking water vendors.

5.0 KLD and 0.7 KLD for dust suppression in haul roads and Green belt during the quarrying operation respectively, the water is available in existing borehole on nearby the quarry area and also available from authorized water vendors.

The cost of the project

Cost towards CSR (Socio economic development for panchayat)	= Rs. 14,52,000 /-
Estimated operational cost of project	= Rs 8,00,000/-
Estimated EMP Cost	= Rs. 2,54,000/-
Total Cost	= Rs. 25,06,000/-

(The project cost including EMP Cost is about Twenty five lakhs and six thousand rupees only)

2.0 INTRODUCTION OF THE PROJECT OR BACKGROUND INFORMATION

The applicant proposes to quarry Sand by opencast semi mechanized quarrying over an Extent of 1.21.0Ha; this project is located in Panjamadevi Village, Manmangalam Taluk, Karur District and Tamil Nadu. The Category of project-‘B2’.

(i) Identification of project and project proponent: In case of mining project, a copy of mining lease/letter of intent should be given

- I. Precise area communication letter was issued by the District Collector, Karur District vide Rc. No. 1195/Kanimam/2017 Dated 02.11.2018.
- II. The Mining Plan was approved by the Assistant Director, Geology and Mining, Karur District vide Rc.No. 1195/Kanimam/2017 Dated 13.11.2018.

Owner name and address (address for correspondence)

Name of owner : The Executive Engineer,
Address : Public Works Department,
(WRD), Mining and Monitoring division,
Tiruchirappalli District.
Pin code : 620 001
Mobile No :
Email Address : srmgcsalem@gmail.com

Location of Project site

Name of the quarry : Panjamadevi Sand Quarry
S.F. Nos : 1129 (Part)
Extent : 1.21.0Ha
Village : Panjamadevi
Taluk : Manmangalam
District : Karur
State : Tamil Nadu
Ownership : It is a Government land (Amaravathy River).

(ii) Brief description of nature of the project

The Sand quarrying is proposed to carry out by opencast Semi mechanized method. Sand is composed of consolidated felsic compound Silica and Feldspar the sand is formed by the action of water due to transportation and erosion of Rocks sand has become a very important mineral for the expansion of society. Sand is a naturally occurring granular material composed of finely divided rock and mineral particles. River sand is one of the world's most plentiful resources (perhaps as much as 20% of the Earth's crust is sand) and has the ability to replenish itself. River sand is vital for human well-being& for sustenance of rivers. The Sand is mainly used for building construction purpose.

Machineries like excavator are proposed for quarrying for a short period of this Sand up to 1m depth below the river bed. No drilling and blasting is proposed. There is no formation of bench; the total depth of sand below the river bed is about 5m. Total depth of availability of sand is about 5m below the river bed. The proposed depth of sand quarry: 1m below the river bed. The entire Sand is excavated and utilized. It is proposed to exploit Sand including shoals is about 12,116 m³ for a period of Two Years only.

There is no wastage is not anticipated during the quarry operation, the entire Sand is excavated and utilized. It is proposed to exploit Sand of about 12,100 m³ for a period of Two Years only.

(iii) Need for the project and its importance to the country and or region

The Sand quarrying project falls in the area of Karur District, Tamilnadu, where scanty agricultural activities are been carried out and the new industries are springing up in the district. Sand is an important commercial product, with a number of applications. The applicant intends to use this Sand specifically used for construction purpose in and around the district.

This project will give employment opportunities to 22 members directly. Mineral industries of the state of Tamil Nadu provide employment opportunities for the people of the state as well as in the specific project area. Mining and quarrying is two among the major core sector industries which plays a vital process of country's economic development.

(iv) Demand and supply gap

There is a huge demand of Sand in Karur District, specifically used for construction purpose in and around the District, for this a huge quantity of Sand is required for construction purposes. Besides, there is also huge demand of Sand for public and private sector projects also.

(v) Imports vs. indigenous production

There is no import of Sand at present in India. India especially the peninsular India (Southern India) has good resource of Sand.

(vi) Export Possibility

There is no possibility for export of this Sand.

(vii) Domestic/Export Markets

The sand is specifically used for construction purpose besides the Removal of the sand may also called as desilting will increase the functional efficiencies of the river during the flood season because protecting the Dwellers and vegetation on the bank of the river.

(viii) Employment Generation (Direct and Indirect) due to the project

About 22 employees including labors directly and engaged in this proposed quarry project and the tentative man power required for the proposed Sand quarry shall be as follows.

Table -1

Skilled :			
S.No	Designation	Nos	
1	PWD Assistant Engineer	1	
2	Technical Assistant	1	
3	Bullock Cart driver	16	
Total		18	
Un-skilled			
5	Permit Slip Issuer	2	
6	Traffic Regulator	Entrance	-
		Exist	-
		Quarrying Site	1
7	Manual Loader for men	-	
8	Office Helper	1	
9	Track Maintainer	-	
10	Watchman (Three Shifts)	-	
Total		4	
Grand Total		22	

The above man power is adequate to meet out the production schedule and the machinery strength envisaged in the mining plan and also to comply with the statutory provisions of mine safety regulations.

It is been ensured that the labors will not be deployed less than 18 years, No Child labor will engaged or entertained for any kind of quarrying operations. All the labors engaged for quarrying operations will be insured till the end of life of quarry.

3.0 PROJECT DESCRIPTION

(i) Type of project including interlinked and interdependent projects, if any

The Panjamadevi sand quarry, it is an opencast semi mechanized quarry. There is no interlinked & interdependent project. No other allied actions like processing and beneficiation is proposed in this project.

(ii) Location (map showing general location, specific location, and project boundary & project site layout) with coordinates

- ❖ The project Sand is about 1.21.0 Ha,
- ❖ The project area falls in Government land (Amaravathy River) in Panjamadevi village
- ❖ The area is falls in GSI Topo sheet no. 58- J/1
- ❖ The Latitudes between of 10°58'13"N to 10°58'17"N

❖ Longitudes between of 78°06'49"E to 78°06'56"E on WGS 1984 datum.

(iii) Details of alternate sites considered and the basis of selecting the proposed site, particularly the environmental considerations two into should be highlighted

The open cast quarrying is proposed in the area for excavation of Sand up to 1.00 m depth from above the theoretical river bed level. The quarrying operation is proposed in Government land (Amaravathy River) and there is no any alternative site for this project is not considered, the project is site specific.

(iv) Size or magnitude of operation

The total area of the project is about 1.21.0 Ha. It is proposed to exploit Sand about 12,100 m³ by open cast semi mechanized quarry by deploying excavates directly for a period of Two Years only.

(v) Project description with process details (a schematic diagram/flow chart showing the project layout, components of the project etc. should be given)

Mineable reserves

Mineable Resources of Shoals = 12,116 m³

Total Mineable Resources of Sand (Shoals above The Theoretical River Bed) = 12,100 m³.

Geology

The lease applied area is Amaravathy River exhibits slightly undulated topography covered with Sand which is formed by the continuous mechanical action of river erosion of weathered particles transported and deposited. The altitude of the area is 103.800 (Maximum) from MSL; the slope of the area is gentle towards Eastern side.

Details of Exploration

No exploration is carried out. The Sand is found right from the surface and proposed to excavate up to depth of 1.00 m from above the theoretical river bed level only.

Proposed Study to be carried out

As the quarrying operation is proposed to be carried out for a period of Two Years up to depth of 1.00 m from above the theoretical river bed level further exploration or proposed study is redundant.

Method of Estimation of Reserves

The Geological plans demarcating the commercially viable sand body have been prepared in 1:2000 scales (Plate No. VI & VI-A).

The River Levels (RL) taken for the reserve calculation,

Totally 6sections have been drawn one along the Length wise of the area (X-Y) and another 5 sections are drawn (A-A'), (B-B'), (C-C'), (D-D') & (E-E') sections along the width wise of the area to cover the area consider for lease in the scale of Horizontal: 1:2000 & Vertical: 1:200. Please refer (Plate No. VI& VI-A)

The cross sectional area for the proved depth persistence of 5m has been worked out for the section. The cross sectional area multiplied by its length of influence on the longer axis gives the volume (in-

situ) in the cross sectional area. The sum total of the in-situ reserves available within the individual cross sectional area gives the geological reserves of the lease applied area.

As the mineable of Sand in the terms of cubic meter. The Geological Resource, Mineable Reserves are given only in terms of Cubic meter. Please refer Geological Plan and Section shown in (Plate No. VI & VI-A)

a) Geological reserves with Geological sections on a scale of 1:2000.

The geological Resources calculated up to a depth of 5m below the theoretical river bed level including shoals. The Resources is given below.

Table -2
GEOLOGICAL RESOURCES OF SHOALS

RESERVE ESTIMATION OF SHOALS					
S.No	CS@	Area (m ²)	Mean Area (m ²)	Distance (m)	Quantity in M ³
1	0m	50.430			
2	50m	58.250	54.34	50	2717.00
3	100m	56.950	57.60	50	2880.00
4	150m	57.890	57.42	50	2871.00
5	220m	46.350	52.12	70	3648.40
GRAND TOTAL					12116.40 m³
GRAND TOTAL (Round off)					12,116 m³

(ABOVE THE THEORETICAL RIVER BED LEVEL)

Table -3

GEOLOGICAL RESOURCES OF SAND (BELOW THE THEORETICAL RIVER BED)			
Area in (Ha)	Depth in (m)	Volume in m ³ (Area X Depth)	Geological Resources of Sand in m ³
1.21.00	4.0	48,400	48,400
TOTAL			48,400

Geological Resources Of Shoals	= 12,116 m ³
Average Height Of Shoals	= 12,116 m ³
Average Height of Sand Shoals	= 12,100/12,100 m ²
	= 1.00 m (Max)
Geological Resources of Sand below the Theoretical	= 48,400 m ³

river bed

Total Geological Resources Of Sand Including Shoals = 75,052 m³

Recoverable reserves

There is no wastages is anticipated in the quarrying operation, Geological Resources is calculated as Mineable Reserves. The Mineable reserve is restricted up to a depth 1.0m above theoretical river bed.

Mineable Resources are estimated in area calculation method.

Table -4. Mineable Reserves

MINEABLE RESERVES OF SHOALS

RESERVE ESTIMATION OF SHOALS					
S.No	CS@	Area (m²)	Mean Area (m²)	Distance (m)	Quantity in M³
1	0m	50.430			
2	50m	58.250	54.34	50	2717.00
3	100m	56.950	57.60	50	2880.00
4	150m	57.890	57.42	50	2871.00
5	220m	46.350	52.12	70	3648.40
GRAND TOTAL					12116.40 m³
GRAND TOTAL (Round off)					12,116 m³

Table -5.

MINEABLE RESOURCES OF SAND (BELOW THE THEORETICAL RIVER BED)			
Area in (Ha)	Depth in (m) Above theatrical bed level	Volume in m³ (Area X Depth)	Mineable Resources of Sand Shoals in m³
1.21.00	1.00	12,116	12,116
TOTAL			12,116

Mineable Resources Of Shoals = 12,116m³

Production Reserves of Sand above the
Theoretical River bed level = 12,100 m³
(L220m x W55m X D1.00m Above theatrical bed level) =
12,100 m³
Total Mineable Reserves Of Sand Shoals Only = 12,100 m³

OPEN CAST WORKING

Opencast method of shallow mining is proposed, heavy Earth moving machineries like excavator are proposed for quarrying this Sand up to depth of 1.00 m from above the theoretical river bed level. No drilling and blasting is proposed for this type of Sand quarrying, **it is a conventional Eco-friendly quarrying operation.** The Sand will be loaded directly to the Tippers/Tractors for transportation to the needy customer's site. The depth of quarry is proposed to be restricted up to depth of 1.00 m from above the theoretical river bed level only.

Overburden:

There is no overburden the Sand is exploit right from the surface up to depth of 1.00 m from above the theoretical river bed level for a period of Two Years only.

(vi) Raw material required along with estimated quantity, likely source, marketing area of final products, Mode of transport of raw Material and Finished Products

This is a quarrying project for excavating Sand hence there is no requirement for raw material.

(vii) Resource optimization/recycling and reuse envisaged in the project, if any, should be briefly outlined

No optimization/ Recycling and Reuse envisaged in the proposed Sand quarry projects.

(viii) Availability of water its source, Energy/power requirement and source should be given

This Sand quarry project does not require huge water for the project. The total water requirement in the quarry will be around 6.0 KLD for drinking, domestic usage and dust suppression sprinkling. The water will be brought from local suppliers.

WATER BALANCE CHART

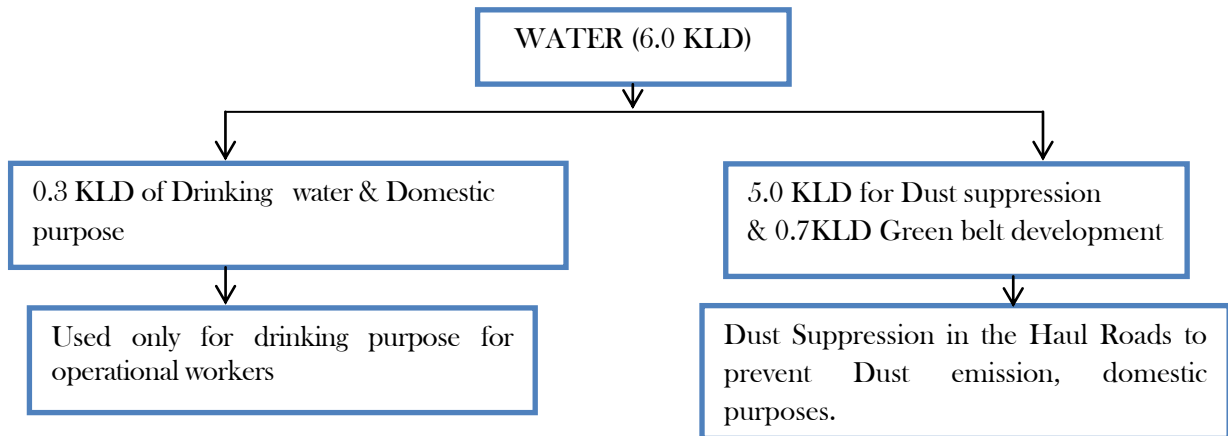


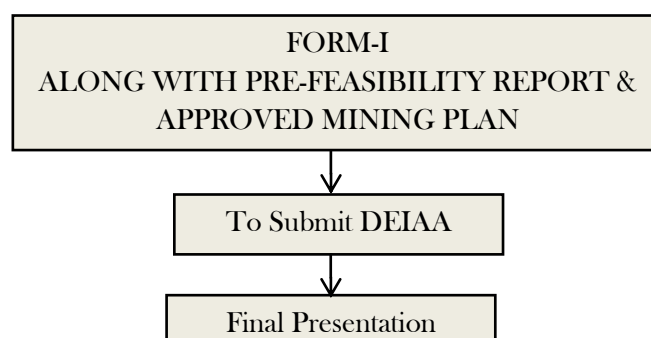
Table -6

Purpose	Quantity	Sources
Drinking and Domestic Purpose	0.3KLD	Water purchase from approved water vendors available in Panjamadevi which is about 850m on the Northwestern side of the lease area.
Dust suppression	5.0 KLD	From existing borehole on nearby quarry area or approved water vendors.
Green Belt	0.7 KLD	From existing borehole on nearby quarry area or approved water vendors.

(ix) Quantity of wastes to be generated (liquid and solid) and scheme for their management/disposal

There is no wastage is encountered during the quarrying operation the entire Sand is utilized. There is no toxic effluent expected to generate in the form of solid or liquid and gases and the no requirement of treatment of waste. There is no top soil available in the lease applied area.

(x) Schematic representations of the feasibility drawing which give information of EIA purpose



4.0 SITE ANALYSIS

(i) Connectivity

- There is an existing road running parallel to the banks of the river which leads to Panjamadevi to Koyampalli villages on Northwestern side of the area.
- The Nearest Railway station is Karur which connects the line between Karur - Trichirappalli about 3.5 km on the Southwestern side of the area.
- The Nearest National Highway (NH-7) Namakkal – Dindigul which is about 5.5Km on the Northwestern side of the area.
- The State Highway (SH-74) Karur - Dindigul which is about 7.3 Km on Southwestern side of the area.

(ii) Land Form, Land use and Land ownership

It is a Government land (Amaravathy River). It is a Government land maintained by Public Works Department. The area covered mostly by Sand which does not sustain any type of vegetation.

Table -7

Patta	Agriculture land	Grazing land	Forest land	Government land	Total (Ha)
-	-	-	-	1.21.0Ha	1.21.00Ha

(iii) Topography (along with map)

The lease applied area is Amaravathy River exhibits slightly undulated topography covered with Sand which is formed by the continuous mechanical action of river erosion of weathered particles transported and deposited. The altitude of the area is 103.800 m (Maximum) from MSL, the slope of the area is gentle towards Eastern side.

(iv) Existing land use pattern (agriculture, non-agriculture, forest, water bodies (including area under CRZ)), shortest distances from the periphery of the project to periphery of the forests, national park, wild life sanctuary, eco sensitive areas, water bodies (distance from the HFL of the river), CRZ. In case of notified industrial area, a copy of the Gazette notification should be given.

The lease area is exhibits almost Plain topography; it is a dry barren land covered with Sand formation, does not sustain any type of vegetation due to this Sand formation. Ground water is about 7-8m depth from below the theoretical river bed level. The quarrying is restricted up to depth of 1.00 m from above the theoretical river bed level; hence the quarry operation will not be affected by the ground water.

- ❖ No CRZ within the radius of 10 km.
- ❖ No Forest within the radius of 10 km.
- ❖ No National park, wild life sanctuary, eco-sensitive area within the radius of 10 km.
- ❖ No Western Ghats within the radius of 10 km.

(v) Existing Infrastructure

There is no existing infrastructure in the proposed quarry lease applied area.

(vi) Soil Classification

No top soil. Coarse grained Sand formation, this land does not sustain any type of vegetation or Agriculture.

(vii) Climatic data form secondary sources

Both the North East and South West monsoon occurs here and the summer are hot and winters are cool. During April and May the temperature may shoot up to 40°C and during winter the temperature does not fall below 25°C. The annual rainfall is around 900mm.

(viii) Social infrastructure available

There is no social infrastructures like Government Buildings, worship in the 500 m vicinity of the quarry lease applied area.

5.0 PLANNING BRIEF

(i) Planning Concept (type of industries, facilities, transportation etc.) Town and Country Planning/Development authority Classification.

This quarrying project is to excavate Sand by open cast semi mechanized method. Hydraulic excavator will be deploying for production. Transportation of Sand shall be done by tippers / tractors on roads. The project land is devoid of vegetation and lies in the backward town of Karur District. There are no specific industries or factories in and around the project area.

Transportation

- The Sand Shoals is being removed by using Bullock Cart with Manual loading Method.

Population projection

There are few villages located in 5 km radius from the lease applied area the details of the areas are given below.

Table-8

S.No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population
1.	Senapiratti	SE-310m	150
2.	Panjamadevi	NW- 850m	560
3.	Sellipalayam	NE-1.8Km	450
4.	Madavilagam	SW-4.0Km	1500

(iii) Land use planning (breakup along with green belt etc.)

The Sand quarrying operation is proposed for a period of Two Years up to depth of 1.00 m above the theoretical river bed level. The project area extent is 1.21.0 Ha. The entire area is proposed to be quarried.

(iv) Assessment of Infrastructure Demand (Physical & Social)

The existing road facilities are already available which shall be used and maintained. Medical facilities is available for the project sites, Government and private and other basic infrastructure

facilities like communication center, school, supermarket, bus stand are also available in Karur which is about 4.5km on the Southwestern side of the area. This quarry project will provide employment for about 22 persons directly.

(v) Amenities/Facilities

The simple methods adopted and the limited scale of activities involved in quarrying does not require High Tension Electric Power supply or huge workshop facilities. The quarrying work is restricted to two general shifts during day time only. Major Machinery repair works are attended at Karur which is about 4.5 km on the Southwestern side of the area. Drinking water will be brought from near agri land or approved water vendors. All the facilities are available in Panjamadevi which is about 850m on the Northwestern side of the area.

6.PROPOSED INFRASTRUCTURE

(i) Industrial Area (Processing area)

There is no processing area proposed within the lease applied area.

(ii) Residential area (Non processing area)

There is no residential area within 300m of the lease applied area.

(iii) Green Belt

After the completion of the quarrying operation, the land will be leveled and only used for facilitate the storage capacity of the tank. Afforestation is proposed on boundary barrier of the lease applied area. The applicant ensures to carry out Afforestation by planting native species on the nearby villages and village road after the consultation with Panchayat authorities. The budget for Afforestation will be around Rs. **20,000/-**

(iv) Social infrastructure

This proposed Sand quarry will fetch employment for about 26 people directly.

(v) Connectivity (traffic and transportation road/ Rail/ Metro/ Water ways, etc.,)

- There is an existing road running parallel to the banks of the river which leads to Panjamadevi to Koyampalli villages on Northwestern side of the area.
- The Nearest Railway station is Karur which connects the line between Karur - Trichirappalli about 3.5 km on the Southwestern side of the area.
- The Nearest National Highway (NH-7) Namakkal – Dindigul which is about 5.5Km on the Northwestern side of the area.
- The State Highway (SH-74) Karur - Dindigul which is about 7.3 Km on Southwestern side of the area.

(vi) Drinking Water management (Source & Supply of water)

This proposed Sand quarry project does not require huge water either for beneficiation or processing. Water required for drinking and domestic purpose for labor is around 0.3 KLD the

packaged drinking water for this will be brought from approved water vendors Panjamadevi which is about 850m on the Northwestern side of the area.

1. Drinking Water & Domestic purpose – 0.3 KLD (Source: through approved packaged water vendors)
 2. Dust Suppression – 5.0 KLD (Source: From existing borehole on near the quarry area or
From approved water vendors)
 3. Green belt – 0.7 KLD (Source: From existing borehole on near the quarry area or
————— From approved water vendors)
- Total – 6.0 KLD

(vii) Sewerage System

Toilets will be constructed on semi-permanent structure and sewage will be discharged once in three months. The sewage waste will be collected in soak pit and discharged as manure.

(viii) Industrial Waste Management

No industrial waste will be generated from the project.

(ix) Solid Waste Management

The Sand quarrying does not produce any waste. The entire Sand is excavated and utilized. This Sand may not produce any toxic effluent in the form of solid liquid or gas.

(x) Power Requirement & Supply / source

The proposed Sand quarrying does not required any power supply the quarrying operation which is proposed to operate in day time only for 7.00 Am to 6.00 Pm with 1 Hour lunch interval between 1.00 Pm to 2.00 Pm.

7.0 REHABILITATION AND RESETTLEMENT (R & R PLAN)

(i) Policy to be adopted (Central/State) in respect of the project affected persons including home ousters, langoustes and landless laborers (a brief outline to be given)

It is a Government land (Amaravathy River). The project area lies in Cauvery River, the land is specifically used for collecting the water during the rainy season, and there is no habitation located within the radius of 300m.

It is a Government land maintained by Public Works Department, Water Resources Department at Panjamadevi village accounts, Manmangalam Taluk and Karur District. Hence there is no Rehabilitation and resettlement is involved.

8.0 PROJECT SCHEDULE & COST ESTIMATES

(i) Likely date of start of construction and likely date of completion (Time schedule for the project to be given)

Sand Quarrying project which is likely to get commenced after the execution of quarrying lease. The proposed quantity reserves **12,100 m³**. The life of the quarry project is Two Years only.

(ii) Estimated project cost along with analysis in terms of economic viability of the project

A. Estimated operational cost :-

i) For excavation	= Nil
ii) Rest shelter	=Rs. 50,000/-
iii) Sanitary facility	=Rs. 50,000/-
iv) Formation of Bio-Degradable Pathways	=Rs. 5,00,000/-
v) Monitoring Studies through Institutes Fees	=Rs. 2,00,000/-
Total	=Rs. 8,00,000/-

Expenditure:

i) Drinking Water	=Rs. 48,000/-
ii) Sanitary Arrangement	=Rs. 36,000/-
iii) Safety Kits	=Rs. 25,000/-
iv) Afforestation	=Rs. 20,000/-

B Estimated EMP Cost of the project:-

i) Air Quality Sampling	=Rs. 50,000/-
ii) Water Quality Sampling	=Rs. 25,000/-
iii) Noise Level Monitoring	=Rs. 25,000/-
iv) Ground vibration test	=Rs. 25,000/-
Total	=Rs. 2,54,000/-

Cost towards CSR

(Socio economic development for panchayat) = Rs. 14,52,000 /-

Estimated operational cost of project = Rs 8,00,000/-

Estimated EMP Cost = Rs. 2,54,000/-

Total Cost = Rs. 25,06,000/-

(The project cost including EMP Cost is about Rupees /-) Twenty five lakhs and six thousand rupees only)

Population Benefit

The applicant ensures to take social responsibilities like providing School Note books, Uniforms to the Students below poverty level beside if the villages require any borehole for public use the

applicant ensure to do so. The applicant will also take part and contribute the native cultural activities in the nearby villages. During summer seasons packaged drinking water will be kept in the village for public and for trespassers. The applicant will involve and contribute all the socio cultural allocation in and around the area.

9.0 ANALYSIS OF PROPOSAL (FINAL RECOMMENDATIONS)

(i) Financial and social benefits with special emphasis on the benefit to the local people including tribal population, if any, in the area

The end use of the sand is specifically used for construction purpose besides the Removal of the sand may also called as desilting will increase the functional efficiencies of the river during the flood season because protecting the Dwellers and vegetation on the bank of the river. Due to this project many of the infrastructure development will be carried out in and around the district on time, nearly 22 employees directly get employment opportunity through this project. The detail furnished in this mining plan is based on information provided by the state Government and lessee. By considering the merit of the project the permission may be granted.

Signature of the Proponent With Name and Full Address

The Executive Engineer
Public Works Department,
(WRD), Mining and Monitoring Division,
Tiruchirappalli - 1.

Signature of the Recognized Qualified Person

A.Abdul Salam M.Sc.,
RQP/MAS/226/2011/A

Place: Salem

Date: