2.0 Location

a) Details of the area with location map

The quarry lease area falls in the (Cauvery) river of Oruvanthoor Village, Namakkal Taluk& District. Please refer the Location map enclosed as Plate No. I.

Location map of the Lease area

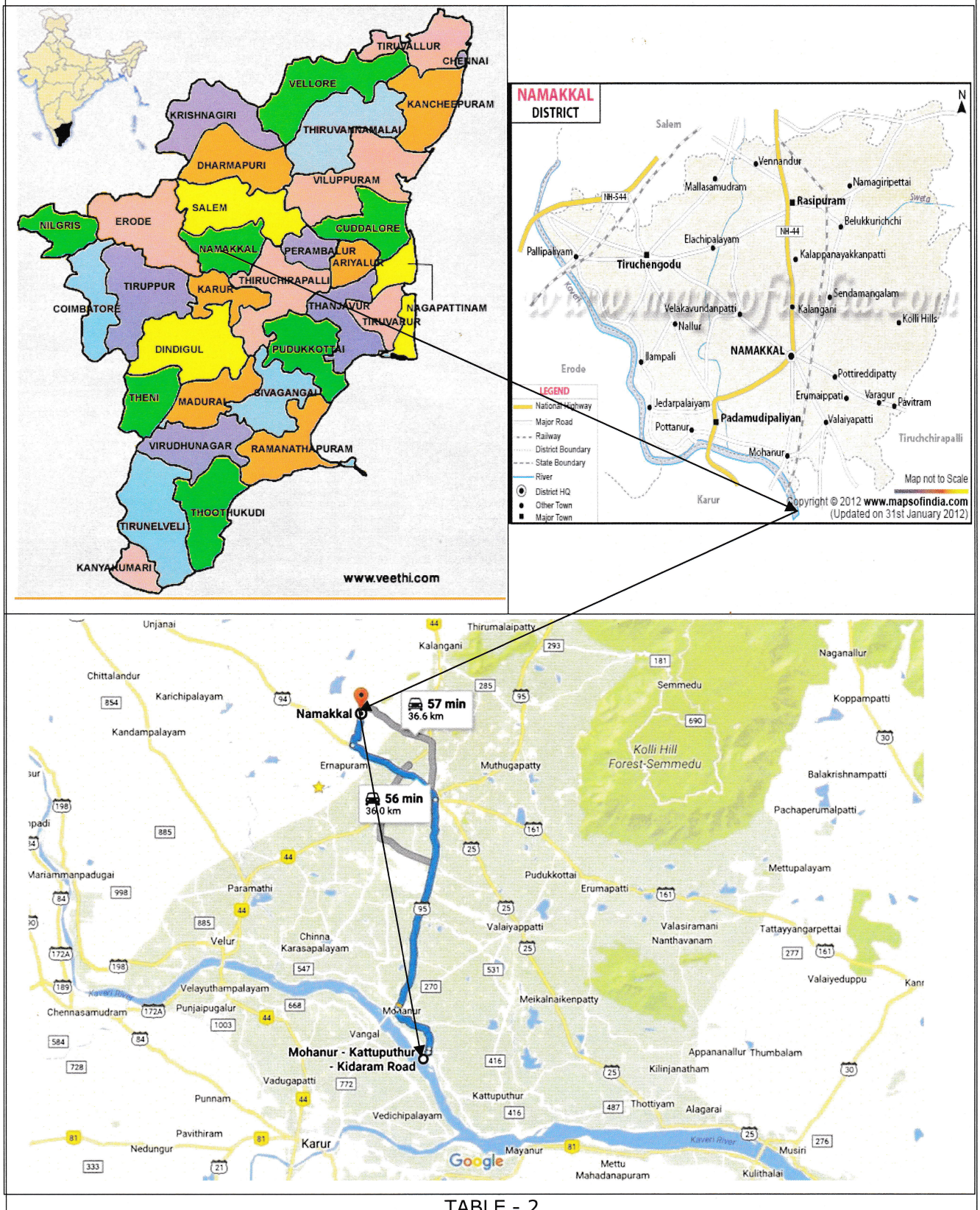


TABLE - 2

District	Taluk	Village	S.F.No	Area in Ha.
Namakkal	Namakkal	Oruvanthoor	643/1 (p)	16.18.0
			Total Extent	16.18.0

b) Classification of the area (Ryotwari/ Poramboke / others).

It is a river poramboke land, maintained by Public Works Department.

c) Ownership / Occupancy of the applied area (surface right).

It is a Government land maintained by Public Works Department,RC Division, Trichy.

d) Toposheet No. with latitude and longitude.

The lease area falls in the Toposheet No 58- I/04 Latitude between 11° 01' 13"N to 11° 01' 31"N and Longitude between 78° 09' 33"E to 78° 09' 52"E on WGS datum-1984. Please refer the Plate No (Plate No I to II).

e) Existence of public road / Railway line, if any nearby andapproximate distance.

There is a Formation road in the lease area use as a approach road this road leads to Kattuputhur- Mohanur State Highways road. There is a private road is available this Quarry site from the main road passing through a Length of 350m crossing Kattuputhur Korambu Channel by forming Temporary pipe culvert available in existence as shown in the mining plan .The Nearest Railway line is Namakkal- karur line which is about 6Km on the North Western side of the area.

PART – A

3. GEOLOGY AND MINERAL RESERVES

3.1 Brief description of the Topography and general Geology of the area (with plans).

The Cauveryriver has a gentle slope towards Eastern side, the area covered mostly by sand, the geology of the river sand is very simple. The river sand is derived by erosion of weathered rocks and transported by the river water and deposited on the bed of river during the interface. The MSL value of the area is 95m (Maximum) Please refer the Topography, Geological plan and sections (Plate No. II).

3.2 Details of exploration already carried out if any

No exploration is carried out. The sand is found right from the surface and proposed to excavate 1m from the river bed level.

3.3 Estimation of Reserves

a) Geological reserves with geological sections on a scale of 1:1000 / 1:2000.

The Geological plan demarcating the commercially viable sand has been prepared in 1:10,000 scale (Plate No. II). The quantity of the sand to be quarried is calculated by length and width of the lease area, which is suitably chosen to cover the maximum area.

Totally six sections have been drawn one along the length wise of the area X-Y and another five sections (A-A'), (B-B'), (C-C'), (D-D') and (E-E') section along the width wise of the area to cover the area consider for lease in the scale of Horizontal: 1:5,000 & Vertical1: 500 please refer (Plate No. II).

The cross sectional area for the proved depth persistence of 1m has been worked out for the section. The cross sectional area multiplied by its length of influence on the longer axis gives the volume (insitu) in the cross sectional area. The sum total of the insitu reserves available within the individual cross sectional area gives the geological reserves of the lease applied area.

As the Mineable reserves of sand is in the terms of cubic meter. The geological resource, mineable reserves are given only in terms of Cubic meter.

The details of estimation of Geological Resource and Mineable reserves with reference to the Topography, Geological Plan & Sections (Plate No. II).

Geological Resources (Plate No. III)

a. Geological reserves with geological sections on a scale of 1:10,000
Total Geological Resources of sand on the river bed is furnished below.

The total depth of sand below the river bed is about 3m.
Total depth of availability of sand is about 3m below the river bed.
Proposed depth of sand quarry : 1m below the river bed.

The Availability of Resource is given below.

Dimensions :

Maximum Length : 500m
Maximum Width : 400m
Maximum Depth : 3m

TABLE-2

EARTH WORK CALCULATION SHEET

SL.NO.	CHAINAGE	AREA	MEAN	LENGTH IN M	QANTITY in m^3
1	0	379.62			
2	100	410.75	395.19	100	39518.75
3	200	481.87	446.31	100	44631.25
4	300	443.75	462.81	100	46281.25
5	400	462.87	453.31	100	45331.25
6	500	0.00	231.44	100	23143.75
				The Proposed Shoal	**1,98,906.00**
	Below Bed Level Proposed sand Qty 462.5m (Avg Length) X 350 (Avg Width) X 3m (Depth).				**4,85,625.00**
				Total	**6,84,531.00**

Total Geological Resources of Shoals = 1,98,906m^3

Geological Resources of Sand = 4,85,625m^3

Total Geological Resources of sand including shoals= 6,84,531m^3

The area for lease has been applied after leaving the 50m safety distance on both sides of the bank.

b) Available Mineable reserves

There is no wastage during the quarrying operation, Mineable Reserves is shown below. (Please refer the Plate No. II)

Maximum Length : 500m
Maximum Width : 400m
Maximum Depth : 3m

TABLE-3

EARTH WORK CALCULATION SHEET					
SL.NO.	**CHAINAGE**	**AREA**	**MEAN**	**LENGTH**	**QUANTITY**
1	0	379.62			
2	100	410.75	395.19	100	39518.75
3	200	481.87	446.31	100	44631.25
4	300	443.75	462.81	100	46281.25
5	400	462.87	453.31	100	45331.25
6	500	0.00	231.44	100	23143.75
				The Proposed Shoal	**198906**
	Below Bed Level Proposed sand Qty 462.5m (Avg Length) X 350 (Avg Width) X 1m (Depth).				**161800**
				Total	**360706**

Total Mineable Reserves of Shoals = 1,98,906m^3

Geological Resources of Sand = 1,61,800m^3

Total Geological Resources of sand including shoals = 3,60,706m^3

The area for lease has been applied after leaving the 50m safety distance on both sides of the bank.

4.0 Mining.

4.1 Method of mining (opencast / underground).

Opencast method of shallow mining is proposed, Machineries like excavators are proposed for quarrying this sand upto an average depth of 1m.

No drilling or 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 trucks / Lorries for transportation to the needy customers. Initially to approach the quarrying site a temporary road will be formed by using sand mixed with Bio-degradable materials and formed a grit around the sand quarrying site to move the vehicle easily.

During forming the approach road and grit, necessary temporary pipes will be provided wherever necessary for free flow of water in to downstream.

After forming this approach roads the trucks/ lorries are allowed after getting necessary demand draft (Rs 800/- per load. i.e.200cubic feet) for the sand cost with value added tax@5%, permits will be issued to load the sand.

In this process temporary labours from neighboring villages are engaged for the purpose of maintaining the approaches. Regulating the vehicle movements, assisting to take levels, issuing of permits etc., to regulate the quarry operation in a scientific and systematic manner. At sand quarrying site judicial number of Excavators are used to load the sand directly into consumer vehicles (trucks/tippers). After that the loaded vehicles are allowed to go out after covering the sand load properly with tarpaulin to avoid any spillage.

The driver will be strictly instructed to move the vehicle below 20km inside the lease and 40km during transportation. During the transportation the sand will be fully covered by Tarupaulin to prevent spillage.

4.2 Mode of working (mechanized, semi mechanized, manual).

It is a Semi Mechanized quarrying operation **without drilling and blasting.**

List of Machinaries required for the quarrying operation

S.L.No	Name of the Machinary	Capacity	Nos
1	Excavator/Poclain attached with bucket.	0.90m^3	Five numbers of earth moving machinaries for loading the sand into the trucks by the way of scooping the sand from river bed, collecting the sand in one place, maintaining the katcha roads in the mining area and to push off the trucks which are to be struggled in the katcha roads.
2	Tippers	10/20Ts	30 Nos (in Routine)
3	Water Tanker	1000Ltr Capacity	2Nos

4.3 Proposed Bench Height and Width.

The bench height is 1m 350m width.

4.4 Indicate the overburden / mineral production expected pit wise as detailed below (composite plan and section showing pit layout, dumps, disposal of waste if any etc.,)

There is no overburden and the sand is clearly visible right from the surface and proposed to excavate up to a depth of 1m below the river bed.

Production table

TABLE -4

Year	Pit No.(s)	Overburden	ROM ore/ Mineral	Saleable ore / Mineral	Sub grade ore / mineral	Mineral rejects	Ore to overburden ratio
First Year	1	Nil	1,80,353m^3	1,80,353m^3	Nil	Nil	Nil
Second	1	Nil	1,80,353m^3	1,80,353m^3	Nil	Nil	Nil
Third Year First Year	The applicant has obtain recommendation to quarrysand for a period of **Two years.**						

The balancing quantity of sand is about 3,58,974m3 the lease will be get expire in the year of 2018. The lessee required to extension the lease period by 3 years for the removal of balance quantity of sand.

4.5 Machineries to be used.

Sample images of quarry Machineries

Excavator attached with bucket

a) loading Equipment
The Sand is directly loaded into the tippers by the excavator attached with bucket which is used as quarrying sand.

b) Transportation(includes within the mine and mine to destination)
The sand is being transported by the Tippers 10/20Ts capacity in routine manner.

Tippers 10/20Ts capacity

a) For Mining

The following machineries are deployed to meet out the balancing quantity of sand.

1. Judicial No. of Excavator/Poclain of 0.90m^3 bucket capacity (with bucket attachment).

4.6 Disposal of Overburden/Waste

There is no overburden, shoal is clearly visible right from the surface of the river beds. No proposal for the Disposal of overburden/The entire quarried sand is being consumed hence waste is not anticipated.

4.7Brief notes on conceptual mining plan for the entire lease period base on the geological, mining and environmental considerations.

Conceptual mining plan is prepared based upon Topography, Geological plan and section with an object of two years systematic development of benches, lay outs, selection of ultimate pit limit etc.,

As the digging depth is restricted to 1.0 mbelow the river bed. This will be further replenished during rainy season.Sand is being excavated systematically as the width is limited while length is much moreSequence of working has been shown on of Composite plan. The ultimate pit size is designed based on certain practical parameters such as economical depth of quarrying & permissible area etc. The ultimate pit dimensions of the quarry are given below.

TABLE- 5

Description	L (m)	W (m) (Avg)	D (m)
Conceptual	500	400	1

It is a Conventional Eco friendly Quarrying operation without drilling and Blasting. The rivers sand will replenish naturally during the ensuring flood / rainy season.

5.0 BLASTING

5.1 Blasting pattern

The quarrying operation is being carried out by Semi Mechanized Opencast Method in conjunction with conventional method of mining using Earth moving machineries.

5.1	Blasting pattern	It is a Conventional Eco friendly quarrying proposed without drilling and blasting.
5.2	Type of explosives to be used	
5.3	Measures proposed to minimize ground vibration due to blasting	
5.4	Storage and safety measures to be taken while blasting	

6.0 Mine Drainage

6.1 Depth of water table (based on nearby wells and water bodies).

The water table in the area is10-15mts as observed in nearby wells.

6.2 Arrangements and places where the mine water is finally proposed to be discharged.

The quarry area lies on Cauvery River, after the excavation of sand the land will be facilitate the free flow of water, hence there is no such type of activities involved in this quarrying operation.

7.0 OTHER PERMANENT STRUCTURES (also shown in the map)

7.1 Habitations/ Villages

There are few villages located from the lease applied area the details of the areas are given given below with population and direction.

S. No	Village	Direction	Approximate Population
1	Oruvanthoor Pudur	1.5Km – NE	550
2	Oruvanthoor	1Km – NW	500
3	Nerur North	3Km – SW	450
4	Nerur South	2Km – SE	500

7.2 Power Lines (HT/LT)

There is no HT/LT line within the radius of 500m.

7.3 Water bodies (river, pond, lake, odai, canal,etc.,).

The lease applied arealies in the Cauvery river there is no other water bodies like pond lake,lake odai etc., within the radius of 500m.

7.4 Archaeological / historical monuments.

There is no Archaeological / historical monuments within 1Km radius from the lease applied area.

7.5 Road (NH, SH others)

National Highway (NH 7) Salem – Karur is located 10Km on the western side of the area. State Highways (SH 95) Namakkal –Mohanur is located about 6Km on the Noth western side of the area.

7.6 Places of worships.

There is no places of worships within the radius of 500m.

7.7 Reserved forest / forest / social forest / wild life sanctuary etc.,

There is no Reserved forest / forest / social forest / wild life sanctuary etc., within radius of 500m.

8. EMPLOYMENT POTENTIAL & WELFARE MEASURES

8.1 Employment potential (skilled, semi-skilled, unskilled).

The following manpower are deployed to carry out the day-to-day quarrying activities aimed to meet out the balancing quantity and also to comply with the statutory provisions of the government land norms.

Skilled:		
Mines Foreman	:	2
PWD engineer	:	1
Irrigation Assistant	:	2
Total	:	**5 Nos.**
Semi-skilled:		
Excavators Operators	:	2
Co-operator	:	2
Total	:	**4Nos**
Unskilled:		
Watchman	:	2
Mazdoor Grade II	:	10
Total	:	**12Nos**
Grant total	:	**21Nos.**

Allowing 10% absenteeism the man power would be around 8, the above manpower is adequate to meet out the production schedule and the machinery strength envisaged in the mining plan and to comply with the statutory provisions of the Mines Safety Regulations.

It is been ensured that the labor will not be employed less than 21 years,**No child labour** will engaged or entertained for any kind of quarrying operations. All the labors engaged for quarrying operations will be insured during the quarry lease period.

8.2 Welfare Measures

a) Drinking Water

Packaged drinking water will be brought from the authorized water suppliers in the Oruvanthoor village which is about 1Km on the North Western side of the area.

b) Sanitary Facilities

Sanitary facilities will be constructed near the quarrying area as semi-permanent structure. (As per court orders no permanent structure to be constructed in the course of the river and its banks.)

C) First aid facility

First aid kits are kept in Mines office roomif any accident happens first aid will be given at the site and the injured person will be taken to the hospital immediately, Hospital is available at distance of 1Km North western side inOruvanthoorvillage. The competent Engineer of PWD will be in charge of first aid.

d) Labour Health

Periodically medical checkup related to occupational health safety is being conducted to all the workers in department fund.

e) Precautionary safety measures to the labourers.

All the quarry workers is provided with safety equipment's like helmets, Mine Goggles, Ear plugs, Ear muffs, Dust mask, reflector jackets and Safety Shoes as personal protective device

as per the specification approved by Director of mines safety. Periodically medical checkup is being conducted for all workers for any mine health related problems.

Proper training and induction will be given by qualified and experienced safety officer to all employees about the safe and systematic sand quarrying operations. The excavator operator and drivers will be sent for vocational training periodically to carry out the quarrying operations scientifically to safe guard the men machinery and mineral and to create awareness of conventional opencast quarrying operations.

PART – B

9. ENVIRONMENT MANAGEMENT PLAN

9.1 Existing Land use pattern

The quarry area lies in the Government land (Cauvery river) maintained by PWD. The area is devoid of vegetation. The area is specifically used for free flow of water during rainy season. This removal of sand will increase the functional Efficiency of river.

9.2 Water Regime

It is a simple opencast quarry operation, the quality of water will not be affected due to this quarrying operation any how mitigation measures will be carried out like keep the earth moving machineries as good conditions.

9.3 Flora and Fauna:

The main trees are Hypomia, Garnia etc. There is No wild life, bird sanctuary, reserve or social forest near the lease area. No flora of botanical interest nor fauna of zoological interest are noticed.

9.4 Climatic Conditions

Both the North East and South West monsoon occurs here and the summer is hot due to the sea breeze. During April and May the temperature may go up to 42°C and during winter the temperature does not fall below 25°C. The average annual rainfall is around 1000mm.

9.5 Human settlement

There are few villages located from 5Km radius from the lease applied area the details of the areas are given given below with population and direction.

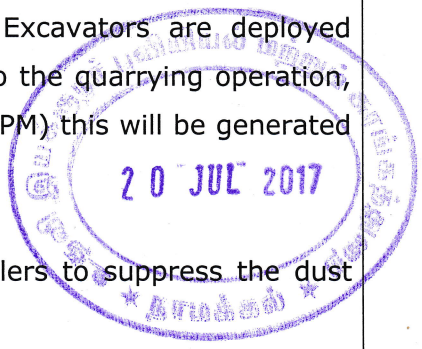
Table – 9

1.	Oruvanthoor Pudur	1.5km –NE	550
2.	Oruvanthoor	1km – NW	500
3.	Nerur North	3km – SW	450
4.	Nerur South	2km – SE	500

Basic human welfare Amenities such as Health Center, Schools, Communication Facilities, and Commercial Centers etc., are available at Mohanur located at a distance of 5km from the West side of the area.

9.6 Plan for air, dust suppression

In this conventional Eco friendly quarrying operation only Excavators are deployed without drilling and blasting, hence the air quality not affected due to the quarrying operation, the air quality will be affected by the Suspended Particulate Matter (SPM) this will be generated by the movement of Earth moving Machinaries.



The following Mitigations measures will be carried out

- Mist Water spraying is carried out by means of water sprinklers to suppress the dust emission in the Haul roads.
- Vegetation'sis planted on the either side of the haul roads.
- The sandis fully covered by the Taurpaulin during transportation to prevent the spillage of materials.

Air quality will be monitored periodically as per Norms and Mitigation Measures will be carried out to prevent dust and Air propagation in to air. The estimated budget for dust suppression would be around **Rs 50,000/year.**

9.7 Plan for Noise level control.

The noise level will be increased due to the excavation, and movement of machinaries.

Engineering Noise control:

Noise created due to the usage of Machinaries and Vehicles. The Noise is being controlled in the following manner.

- Selection of new low – noise equipments for the sand quarry operation.
- Modifications of older equipment's
- Implementation of effective preventive maintenance which reduces noise more than 50%.
- Developing Green belts which act as Acoustic barrier, pollution absorbent and noise controller.
- The drivers are strictly inducted to move the vehicle during the transportation not exceed 40 km per hour.
- Sentries with flags & whistle posted in village junction and populated area to control and regulate traffic.

Vibration and noise pollution will be minimal and restricted within the quarry workings. Noise level monitoring and other Mitigation measures will be carried out to reduce Noise and Vibration. The estimated budget for Noise level monitoring would be around **Rs 2,000/Year.**

The vehicles for transportation are properly maintained by experienced mechanics as per RTO TNPCB Norms.

Specific quantity (no over loading will be entertained) will be strictly allowed during transportation of sand from quarry to needy project site. Sentries with flags and whistle will posted on village and town junctions to regulate and control the movement of vehicles. The estimated budget for Noise level monitoring would be around **Rs. 25,000/-.**

9.8 Environmental impact assessment statement describing impact of mining on the next two years.

The Revisedmining plan proposed is for excavation of balancing quantity of sand without involving deep hole drilling and blasting. Such limited mining activity is not likely to cause any impact adversely on the environment as far as pollution of air, water and noise is concerned, anyhow environmental impact studies will be conducted as per EIA notification issued by MOEF. It is B2 Category mine. The estimated budget would be around **Rs. 1,52,000/-**

9.9 Proposal for waste management

There is no waste anticipated in this sand quarry operation. The entire quarried out materials will be utilized 100%.

9.10 Proposal for reclamation of land affected during mining activities and at the end of mining (refilling / fencing etc.)

In the mining plan only a maximum depth of 1m (below the theoretical bed level) has been envisaged as workable depth for safe & economic mining during entire lease period. After quarry reaches the ultimate depth and the end of the lease period. The quarried out land will be used as facilitate the functional efficiency of the river. No leveling cost is involved the floor will be leveled naturally.

9.11 Programme of afforestation (indicate extend, number, name of species to be afforestated).

After the completion of the quarrying operation, the land will be only used for facilitating functional efficiency of the river. The afforestation is not proposed inside the quarry lease area. The lessee planting native species like pungam, neem, casurina in the nearby villages in consultation with the local panchyat authority. The afforestation program was carried out past one year in the haulroads. It is proposed to plant around 30trees in the extension lease period of two years. The estimated budget for plantation and maintenance of Green belt development would be around **Rs. 10,000/-.**

9.12 Proposed financial estimate / budget for (EMP) environment management:

The proposed financial estimate budget for CSR would be around 28.33% of the sand cost from the royalty (Rs. 12per load) which will be handed over to the panchayat authority for panchayat development and EMP cost would be Rs.3,15,000/- for the period of two years. Besides Rs. 10,000/- will be allotted for corporate Social Responsibilities.

	(a) Project cost / investment	
	i) Land cost	It is a Government river poramboke land. Hence no cost is involved.
	ii) Machinery to be used	The excavators of 0.90m^3 bucket capacity and tippers of 10/20Ts capacity will be used. The quantity of Diesel consumption is based on the working hours of Excavators (Filling Factor and

		loading Cycling), in the open cast quarry project Excavators are proposed to quarry sand. Average Diesel consumption of Hitachi Excavator model EX 150-200 is 16Ltrs/ Hr. Total number of Excavator used for quarrying sand = 2Nos Average Diesel consumption Tata Hitachi (Model Ex-150-200) = 10Ltr/Hr Diesel Prize around = Rs.56.43 (at present scenario). Total Excavator running hours for the project One excavator will excavate 60m^3/Hour Balancing quantity of sand = 3,58,974.00m^3 = 3,58,974.00m^3/ 60m^3 = 5,983.00Excavator hours One excavator will consume 10Ltrs/hour **Hence 5983X 10 =59830Ltrs** of HSD will be utilized for to removal of balancing quantity of sand. Excavator Cost = Rs.33,76,200/- **Cost of the project.,** For excavation = Rs. 33,76,200/- Formation of Bio-Degradable Pathways - Rs. 50,00,000/- SEIAA, TNPCB Fees - Rs. 5,00,000/- Monitoring Studies through Institutes Fees – Rs. 3,00,000/- Employment of Labours/Year - Rs. 12,00,000/- Temporary rest shelter - Rs. 1,00,000/- Sanitary facilities - Rs. 1,00,000/- Drinking water - Rs. 24,000/- Safety kits - Rs 50,000/- Sanitary maintenance - Rs. 24,000/- **Cost of the project =Rs.1,06,74,200/-** (Rupees One Croresix lakhs seventy fourthousand two hundred only).
	iii) Refilling / Fencing	There is no proposal for Refilling, hence no cost is involved.
	iv) Labours shed	No labours are proposed for quarrying sand. The machine operators are from nearby local villages, hence no cost is involved. Anyhow rest shelter

		will be constructed as semi-permanent structure at the cost of **Rs.1,00,000/-**
	v) Sanitary facility	Sanitary facility will be constructed as semi-permanent structure, the cost will be around **Rs 1,00,000/-**
	vi) Others items	The lessee ensures to level the floor after quarrying to facilitate the flowing capacity of the river.The cost would be around **Rs.50,000/-**
	(b) Expenditure	
	i) Drinking water facility for the laborers	9 labours at the rate of Rs.1000/month for a extension period of twoyears the cost will be around **Rs.60,000/-**
	ii) Sanitary arrangement,	Sanitary maintenance will be carried out every month at the cost of Rs.1000 which will be around **Rs. 60,000/-** for the extension period of two years.
	iii) Safety Kits,	The safety kits are already provided to the quarry workers, besides Rs.50,000 will be spent for the safety kits such as Helmet, Goggles, Ear plugs, Ear mask, Safety shoes, Reflector jackets. All the labors engaged for quarrying operation will be insured till the end of life of quarry.
	iv) Water sprinkling (if necessary)	Rs. 5000/month will be spent for sprinkling the water on haul roads for Dust suppression which will be around **Rs 3,00,000/-.**
	v) Afforestation etc.	No Afforestation is proposed within the lease area, plantation will be carried out in the nearby village and village roads. **Rs.10,000** will be allotted for afforestation on the nearby villages and village roads. **EMP cost** Air Quality Sampling = Rs. 30,000/- Water Quality Sampling = Rs. 10,000/- Noise Level Monitoring = Rs. 25,000/- Ground vibration test = Rs. 25,000/- Total cost of EMP Studies = Rs 90,000/- Total Cost Rs. 90,000/- Water Sprinkling =Rs.3,00,000/-. Afforestation = Rs. 10,000/-

		EMP Studies = Rs. 90,000/- **Total =Rs.4,00,000/-** Cost towards CSR (socio economic development for panchayat) ***The CSR cost is around 28.33% of the sand cost*** Total EMP cost = Rs. 4,00,000/- Estimated operational Cost of the project **Rs. 1,06,74,200/-** **Total Operational cost + EMP cost is about Rs.1,10,74,200/-** (Rupees One crore tenlakhs seventy fourthousand and two hundred only)

10. MINE CLOSURE PLAN

10.1 Steps proposed for phased restoration, reclamation of already mined out areas.

It's a new quarrying project no quarried out areas within the applied area.

10.2 Measures to be under taken on mine closure as per Act & Rules.

This conventional Eco – Friendly semi mechanized quarrying for a depth of 2mt does not require any backfill and rehabilitation any how the closer plan will be prepared after removing the specify quantity Leveling will done naturally during the measuring flood / raining seasons.

10.3 Mitigation Measure To Be Undertaken For Safety And Restoration / Reclamation Of The Already Mined Out Area.

Air quality: (Air quality will be degrade due to the movement of machinaries).

Mitigation measures:

Mist Water spraying on haul road is proposed to prevent the dust propagation into the air. Air quality will be monitored periodically as per norms.

During the transportation the sand fully covered by the Taurpauin to prevent the spillage of sand.

NOISE AND VIBRATION: (The noise will be formed loading and movement of Machineries.

Mitigation measures :

The lessee to carry out the plantation all along the boundary to prevent Noise besides All the machineries is being maintained in good conditions as per RTO and TNPCB Norms to prevent Noise, Smoke and vibration.

WATER REGIME :

Mitigation Masures :

The quarry operation proposed upto a depth of 1m (below the theoretical bed level) the extension of two years period, the proposed depth is well above the water table (Summer in 6m and rainy seasons in 5m), hence the water table will not be affected in any manner.

HUMAN HEALTH & SAFETY: Dust will be limited due to the mine operation.

All the labors has been provided with safety equipment's like helmet, Safety Goggles, Ear muff, Hand Glouse, safety jacket, safety belt, and Mine boots etc., at departmental cost, As per the specifications of Director of mines safety.

The competent qualified person foreman/Permit Mines Manager will provide first aid and will take care of small & minor injuries. If any accident happens, the victim will be taken to the nearby hospital by the Lessee van which is always kept in the mines office. The hospital is about 1.0Km inOruvanthoor.

11. ANY OTHER DETAILS INTEND TO FURNISH BY THE LESSEE

This conventional Eco Friendly quarrying operation does not involve any drilling and Blasting. Only judicial Number of Excavator/Poclains are deployed to excavate the sand for anextension period of two years care will be taken in all steps to prevent any adverse eventualities. The quarry operation was commenced after grant of Environmental clearance and proceeding Letter received from the District Collector. I ensure to involve and participate in the corporate social responsibilities of the local community as declared in the mining plan and ensure to execute all the social and Environmental commitment as mentioned Environmental Clearance Letter. This is the B2 category quarry request to operate by the judicial Number of poclains and the period of mining has to be extension for the period of two years for removal of balancing quantity of sand.

STATUTORY PROVISIONS

The Revised mining plan for sand is prepared as per the Draft Minor Mineral Conservation and Development Rules, 2010 as perRule 41 & 42 amendment by the Tamil Nadu Minor Mineral Concession Rule, 1959, Rule 38-A,The provisions of the Mines Act, Rules and Regulations and orders made there under shall be complied with, so that the safety of the mine, machinery and person will be protected. Permission, relaxation or exemption wherever required for the safe and scientific quarrying of the deposit will be obtained from the concern Authorities. Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Department.

Prepared by

M. Ifthikhar Ahmed, M.Sc., F.G.S., M.B.A M.M.E.A
RQP/MAS/183/2004/A

Place : Salem
Date : 10/07/2017

Mining plan is approved subject to the conditions laid down in the letter No.....1198/Mines/2015
Dated...20.07.2017

Asst. Director (Mines)
Namakkal.

ANNEXURE-1

From,
Thiru.V.Dakshina Moorthy, I.A.S.,
District Collector,
Namakkal.

To,
The Executive Engineer,
PWD, WRO,
Sarabanga Basin Division,
Namakkal.

22 FEB 2016

20 JUL 2017

Rc.No. 1198 / Mines / 2015 dated: 18.02.2016.

Sub: Mines & Minerals – Namakkal District – Opening of New Sand Quarry in S.F.No.643/1 (Mile 77/2+150 to 77/5+50) over an extent of 16.18.0 hect of Cauvery River Poramboke – Oruvanthoor Village of Namakkal Taluk & District – proposal received from PWD Department – joint inspection report submitted – Precise Area Communication - reg.

Ref:

1. The Proposal of the Executive Engineer, PWD, WRO, Sarabanga Basin Division, Namakkal letter Rc.No. 361M / வப / வஅ / கோ / 2015 Dated: 17.12.2015.
2. The Executive Engineer, PWD, Sarabanga Basin Division, Namakkal in Rc.No. 26 பல / வப / வஅ / கோ-22 / 2016 dated: 06.02.2016
3. The joint inspection team report dated: 10.02.2016.
4. The Superintendent Engineer, TWAD, Maintenance Division, Namakkal letter No.11216 / கோ.கணிமம் / இவஅ-1 / 2016 dated: 11.02.2016.
5. The Order of the Hon'ble Supreme Court of India in SLP© No. 19628-19629/2009 with SLP© No.729-731/2011 etc divided on 27.02.2012 (citation No.2012 STPL(web) 149 SC).
6. The Ministry of Environment and Forest, New Delhi Letter No. L11011/47/2011/ IAII (M) dated: 18.05.2012.
7. The Addl. Secretary to Government, Industries (MMC-1) Department, Chennai letter No: 4719/ MMC-1 / 2012-2 dated: 03.08.2012.

8. The Commissioner of Geology and Mining, Guindy, Chennai, letter No: Na.Ka. 3868 / LC / 2012 Dated: 19.11.2012.

* * * * *

The Executive Engineer, PWD, WRO, Sarabanga Basin Division, Namakkal has sent a proposal seeking new sand quarry outlet in S.F.No.643/1 of Cauvery River Poramboke (Mile 77/2+150 to 77/5+50) in Oruvanthoor Village of Namakkal Taluk and District vide letter no. 361/பல/கோ/வஅ/2015 நாள்: 17.12.2015. In this regard, the subject proposed area was jointly inspected by Revenue Divisional Officer, Namakkal, Assistant Director of Mines, Namakkal, The Asst.Executive Engineer, Maintenance, TWAD, Namakkal and the Asst.Executive Engineer, WRO, PWD, Sarabanga Basin Division, Namakkal on 10.02.2016 to ascertain the technical viability and feasibility of quarrying of sand and recommended for grant of permission for opening of New Sand Quarry in the above proposed area.

Before passing final order on the proposal of the Executive Engineer, PWD, WRO, Sarabanga Basin Division, Namakkal, based on the recommendation of the inspection team a Precise Area Communication is intimated to the applicant as per the guidelines issued in the orders and communications in the reference 5th, 6th, 7th and 8th cited above. Therefore, the applicant is directed to submitting a Mining Plan approved by the Assistant Director of Mines, Namakkal and Clearance from State Level Environmental Impact Assessment Authority (SEIAA) and Tamil Nadu Pollution Control Board (TNPCB) for passing final order in respect of grant of sand quarrying permission in S.F.No. 643/1 over an extent of 16.18.0 hect of Cauvery River Poramboke ((Mile 77/2+150 to 77/5+50) in Oruvanthoor Village of Namakkal Taluk and District.

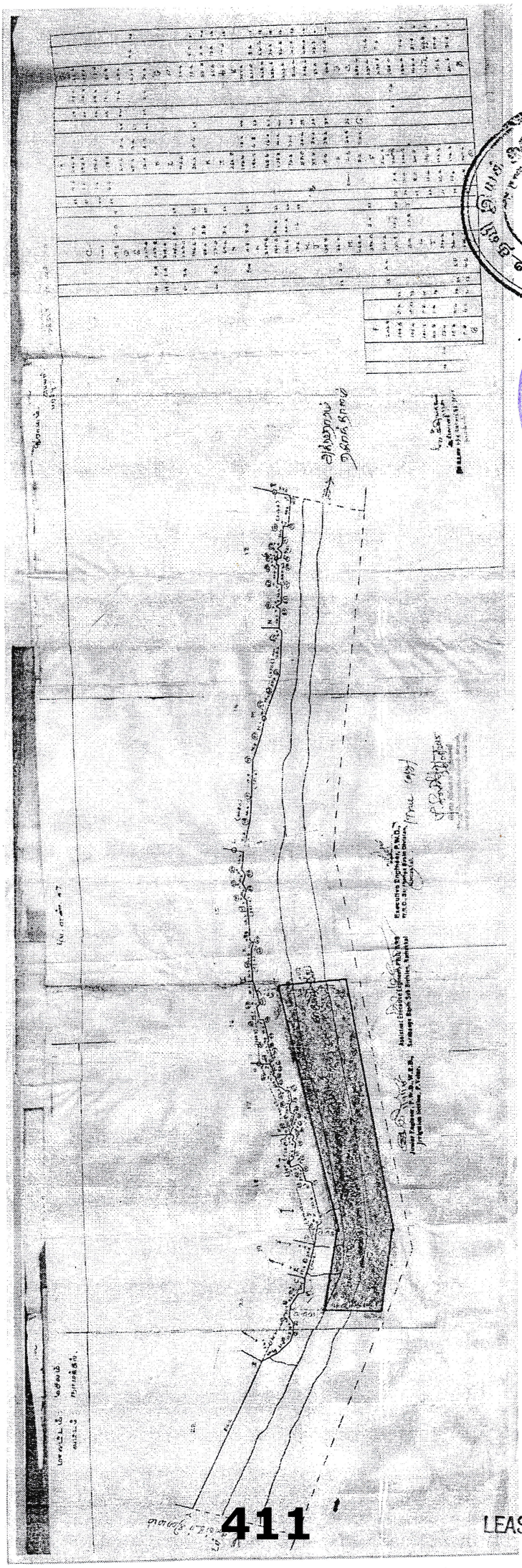
(Signd xxx...dt.18.02.2016).
District Collector,
Namakkal.

//True Copy// By order //

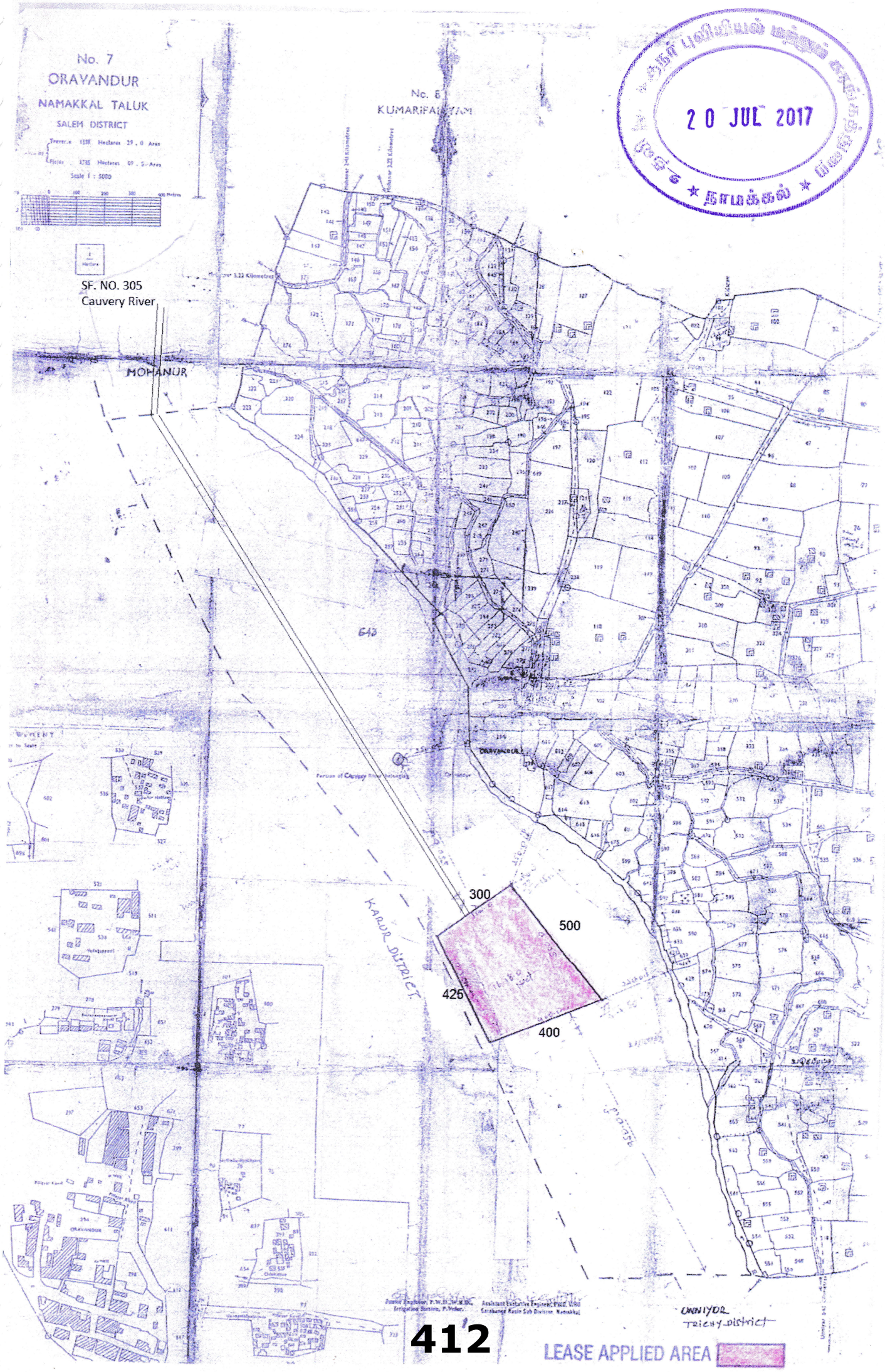
18/2/16

For District Collector,
Namakkal.

ANNEXURE- II



LEASE APPLIED AREA


No. 7
ORAYANDUR
NAMAKKAL TALUK
SALEM DISTRICT
No. 6
KUMARIPALAYAM
SF. NO. 305
Cauvery River
MOHANUR
300
500
425
400
KARUR DISTRICT
ORAYANDUR
Tiruchy district
412
LEASE APPLIED AREA

ANNEXURE- IV

36

நெ. 85. ...
எண் 2

R.F. III. A-10. 10,00,000 Cps.,G.B.P. MDU-20

கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

கிராமக் கணக்கு

1421 – ஆம் பசலியில் நாமக்கல் மாவட்டம் நாமக்கல் வட்டம்

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.						சாகுபடி யாளரின் பெயர்.	முதல் போகம்.				
நில அளவை எண்.	உட்பிரிவு எண்	பரப்பு.	தீர்வை.	ஒரு போகம் அல்லது இரு போகம்.	கைப்பற்று தாரருடைய் பெயரும் எண்ணும் அல்லது அனுபோக தாரருடைய பெயர்.	நிலத்தின் எந்த பகுதி யாவது சாகுபடியாளரால் பயிரிடப்பட்டுள்ளதா.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது.	பயிர் பெயர்.	பயிரான / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விழுக்காடு.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
643	–	205:315			2C						
					1 [illegible]						
					[illegible]				பு[illegible] 28		
		புஞ்சை			2 அ. சுப்ரமணியம்				பு[illegible] 45		
		10. [illegible]			3 கோ. பழனிவேல்				பு[illegible] 5		
					4 அ. [illegible]				பு[illegible] 17		
					5 [illegible]				பு[illegible] 4		
					6 ஆ. சுப்ரமணியம்				பு[illegible] 2		
					7 தியாகராஜன்				பு[illegible] 13		
					8 பழனியப்பன்				பு[illegible] 7		
					9 ம.க. அத்திப்பன்				பு[illegible] 10		
					10 R. அப்புசாமி				பு[illegible] 7		
					11 கி. கந்தசாமி				பு[illegible] 28		
					12 ம. [illegible]				பு[illegible] 26		
									இ[illegible] 7	அவைகள்	

205.335

இரண்டாம் போகம்.						கீழ்க்கண்டவகையில் பயிரிடப்படாது உள்ள நிலத்தின் தன்மை மற்றும் பரப்பின் விவரங்கள் ஒவ்வொரு நில அளவை எண் அல்லது அதன் பகுதியில்.	
எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது.	பயிரின் பெயர்.	பயிரான / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விழுக்காடு.	கிராம அலுவலரின் குறிப்புரை :- (1) புலன்களின் பகுதிகளின் மட்டும் பயிரிடப்பட்ட இனங்களில் லிங்குகள் அளவில். (2) கைப்பற்றில் இல்லாத நிலங்களில் சாகுபடியின் பரப்பு தன்மையும் (3) முந்தைய மாதத்தில் பாய்ச்சல் உதவியின்றி பயிரிடப்பட்டவை என்று பதிவாகியுள்ள நிலங்களுக்கு பிந்தைய மாதங்களில் நீர் பாய்ச்சப்பட்ட விவரங்கள்.	(அ) வனம், (ஆ) பயனற்ற பயிர் செய்ய இயலாத நிலம், (இ) விவசாய மற்றும் இதர காரியங்களுக்கு பயன் படுத்தப் படும் நிலம், (ஈ) பயிரிடத்தக்க தரிசு (உ) நிலையான புல் தரைகளும் மற்றும் இதர மேய்ச்சல் நிலங்களும், (ஊ) விதைக்கப்பட்ட நிகர பரப்பில் சேர்க்கப்படாத மரவகைப் பயிர்களும் தோப்புகளும், (எ) நடப்புத் தரிசுகள் (ஏ) இதர தரிசு நிலங்கள்.	பயிர் பாகுபாடு குறிப்புகள்.
(13)	(14)	(15)	(16)	(17)	(18)	(18அ)	(19)
					[illegible]	சாவேரி ஆறு	
					[illegible]	[illegible]	
					[illegible]	[illegible]	
					[illegible]	[illegible] 28/10/11	

உண்மை நகல்

[signature] 10/2/12 — [signature] 17.8.12

கிராம நிர்வாக அலுவலர், எண். 86. ... கிராமம், நாமக்கல் வட்டம்

வருவாய் ஆய்வாளர், மோகனூர்.

[signature] வட்டாட்சியர், நாமக்கல்.

20 JUL 2017

22 FEB 2016

1	2	3	4	5	6	7	8	9	10		
								ரு. பை. ஹெ. ஏக்ஸ்	ரு. பை.		
	புல எண் 641	புல	எண்	582	ல் இணைந்துள்ளது.						
	642-1	ர	நA	...	7-3	11	19 76	0 30·5	6 10	65	செ. இத்தாத்து (எ) கந்தசாமி கவுண்டர்.
	-2	ர	நA	...	7-3	11	19 76	0 36·5	7 20	1460	கி. வீரப்ப கவுண்டர் மற்றும் எட்டு பேர்களும்.
								0 67.0	13 30		
	643	அ	புற	...	...	...	...	205 33·5	...	.....	காவேரிஆறு. @
	644	அ	புற	...	...	...	...	0 31·0	...	.....	மோகனூர் மெயின் வாய்க்கால்.
	645	அ	புற	...	...	...	...	0 27·5	...	.....	ஊராட்சி ஒன்றிய சாலை.
	646	அ	புற	...	...	...	...	0 30·5	...	.....	மோகனூர் மெயின் வாய்க்கால்.
	647	அ	புற	...	...	...	...	0 56·5	...	.....	மோகனூர் மெயின் வாய்க்கால்.
	648	அ	புற	...	...	...	...	0 19·5	...	.....	மோகனூர் மெயின் வாய்க்கால்.
	649	அ	புற	...	...	...	...	0 16·0	...	.....	மோகனூர் மெயின் வாய்க்கால்.
	650	அ	புற	...	...	...	...	0 21·5	...	.....	மோகனூர் மெயின் வாய்க்கால்.
1	651-1	அ	புற	...	...	...	...	0 57·0	...	.....	கிராமநத்தம்.
2	-2	அ	புற	...	...	...	...	0 01·5	...	.....	கிராமநத்தம்.
3	-3	அ	புற	...	...	...	...	0 01·0	...	.....	ஊராட்சி ஒன்றிய சாலை.
								0 59·5	...		

A மோகனூர் மெயின் வாய்க்கால் முதலாவது வகுப்பு. @ காவேரிஆறு இதில் துலை உள்ளது.

கிராம நிர்வாக அலுவலரிடையலைப் பார்க்கவும்.

கிராம நிர்வாக அலுவலர்
ஒரவந்தூர் கிராமம்,
நாமக்கல் வட்டம் & மாவட்டம்

243/1	64300	அ.மு	43.1974.0	ஆறி
2	64300	அ.மு	1.2141.0	கிணற்றுக்கு
3	64300	அ.மு	14.3426.0	கிணற்றுக்கு
4	64300	அ.மு	0.4492.0	கிணற்றுக்கு
5	64300	அ.மு	35.7552.0	கிணற்றுக்கு
6	64300	அ.மு	10.3765.0	கிணற்றுக்கு
			205.3350.0	

As Per TP/339/BA/1421, TR/15/1421
dt 6.1.2012

6.1.12

தினைமதிப்பு

கிராம நிர்வாக அலுவலர்,
தெ. 86, ஒருவந்தூர் கிராமம்,
நாமக்கல் வட்டம் & மாவட்டம்.

ANNEXURE- VI

20 JUL 2017

பொதுப்பணித்துறை / நீர்வள ஆதாரத்துறை

அனுப்புநர்

பொறி.இரா.பெரியசுவாமிபிரகலாதன்,பி.இ.,எம்.பி.ஏ.,
செயற்பொறியாளர் பொபது, நீஆது.,
சரபங்கா வடிநில கோட்டம், நாமக்கல்.
மின்னஞ்சல் முகவரி eesarankl@gmail.com
அலுவலக தொலைபேசி எண்04286-280202
நிகரி எண்:280 202.

பெறுநர்

மாவட்ட ஆட்சித் தலைவர்,
நாமக்கல்

22 FEB 2016

க.எண்: 361 /கோ-/ வஅ/2015/நாள்:17.12.2015

அய்யா,

பொருள்: மணல் குவாரி – நாமக்கல் மாவட்டம்,நாமக்கல் வட்டம் - ஒருவந்தூர் கிராமம், சர்வே எண் காவேரி ஆற்றில் புதிய மணல் குவாரி துவங்க – சுரங்க திட்ட வரைவு தயார் செய்ய – துல்லிய பரப்பு கூறு கடிதம் - பெறுதல் - சம்மந்தமாக.

பார்வை: 1அரசாணை எண் 3டி/39 பொதுப்பணித்துறை/ நாள்: 7.10.2013
2. அரசாணை எண் 110/பொதுப்பணித்துறை சி.பா.2/ நாள்: 6.7.2006
3.SEIAA,TN Lr.No. SEIAA/TN/F.No. 547/2012/Dt: 09.05.2013
4. உதவி செயற்பொறியாளர்,பொபது. நீஆது சரபங்கா வடிநில உபகோட்டம், நாமக்கல் அவர்களின் க.எண். கோ. 76/2015/ உசெபொ(நா) நாள்: 14.12.2015

*****

பார்வை-1ல் காணும் அரசாணைக்கு இணங்க சரபங்கா வடிநிலக் கோட்டத்தின் கட்டுப்பாட்டில் உள்ள நாமக்கல் மாவட்டத்தில் காவிரி ஆற்றில் மணல் விற்பனை பொதுப்பணித்துறை மூலம் நேரடியாக செயல்படுத்தப்பட்டு வருகின்றது. பார்வை 2-ல் காணும் அரசாணையில் மாவட்ட ஆட்சியர் மூலம் ஒப்புதல் பெற்று மணல் குவாரி துவங்க தெரிவிக்கப்பட்டுள்ளது.

நாமக்கல் மாவட்டம், நாமக்கல் வட்டம், ஒருவந்தூர் கிராமம் சர்வே எண் 643/1-ல் காவேரி ஆற்றில் தளமட்டத்திற்கு (Bed Level) மேல் சுமார் 1 மீட்டர் உயரத்திற்கு வரைபடத்தில் காட்டியுள்ள பகுதிகளில் மணல் திட்டுகள் படிந்துள்ளது. மேலும் அப்பகுதியில் கோரை மற்றும் நாணல்கள் வளர்ந்துள்ளது. இம்மணல் திட்டுப்பகுதிகளை அப்புறப்படுத்தாவிடில் காவேரி ஆற்றின் நீரோட்டத்திற்கு மிகவும்

தடை ஏற்படும். அதனால் மணல் திட்டுகள் மற்றும் செடிகொடிகளை உரியமுறையில் அகற்ற வேண்டுமாயின் அரசுக்கு வருவாய் இழப்பு ஏற்படும். எனவே மணல் திட்டுகளை மணல் குவாரி மூலம் அகற்றுவதால் ஆற்றின் நீரோட்டம் சீராக அமைவதுடன் அரசுக்கு சிறந்த வருவாய் கிடைப்பதற்கு வாய்ப்புள்ளது.

இந்த மணல் குவாரி அமையவுள்ள இடத்திற்கு நான்கு திசைகளிலும் 500 மீட்டர் சுற்றளவிற்கு குடிநீல் வடிகால் வாரிய ஊற்றுக்கிணறுகள், மதகுகள், பாலங்கள் உயர் மற்றும் தாழ்வழுத்த மின் பாதைகள் ஏதுமில்லை.

பார்வை 3-ல் காணும் மாநில சுற்றுச்சூழல் ஆணையத்தின் (SEIAA) கடிதத்தின் தெரிவித்துள்ளவாறு மத்திய சுரங்கத்துறையால் பதிவுபெற்ற தகுதி வாய்ந்த நபர் மூலம் நாமக்கல் மாவட்டம், நாமக்கல் வட்டம் ஒருவந்தூர் கிராமம் ஆறு மைல் 77/2+150 – 77/5+50 –ல் 16.18.0 ஹெக்டேரில் மணல் குவாரி செயல்படுத்தத சுரங்கத்திட்ட வரைவு தயார் செய்ய துல்லிய பரப்பு கூறு கடிதம் (Precise area Communication letter) மாவட்ட ஆட்சியர் அவர்களிடம் பெறும் பொருட்டு கனிவுடன் அனுப்பப்படுகிறது.

இணைப்பு:
1. வரைபடம் - 2
2. அடங்கல்
3. அ.. பதிவேடு நகல்

செயற்பொறியாளர் பொ)பது, நீஆது,
சரபங்கா வடிநில கோட்டம், நாமக்கல்-3.

ANNEXURE-VIII

22 FEB 2016

भारत सरकार / GOVERNMENT OF INDIA
खान मंत्रालय / MINISTRY OF MINES
भारतीय खान ब्यूरो / INDIAN BUREAU OF MINES

20 JUL 2017

M. Dhamodaran

अर्हताप्राप्त व्यक्ति के रुप में मान्यता प्रमाण पत्र
(खनिज रियायत नियमावली, 1960 के नियम 22सी के तहत)

CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON
(Under Rule 22C of Mineral Concession Rules, 1960)

श्री एम. इफ्तिकार अहमथ, 129/8, 11वी क्रॉस, सिवया नगर, अलधापुरम–पी.आ., सेलम – 636 004, तमिल नाडू, जिनका फोटो और हस्ताक्षर ऊपर दिया हुआ है, तथा जिनहोंने अपनी अर्हता और अनुभव का संतोषजनक साक्ष्य दिया है, को खनन योजना तैयार करने हेतु खनिज रियायत नियमावली 1960 के नियम 22सी के तहत अर्हताप्राप्त व्यक्ति के रूप में मान्यता प्रदान की जाती है ।

Shri M. Ifthikhar Ahmed, 129/8, 11th Cross, Sivaya Nagar, Alagapuram (PO), Salem – 636 004, Tamilnadu whose **Photograph and signature** is affixed herein above, having given satisfactory evidence of his qualifications & experience hereby **RECOGNISED** under Rule 22C of the Mineral Concession Rule, 1960 as a Qualified Person to prepare Mining Plans.

उनकी पंजीयन संख्या है
His registration number is

RQP /MAS/183/2004/A

यह मान्यता 10 वर्षों की अवधि के लिए मान्यता है जो दिनांक 10.01.2024 को समाप्त होगी।
This recognition is valid for a period of 10 years ending on 10.01.2024

उनके द्वारा प्रस्तुत खनन योजना में गलत जानकारी / दस्तावेज पाए जाने की स्थिती में यह प्रमाण पत्र वापस लिया जाएगा / निरस्त किया जाएगा।
This certificate will be liable to be withdrawn / cancelled in the event of furnishing the wrong information / documents in the Mining Plan submitted by him.

स्थान / Place : Chennai
दिनांक / Date : 02.01.2014

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines
भारतीय खान ब्यूरो / Indian Bureau of Mines
चेन्नई क्षेत्र / Chennai Region

419

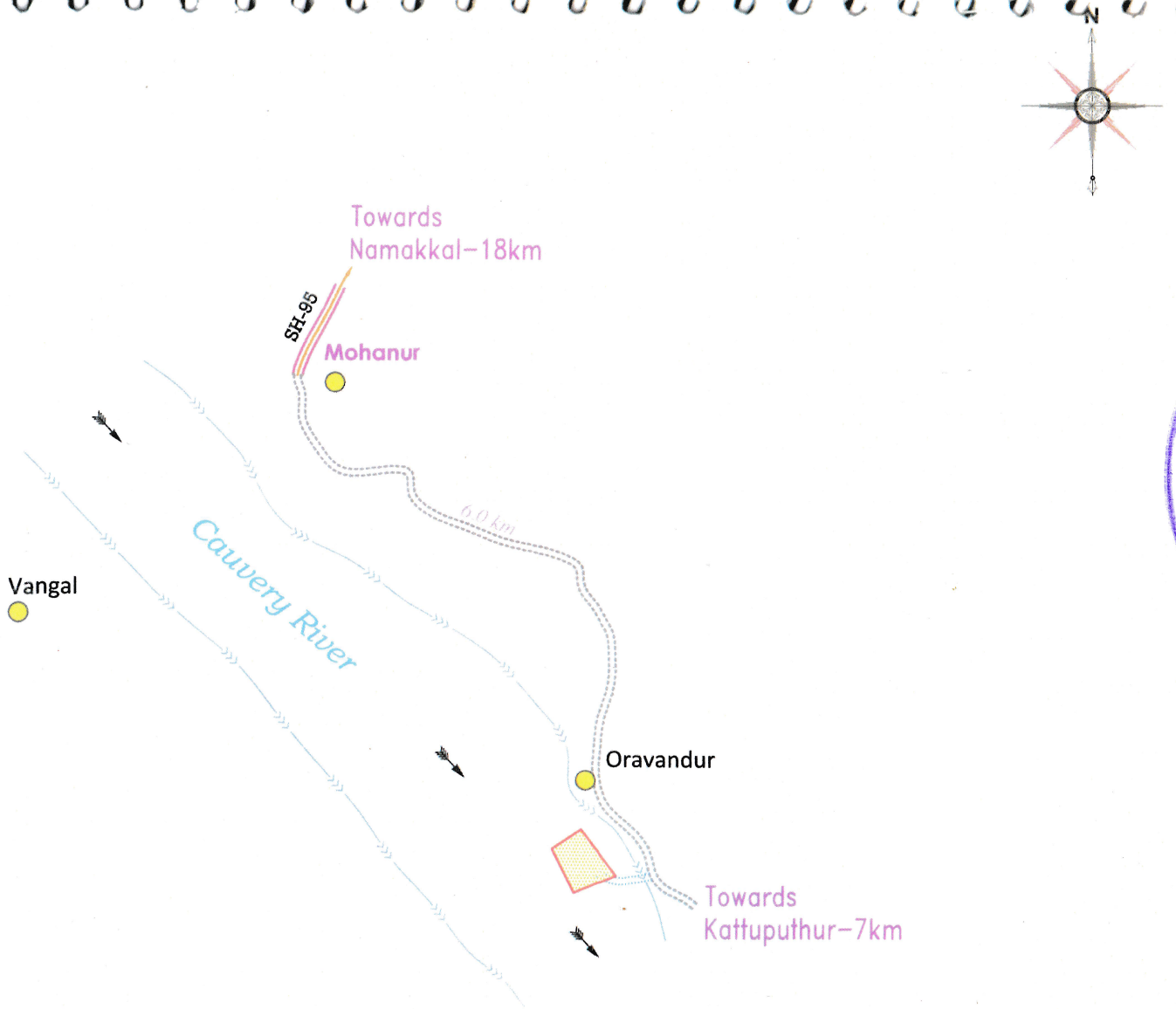


PLATE NO:1

DATE OF SURVEY :

APPLICANT:

THE EXECUTIVE ENGINEER,
PUBLIC WORKS DEPARTMENT,
WATER RESOURCE DEPARTMENT,
SARAVANGA BASIN DIVISION,
NAMAKKAL.

LOCATION OF QUARRY LEASE APPLIED AREA:

S.F.No. : 643/1 (P),
EXTENT : 16.18.0 Ha.
VILLAGE : ORAVANTHOOR,
TALUK : NAMAKKAL,
DISTRICT : NAMAKKAL,
STATE : TAMIL NADU.

20 JUL 2017

22 FEB 2016

INDEX

QUARRY LEASE APPLIED BOUNDARY

STATE HIGHWAY

PANCHAYAT ROAD

APPROACH ROAD

RIVER

HABITATIONS

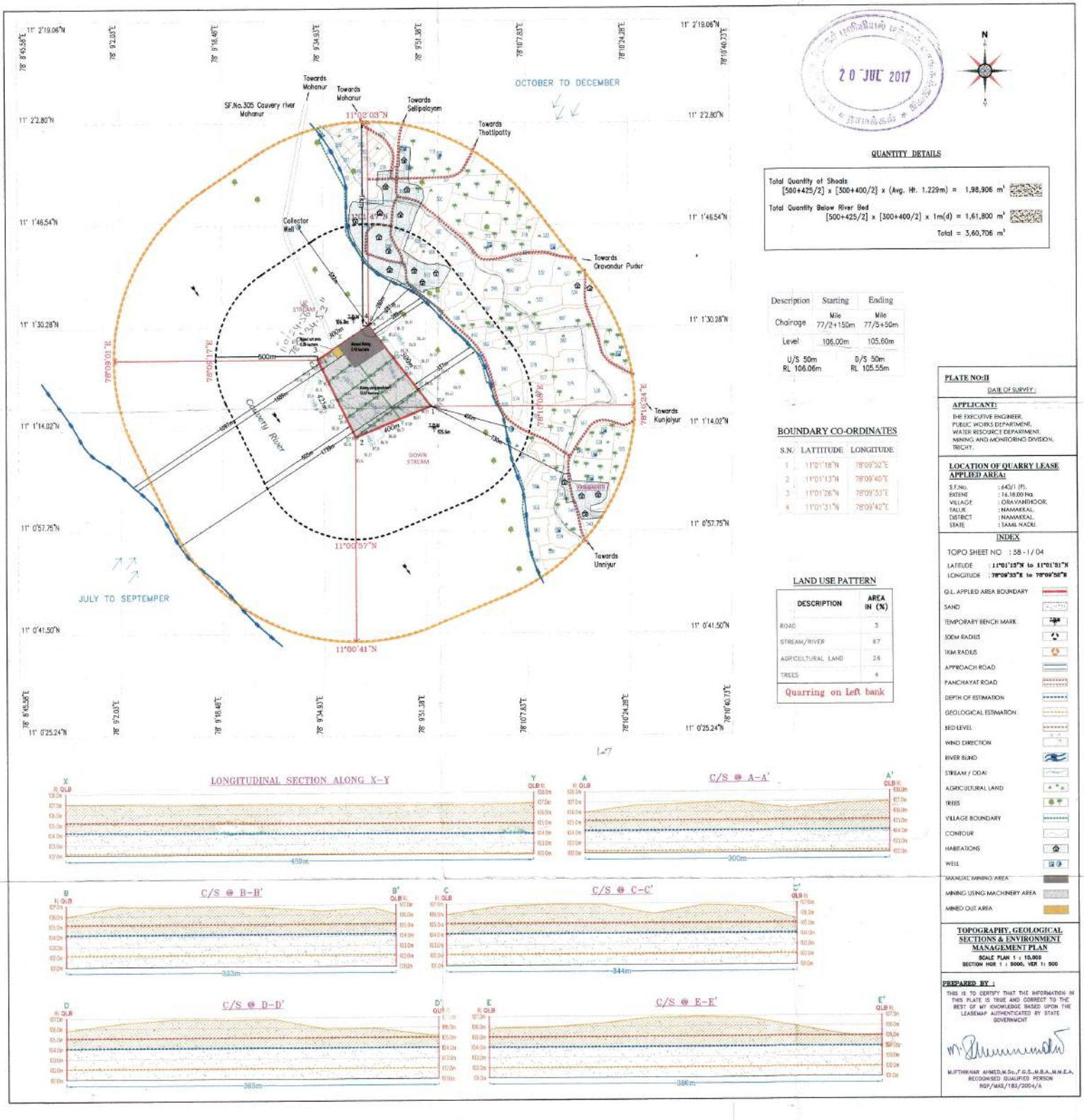
KEY MAP

NOT TO SCALE

PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASEMAP AUTHENTICATED BY STATE GOVERNMENT

M.IFTHIKHAR AHMED,M.Sc.,F.G.S.,M.B.A.,M.M.E.A,
RECOGNISED QUALIFIED PERSON
RQP/MAS/183/2004/A



20 JUL 2017

N

QUANTITY DETAILS

Total Quantity of Shoals
[500+425/2] x [300+400/2] x (Avg. Ht. 1.229m) = 1,98,906 m³

Total Quantity Below River Bed
[500+425/2] x [300+400/2] x 1m(d) = 1,61,800 m³

Total = 3,60,706 m³

Description	Starting	Ending
Chainage	Mile 77/2+150m	Mile 77/5+50m
Level	106.00m	105.60m
	U/S 50m RL 106.06m	D/S 50m RL 105.55m

BOUNDARY CO-ORDINATES

S.N.	LATTITUDE	LONGITUDE
1	11°01'18"N	78°09'52"E
2	11°01'13"N	78°09'40"E
3	11°01'26"N	78°09'33"E
4	11°01'31"N	78°09'42"E

LAND USE PATTERN

DESCRIPTION	AREA IN (%)
ROAD	3
STREAM/RIVER	67
AGRICULTURAL LAND	26
TREES	4

Quarring on Left bank

PLATE NO:II

DATE OF SURVEY :

APPLICANT:

THE EXECUTIVE ENGINEER,
PUBLIC WORKS DEPARTMENT,
WATER RESOURCE DEPARTMENT,
MINING AND MONITORING DIVISION,
TRICHY.

LOCATION OF QUARRY LEASE APPLIED AREA:

S.F.No. : 643/1 (P),
EXTENT : 16.18.00 Hq.
VILLAGE : ORAVANTHIGOR,
TALUK : NAMAKKAL,
DISTRICT : NAMAKKAL,
STATE : TAMIL NADU.

INDEX

TOPO SHEET NO : 58 - I / 04
LATITUDE : 11°01'18"N to 11°01'51"N
LONGITUDE : 78°09'33"E to 78°09'52"E

Q.L. APPLIED AREA BOUNDARY
SAND
TEMPORARY BENCH MARK
500M RADIUS
1KM RADIUS
APPROACH ROAD
PANCHAYAT ROAD
DEPTH OF ESTIMATION
GEOLOGICAL ESTIMATION
BED LEVEL
WIND DIRECTION
RIVER BLIND
STREAM / ODAI
AGRICULTURAL LAND
TREES
VILLAGE BOUNDARY
CONTOUR
HABITATIONS
WELL
MANUAL MINING AREA
MINING USING MACHINERY AREA
MINED OUT AREA

TOPOGRAPHY, GEOLOGICAL SECTIONS & ENVIRONMENT MANAGEMENT PLAN

SCALE PLAN 1 : 10,000
SECTION HOR 1 : 5000, VER 1: 500

PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASEMAP AUTHENTICATED BY STATE GOVERNMENT

M.IFTHIKHAR AHMED,M.Sc.,F.G.S.,M.B.A.,M.M.E.A.,
RECOGNISED QUALIFIED PERSON
RQP/MAS/183/2004/A

LONGITUDINAL SECTION ALONG X-Y

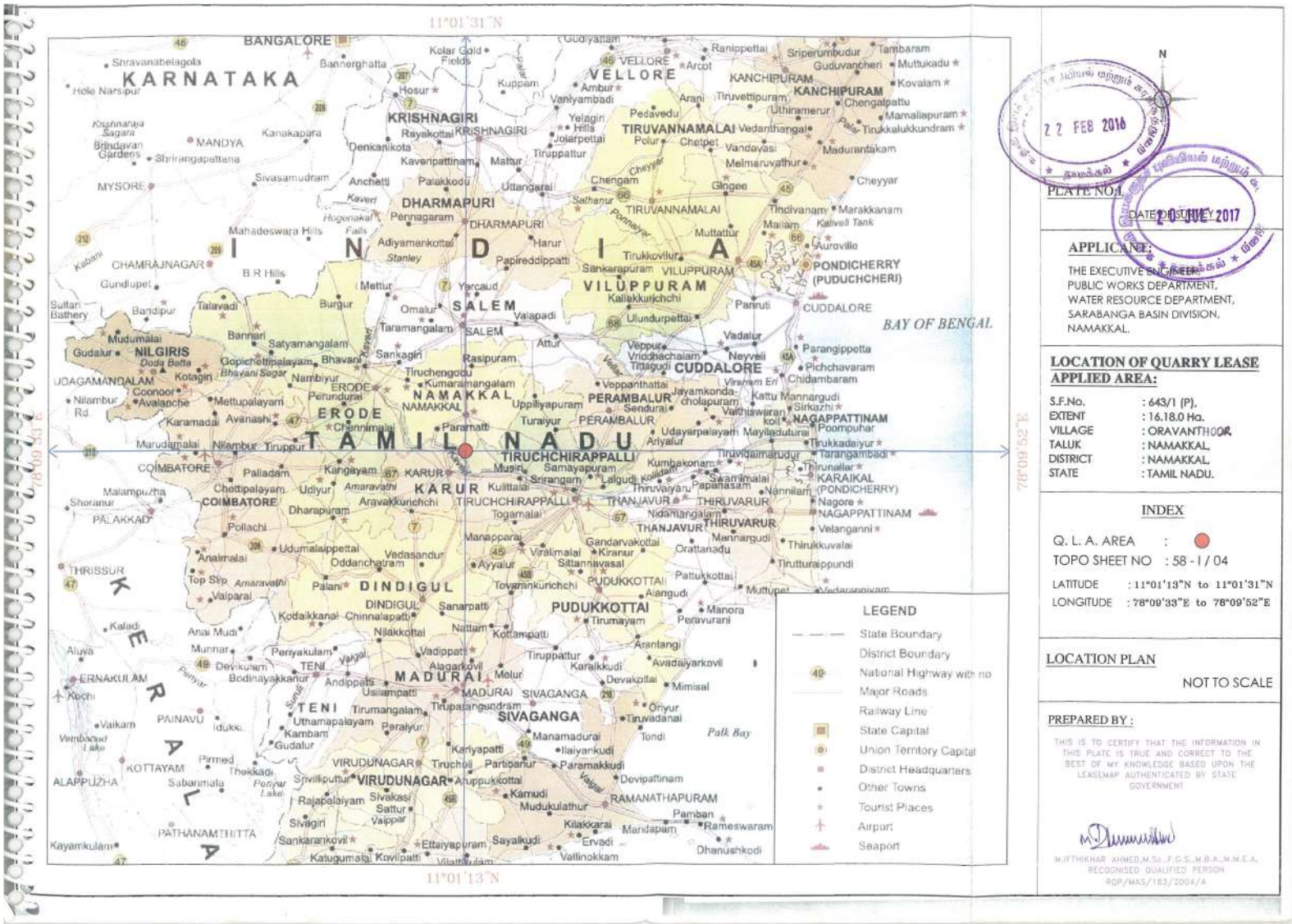
C/S @ A-A'

C/S @ B-B'

C/S @ C-C'

C/S @ D-D'

C/S @ E-E'



22 FEB 2018

PLATE NO.1 DATE OF SURVEY: 20 JUNE 2017

APPLICANT:

THE EXECUTIVE ENGINEER,
PUBLIC WORKS DEPARTMENT,
WATER RESOURCE DEPARTMENT,
SARABANGA BASIN DIVISION,
NAMAKKAL.

LOCATION OF QUARRY LEASE APPLIED AREA:

S.F.No.	: 643/1 (P),
EXTENT	: 16.18.0 Ha.
VILLAGE	: ORAVANTHOOR,
TALUK	: NAMAKKAL,
DISTRICT	: NAMAKKAL,
STATE	: TAMIL NADU.

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Q. L. A. AREA :

TOPO SHEET NO : 58 - I / 04

LATITUDE : 11°01'13"N to 11°01'31"N

LONGITUDE : 78°09'33"E to 78°09'52"E

LOCATION PLAN

NOT TO SCALE

PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASEMAP AUTHENTICATED BY STATE GOVERNMENT.

M.IFTHIKHAR AHMED,M.Sc.,F.C.S.,M.B.A.,M.M.E.A.,
RECOGNISED QUALIFIED PERSON
RQP/MAS/183/2004/A

THIRU A.V. VENKATACHALAM,I.F.S
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY – TAMIL NADU
3rd Floor, Panagal Maaligai,
No.1 Jeenis Road, Saidapet,
Chennai-15.
Phone No.044-24359973
Fax No. 044-24359975

AMENDMENT-EC

Lr. No.SEIAA-TN/F.No. 5093/EC/1(a)/ 3524 (A) /2016-1 dated: 09.10.2017.

To

The Excecutive Engineer, PWD/WRD
Sarabanga Basin Division
Namakkal District-637003

Sir,

Sub: SEIAA - TN – Sand quarry in River Cauvery over an extent of 16.18.0 ha at S.F No. 643/1 (Part)(Mile 77/2+150 to 77/5+150), Oruvandhoor Village, Namakkal Taluk, Namakkal District - Environmental Clearance – Amendment – Regarding.

Ref:
1. Your Application for Environmental Clearance dated 22.02.2016.
2. Minutes of the 79th SEAC held on 08.08.2016.
3. Minutes of the SEIAA meeting held on10.08.2016.
4. Lr. No.SEIAA-TN/F.No.5093/EC/1(a)/3524/2016 dated:10.08.2016.
5. G.O. (D) No. 110, Ind (MMC2) Dept, dated 17.06.2015.
6. Order of the National Green Tribunal in Application No.104/2015 dated 20/11/2015.
7. Order of Hon'ble High Court of Madras dt 29.04.2017 in W.P.No.36869 of 2016.
8. G.O. No. (2D) No.21/Industries (MMC.1) Department Dated 02.06.2017
9. EE, PWD/WRD, Mining & Monitoring Division, Trichy letter received on 26.07.2017
10. Lr.No.SEIAA-TN/F.No.5093/2016 dated: 27.07.2017
11. EE, PWD/WRD, Lr.No. F10/EE.M&M,Trichy dated 11.08.2017
12. Minutes of the 93rd SEAC Meeting held on 11.08.2017 & 12.08.2017
13. Minutes of the 234th SEIAA Meeting held on 21.08.2017
14. Minutes of the 235th SEIAA Meeting held on 23.08.2017
15. Minutes of the 241st SEIAA Meeting held on 09.10.2017

- - - -

1. The Environmental Clearance was issued for Quarrying of River Sand in River Cauvery over an extent of 16.18.0 ha at S.F. No. 643/1(Part), Oruvandhoor Village, Namakkal Taluk, Namakkal District subject to a special condition No. (iv) that "the Project Proponent is

MEMBER SECRETARY
SEIAA-TN

restricted to use judicious use of minimum number of poclains and not more than two poclains in the project site till the expiry of lease period or excavation of approved quantity whichever is earlier" vide this office letter Lr.No.SEIAA-TN/F.No.5023/EC/1(a)/3524/2016 dated:10.08.2016. The Environmental Clearance validity was for a period of two years from the date of issue.

2. In the reference 8th cited above, the Government of Tamil Nadu has issued an order in G.O. No. (2D) No.21/Industries (MMC.1) Department Dated 02.06.2017 stating that the Government carefully examined the issue in consultation with the Advocate General of Tamil Nadu and the Government have decided to supercede the earlier orders in the Government orders 1 to 5th read above which were issued prior to Ministry of Environment, Forest and Climate Change notification vide reference 6th cited and to direct the Public Works Department to move State Level Environmental Impact Assessment Authority (SEIAA) to permit more number of poclains taking into account the factors mentioned in the Sustainable Sand Mining Guidelines, 2016 issued by the Government of India

3 In the reference 9th cited above, the EE/PWD have submitted the modified mining plan and requested the SEIAA to permit the usage of **Five poclains** in the Sand mining projects and grant extension of time for a further period of Three Years from the date of Amendment for the Oruvandhoor stating as follows.

a) The Environmental clearance was granted for an extent of 16.18.00 Ha in River bed of Cauvery for the quantity of 198906 cu.m of Shoals & 161800 cum of sand.
b) The quantity exhausted is 1732 cu.m of sand as against the approval quantity of 358974 cu.m sand needs to be excavated in the oruvandhoor sand quarry.
c) The Government has superseded the earlier Government orders on usage of number of machineries in sand quarries by citing the Government of India Notification dt.15.1.2016 and sustainable sand mining guidelines 2016, stating that the State Level Environmental Impact Assessment Authority is competent to decide the number of machineries in the sand quarries without causing damage to Ecology and Environment.
d) The Government has also directed the Public Works Department to move before SEIAA on a case to case basis to permit more number of poclains for usage in sand quarries.

MEMBER SECRETARY
SEIAA-TN

e) In view of the above, the Modified Mining Plan has been prepared for the Oruvandhoor sand quarry for the quantity of 358974 cum of sand for both manual and machinery excavation with five number of poclains and extending the period of operation for two more years. The above Modified Mining Plan has been approved by the Assitant Director, Geology and Mining, Namakkal vide his letter in the reference Rc.No.1198/Mines/2015 Dated: 20.07.2017.

f) The average sand deposit in Oruvandhoor sand quarry in the bed of River Cauvery is 3 meters.

4. The Modified Mining Plan has been approved by the Assistnat Director, Geology and Mining, Namakkal vide his letter in the reference Rc.No.1198/Mines/2015 Dated: 20.07.2017 subject to the following conditions.

a) The mining plan is approved without prejudice any other law applicable to the quarry lease from time to time whether such laws are made by the Central Government, State Government or any other authority.

b) This approval of the mining plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Development and regulation) Act,1957,or any other connected laws including Forest (Conservation) Act,1980,Forest Conservation Rules,1981,Enviornment Protection Act,1980,Indian Explosives Act,1884(Central Act IV of 1884 and the rules made there under the Tamil Nadu Minor Mineral Concession Rules,1959.

c) The mining plan is approved without prejudice to any other order or direction from any court of contempt jurisdiction

5. In the modified mining plan, it reported that the quantity estimated to be mined through the machineries is 304801cu.m and the machinery operation area 13.75.0 ha is demarcated in the plan. The quantity estimated to be mined through the manual is 54173cu.m and the manual operation area is 2.43.0 ha is demarcated in the plan.

6. The proposals received from the PWD were placed before the 93rd State Level Expert Appraisal Committee Meeting held on 12th August 2017. Based on the discussions with the PWD Engineers, the committee members concluded that more information and data are needed from PWD to make a decision regarding the request for increase number of poclains. Accordingly, the committee directed the PWD to furnish the following data and information to the SEAC to consider the request of PWD. The data and information should be site

MEMBER SECRETARY
SEIAA-TN

specific and separately furnished for each quarry. The committee asked PWD to submit a comprehensive report detailing the following points.

I. 1. The details of the location to cover land use and ecologically sensitive areas.
2. Details of wells in the vicinity, ground water tables and other surface water bodies in the vicinity.
3. Thickness of Sand and its variation covering the entire area; similarly the width of the sand bed.
4. Agricultural land if any, surrounding the quarry site.
5. The composition of sand and other minerals present in the river bed.
6. Details of the river bed.

II. The list of quarries which were covered in the report of the committee constituted by the Government of Tamil Nadu, headed by Thiru. Rajesh Lakhoni, IAS.

III. Reclamation of the sand area after mining needs to be submitted.

IV. Justification for usage of more poclains in individual sand mining areas to be given.

V. Adequate safety measures in the quarrying area with respect to poclains to be deployed.

VI. Adequate plan for traffic management for the loaded vehicles passing through nearby habitation.

VII. The impact of dust pollution and noise on the habitations nearby.

7 Accordingly, PWD made a presentation on 12.08.2017 highlighting the mining project with emphasis on the information and data requested by the SEAC. A power point presentation of the quarries was made along with ecological features related to the mining projects. The PWD also submitted a report covering the ecological aspects in this regard

8. Based on the presentation and the ecological profile, the SEAC recommends the following amendment with respect to the request of the PWD regarding the use of poclains in the mining projects. Maximum number of poclains to be used was decided based on the quantity of sand in each of the quarries yet to be mined. The number of poclains will have a

MEMBER SECRETARY
SEIAA-TN

bearing on number of total machineries that will be put on the site, the implications of the movement of the vehicles on river bed and river banks, physical features and the flora and fauna of the river bed and banks. Considering the above, the Committee formulated the following criteria in deciding the number of poclains

1. Upto one lakh m^3 sand yet to be mined – maximum 2 poclains
2. One - Two lakh m^3 sand yet to be mined – maximum 3 poclains
3. Two - Four lakh m^3 sand yet to be mined – maximum 4 poclains
4. Four - Seven lakh m^3 sand yet to be mined – maximum 5 poclains

9. For the sand quarry project at Oruvandhoor Village, Namakkal District, 358974 cu.m of sand is yet to be mined. As per the above criteria, the maximum number of poclains permitted is 4 Nos. The above amendment is subject to the fulfilment of the following conditions by the PWD:

1. Wherever irrigation channels take off from the river within the boundary of the mining project, the mining operation should not affect the flow of water in the irrigation channels.
2. The entire sand mining operation should be as per the guidelines for sustainable sand mining issued in 2016 by the MoEF & CC, GOI, New Delhi.
3. Around all the sand mining projects agricultural activities are seen. In addition the surroundings present thick greeneries. The mining operation should not affect the greeneries and the agricultural activities.
4. It is reported that there are few habitations closer to the Oruvandhor project but all of them are 400 -500m away from the mining area. Also there are 14 open wells and 7 bore wells closer to the mining area. The mining operation should not lead to depletion of ground water table and agricultural activities.
5. The approach road and loading of the sand in the vehicles, movement of the vehicle should be planned and implemented in such a way that there is no noise and dust

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pollution in the nearby habitation. We recommend that PWD should maintain at least a safe distance of 300m from the habitations while planning the approach road and the loading operation. Wherever necessary and near the habitation in particular dust suppression measures to be adopted. While the loaded vehicle move on the road that should be fully covered with tarpaulin.

6. The pathway used by all machineries should be properly constructed and maintained by the PWD in order to avoid pollution.
7. The mining operation should be above the ground water table.
8. The conditions stipulated above need to be monitored and reviewed on fortnightly basis by the Taluk Level Task Force headed by Tahsildhar. At least two representatives from reputed research organizations like NIT, Trichy, Anna University department, Trichy, Annamalai University and Bharathidasan University should be included in the task force. The committee should send the monthly monitoring report to SEIAA which will be scrutinized by SEAC.
9. Adequate statutory manpower to be deployed for complying with the provisions to use heavy machineries as per Mines Safety Regulations (MCDR, 2017 & MMR, 1961)

9 The proposal was placed before the SEIAA in its 241st Meeting held on 09.10.2017 decided to grant the following amendment to the Environmental Clearance issued on 10.08.2016 against Sl.No (iv) of Specific Conditions as fallows

"The maximum number of poclains to be used was decided based on the quantity of sand in each of the quarries yet to be mined. Accordingly 4 numbers of poclains are allowed in the Oruvandhoor sand quarry for loading the sand into the trucks by the way of scooping the sand from river bed, collecting the sand in one place, maintaining the katcha roads in the mining area and to push off the trucks which are to be stranded in the katcha roads"

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10. Since the EC is valid up to 09.08.2018, further extension of EC validity sought by the proponent was not considered at this stage. However the project proponent may approach SEIAA one month before the expiry of the EC with proper justification

11. In addition, The SEIAA taking in to consideration of SEAC recommendations and documents submitted, permit mining by manual and machinery as requested by project proponent, however keeping manual method of Mining preference over machinery as prescribed in Sand Mining Guidelines 2016 MoEF&CC and decided to include the following additional conditions, based on Ecological factors and topography

1. The criteria considered for the use of number of poclains for this project is purely temporary and for this EC period only
2. Wherever irrigation channels take off from the river within the boundary of the mining project, the mining operation should not affect the flow of water in the irrigation channels.
3. The entire sand mining operation should be as per the guidelines for sustainable sand mining issued in 2016 by the MoEF & CC, GOI, New Delhi.
4. Around all the sand mining projects agricultural activities are seen. In addition the surroundings present thick greeneries. The mining operation should not affect the greeneries and the agricultural activities.
5. It is reported that there are few habitations closer to the Oruvandhor project but all of them are 400 -500m away from the mining area. Also there are 14 open wells and 7 bore wells closer to the mining area. The mining operation should not lead to depletion of ground water table and agricultural activities.
6. The approach road and loading of the sand in the vehicles, movement of the vehicle should be planned and implemented in such a way that there is no noise and dust pollution in the nearby habitation. We recommend that PWD should maintain atleast a safe distance of 300m from the habitations while planning the approach road and the loading operation. Wherever necessary and near the habitation in particular dust suppression measures to be adopted. While the loaded vehicle move on the road that should be fully covered with tarpaulin.

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7. The pathway used by all machineries should be properly constructed and maintained by the PWD in order to avoid pollution.
8. The mining operation should be above the ground water table.
9. The conditions stipulated above need to be monitored and reviewed on fortnightly basis by the Taluk Level Task Force headed by Tahsildhar. At least two representatives from any two reputed research organizations like NIT, Trichy, Anna University department, Trichy, Annamalai University and Bharathidasan University should be included in the task force. The committee should send the monthly monitoring report to SEIAA which will be scrutinized by SEAC.
10. Adequate statutory manpower to be deployed for complying with the provisions to use heavy machineries as per Mines Safety Regulations (MCDR, 2017 & MMR, 1961)
11. The project proponent is allowed to engage Lorries or tippers to transport the sand beside Bullock cart.
12. Loading and use of poclains, transport of sand shall not be entertained between 5.00 pm to 7.00 am.
13. The Project Proponent is also directed to strictly adhere to the Sustainable Sand Mining Management Guidelines, 2016 as the site specific, Especially the project proponent ensure the use technology likes Bar Coding,RTGS tags and GPS tracking of vehicles for effective monitoring, Information and communications Technology(ICT),Web based and ICT enabled services, mobile SMS Application,etc. to account for weight of mineral being taken out of area and the number of trucks moving out with the mineral.
14. The site will be assessed for Environmental impact by District Administration periodically and based on the assessment, decision may be taken regarding for the continuation of operation thereafter. The District Administration will also ensure the process of further extraction (Manual/Machineries) in the site should be based on site reality and rate of replenishment and other environmental parameters.
15. The amendment issued is applicable for the usage of machineries in the above said sand quarry from the date of issue of this order.
16. Mining of sand by use of machineries and manually should be carried out strictly as committed by the project proponent in the mining plan.
17. This amendment issued is subject to outcome of the final verdict of the Hon'ble High Court of Judicature of Madras in W.P.No.36869 of 2016.

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18. There shall not be any damage to Trees and Vegetations along the river boundaries and within the River course.
19. There shall not be any disturbance to bio diversity, Agricultural activities and agro bio diversity due to mining activities.
20. There shall not be any disturbance to Marsh lands, Swamps and ecological seral stages and vegetation recovery and natural sucessional process of vegetation due to the any of the Mining and relative activities.
21. The mining activities should not result in spread of invasive species in the area.
22. Roads should not be formed over the Waterbodies to avoid disturbance to free movement of aquatic Flanna and flora and microrganisms .
23. Wherever possible River training and restoration to be resorted with native vegetation and trees for sustainable life of the river system. This should be done in programme mode in consultation with Forest Dept, Agriculture Dept and allied Govt agencies.
24. Any temporary structures such as Culverts, Bridges etc constructed for approach road shall not disturb the free flow of water in the River.
25. Grazing grounds and greenery shall not be disturbed along the river banks.
26. No plastic shall be used for the construction of temporary structures.
27. Any repairing or reconditioning of equipments either Minor or Major shall not be done with in the River and in the Banks
28. Over use of vehicles and Machineries should not bury the original vegetation and compact the Soil and result in loss of Soil structure and reduce the water infiltration.
29. The mouths of the tributaries were joins shall not be disturbed by mining activities.
30. The project proponent should support ecological research study for river restoration by allocating sufficient funds to reputed research institutes in the state.
31. In the river course and stretch should be frequently monitored on a GIS platform, to study the periodical changes.
32. All study reports and compliance reports stipulated in the EC should be submitted in time as prescribed.
33. Heavy Machineries/Equipments deployed for mining and related activities shall not be engaged beyond its life period as stipulated in relevant rules of GOI.Fitness Certificate shall be obtained for the Heavy Equipments/Machineries deployed for the Mining and related works obtained from the supplier/dealer approved Workshop at the end of every year.
34. Heavy Equipments/Machineries shall be referred to Manufacturer/Dealer approved workshop for random check up at the end of every calendar month and fitness of the vehicles shall be ensured.
35. Tipper/Lorries used for conveyance of Sand shall not be parked within the River area.
36. Mining activities should not disturb the interconnectivity of the River with the Floodplain and Wet lands.
37. Mining should not result in disturbances and threat to Fish populations, their spawning ground, Micro organism, Soil Nutrients, endemic and endangered Plants and depletion of Soil seed banks and plantations.

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38. Mining should not result in fragmentation of the Landscapes, Loss of Habitat and their connectivity, Trophic level changes i.e. plant pollinators, predators and river ecosystem associated life forms, possibility of Encroachments and threats to natural River flow regimes.
39. The Ecological Value of the River which includes the flora & fauna and the riverine Species should not be disturbed by overuse of the area.
40. Activities should not change the Hydrological and sedimentlogical conditions and the River Status, as a corridor or Path way between Habitats, species and plant communities.
41. The proponent should also earmark sufficient funds for ecological restoration and Biodiversity conservation both On-site and Off-site.
42. River system monitoring with Watch dog committees including Government, Research Institute and NGOs should be established and supported to monitor impact and research.
43. The landscape should not be left with any negative impacts after abandonment of the Mining and the related activity.
44. Reference Site with all riverine features shall be identified and marked on map as control to support monitoring of reclamation and restoration programmes.

Except the above, all other details and conditions stated in the Environmental Clearance dated 10.08.2016 are unaltered and read with original EC.

MEMBER SECRETARY
SEIAA-TN

Copy to:

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Secretary, Department of Environment and Forests, Government of Tamil Nadu, Tamil Nadu.
3. The Secretary, Public Works Department, Government of Tamil Nadu, Tamil Nadu.
4. The Secretary, Industries Department, Government of Tamil Nadu, Tamil Nadu.
5. The Secretary, Department of Mines and Geology, Government of Tamil Nadu,Tamil Nadu.
6. The Chief Conservator of Forests, Ministry of Environment & Forests, (SZ) Kendriya Sadan, IV Floor, E&F Wings,17th Main Road, Koramangala II Block,Banagalore-560034
7. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
8. The Chairman, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-32
9. The Member Secretary, Central Ground Water Authority, A2, W -3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
10. The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines,Nagpur-40001.
11. The District Collector, Namakkal District
12. The Controller of Geology and Mines,Guindy,Chennai-32
13. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
14. Spare.

IN THE HIGH COURT OF JUDICATURE AT MADRAS

RESERVED ON : 07.06.2018

DELIVERED ON :06.07.2018

CORAM:

THE HON'BLE MR. JUSTICE M.SATHYANARAYANAN
AND
THE HON'BLE MR.JUSTICE N.SESHASAYEE

W.P.No.22433 of 2017
and WMP.Nos.23562 to 23565 of 2017

Varadharajan .. Petitioner

Vs.

1.The District Collector,
District Collector's Office,
Namakkal, Namakkal District.

2.The Chief Engineer,
Public Works Department, Namakkal.

3.The Assistant Director,
Mines & Minerals Department, Namakkal.

4.The Tahsildar,
Namakkal, Namakkal District.

5.The State Level Environment Impact
Assessment Authority, 3rd Floor,
Panagal Maaligai,
No.1, Jeenis Road, Saidapet,
Chennai-15.

6.The State Level Expert Appraisal Committee,
3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet, Chennai-15.

7.The Project Director (Sand Mining),
Tamil Nadu.
(Respondents 5 to 7 Suo Motu impleaded
as per order dated 13.11.2017) .. Respondents

Prayer: Writ Petition filed under Article 226 of the Constitution of India praying for issuance of a Writ of Certiorari to call for the records in proceedings in ROC.No.1198/Mines/2015 dated 12.03.2017 passed by the 1st respondent for the present sand quarry operating by PWD in S.F.No.643/1(p)-Over an extent of 16.18.0 Hect in Oruvanthur Village, Namakkal Taluk, Namakkal District and quash the same.

For Petitioner : Mr.S.Sheik Ismail

For Respondents : Mr.Vijay Narayan,
Advocate General
assisted by
Mr.T.N.Rajagopal,
Government Pleader and
Mr.E.Manoharan,
Additional Govt. Pleader for R1 to R4

M/s.G.Hema.
Central Govt. Standing Counsel for R5

O R D E R

M.SATHYANARAYANAN, J.

The present Writ Petition is filed as a Public Interest Litigation by the petitioner claiming to be an agriculturist.

2. The petitioner, in the affidavit filed in support of this writ petition, would aver as follows:

2.1. The petitioner is in possession of agricultural land admeasuring to an extent of 12 acres comprised in S.Nos.79/1A, 82, 97, 98, 74/2A, 96/1, situated at Mohanur Village, adjacent to Oruvanthur Village, which is located on the banks of the river Cauvery and agriculture is the sole source of livelihood of the petitioner and majority of people residing in the said village.

2.2. In the year 2012, the respondents 1 to 4 had accorded licence to carry on sand quarry in the nearby village, namely, Mohanur, which is situated within 3 kms. from the village of the petitioner, admeasuring to an extent of 18.63 Hectares at S.No.305. At the time of according licence to the said quarry, objections were received to the effect that the operation of the sand quarry would affect the agricultural activities, especially depletion of ground water source. However, an assurance was given that quarrying operations would be restricted to the permitted area and beyond the permissible depth level, sand quarrying would not be done. The respondents 1 to 4, in violation of the same, had quarried beyond the permitted area of 18.63 hectares and that apart, quarried to the depth of more than 10 meters, which ultimately resulted in severe water shortage both for agricultural and

domestic purpose and as a consequence, the entire residents of the village were affected.

2.3. In the year 2015, the Government of Tamil Nadu proposed to set up a new sand quarry in the village of the petitioner in S.No.643/1 at Oruvanthur on the banks of the Cauvery river, which lies very close to the village of the petitioner and it was opposed by the villagers and there were public agitations also. The first respondent, ignoring the objections and sentiments of the public, has passed the impugned order dated 12.03.2017, according permission to quarry river sand.

2.4. The petitioner had given the following details of violations in Oruvanthur Sand mining:

i. Necessary survey and inspection has not been done and that already sand has been quarried to the depth of more than 10 meters.

ii. The conditions imposed by the State Level Environmental Impact Assessment Authority [in short "SEIAA"] that there should be a distance of 1 km. between two mining blocks, has been violated for the reason that there is a quarry in S.No.1/1 at Unniyur Village,

Thottiyam Taluk, which lies within 1 km. from the present quarry site in S.No.643/1.

iii. Even as per the mining plan submitted by the second respondent before SEIAA, there are few habitations within 250 meters to the north western side of the sand quarry and it is *per se* in violation of the conditions imposed by the said authority.

iv. Even as per the impugned proceedings of the first respondent dated 12.03.2017, on the eastern side of the quarry, there exists "Kattuputhur Vaaikal" [water channel] head sluice located at a distance of 250 meters and as such, quarrying operations cannot be permitted to go on, as the rule prescribes that no permission shall be granted, if there exists a water supply system within 500 meters.

v. A road has also been located in the midst of the river for about 3 kms. to transport sand from the quarrying site and it would affect the original gradient of the river and also disturbs the turbidity, velocity and flow pattern of the river water and there is every possibility that natural course of water would be altered/affected.

vi. No demarcation of the boundaries has been done by putting concrete stone or pillars to show the natural bed level and the depth of mining allowed.

vii. No display board has been erected at the entrance of the village road from the main road as per the conditions imposed by SEIAA before commencing mining operations.

viii. The Tahsildar, as per the conditions imposed by SEIAA, shall constitute a Taluk Level Task Force to inspect and satisfy that the conditions imposed by SEIAA have been complied with and based on the same, the District Collector, who is the Chairman of the District Level Task Force, shall approve the mining. However, the Taluk Level Task Force is yet to carryout inspection and if necessary inspection is done, it would have been found that the depth quarried had already reached 10 meters and quarrying further would deplete the ground water source, if any and whatever remains would also get dried.

ix. As per the conditions imposed by SEIAA, around 2 kms. radius from the proposed area, ground water study to be carried out through

reputed research institutions before, during and after mining, to assess the ground water table, but no such assessment was carried out.

x. There were no piezometers installed to monitor the ground water level at the site, as contemplated by SEIAA.

xi. The project authority should advertise with basic details at least in two widely circulated local newspapers, out of which one should be in vernacular language and however, it has not been done as per the conditions imposed by SEIAA.

2.5. In sum and substance, it is the stand of the petitioner that quarrying of river sand in the State of Tamil Nadu is rampant and illegal and no steps have been taken to prevent the illegal sand mining and the operation of the sand quarry by the State Government is to benefit certain individuals and no public interest or common good is involved and if the quarrying operations are allowed to go on, it would definitely result in soil erosion and adverse affect on bio-diversity, depletion of ground water source and that apart, flora and fauna would also be affected and in the event of floods, water may not flow on the river bed freely on account of the rampant sand quarry and that apart, the impugned proceedings of the first

respondent in according permission to quarry river sand has been done without any authority whatsoever and contrary to environmental protection and conservation and therefore, prays for quashment of the same.

3. The Writ Petition was entertained on 06.11.2017 and an interim order was granted till 15.11.2017. The matter was listed on 13.11.2017 and on that day, this Court, taking into consideration the submission made by the learned counsel appearing for the petitioner and the learned Advocate General appearing for the State, had directed impleadment of the State Level Environment Impact Assessment Authority, Saidapet, Chennai-15, State Level Expert Appraisal Committee, Saidapet, Chennai-15 and the Project Director (Sand Mining), Tamil Nadu, as the respondents 5 to 7 and directed the State Level Expert Appraisal Committee to cause inspection of the quarry in question, after putting the petitioner on notice and find out as to whether the general conditions stipulated in the Environmental Clearance dated 10.08.2016 issued by the fifth respondent herein are complied with or not. A report was submitted by the sixth respondent viz., Tamil Nadu State Expert Appraisal Committee (SEAC-TN) and this Court, vide order dated 20.12.2017, has taken the said report on file and granted time to the petitioner to file his objections/response.

4. The second respondent has filed a counter affidavit and in para 2 has culled out the procedure to be followed before starting a sand quarry and in para-wise reply in respect of the averments made by the petitioner, would state as follows:

i. The sand quarry operated at S.No.305 at Mohanur Village to an extent of 18.63 Hectares is strictly in accordance with the terms and conditions of the clearance accorded by the relevant authority and it was operated in the year 2012 by following all the rules and regulations laid down in the Tamil Nadu Minor Mineral Concession Rules, 1959.

ii. No sand quarry operation was done more than the depth of 10 meters as the river bed is having rocky form and does not have such deposition of the sand and more over, mining to such a depth of 10 meters will yield rocky masses from the bed and also economically unviable.

iii. A decision has been taken by the Government of Tamil Nadu to set up a new sand quarry in S.No.643/1 on the banks of the river Cauvery and the local Village Panchayat Council, in its earlier resolution dated

20.04.2012, had also consented to request the Public Works Department and the District Collector to start mining of sand from the said village to augment the revenue and to get employment for the village and they have also mentioned that sand shoals that are obstructing the free flow of water is to be removed from the said area.

iv. Inspection of the quarry site at S.No.643/1 is done periodically and submitted to the District Collector every month and it has not been quarried upto the depth of 10 meters (approx. 30 ft.).

v. The distance between 2 blocks in S.No.1/1 at Unniyur Village, Thottiam Taluk and the subject quarry site in S.No.643/1 at Oruvandur Village is 2.2. kms. and as per the conditions imposed by SEIAA, it shall be 1 km and as such, the said condition has been complied with.

vi. There are no habitation within 250 meters to the north western side of the sand quarry and there are no habitations within the radius of 500 meters to the quarry site.

vii. The Kattuputhur channel head sluice is located at the distance of 250 meters away from the quarry site and the water regulating structure is no way disturbed to its operations and the head sluice is kept always open with respect to Korambu channel and it's inflow is according to the flow of water in Cauvery river.

viii. The formation of roads to the quarry site from the banks are designed to remain along the confluence of water flow and hence, it is maintained without any obstructions to the flow pattern, velocity and original gradient.

ix. Demarcations have been done at the site with pucca stones and red flags on the top of it and display boards with relevant details are permanently kept grouted just before the main approach road and in front of the entry point into the river.

x. The Government had also constituted Taluk Level and District Level Task Forces consisting of officials at Taluk Level and District Level respectively as per G.O.(MS)No.135, Industries (MMA-1) Department dated 13.11.2009 to monitor and prevent illegal mining and transportation of minerals and to make frequent surprise checks

in mining/quarrying filed and on vehicles transporting minerals without any valid authority of transport permits. The said Government Order also empowers the Government to form flying squads and that Taluk Level and District Level task forces are properly functioning in Namakkal District Level and are strictly complying with the above said Government Order.

xi. Failure of monsoon for the last three successive years have resulted in water shortages and as a result, ground water availability as well as surface water flow in Cauvery river was affected consequently and the Public Works Department is having a separate wing for analyzing the ground water potential and to record the ground water table variation throughout the States and the Executive Engineer, PWD has also referred the average depth of ground water table in the lease area of river bed in the report and piezometes were also installed by PWD to monitor the ground water level.

xii. The Bharadhidhasan University, Trichy has conducted baseline study about sand mining and its effect on bio-diversity in Cauvery river and submitted report for species, flora and fauna in Cauvery River bed.

xiii. The object of PWD is to remove the excess sand shoals and the permitted depth from the river bed in order to restore the Hydro geological cross section of the river to carryout the maximum capacity of 4,64,000 Cusecs in flood season and the petitioner is making allegations without basic facts and knowledge.

xiv. Local village people have been appraised with regard to the sand quarry and the view of the stakeholders have also been elicited.

xv. Sand quarry operations is being done by the Government and not by private parties and as such, there is no illegal or excessive mining which might adversely affect the environment and a new web portal, namely "TN Sand" has come into place, by which level playing field has also been created and there is no element of discretion in the sale of sand and all the conditions imposed by SEIAA have been strictly complied with especially with regard to the depth prescribed in environmental clearance order and there is no excess mining in the sand quarry and as such, there is no adverse effect on bio-diversity.

The second respondent, for the reasons stated above, prays for the dismissal of this Writ Petition.

5. It is to be noted at this juncture that after filing of the report of the Tamil Nadu State Expert Appraisal Committee /sixth respondent herein, the petitioner was afforded with opportunity to file his objections/response, but he did not file the same.

6. The learned counsel appearing for the petitioner, apart from reiterating the ground taken by him in the affidavit filed in support of the writ petition, as extracted above, would contend that no proper and effective monitoring system is put in place and the so called Taluk Level and District Level Task Forces are manned by the officials of the State Government only and since sand quarrying is being done by the Government itself, they are not permitted to take cognizance of the illegal acts as well as violation of the conditions imposed by SEIAA. The learned counsel appearing for the petitioner would further contend that the State of Tamil Nadu is always a water starved State and only during monsoon, there may be some water flow in the rivers and on account of rampant, uncontrolled and illegal quarrying of sand from river beds, natural course of water to flow into the river beds gets affected and sand has been quarried upto the level of 10 meters or more and as a consequence, flow of water get struck once it reaches the said beds and get percolated and as a consequence, it does not reach the other courses

especially the end points, which results in affecting the agricultural operations and that apart, ground water table is also not getting charged, resulting in catastrophic consequences such as loss of agricultural operations, suicide of farmers and water scarcity to the villagers who live close to the river Cauvery.

7. It is the forceful submission of the learned counsel appearing for the petitioner that the State, under the guise of sand quarry, has ventured into commercial operations to benefit few individuals, who are operating stock yards as well as transport contractors and no common or public good is involved. It is also the submission of the learned counsel appearing for the petitioner that in order to overcome the shortage of river sand, Mineral Sand is the substitute, which is being used entensively in the State of Maharashtra and other States and since suitable substitute is also available, the State Government may endeavour to start factories for the manufacture of quality M-Sand to meet out the needs of the persons, who are putting up construction as well as Corporates/Real Estate Developers, who are also putting up multi-storied buildings and river sand has become a scarce commodity and illegal and rampant quarrying has already contributed to the ecological disaster and impact on environment and therefore, river sand mining should be totally banned and whatever damage already caused

should be repaired and the original condition of the river beds should be restored by the State Government and prays for quashment of the impugned proceedings of the first respondent.

8. *Per contra*, Mr.Vijay Narayan, learned Advocate General, assisted by Mr.T.N.Rajagopal, learned Government Pleader and Mr.E.Manoharan, learned Additional Government Pleader, appearing for the respondents 1 to 4, made the following submissions:

(i) Rule 38-A of the Tamil Nadu Minor Mineral Concession Rules, 1959 enables the State Government to quarry sand and vires of the said Rule has also been upheld by this Court in the decision in ***Aminjikarai Lorry Owner Welfare Association v. State of Tamil Nadu, [2005 (3) LW66 = 2005 (4) MLJ 523 (Mad)]*** and as such, the power of the State Government to quarry sand in terms of the said rule, cannot be put to challenge.

(ii) The Executive Engineer of PWD, Water Resources Department, Sarabanga Basin Division, Namakkal, has submitted an application dated 03.02.2016 along with Form-I, Mining Plan & Pre-Feasibility Report, to obtain environmental clearance for quarrying of sand

(Cauvery River) admeasuring to an extent of 16.18.0 Hectares in S.F.No.643/1 at Oruvanthoor Village, Namakkal Taluk and the fifth respondent has considered the said application along with annexures and accorded Environmental Clearance, vide proceedings dated 10.08.2016.

9. This Court has perused the Environmental Clearance accorded by the fifth respondent and it contains the following viz., Conditions to be complied with before commencing mining operations, Specific Conditions and General Conditions etc. The conditions imposed are very exhaustive and there is an in-built mechanism to monitor mining activity and it is also relevant to extract the following conditions:

"2(iii). The katcha roads between the bank of the river and the mining area shall be formed with locally available bio-degradable materials such as Sugar cane leaves etc.

5(xxi). The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation.

5(xxxv). The SEIAA, TN may cancel the environmental clearance granted to this project under the provisions of EIA Notification, 2006, if, at any stage of the validity of this

environmental clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate date for obtaining the environmental clearance.

5(xxxvi). Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

5(xL) As CSR activity the project proponent shall take care of the needs of a nearby habitation by providing essential amenities."

The Environmental Clearance accorded by the fifth respondent would also indicate that any appeal against the environmental clearance shall lie with the National Green Tribunal under Section 16 of the National Green Tribunal Act, 2010. The petitioner did not file any appeal challenging the above said environmental clearance.

10. Be that as it may, since the petitioner claims to be an agriculturist and he has also filed the present Writ Petition as a Public Interest Litigation, which has been entertained also, it may not be proper for this Court to direct the petitioner to invoke the alternative remedy and that apart, for want of

members, there is no functioning of the National Green Tribunal, Southern Bench at Chennai.

11. As already pointed out, this Court, vide order dated 13.11.2017, has directed the sixth respondent herein to cause inspection of the quarry in question, after putting the petitioner on notice as to the compliance of the general conditions stipulated in the Environmental Clearance accorded by the fifth respondent and accordingly, a report with annexures have been filed.

12. The Technical Team, which inspected the quarry site, consists of the following members:

1.Dr.K.Thanasekaran – Member, SEAC
B.E. (Civil Engg.), M.E. (Environmental Engg), Ph.D. (Environmental Engg.); Former Director of the Centre for Environmental studies, Anna University, Chennai.

2.Dr.M.Jayaprakash – Member, SEAC
B.Sc. (Geology), M.Sc. (Geology), Ph.D. (Geology)
Associate Professor, Department of Applied Geology, University of Madras, Chennai.

3.Shri B.Sugirtharaj Koilpillai – Member, SEAC
B.Sc., (Zoology), Certificate Course on Forestry,
Diploma in Wildlife Management, Former Indian Forest Service (IFS) Officer.

4.Shri P.Balamadeswaran – Co-Opted Member, SEAC
B.E.(Mining Engg), M.Tech (Opencast Mining), Ph.D.(on-going),
First Class Mines Manager Certificate of competency (Mental-Restricted)
issued by Directorate General of Mines Safety (DGMS), Dhanbad,
Recognized Qualified Planner (RQP) issued by Indian Bureau of Mines
(IBM), Chennai; Assistant Professor, Department of Mining Engineering,
Anna University, Chennai.

The said Technical Team has conducted inspection on 22.11.2017 in the presence of the officials concerned and it also collected data and made certain observations and it is relevant to extract the same:

"6.0. DATA COLLECTED AND OBSERVATIONS MADE

6.1. The Status of Mining Operation

After getting the EC and the proceedings from the District Collector, the PWD carried out the mining operations on 16.06.2017, 17.06.2017, 29.06.2017, 01.11.2017 to 04.11.2017 and 06.11.2017. A total of 3525.39 cu.m of sand has been mined. There is no mining activity after 06.11.2017.

6.2. The lease area earmarked for mining

As per the Team's technical measurements and calculations, it was ascertained that the area earmarked for the mining is 16.18.0 hec. (Annexure-4).

6.3. Pillars

Pillars were observed at the four corners with red flags and necessary details. Similarly intermediate pillars weer seen at every 50m without red flags.

6.4. The depth of sand mined

In the leased area, sand has been mined in five pits. The depth of mining various from pit to pit (1.15m, 2.50m, 2.40m, 2.30m

and 1.45m). As per the EC, the PWD is advised the removal of the shoal and 1m of sand from the actual bed level. From the above data it could be seen that the sand has been mined in the 2nd, 3rd and 4th pits. The actual depth of sand in the above pits mined is 0.5m, 0.4m and 0.3m. Whereas, the permissible the depth of sand to be mined upto 1m from the actual bed level.

6.5. Ground Water Table

The ground water is observed as 2nd, 3rd and 4th pits. No mining has been done below the ground water table.

6.6. Display Boards

Three display boards were erected around the mine area. One display board showing the details of sand quarry in English language, which is located at the entry of river bank and another board in Tamil Language, is located in the village road to the quarry site. Another board also found in near Oruvandhoor Village.

6.7. Approach road used

From the Mohanur – Kattupudhur major district road (MDR), a village road over a length of 400m leads to a private land through which the road passes and the PWD have leased 350m length of a private land for approaching the Cauvery left bank. From Cauvery left bank, a katcha road has been formed to length of 3.6 km to approach the Oruvandhoor lease area. The katcha road from the bank runs along the river and across river. The katcha road crosses leading channel of Kattuputhur Vaikkal at first 100m where temporary pipe culvert is constructed to ensure free flow of water to Kattuputhur vaikkal.

Out of 3.6 km stretch, 2.3 km length was the approach road used in the Mohanur quarry and this road stretch has been extended by 1.3 km as part of Oruvandhoor mining project. The above road was constructed over the river shoal bed using biodegradable sugarcane leaves.

6.8. Nearest Habitations

The nearest villages, Vadugapatti and Oruvandhoor, are located at distance of 0.7 km and 1 km respectively from the quarry site. Another village, Kumaripalayam is located at a distance of 4 km from quarry site.

6.9. Drinking Water and toilet facilities

Drinking water, toilet facilities and rest shelter have been provided at the entry point of the river.

6.10. Flora & Fauna

About 5 ha of the mining site has been covered with Prosopis juliflora, as invasive alien species. No other tree growth was found. No fauna was notified in the site.

6.11. Agricultural activities

The team observed agricultural fields closer to the mining area. Sugar cane, Banana, Paddy, Casuarina etc., have been raised in these fields.

6.12. Mining activity outside the leased area

On the North-western side of the leased area, the Team observed that mining activity has been taken place clearly outside the leased area. Two pits were identified with the average depth of 1.8 meters from the surface. Approximately, 1100 m3 of sand has been mined and stacked near the pits."

The Technical Team has also assessed as to the compliance of the General Conditions imposed in the Environmental Clearance accorded by the fifth respondent and in para 8 it has made the following recommendations:

"8.0. IMPORTANT ISSUES AND RECOMMENDATIONS

The following two recommendations may be implemented by the PWD.

8.1. Issue and Recommendation 1

The PWD uses the katcha road formed for Mohanur quarry operation (now completed) and extended it upto the present quarry site. This road runs across and along the river Cauvery. It is a hindrance to the river flow. Preferably, the PWD should look for alternative route for carrying the mined sand which avoids interference with river flow.

Two Options are available

Option A: A road way may be built along the bank as far as possible and then cut across to reach the quarry site. It appears that permission from the Forest Department is necessary.

Option B: In the present road already formed, the vehicle may take Left Turn in the 1st Left itself instead of the 4th Left as it is being done now. Taking the 1st Left free significant stretch of road from usage.

In either case, as a mine closure activity, the PWD must free the river bed from the approach roads and restore the river bed to ensure free flow. For this the PWD may chart out a plan of action and try to complete restoration work along with the mine closure programme for the Mohanur quarry or earlier.

8.2. Issue and Recommendation 2

It was noticed that the river sand has been mined in the area outside the permitted area. Considerable amount of sand has been mined and stacked and depth of mine pit is well below the Ground Water Table Level. The committee advises PWD, to backfill the aforesaid stacked materials, to the respective pits before commencing the operation of the lease area. The restoration work should be done under the supervision of the

Department of Geology and Mines, Government of Tamil Nadu. Upon certification by the Mining Department that restoration has been done, the PWD may start the Mining in the selected area."

The said report would also indicate that the Public Works Department is to put up a katcha road for Mohanur quarry and extend the same upto the present quarry site which runs across the river Cauvery and it is an entrance to the flow of river water and therefore, suggested that preferably, PWD should look for alternative route for carrying the mined sand which avoids interference with river flow. As far as laying the said road is concerned, it gives two options. The Committee also noticed that river sand has been mined in the area outside the permitted area and considerable amount of sand has been mined and stacked and depth of mine pit is well below the Ground Water Table Level and therefore, advised the Public Works Department to backfill the aforesaid stacked material, to the respective pits before commencing the operation of the lease area and it should be done under the supervision of the Department of Geology and Mines, Government of Tamil Nadu and upon certification by the Mining Department that restoration has been done, PWD may start the mining in the selected area.

13. The second respondent has filed a Compliance Report dated 12.01.2018 and it is relevant to extract the same:

"1. As recommended by the SEAC in recommendation No.8.1, option B, a new pathway to the subject quarry has been formed. As a result of this, the vehicles would make a Left Turn in the 1st Left itself instead of 4th Left as was being done earlier and this pathway was formed on the higher ground level than the previous one and also away from the TWAD intake wells.

2. The pathway in the old Mohanur quarry that were a hindrance to the river flow have been cut-opened at various intervals, so that the water now flows across without any hindrance or impasse.

3. Further, the Assistant Director (Mines) has submitted her inspection report and stated that, as instructed by the SEAC in recommendation No.8.2, the PWD have backfilled the sand mined pits outside the permitted area with the stacked sand."

As per the said compliance report, suggestions made by the said Committee have been complied with and it is pleaded by the learned Advocate General that in the light of the same, interim orders granted in this writ petition may be vacated and the writ petition may be dismissed and also, on instructions, would submit that this Court may also appoint a Committee consisting of experts to monitor sand quarry operations in the said site and submit a periodical report to this Court for the purpose of finding out as to whether all the conditions imposed by the fifth respondent, while according Environmental Clearance, have been complied with.

14. This Court paid it's best attention and anxious consideration to the submissions made by the learned counsel appearing for the petitioner, learned Advocate General and also scanned and perused the entire materials placed before it.

15. This Court can take judicial notice of the fact that the State of Tamil Nadu is always a water starved State and that is why our forefathers had a vision and though fit to construct/create very many artificial lakes, temple tanks to augment the surcharge of ground water level, but unfortunately due to urbanisation and ineffective implementation and enforcement of the relevant Laws, most of such water resources had become plots, especially unapproved plots, encroachment on public lands and very many unauthorized constructions are also allowed to take place under the "WATCHFUL" eyes of the concerned officials. A Government organization of the State of Tamil Nadu, namely, Tamil Nadu Housing Board, is also guilty of converting water body as house sites and developing housing colonies, after re-classification and that apart, land sharks continue to convert water body into housing plots by dumping debris and other materials and in very many cases, concerned authorities had turned a blind eye to the illegal acts which are taking place. As a consequence, this Court is flooded with very many litigations in the form of Public Interest and other litigations complaining about encroachments, conversion of water bodies into housing plots and unauthorized constructions and precious time of this Court is being spent for disposal of those kind of cases and so far, no effective mechanism is put in place.

16. In ***Deepak Kumar and Others v. State of Haryana and Others [(2012) 4 SCC 629]***, auction notice was issued by the Department of Mines and Geology, Government of Haryana, proposing to auction the extraction of minor minerals, boulders, gravel and sand quarries and the validity of the auction came up for consideration and it is relevant to extract the following paragraphs of the said decision:

> *"**8.** We have no materials before us to come to the conclusion that the removal of minor minerals, boulders, gravel, sand quarries, etc. covered by the auction notices dated 3-6-2011 and 8-8-2011, in the places notified therein and also in the riverbeds of Yamuna, Ghaggar, Tangri, Markanda, Krishnavati River basin, Dohan River basin, etc. would not cause environmental degradation or threat to the biodiversity, destroy riverine vegetation, cause erosion, pollute water sources, etc. Sand mining on either side of the rivers, upstream and instream, is one of the causes for environmental degradation and also a threat to the biodiversity. Over the years, India's rivers and riparian ecology have been badly affected by the alarming rate of unrestricted sand mining which damage the ecosystem of rivers and the safety of bridges, weakening of riverbeds, destruction of natural habitats of organisms living on the riverbeds, affects fish breeding and migration, spells disaster for the conservation of many bird species, increases saline water in the rivers, etc.*
>
> ***9.** Extraction of alluvial material from within or near a stream bed has a direct impact on the stream's physical habitat characteristics. These characteristics include bed elevation, substrate composition and stability, instream roughness elements, depth, velocity, turbidity, sediment transport, stream discharge and temperature. Altering these habitat characteristics can have deleterious impacts on both instream biota and the associated riparian habitat. The*

demand for sand continues to increase day by day as building and construction of new infrastructures and expansion of existing ones is continuous thereby placing immense pressure on the supply of the sand resource and hence mining activities are going on legally and illegally without any restrictions. Lack of proper planning and sand management cause disturbance of marine ecosystem and also upset the ability of natural marine processes to replenish the sand.

10. *We are expressing our deep concern since we are faced with a situation where the auction notices dated 3-6-2011 and 8-8-2011 have permitted quarrying, mining and removal of sand from instream and upstream of several rivers, which may have serious environmental impact on ephemeral, seasonal and perennial rivers and riverbeds and sand extraction may have an adverse effect on biodiversity as well. Further, it may also lead to bed degradation and sedimentation having a negative effect on the aquatic life."*

The Hon'ble Supreme Court in the said judgment has suggested certain measures/recommendations and it is relevant to extract some of the recommendations:

"19...

4.6.*Creation of separate corpus for reclamation/rehabilitation of mines of minor minerals*

Mining of minor minerals, in our country, is by and large an unorganised sector and is practised in haphazard and unscientific manner. At times, the size of the leasehold is also too small to address the issue of reclamation and rehabilitation of mined out areas. It may, therefore, be desirable that before the concept of mine closure plan for minor minerals is adopted, the existing abandoned mines may be reclaimed and rehabilitated with the involvement of the State Government. *There is thus, a need to create a separate corpus, which may be utilised for reclamation and rehabilitation of mined out areas. The respective State Governments may work out a suitable mechanism for creation of such corpus on the 'polluter pays' principle. An organisational structure may also need to be*

created for undertaking and monitoring these activities.

4.7.*Depth of mining*

Mining of minerals, whether major or minor have a direct bearing on the hydrological regime of the area. Besides affecting the availability of water as a resource, it also affects the quality of water through direct run of going into the surface water bodies and infiltration/leaching into groundwater. Further, groundwater withdrawal, dewatering of water from mine-pit and diversion of surface water may cause surface and subsurface hydrologic systems to dry up. An ideal situation would require that quarrying should be restricted to unsaturated zone only above the phreatic water table and should not intersect the groundwater table at any point of time. However, from the point of view of mineral conservation, it may not be desirable to impose blanket ban on mining operation below groundwater table.

It is, therefore, recommended that detailed hydrogeological report should be prepared in respect of any mining operation for minor minerals to be undertaken below groundwater table. Based on the findings of the study so undertaken and the comments/recommendations of the Central Groundwater Authority/State Groundwater Board, a decision regarding restriction on depth of mining for any area should be taken on case-to-case basis.

4.9.*Riverbed mining*

4.9.1. Environment damage being caused by unregulated riverbed mining of sand, bazari and boulders is attracting considerable attention including in the courts. The following recommendations are therefore made for the riverbed mining:

(*a*) In the case of mining leases for riverbed sand mining, specific river stretches should be identified and mining permits/lease should be granted stretchwise, so that the requisite safeguard measures are duly implemented and are effectively monitored by the respective Regulatory Authorities.

(*b*) The depth of mining may be restricted to 3m/water level, whichever is less.

(*c*) For carrying out mining in proximity to any bridge and/or embankment, appropriate safety zone should be worked out on

case-to-case basis, taking into account the structural parameters, locational aspects, flow rate, etc. and no mining should be carried out in the safety zone so worked out.

21. Further, it was also recommended that the States, Union Territories would see that mining of minor minerals is subjected to simpler but strict regulatory regime and carried out only under an *approved framework of mining plan*, which should provide for *reclamation and rehabilitation* of mined out areas. Mining plan should take note of the level of production, level of mechanisation, type of machinery used in the mining of minor minerals, quantity of diesel consumption, the number of trees uprooted, export and import of mining minerals, environmental impact, restoration of flora and host of other matters referred to in the 2010 Rules. A proper framework has also to be evolved on cluster of mining of minor minerals for which there must be a *Regional Environmental Management Plan*. Another important decision taken was that while granting of mining leases by the respective State Governments, *location of any eco-fragile zone(s)* within the *impact zone* of the proposed mining area, the linked rules/notifications governing such zones and the judicial pronouncements, if any, need to be duly noted.

25. Quarrying of river sand, it is true, is an important economic activity in the country with river sand forming a crucial raw material for the infrastructural development and for the construction industry but excessive instream sand and gravel mining causes the degradation of rivers. Instream mining lowers the stream bottom of rivers which may lead to bank erosion. Depletion of sand in the streambed and along coastal areas causes the deepening of rivers which may result in destruction of aquatic and riparian habitats as well. Extraction of alluvial material as already mentioned from within or near a streambed has a direct impact on the stream's physical habitat characteristics. "

17. There should be inclusive growth of the economy, but it cannot be at the sacrifice of the environment.

18. In ***Narmada Bachao Andolan v. Union of India [(2000) 10 SCC 664]***, the Hon'ble Supreme Court of India observed that "*Environmental and ecological consideration must, of course, be given due consideration but only with proper channelization of developmental activities ecology and environment can be enhanced.... Water is the basic need for the survival of human being and is part of the right to life and human rights as enshrined in Article 21 of the Constitution of India and can be served only by providing source of water where there is none...*"

19. There must be a sustainable or balanced development and balance is to be struck between continuous evaluation and development. There must be preservation of valued resources and protection from unnecessary abuse of environmental and natural resources and there must be a balance approach as to the sustainable development.

20. In ***Bombay Dyeing & Mfg. Co. Ltd. v. Bombay Environmental Action Group and Others [(2006) 3 SCC 434]***, the Hon'ble Supreme Court of India, in paras 251 and 277, had observed as follows:

> "251...The harmonization of the two needs has led to the concept of sustainable development, so such that is has become the most significant and focal point of environmental legislation

and judicial decisions relating to the same. Sustainable development, simply but, is a process in which development can be sustained over generations... Making the concept of sustainable development operational for public policies raises important challenges that involve complex synergies and trade offs.

277. Consideration of ecological aspects from the Court's point of view cannot be one sided. It depends on the fact situation in each case. Whereas the Court would take a very strict view as regards setting up of an industry which is of hazardous nature but such a strict construction may not be resorted to in the case of country planning."

21. In ***Deepak Kumar's case*** (cited supra), the Hon'ble Supreme Court of India has also directed that all the States and Environment Ministry of Forest, shall ensure strict compliance of the directions given by it. Therefore, it is obligatory to obtain Environmental Clearance from the competent authority in accordance with law before commencing mining operations and such clearance is also necessary to analyze and determine whether or not a particular developmental activity, which is proposed to be carried out, creates serious/irreversible threat to the environment. Thus a balance has to be struck between the environment and ecological aspect and industrialization which includes mining.

22. In ***Indian Council for Enviro-Legal Action and Others v. Union of India and Others [AIR 1996 SC 1446]***, the Hon'ble Supreme Court of India has noted with reference to failure on the part of the State and

seriousness exhibited by them with regard to implementation of the environmental laws.

23. The underlining principle runs from the said decisions is that there must be a balance between reformation, development, environmental and ecological issues.

24. Let this Court also looks into certain enactments. The Hon'ble Supreme Court of India in ***State of Tamil Nadu v. M/s.Hindu Stone [1981 (2) SCC 205]*** has observed that the object of The Mines and Minerals (Development and Regulation Act) 1957 is to conserve the minerals and the prudent and discriminative exploitation of minerals, especially in the case of a scarce mineral, to permit exploitation by the State or its agency and to prohibit exploitation by private agencies.

25. The Tamil Nadu Minor Mineral Concession Rules, 1959 came into being in exercise of powers conferred under Section 15 of the above said Central Act and it is relevant to extract the following Sections:

> "**38-A. Quarrying of sand by the State Government:-** Notwithstanding anything contained in these Rules, or any order made or action taken hereunder or any judgment or decree or order of any Court, all existing leases for quarrying sand in Government lands and permissions/leases granted in ryotrwari

lands shall cease to be effective on and from the date of coming into force of this Rule and the right to exploit sand in the State shall vest with the State Government to the exclusion of others. The proportionate lease amount for the unexpired period of the lease and the unadjusted seigniorage fe, if any, will be refunded.

42. Submission of environment clearance for the grant of quarry lease for minor minerals including Granite.-

(i) The approved mining plan shall be forwarded to the applicant for obtaining environment clearance from the State Level Environment Impact Assessment Authority or the Ministry of Environment and Forests, as the case may be.

(ii) On submission of approved mining plan and environment clearance from the said authorities, the Government or the District Collector, as the case may be.

(iii) Where quarrying operations for Minor Minerals including granites have been undertaken before the commencement of these rules without environment clearance, such holder of minor mineral including granite leases shall submit the environment clearance within six hundred and thirty days from the date of commencement of these rules.

(iv) When the existing holders of Minor Mineral leases including granite failed, to submit the environment clearance within the stipulated period, the District Collector or the Government, as the case may be, shall cancel the lease after giving an opportunity of personal hearing."

26. It is the stand of the State Government that under Rule 38-A of the Tamil Nadu Minor Minor Concession Rules, 1959, they are having power to quarry sand. As already pointed out, Environmental Clearance has also been accorded by the fifth respondent. This Court has also pointed out that the validity of the said Rule has already been upheld in ***Aminjikarai Lorry Owner Welfare Association case (cited supra)***.

27. In the Division Bench decision of this Court dated 01.04.2005 made in ***W.P.No.1833 of 2005 etc. batch [S.Ramamirtham v. The Sate of Tamil Nadu and Others]***, the implementation of New Veeranam Extension Project, to extract sub-surface water by tapping the same from Kollidam river bed and taking to Chennai, in order to provide drinking water to the people, which is the primary need of the people, was put to challenge in the form of Public Interest Litigation. In the said decision, the Division Bench of this Court has also placed reliance upon the decision rendered by the Hon'ble Supreme Court of India in ***Balco Employees' Union v. Union of India [2002 (2) SCC 333]***, wherein it is observed that *"The Courts should be very circumspect in conducting any enquiry or investigation and must be most reluctant to impugn the judgment of the experts who may have arrived at a conclusion unless the Court is satisfied that there is illegality in the decision itself"*. Ultimately, the Division Bench of this Court has held that there is no illegality in the above said policy decision taken by the Government and upheld the project.

28. Under Section 114 of the Indian Evidence Act, 1862, the Court may presume as per Illustration (e) that the judicial and official acts have been regularly performed.

29. A careful scrutiny and analysis of the entire materials placed would indicate that the State Government is having power to operate a sand quarry under Rule 38-A of the Tamil Nadu Minor Mineral Concession Rules, 1959 and also obtained Environmental Clearance from the fifth respondent, which also imposed very many conditions for such quarrying operation. An in-built mechanism has also been put in place as per Condition No.5(xxxvi) stipulated by SEIAA which states that "failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986". However, it is very pertinent to note at this juncture that in compliance of the order passed by this Court, a Technical Team of the fifth respondent, namely SEIAA has carried out inspection and noted certain infractions especially with regard to the depth of the sand mined and put up a katcha road which cause hindrance to river water flow and also noted that river sand has been mined in the area outside the permitted area and considerable sand has been mined stacked and the depth of mine pit is below the Ground Water Table Level.

30. It is the stand of the second respondent that as per the Compliance Report filed dated 12.01.2018, the defects/infractions pointed out have been

complied with. It is to be remembered that it is the State Government which is carrying on sand quarry operations and it is expected to comply with all the conditions of the Environmental Clearance accorded by the fifth respondent, strictly and scrupulously. However, it appears from the Inspection Report submitted by the sixth respondent that some of the conditions have not been complied with especially with regard to the depth of the quarry operation, flow of natural course of river and stacking of the quarried material. It is very well within the knowledge of the respondents 1 to 4 as to how such a kind of infractions are allowed to take place.

31. The learned Advocate General would also admit that in the past, such kind of violations/infractions took place and took great pain to point out that an I.A.S. Officer has been appointed as the Project Director, Sand Mining, who is also *suo motu* impleaded as the seventh respondent herein and in order to ensure fair play and transparency, a Web Portal has also been created, wherein persons, who are in requirement of sand, can apply through on-line. It is the further submission of the learned Advocate General that CCTVs are installed in the quarry site and that apart, excavators and lorries used for mining and transportation have been GPS tagged and there will be continuous monitoring of the quarrying operation and transportation and further that effective and sincere steps have also been taken to prevent

illegal quarrying of sand in the State. It is also pointed out by the learned Advocate General that on account of various interim orders in operation, the sand quarry operations almost come to a grinding halt and as a natural corollary, construction activities have also come to a stand still, which in-turn resulted in unemployment of workers engaged in construction activities and Real Estate Building operations are also affected and it may not augur well for the State economy and it is also not fair to halt the entire sand quarry operations on account of certain infractions.

32. It is also brought to the knowledge of this Court that a Single Bench of this Court in the decision in ***MRM Ramaiya Enterprises Private Limited, rep. by its Managing Director v. The District Collector, Thoothukudi District and Others in W.P.(MD).No.20020 of 2017 [2017 (6) CTC 673]*** has given direction to stop all sand quarry operations within six months, vide order dated 29.11.2017 and the State Government shall not open any new sand quarries in future. The said order was put to challenge in W.A.(MD).No.1454 of 2017 and confirmed by a Division Bench of this Court, vide order dated 19.01.2018 and challenging the same, Special Leave Petition has been filed and it was entertained and interim order of stay was granted subject to certain conditions and as such, there may not be any blanket order or restraint order, restraining the State Government from

operating sand quarry and it is being done purely in public interest and common good.

33. This Court has also taken note of the submission of the learned Advocate General, on instructions, that this Court may also appoint an independent monitoring agency to monitor and cause surprise inspection as to whether any infraction is taking place and illegal sand quarry operation is going on in the site in question. No doubt, the counter affidavit of the second respondent would disclose that as per G.O.(MS).No.135, Industries (MMA-1) Department dated 13.11.2009, Taluk Level and District Level Task Force are to put in place and however, it is to be noted that it is manned by State Government officials and since quarrying operations is being done by the State Government through Public Works Department, effectiveness of the said force in carrying out their affairs is also somewhat doubtful.

34. The Expert Body, namely the fifth respondent, after analysis and taking note of the materials placed by the third respondent, took a decision to accord Environmental Clearance subject to very many conditions and in the light of the decision rendered by the Hon'ble Supreme Court of India in

Balco Employees' Union v. Union of India [2002 (2) SCC 333], it cannot

be interfered with lightly. However, it is mandated on the part of the respondents 1 to 4 to scrupulously adhere/comply with all the conditions stipulated in the said Environmental Clearance and infraction of the same would definitely lead to invocation of Clause 5(xxxvi) of the Environmental Clearance.

35. This Court, in the light of the ratio laid down by the Hon'ble Supreme Court of India in the decisions cited supra, has struck a balance between environmental and ecological aspect and economic development which include industrialization and cannot presume that sand quarry operations being done by the State Government would result in illegal and over exploitation of natural resources and however, necessary check and balance is to be put in place.

36. The first respondent, after taking note of the Environmental Clearance, has accorded necessary permission to start a new sand quarry in S.No.643/1, Oruvandur Village for a period of two years subject to the conditions imposed by the Joint Committee and it cannot be faulted with in the absence of any legal and tenable grounds. However, this Court is of the considered view that the Taluk and District Level Task Forces may not be in a position to carryout the duties and responsibilities, especially in the light

of the fact that the quarrying operations is being done by the State Government and therefore, an independent monitoring agency is to be put in place to oversee the said operations and submit a periodical report to this Court. Therefore, a Monitoring Committee is constituted with the following members:

(i) Dr.A.Arun Thamburaj, I.A.S.,
Project Director (Sand Mining),
Tamil Nadu.

(ii) Mr.Mohan,
Professor and Head of the Department,
Department of Environment and Water Studies.
Indian Institute of Technology (I.I.T),
Sardar Patel Road, Opp. to C.L.R.I.,
Adyar, Chennai-600 036.

(iii) Dr.S.Ganapathy Venkata Subramaniam,
Professor, Department of Environment Studies,
Anna University,
Opp. to Gandhi Mandapam,
Sardar Patel Road, Guindy, Chennai-600 025.

(iv) Dr.V.Pugazhendi,
Senior Hydro Geologist (Retd.)
TWAD Board, Chennai.

37. In the result, this Writ Petition is dismissed, subject to the above directions. No costs. Consequently, connected miscellaneous petitions are closed. **Call on 03.08.2018** for submission of the report with annexures by the Monitoring Committee.

38. Since two of the Monitoring Committee members are already in service, necessary honororium/expenses and other incidental expenses relating to their visits shall be borne by the Public Works Department. Insofar as the fourth respondent, namely Dr.V.Pugazhendi, who is a retired TWAD Board personnel, Rs.15,000/- (Rupees Fifteen Thousand Only) per visit, apart from travelling and other incidental expenses, shall be paid. The said Committee is also entitled to make periodical surprise visits to the quarry in question and submit periodical Status Report, as ordered by this Court in this order.

[M.S.N., J.] [N.S.S., J.]
06.07.2018

Index : Yes / No
Internet : Yes / No
jvm

To
1.The District Collector,
District Collector's Office,
Namakkal, Namakkal District.

2.The Chief Engineer,
Public Works Department, Namakkal.

3.The Assistant Director,
Mines & Minerals Department, Namakkal.

4.The Tahsildar,
Namakkal, Namakkal District.

5.The State Level Environment Impact
Assessment Authority, 3rd Floor,
Panagal Maaligai,
No.1, Jeenis Road, Saidapet,
Chennai-15.

6.The State Level Expert Appraisal Committee,
3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet, Chennai-15.

7.The Project Director (Sand Mining),
Tamil Nadu.

Copy to:

(i) Dr.A.Arun Thamburaj, I.A.S.,
Project Director (Sand Mining),
Tamil Nadu.

(ii) Mr.Mohan,
Professor and Head of the Department,
Department of Environment and Water Studies.
Indian Institute of Technology (I.I.T),
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Opp. to Gandhi Mandapam,
Sardar Patel Road, Guindy, Chennai-600 025.

(iv) Mr.V.Pugazhendi,
Senior Hydro Geologist (Retd.)
TWAD Board, Chennai.

M.SATHYANARAYANAN, J.,
and
N.SESHASAYEE, J.

jvm

Order in
W.P.No.22433 of 2017

06.07.2018

Enforcement & Monitoring Guidelines for Sand Mining

Ministry of Environment, Forest and Climate change

January, 2020

Table of Content

Table of Annexure

1.0 INTRODUCTION

The Ministry of Environment Forest & Climate Change formulated the Sustainable Sand Management Guidelines 2016 which focuses on the Management of Sand Mining in the Country. But in the recent past, it has been observed that apart from management and systematic mining practices there is an urgent need to have a guideline for effective enforcement of regulatory provision and their monitoring.

Section 23 C of MMDR, Act 1957 empowered the State Government to make rules for preventing illegal mining, transportation and storage of minerals. But in the recent past, it has been observed that there was large number of illegal mining cases in the Country and in some cases, many of the officers lost their lives while executing their duties for curbing illegal mining incidence. The illegal and uncontrolled illegal mining leads to loss of revenue to the State and degradation of the environment.

India is developing at a faster pace and much technological advancement has already been taken place in the surveillance and remote monitoring in the field of mining. Thus, it is prudent to utilize the technological advancement for the effective monitoring of the mining activities particularly sand mining in the country.

Use of latest remote surveillance and IT services helps in effective monitoring of the sand mining activity in-country and also assist the government in controlling the illegal mining activity in the country. Thus, there is a need for an effective policy for monitoring of sand mining in the Country which can be enforced on the ground. These guidelines focus on the effective monitoring of the sand mining since from the identification of sand mineral sources to its dispatch and end-use by consumers and the general public. Further, the effective monitoring and enforcement require efforts from not only Government agencies but also by consumers and the general public.

It is the responsibility of every citizen of India to protect the environment and effective monitoring can only be possible when all the stakeholders viz. Central Government, State Government, Leaseholders/Mine Owners, Distributors, Dealers, Transporters and Consumers (bulk & retail) will contribute towards sustainable mining, and comply with all the statutory provisions. It is felt necessary to identify the minimum requirements across all geographical region to have a uniform protocol for monitoring and enforcement of regulatory provision prescribed for sustainable sand and gravel mining.

This document will serve as a guideline for collection of critical information for enforcement of the regulatory provision(s) and also highlights the essential infrastructural requirements necessary for effective monitoring for Sustainable Sand Mining.

The document is prepared in consideration of various orders/directions issued by Hon'ble NGT in matters pertaining to illegal sand mining and also based on the reports submitted by expert committees and investigation teams.

Further, this document is supplemental to the existing "Sustainable Sand Mining Management Guideline-2016" (SSMG-2016), and these two guidelines viz. "Enforcement & Monitoring Guidelines for Sand Mining" (EMGSM-2020) and SSMG-2016 shall be read and implemented in sync with each other. In case, any ambiguity or variation between the provision of both these document arises, the provision made in "Enforcement & Monitoring Guidelines for Sand Mining-2020 "shall prevail.

2.0 NEED FOR POLICY GUIDELINES

The Ministry of Environment, Forest & Climate Change (MoEF&CC) published Environmental Impact Assessment Notification 1994 which is only applicable for the Major Minerals more than 5 ha. In order to cover the minor minerals also into the preview of EIA, the MoEF&CC issued EIA Notification 2006 for Major & Minor Mineral more than 5 Ha. The Hon'ble Supreme Court in its Judgment dated the 27th February 2012 in I.A. No.12- 13 of 2011 in Special Leave Petition (C) No.19628-19629 of 2009, in the matter of Deepak Kumar etc. Vs. State of Haryana and Others etc. made prior environment clearance mandatory for mining of minor minerals irrespective of the area of mining lease. In order to comply with the judgment of Hon'ble Supreme Court, the Ministry issued S.O.141 (E) dated 15.01.2016. Further, MoEF&CC published Sustainable Sand Mining Management Guidelines 2016 for scientific and sustainable sand mining in the Country. The recommendations for the management of sustainable sand extraction are the key objective of the Guidelines. Special emphasis is given on monitoring of the mined out material, which is key to the success of the environmental management plan. Use of IT and IT-enabled services for effective monitoring of the quantity of mined out material and transportation along with process re-engineering has been made a part of the Guidelines. Guidelines support the fundamental concept, promote environmental protection, limit negative physiological, hydrogeological and social impacts underpinning sustainable economic growth.

The Hon'ble NGT in its order dated 04.09.2018 in O.A. 173/2018 in the matter of Sudarsan Das vs. State of West Bengal & Ors. Inter-alia observed that "***There can be no two views that an effective institutional monitoring mechanism is required not only at the stage when Environmental Clearance is granted but also at subsequent stages". "The guidelines focus on the preparation of District Survey Report and the Management Plan" … We are of the view that all the safeguards which are suggested***

in sustainable sand mining guidelines as well as notification dated 15.01.2016 ought to be scrupulously followed."…It is a known fact that in spite of the above-suggested guidelines being in existence, on the ground level, illegal mining is still going on. The existing mechanism has not been successful and effective in remedying the situation." …" Since there is an utter failure in the current monitoring mechanism followed by the State Boards, SEIAAs and DEIAAs, it is required to be revised for effective monitoring of sand and gravel mining and a dedicated monitoring mechanism be set up."

The Hon'ble NGT in its order dated 04.09.2018 in O.A. 173/2018 in the matter of Sudarsan Das vs. State of West Bengal & Ors. directed that ***MoEF&CC has issued directions from time to time under Section 3 and 5 of the Environment (Protection) Act, 1986. The MoEF&CC needs to revise its directions keeping in mind the following:***

- *Mining Surveillance System discussed in para 23 above be finalized in consultation with ISRO Hyderabad.*
- *Safeguards suggested in Sustainable Sand Mining Guidelines published by the MoEF&CC in the year 2016.*
- *Suggestions in the High Power Committee Report.*
- *The requirement of demarcation of boundaries being published in respect of different leases in the public domain.*
- *Need to issue SOP laying down mechanism to evaluate loss to the ecology and to recover the cost of restoration of such damage from the legal or illegal miners. Such evaluation must include the cost of mining material as well as the cost of ecological restoration and the net present value of future ecosystem services forgone.*
- *Need to set up a dedicated institutional mechanism for effective monitoring of sand and gravel mining which may also take care of mining done without any Environmental Clearance as well as mining done in violation of Environmental Clearance conditions.*

- *The Mining Department may make a provision for keeping apart at least 25% of the value of mined material for the restoration of the area affected by the mining and also for compensating the inhabitants affected by the mining.*

- *One of the conditions of every lease of mine or minerals would be that there will be independent environmental audit at least once in a year by reputed third party entity and report of such audit be placed in the public domain.*

- *In the course of such an environmental audit, a three-member committee of the local inhabitants will also be associated. Composition of three members committee may preferably include ex-servicemen, a former teacher and former civil servant. The Committee will be nominated by the District Magistrate.*

The Hon'ble NGT in its order dated 05.09.2018 in O.A. 44/2016 in the matter of Mushtakeem Vs. MoEF & CC & Ors. Inter-alia observed the following:

"Para 20. In Original Application No. 481/2016, the allegation is that there is the connivance of the District Administration with the miners and mining is going in violation of conditions of Environmental Clearance. According to the applicant, an effective mechanism is required to be evolved so that illegal mining does not place."

"Para 22. We proceed to consider the main question proposed for the consideration stated earlier hereinabove as to ***how to ensure the protection of the environment by checking illegal mining."***

"Para 23. We have dealt with the identical issue relating to the illegal sand mining in the border districts in the State of West Bengal and Odisha in the order dated 04th September 2018 in Sudarsan Das Vs. State of West Bengal & Ors., Original Application No. 173 of 2018. We have directed the MoEF&CC to revise the guidelines on the subject for an effective mechanism for sand mining, relevant portions of which are reproduced below: -..."

The Hon'ble NGT in its order dated 10.09.2018 in O.A. 304/2015 in the matter of Jai Singh & Anr.Vs. Union of India Ors. inter-alia observed the following:

"Para 6. After disposal of the above matters, a disturbing event widely reported in media which took place on 07th September 2018 has been brought to our notice. ***A Deputy Ranger who tried to stop illegal mining was killed by mining mafia at Morena in the State of M.P.***

"Para 7. The above disturbing event may also be kept in mind by the MoEF, while considering the issuance of revised guidelines in light of the judgment dated 05th September 2018 (Supra)."

The Hon'ble NGT in its order dated 05.04.2019 in O.A. 360/2015 in the matter of National Green Tribunal Bar Association & Anr.Vs. Union of India & Ors. inter-alia observed the following:

"*The 2016 Guidelines need revision in the light of the report of High Powered Committee in September 2016, failure of Monitoring mechanism followed by State Boards, SEIIAs, DEIAAs and MSS system developed by Ministry of Mines & IBM with the assistance of BISAG and MAITY and other observations quoted in paras 12 to 15 above.*

50. As noted earlier in paras 17, 23, 27, 31 and 35, States of West Bengal, Odisha, Gujarat, Karnataka, Maharashtra, Punjab, Haryana and Uttar

Pradesh are required to follow SSMG, 2016 as may be revised by MoEF&CC and even other States where illegal sand mining is taking place.

The States may review the monitoring mechanism in terms of several directions of the Tribunal and guidelines of MoEF&CC.

The international conservation concern regarding natural wealth is a universal demand. Article 51(a) subsection (G) of the constitution requires every citizen of India to protect and improve the natural environment including forest, lakes, rivers, wildlife and to have compassion for the living creature.

The Hon'ble Supreme Court in the case of M.C. Mehta Vs. Kamal Nath (1997) 1 SCC 388 held that under Article of Indian Constitution incorporates the "Public Trust Doctrine" and as such extents to the protection of all-natural resources which includes the protection of flora and fauna.

The Hon'ble Supreme Court in the case of Vellore Citizens Welfare Forum Vs. Union of India & Ors (1996) held that the precautionary principle is part of the Environmental Law in India. It further stated that onus of proof is on the actor of the developer/industrialize to show that its actions are environmentally benign."

3.0 OBJECTIVE OF GUIDLINES

- Identification and Quantification of Mineral Resource and its optimal utilization.
- To regulate the Sand & Gravel Mining in the Country since its identification to its final end-use by the consumers and the general public.
- Use of IT-enabled services & latest technologies for surveillance of the sand mining at each step.
- Reduction in demand & supply gaps.
- Setting up the procedure for replenishment study of Sand.
- Post Environmental Clearance Monitoring.
- Procedure for Environmental Audit.
- To control the instance of illegal mining.

4.0 REQUIREMENTS FOR MONITORING & ENFOCEMENT

Sustainable Sand Mining Management Guidelines (SSMMG) 2016 and past experience suggest that the source of sand in India are through

a) River (riverbed and flood plain),
b) Lakes and reservoirs,
c) Agricultural fields,
d) Coastal / marine sand,
e) Palaeo-channels and
f) Manufactured Sand (M-Sand).

The SSMMG-2016 highlights the identification of the sand mining sources, replenishment of the River Bed Material (Sand, Boulder, Gravel, Cobble etc.), preparation of Districts Survey Report, and Standard Environmental Conditions suitable for sand mining projects.

The necessary requirements to comply with the direction of Hon'ble NGT and to facilitate effective monitoring and enforcement of regulatory provision for sand mining in the country are as follows:

i) Identification of sand mining sources, its quantification and feasibility for mining considering various environmental (proximity of protected area, wetlands, creeks, forest etc.) and other factors such as important structures, places of archaeological importance, habitation, prohibited area etc.

ii) The mining lease auctioned by State government as per their Minor Mineral Concession Rules are granted of Letter of Intent (LoI), but it has been observed that many of the sites are not suitable w.r.t environmental aspects. In most of the cases, the unplanned grant of mining lease leads to formation of cluster and/or contiguous cluster

of small mining leases which sometimes is difficult to regulate and monitor. In order to address such issues, more emphasis is required on the preparation of District Survey Report and its format for reporting,

iii) Mining Plan is an important document to assist the mine owner to operate the mine in a scientific manner. States have their own format for preparation of mining plan and it is observed that recording of the initial level of mining lease at shorter interval say 25m X 25 m grid interval is not present.

iv) There is no practice for regular replenishment study to ascertain the rate of depositing, plan and section needs to be prepared based on the restrictions provided in letter of intent and provisions of Sustainable Sand Mining Management Guidelines 2016.

v) Environmental Clearance is a process wherein the regulatory authorities after considering the potential environment impact of mining clearance is granted with a set of specific & standard conditions to carry out mining operations, but often it is observed that letter of intent is granted for a location which has less potential for mining and not feasible for environment-friendly mining. This leads to an unnecessary financial burden on the mine owners and litigations. Thus, LoI should be preferably granted for those locations which have the least possibility of an impact on the environment and nearby habitation.

vi) It is the responsibility of the mine owner to obtain all the statutory clearance and comply with the conditions stipulated in the clearance letter. Mining should be carried out within the mining lease area as per

approved mining plan or mining plan concurred by other regulatory authorities.

vii) Mining operation also involves transportation of mineral from the mining area to end-user and its necessary that movement of the mineral needs to be monitored.

The State Government already have power under section 23c of MMDR, Act 1957 to make rules for preventing illegal mining, transportation and storage of minerals. However, there are instances of illegal mining which shows that there is a need for strengthening the system of mineral dispatch and its monitoring. This document provides good practices already under implementation by various states for regulating the mineral sale, dispatch, storage, transportation and use.

viii) The river reaches with sand provide the resource and thus it is necessary to ascertain the rate of replenishment of the mineral. Regular replenishment study needs to be carried out to keep a balance between deposition and extraction. This document provides the procedure to be followed for conducting replenishment study.

ix) Even after all the regulatory procedure and policy being in place, there are instances where illegal mining is taking place. There is a need for regular surveillance of the sand mining reaches. The monitoring agencies can monitor the sites remotely by using Unmanned Artificial Vehicles (UAVs)/Drone which is now a viable option. The drone can also be used for reserves estimation, quantity estimation, land use monitoring. This document highlights possible use of IT/Satellite/Drone technology for effective monitoring of sand mining.

4.1 Identification of possible sand mining sources and preparation of District Survey Report (DSR)

4.1.1 Preparation of District Survey Report.

"Sustainable Sand Mining Guidelines, 2016" issued by MoEF&CC requires preparation of District Survey Report (DSR), which is an important initial step before grant of mining lease/LoI. The guidelines emphasize detailed procedure to be followed for the purpose of identification of areas of aggradation/ deposition where mining can be allowed and identification of areas of erosion and proximity to infrastructural structures and installation where mining should be prohibited. Calculation of annual rate of replenishment, allowing time for replenishment after mining, identification of ways of scientific and systematic mining; identifying measures for protection of environment and ecology and determining measures for protection of bank erosion, benchmark (BM) with respect to mean Sea Level (MSL) should be made essential in mining channel reaches (MCR) below which no mining shall be allowed.

The Hon'ble NGT in its Judgment dated 08.12.2017 in the matter of Anjani Kumar vs State of Uttar Pradesh & Ors. inter-alia mentioned the following regarding sand mining in the Uttar Pradesh.

> *"It states that the main object of preparation of District Survey Report is to ensure identification of areas of aggradation/deposition where mining can be allowed and identification of areas of erosion and proximity to infrastructural structures and installation where mining should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining area. Thus, the environmental protection requires a strictly regulated mining in terms of area, quantity as well as most importantly replenishment thereof."*

"The data collection and declared for preparation of DSR shall take precedence over other data and would form the foundation for providing mining lease in terms of Appendix- x to the Notification dated 15th January 2016 must be prepared by the statutory authority stated therein i.e. DEIAA prior to awarding of permits for carrying on mining activity in any part of the State of UP."

The Hon'ble High Court of Jharkhand at Ranchi in its orders dated the 11th April 2018 and 19th June 2018 in W.P. (PIL) No. 1806 of 2015, in the matter of Court on its Own Motion Versus the State of Jharkhand & Others with W.P. (PIL) No. 290 of 2013, in the matter of Hemant Kumar Shilkarwar Versus the State of Jharkhand & Others, has inter-alia directed the preparation of District Survey Report for minor minerals other than Sand and Bajri or delegation of the powers for preparation of format of District Survey Report of minor minerals other than sand and Bajri to the State Government and/or District Environment Impact Assessment Authority and District Expert Appraisal Committee. To comply with the direction of Hon'ble High Court the Ministry has issued S.O. 3611(E) dated 25.07.2018, wherein, the procedure of preparation of DSR is mentioned. But it is felt that still there is other information that needs to be reported in DSR to make it a comprehensive DSR.

Therefore, preparation of District Survey Report is a very important step and sustainable sand mining in any part of the country will depends on the quality of District Survey Report.

Considering the importance of district survey report, the Ministry of Environment Forest and climate change, after consultation with experts dealing with mining-related matters, formulated the following guidelines for the preparation of comprehensive District Survey Report for sand mining.

a) District Survey Report for sand mining shall be prepared before the auction/e-auction/grant of the mining lease/Letter of Intent (LoI) by Mining department or department dealing the mining activity in respective states.

b) The first step is to develop the inventory of the River Bed Material and Other sand sources in the District. In order to make the inventory of River Bed Material, a detailed survey of the district needs to be carried out, to identify the source of River Bed Material and alternative source of sand (M-Sand). The source will include rivers, de-siltation of reservoir/dams, Patta lands/Khatedari Land, M-sand etc.

The revenue department of Kerala already conducted river mapping and sand auditing of around 20 rivers of Kerala which is a good example wherein the profile of rivers was created at regular intervals and aggradation/deposition was identified along with water level. In the same study, benchmarks were also created at a prominent location at regular interval for future surveying. Such study helps the mining departments to identify the source of sand.

Thus, it is proposed that for preparation of district survey report, the auditing of rivers needs to be carried out. There is already a provision under MMDR Act 2015 for National Mineral Exploration Trust (MET) wherein a 2% of royalty amount to be deposited in the trust. This fund is used for mineral exploration in the country. The Sand Auditing is also a sort of identification of mineral and State Government may request Central Govt. for proving funds for river auditing. The Central Govt. (Ministry of Mines) may also explore the possibilities for providing the funds for river auditing. The other option is that State Govt. may conduct such studies by its own fund and the same may be recovered from the leaseholders to whom the mining lease will be allocated.

c) District Survey Report is to be prepared in such a way that it not only identifies the mineral-bearing area but also define the mining and no mining zones considering various environmental and social factors.

d) Identification of the source of Sand & M-Sand. The sources may be from Rivers, Lakes, Ponds, Dams, De-silting locations, Patta land/Khtedari lands. The details in case of Rivers such as [name, length of river, type (Perennial or Non-Perennial), Villages, Tehsil, District], in case of Lakes, Ponds, Dams, De-silting locations [Name, owned/maintained by (State Govt./PSU), area, Villages, Tehsil, District] in case of Patta land/Khtedari lands [Owner Name, Sy No, Area, Agricultural/Non-Agricultural, Villages, Tehsil, District], in case of M-Sand Plant [Owner Name, Sy No, Area, Quantity/Annum, Villages, Tehsil, District], needs to be recorded as per format given in **Annexure-I.**

e) Defining the sources of Sand/M-Sand in the district is the next step for identification of the potential area of deposition/aggradation wherein mining lease could be granted. Detailed survey needs to be carried out for quantification of minerals. The purpose of mining in the river bed is for channelization of rivers so as to avoid the possibility of flooding and to maintain the flow of the rivers. For this, the entire river stretch needs to be surveyed and original ground level (OGL) to be recorded and area of aggradation/deposition needs to be ascertained by comparing the level difference between the outside riverbed OGL and water level. Once the area of aggradation/deposition are identified, then the quantity of River Bed Material available needs to be calculated. The next step is channelization of the river bed and for this central ¾th part of the river, width needs to be identified on a map. Out of the ¾th part area, where there is a deposition/aggradation of the material needs to be identified. The remaining ¼th area needs to be kept as no mining zone for the

protection of banks. The specific gravity of the material also needs to be ascertained by analyzing the sample from a NABL accredited lab. Thus, the quantity of material available in metric ton needs to be calculated for mining and no mining zone.

Note: As physical survey with conventional method is time-consuming, use of unmanned aerial vehicle (UAV) may be explored to carry out the survey and finalizing the original ground level and for developing a 3D model of the area.

f) The permanent boundary pillars need to be erected after identification of an area of aggradation and deposition outside the bank of the river at a safe location for future surveying. The distance between boundary pillars on each side of the bank shall not be more than 100 meters.

g) Identifying the mining and no mining zone shall follow with defining the area of sensitivity by ascertaining the distance of the mining area from the protected area, forest, bridges, important structures, habitation etc. and based on the sensitivity the area needs to be defined in sensitive and non-sensitive area.

h) Demand and supply of the Riverbed Material through market survey needs to be carried out. In addition to this future demand for the next 5 years also needs to be considered.

i) It is suggested that as far as possible the sensitive areas should be avoided for mining, unless local safety condition arises. Such deviation shall be temporary & shall not be a permanent feature.

j) The final area selected for the mining should be then divided into mining lease as per the requirement of State Government. It is suggested the mining lease area should be so selected as to cover the entire deposition area. Dividing a large area of deposition/aggradation into smaller

mining leases should be avoided as it leads to loss of mineral and indirectly promote illegal mining.

k) Cluster situation shall be examined. A cluster is formed when one mining lease of homogenous mineral is within 500 meters of the other mining lease. In order to reduce the cluster formation mining lease size should be defined in such a way that distance between any two clusters preferably should not be less than 2.5 Km. Mining lease should be defined in such a way that the total area of the mining leases in a cluster should not be more than 10 Ha.

l) The number of a contiguous cluster needs to be ascertained. Contiguous cluster is formed when one cluster is at a distance of 2.5 Km from the other cluster.

m) The mining outside the riverbed on Patta land/Khatedari land be granted when there is possibility of replenishment of material. In case, there is no replenishment then mining lease shall only be granted when there is no riverbed mining possibility within 5 KM of the Patta land/Khatedari land. For government projects, mining could be allowed on Patta land/Khatedari land but the mining should only be done by the Government agency and material should not be used for sale in the open market. Cluster situation as mentioned in para k above is also applicable for the mining in Patta land/Khatedari land.

n) The State Government should define the transportation route from the mining lease considering the maximum production from the mines as at this stage the size of mining leases, their location, the quantity of mineral that can be mined safely etc. is available with the State Government. It is suggested that the transportation route should be selected in such a way that the movement of trucks/tippers/tractors from the villages having habitation should be avoided. The transportation route so

selected should be verified by the State Government for its carrying capacity.

o) Potential site for mining having its impact on the forest, protected area, habitation, bridges etc, shall be avoided. For this, a sub-divisional committee may be formed which after the site visit shall decide its suitability for mining. The list of mining lease after the recommendation of the Committee needs to be defined in the following format given in as **Annexure-II**. The Sub-Divisional Committee after the site visit shall make a recommendation on the site for its suitability of mining and also records the reason for selecting the mining lease in the Patta land. The details regarding cluster and contiguous cluster needs to be provided as in **Annexure-III**. The details of the transportation need to be provided as in **Annexure IV.**

p) **Public consultation-**The Comments of the various stakeholders may be sought on the list of mining lease to be auctioned. The State Government shall give an advertisement in the local and national newspaper for seeking comments of the general public on the list of mining lease included in the DSR. The DSR should be placed in the public domain for at least one month from the date of publication of the advertisement for obtaining comments of the general public. The comments so received shall be placed before the sub-divisional committee for active consideration. The final list of sand mining areas [leases to be granted on riverbed & Patta land/Khatedari land, de-siltation location (ponds/lakes/dams), M-Sand Plants (alternate source of sand)] after the public hearing needs to be defined in the final DSR in the format as per **Annexure-V.** The details regarding cluster and contiguous cluster needs to be provided in **Annexure-VI**. The details of the transportation need to be provided in **Annexure-VII.**

4.2 Grant of Letter of Intent to those mining leases which are falling in potential mining zone

The State Government shall issue letter of intent as per procedure laid down in their Minor Mineral Concession Rules with due consideration of final district survey report. The State Government shall ensure that all the letter of intent shall have complete details of the mining lease including geo-coordinate of the corner points, the involvement of forest land, distance from the forest land, distance from the protected area, distance from other sites of archaeological importance, details of the cluster situation etc. The demarcation of the boundaries of LoI/Lease area shall be placed in public domain along with LoI/lease deed details.

The LOI should not be granted for mining area falling on both riverbed and outside riverbed. Therefore, in the same lease, both types of area should not be included.

The authority responsible for grant of lease for sand mining shall ensure that annual audit of the sand mining process, production and compliance of the imposed conditions by regulatory authority (Environmental clearance or mine plan) shall be one of the essential condition of the lease agreement. The annual audit report shall be submitted to the district administration, which shall be put in public domain through the district website. Any deviation observed shall be appropriately and in-accordance with applicable law shall be dealt by the concerned authority and corrective measures shall also be taken to restoration of ecological/environmental damage, if observed.

4.3 Mining Plan

The preparation of Mining Plan is also very important. The mining plan should include the original ground level recorded at an interval not more than 10M x 10M along & across the length of the river. In addition to this-levels, outside the mining lease and bank of the river up to meters needs to be recorded. In the mining plan, there should be 3 plates for each year production & development planning (pre-monsoon, monsoon and post-monsoon). The time period of monsoon should be defined in the DSR. At the time of review of the mining plan, the details of the replenishment study conducted for all the years needs to be included in the mining plan. The Mining Plan should include the certificate from PCCF on forest land, distance from the protected area, past production details for mining leases seeking expansion.

Following considerations shall be kept in mind for sand/gravel mining while approving mining plan

a) Parts of the river reach that experience deposition or aggradation shall be identified. The Leaseholder/ Environmental Clearance holder may be allowed to extract the sand and gravel deposit in these locations to manage aggradation problem.

b) The distance between sites for sand and gravel mining shall depend on the replenishment rate of the river. Sediment rating curve for the potential sites shall be developed and checked against the extracted volumes of sand and gravel.

c) Sand and gravel may be extracted across the entire active channel during the dry season.

d) Abandoned stream channels on the terrace and inactive floodplains be preferred rather than active channels and their deltas and flood plains. The stream should not be diverted to form the inactive channel.

e) Layers of sand and gravel which could be removed from the river bed shall depend on the width of the river and replenishment rate of the river.

f) Sand and gravel shall not be allowed to be extracted where erosion may occur, such as at the concave bank.

g) Segments of the braided river system should be used preferably falling within the lateral migration area of the river regime that enhances the feasibility of sediment replenishment.

h) Sand and gravel shall not be extracted up to a distance of 1 kilometre (1 km) from major bridges and highways on both sides, or five times (5x) of the span (x) of a bridge/public civil structure (including water intake points) on up-stream side and ten times (10x) the span of such bridge on down-stream side, subjected to a minimum of 250 meters on the upstream side and 500 meters on the downstream side.

i) The sediment sampling should include the bed material and bed material load before, during and after the extraction period. Develop a sediment rating curve at the upstream end of the potential reach using the surveyed cross-section. Using the historical or gauged flow rating curve, determine the suitable period of high flow that can replenish the extracted volume. Calculate the extraction volume based on the sediment rating curve and high flow period after determining the allowable mining depth.

j) Sand and gravel could be extracted from the downstream of the sand bar at river bends. Retaining the upstream one to two-thirds of the bar and riparian vegetation is accepted as a method to promote channel stability.

k) The flood discharge capacity of the river could be maintained in areas where there is a significant flood hazard to existing structures or infrastructure. Sand and gravel mining may be allowed to maintain the natural flow capacity based on surveyed cross-section history. Alternatively, off-channel or floodplain extraction is recommended to allow rivers to replenish the quantity taken out during mining.

l) The Piedmont Zone (Bhabhar area) particularly in the Himalayan foothills, where riverbed material is mined, this sandy-gravelly track constitutes excellent conduits and holds the greater potential for groundwater recharge. Mining in such areas should be preferred in locations selected away from the channel bank stretches.

m) Mining depth should be restricted to 3 meters and distance from the bank should be ¼th or river width and should not be less than 7.5 meters.

n) The borrow area should preferably be located on the riverside of the proposed embankment because they get silted in the course of time. For low embankment, less than 6 m in height, borrow area should not be selected within 25 m from the toe/heel of the embankment. In the case of the higher embankment, the distance should not be less than 50 m. In order to obviate the development of flow parallels to the embankment, crossbars of width eight times the depth of borrow pits spaced 50 to 60 meter center-to-center should be left in the borrow pits.

o) Demarcation of mining area with pillars and geo-referencing should be done prior to the start of mining.

p) A buffer distance /un-mined block of 50 meters after every block of 1000 meters over which mining is undertaken or at such distance as may be the directed/prescribed by the regulatory authority shall be maintained.

q) A buffer distance /unmined block of 50 meters after every block of 1000 meters over which mining is undertaken or at such distance as may be the directed/prescribed by the regulatory authority shall be maintained.

r) River bed sand mining shall be restricted within the central 3/4th width of the river/rivulet or 7.5 meters (inward) from river banks but up to 10% of the width of the river, as the case may be and decided by regulatory authority while granting environmental clearance in consultation with irrigation department. Regulating authority while regulating the zone of river bed mining shall ensure that the objective to minimize the effects of riverbank erosion and consequential channel migration are achieved to the extent possible. In general, the area for removal of minerals shall not exceed 60% of the mine lease area, and any deviation or relaxation in this regard shall be adequately supported by the scientific report.

s) Mining Plan for the mining leases(non-government) on agricultural fields/Patta land shall only be approved if there is a possibility of replenishment of the mineral or when there is no riverbed mining possibility within 5 KM of the Patta land/Khatedari land. For government projects mining could be allowed on Patta land/Khatedari land but the mining should only be done by the Government agency and material should not be used for sale in the open market.

The minerals reserve for river bed area is calculated on the basis of maximum depth of 3 meters and margins, width and other dimensions as mentioned in para (s) above. The area multiplied by depth gives the volume and volume multiplied with bulk density gives the quantity in Metric Ton. In case of river bed, mineable material per hectare area available for actual mining shall not exceed the maximum quantity of 60,000 MT per annum.

4.4 Obtaining Environmental & Other Statutory Clearance

The LOI Holder/Lease Holder to obtain Environmental and Other Statutory Clearances from the concerned authorities as per provision of applicable laws.

4.5 Baseline date before Commencement of Mining Operations

Baseline data in respect of the initial level of mining lease in the interval not more than 25 X 25 meters shall be collected for record by leaseholder. The level of river bed upstream and downstream up to 100 meters also needs to be recorded. The area outside the mining lease/river bank (if lease boundary coincides with mining lease) up to 100 meters from both the banks/mining lease needs to surveyed for initial level.

4.6 Additional measures where project proponent is selected by a bidding

In those states where sand plots are auctioned to the highest bidder, the following is suggested:

It has been observed that bidders try to form a cartel and bids are received for certain plots where legal mining is done, and bids for certain other plots don't elicit any response. Sand from these un-

auctioned plots is then excavated using the same machinery deployed for the excavation of adjacent plot which might have been auctioned off. It is not easily possible for the field machinery to prevent such illegal activities. This may be prevented by having plot of larger size. plots are large in size as possible are identified for auction. Care may be taken to ensure that no continuous stretch of plot in the river bed is divided for auction. A continuous stretch of plot shall be preferred for auction, and the attempt may not be made to auction it off in pieces.

5.0 REPLENISHMENT STUDY

The need for replenishment study for river bed sand is required in order to nullify the adverse impacts arising due to excessing sand extraction. Mining within or near riverbed has a direct impact on the stream's physical characteristics, such as channel geometry, bed elevation, substratum composition and stability, in-stream roughness of the bed, flow velocity, discharge capacity, sediment transport capacity, turbidity, temperature etc. Alteration or modification of the above attributes may cause an impact on the ecological equilibrium of the riverine regime, disturbance in channel configuration and flow-paths. This may also cause an adverse impact on in-stream biota and riparian habitats. It is assumed that the riparian habitat disturbance is minimum if the replenishment is equal to excavation for a given stretch. Therefore, to minimize the adverse impact arising out of sand mining in a given river stretch, it is imperative to have a study of replenishment of material during the defined period.

5.1 Generic Structure of Replenishment Study

Initially replenishment study requires four surveys. The first survey needs to be carried out in the month of April for recording the level of mining lease before the monsoon. The second survey is at the time of closing of mines for monsoon season. This survey will provide the quantity of the material excavated before the offset of monsoon. The third survey needs to be carried out after the monsoon to know the quantum of material deposited/replenished in the mining lease. The fourth survey at the end of March to know the quantity of material excavated during the financial year. For the subsequent years, there will be a requirement of only three surveys. The results of year-wise surveys help the state government to establish the replenishment rate of the river. Based on the replenishment rate future auction may be planned.

The replenishment period may vary on nature of the channel and season of deposition arising due to variation in the flow. Such period and season may vary on the geographical and precipitation characteristic of the region and requires to be defined by the local agencies preferable with the help of the Central Water Commission and Indian Meteorological Department. The excavation will, therefore, be limited to estimated replenishment estimated with consideration of other regulatory provisions.

5.2 Methodology for Replenishment Study

The replenishment estimation is based on a theoretical empirical formula with the estimation of bedload transport comprising of analytical models to calculate the replenishment estimation. The iso-pluvial maps of IMD can be used for estimation of rainfall. Catchment yield is computed using different standard empirical formulas relevant to the geographical and channel attributes. eg. Strange's Monsoon runoff curves for runoff coefficient). Peak flood discharge for the study area can be calculated by using Dickens, Jarvis and Rational formula at 25, 50 and 100 years return period. The estimation of bed load transport using Ackers and White Equation or similar can be made. A simulation model is used with basic data generated from the field in the pre-study and post-study period (preferably pre-monsoon and post-monsoon) to estimate the volume of replenished material. The particle size distribution and bulk density of the deposited material are required to be assessed from a NABL recognized laboratory. Considering the bulk density and the volume, the estimation of replenishment in weight will be calculated after considering safeguards and stability of the slopes and riverine regime. Some of the common methods used for field data acquisition for replenishment study

5.2.1. Physical survey of the field by the conventional method

i. The conventional survey technical using DGPS and other survey tools are used to define the topography, contours and offsets of the lease area. The survey should clearly depict the important attributes of the stretch of the river and its nearby important civil and other feature of importance. Such information will provide the eligible spatial area for mining. The contour and the elevation benchmarks will provide the baseline data for assessing the pre and post-study period scenario.

ii. Physical benchmarks are to be fixed at appropriate intervals (preferable 1 in 30 m) and the Reduced Level (RL) shall be validated from a nearby standard RL. These RL should be engraved on a steel plate (Bench Plate) and shall be fixed and placed at locations which are free from any damages and are available in pre and post-study period. The bench plates shall be available for use during the mining period as reference for all mining activity. Reference pillar may also be used in place of Bench Plates with visible and readable demarcation on the ground as common reference points to control the topographic survey and mining activity.

iii Baseline data on elevation status for a grid of 10 m x 10 m is preferred to have accuracy in the assessment. It is expected that two consecutive cross-sections in longitudinal and lateral direction should not be more than 10-meter distance apart, however, the regulatory authority may fix these intervals depending on the geographical and site-specific conditions, only and after providing the scientific reason for such deviation.

iv The changes observed in the elevation in per and post scenario at each node should be depicted in graphical forms with an appropriate scale to estimate the area of deposition and erosion. These graphical

presentations should depict the active channel regime and the flow bed elevation with other important features required to be considered for estimation of the mining area. The area of deposition and erosion shall be calculated for each cross-section after giving due regard to the stability and safety of active channel banks, and other features of importance. The elevation level shall be in reference to the nearest bench-plates established for the purpose.

v The levels (MSL & RL) of the corner point of each grid should be identifiable and safety barriers (Non-Mining) demarcated as restricted in consensus with Mineral Concession Rules of respective State, and the provision mentioned in this Sustainable Sand Mining Management Guidelines.

vi A clear identification is required to be highlighted between grids under mineable and grids under the non-mineable area. These baseline data (pre and post) be subjected to stimulation with the help of data mine software to derive at the replenishment area and corresponding volume and estimated weight.

vii The database should be structured in a tabulated form clearly depicting the nomenclature of the section lines, latitude and longitude of the starting point, chain-age and respective levels of all the points taken on that section line.

viii Net area shall be derived after the summation of the area of deposition minus area of erosion for each cross-section. The volume will be estimated by multiplying the distance between two cross-sections with the average of net area of these two consecutive cross-sections.

ix One sample per 900 square meters (30 m x 30 m) shall be preferred sample density for assessment of bulk density for estimation of deposition rate. Care should be taken that the sample for assessment

of bulk density is taken from the deposition zone and not from erosion. However, depending on the site condition, river morphology and geographical condition, sample density may be adjusted. Reason for such deviation shall be appropriately highlighted in the report with supporting scientific data.

5.2.2. Use of UAV/Drone and other image data processing techniques

With the development in image data processing tools and its accuracy acceptability, Drone/UAV fitted with the advance camera are used for survey purposes. Such technology has promising potential in the survey of sand mining zones due to its fast and reliable output deliveries. The survey is conducted using a set of instruments and compatible software to utilized the properly referenced data for depicting the topography of the study area. Instrument calibration and software compatibility and its validation with the ground data are an essential requirement for using this technique.

The details of the instruments their limitation and software used shall be demonstrated in the form of the accuracy assessment report, through a chapter in the replenishment study report. Other details to be incorporated in the report with regard to the study using such imaginary techniques shall highlight the followings:

a) **Flight Planning:** - The lease co-ordinates and the flight plan devised to capture the front and side overlap percentages for in each flight in reference to global coordinates (Kml or SHP file) system. The software used for the purpose and its details along with limitations with basic analytical assumptions.

b) **Block file generation:** - This operation concerns the selection of the sensor model and the definition of block properties, the addition of

imagery to the block file, marking of GCPs, generation of tie points and refining of the model.

c) **Interior orientation:** - The interior orientation of the stereo pair rational polynomial coefficients (RPC) used, which should be bundled with the scenes. RPCs are coefficient, which is used by photogrammetric software to represent the ground to-image viewing geometry.

d) **Exterior orientation:** For exterior orientation, ground control points shall be used, which are collected from the DGPS survey.

e) **Aero Triangulation:** - A critical phase in photogrammetric mapping is to rectify the satellite imagery at an appropriate tract on the surface of the earth. This is accomplished by collecting horizontal and vertical data [GCP's] to ascertain the spatial location of a number of features that are visible and measurable on the aerial images – this process is often called control bridging, which refers to passing horizontal and vertical information from one aerial image to the next.

f) **Ortho Generation:** - After running the above steps; the software shall automatically generate orthorectified imagery.

g) **DTM extraction:** For extraction of DTM, Generated point cloud data classified manually to extract bare earth.

5.2.3 Accuracy Assessment of Aerial Data:

To check the accuracy of DTM generated by Aerial data, few points are selected and compared with on-site by using DGPS instrument for the ground-truthing purpose. It is preferred to do ground-truthing at minimum 5 locations spread evenly across the lease area. The readings from the DGPS instrument are then compared with the Drone data for accuracy assessment

purpose. A comparative chart will be prepared in comparison of Data related to ground-truthing (by DGPS) and from Drone. Such accuracy assessment report shall a chapter of the replenishment study.

5.2.4 Replenishment study shall have the details of

- List of instruments
- List of software
- Establishment of Benchmark by putting No. of pillar points and various Ground Control Points (GCP) at the site.
- Ground Control Points (GCP) Collection: - Various GCPs were observed by using DGPS for Permanent Benchmarks and for control points.
- The summary of the elevation data from each section's profile based on the post-monsoon the survey should have mentioned in the table form.
- The detail of post-monsoon survey data in the tabular form shall be
- The detailed comparison of both pre-monsoon and post-monsoon elevation data shall be attached
- Cross-sectional depiction of deposition and erosion for each section in pre and post-deposition season shall be given supported by relevant field study data and plan.

6.0 ENFORCEMENT

6.1 Mining Operation:

The mining operations should be strictly carried out in accordance with the approved mining plan and after complying with all the conditions stipulated in Environmental & Other Statutory Clearance. Mine owner shall follow the operational procedure (for sale, dispatch, storage, reserve reconciliation and transportation) as may be defined by the concerned state government in its monitoring guidelines. Mine owner should comply with the recommendation and suggestion made by the High Power Committee as applicable.

6.2 Post Environment Clearnace Monitoring:

It's the responsibility of the EC Holder to comply with the Environmental Clearance conditions and upload the six-monthly EC compliance report on the website of the Ministry. For the category, 'A' mines (>100 Ha individual & cluster) Regional Office of the MoEF&CC are entrusted to carry out EC Monitoring and for the Category 'B' Mines by SEIAA. The monitoring shall be carried out as per the procedure/schedule suggested by MoEF&CC from time to time. MOEF&CC vide its notification S.O. 637(E) dated 28.02.2014 has delegated the power to State/Union Territory Environmental Impact Assessment Authority to issue show cause notice to project proponent in case of violation of Conditions of Environmental Clearance issued by the said authority and to issue direction for keeping the said EC in abeyance or withdrawing it. Thus, for category 'B' (0 to 100 Ha) projects SEIAAs are responsible for EC monitoring.

6.3 Environment Audit:

The Hon'ble NGT in its order dated 04.09.2018 in O.A. 173/2018 in the matter of Sudarsan Das vs. State of West Bengal & Ors. Inter-alia directed

that "*One of the conditions of every lease of mine or minerals would be that there will be independent environmental audit at least once in a year by reputed third party entity and report of such audit be placed in the public domain. In the course of such an environmental audit, a three-member committee of the local inhabitants will also be associated. Composition of three member's committee may preferably include ex-servicemen, a former teacher and former civil servant. The Committee will be nominated by the District Magistrate.*

The gazette notification on environmental audit has been issued by the Ministry of Environment and Forests on March 13, 1992 (amended vide notification GSR 386 (E) dated April 22, 1993). This notification applies to every person carrying on an industry, operation or process requiring consent to operate under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) or under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981), or both, or authorization under the Hazardous Waste (Management and Handling) Rules, 1989, issued under the Environment (Protection) Act, 1986 (29 of 1986). The notification requires that an Environmental Statement for the financial year ending the 31st March be submitted to the concerned State Pollution Control Board, on or before the 30th September of the same year.

It is suggested that NABET Accredited consultant may be engaged for Environment Audit and during the course of the audit, a three-member committee nominated by District Magistrate shall be associated.

6.4 Monitoring of Sale & Purchase of Sand:

6.4.1 In order to curb illegal mining it is very necessary that the general public is aware of the legal source of sand and RBM suppliers. The Ministry of Mines issued ***Sand Mining Framework 2018*** wherein it has proposed two mechanisms for the online sale of sand depending on whether there is a free market for sand in the State or the prices are regulated by the Government.

Para 1.2.12.2 Under the market model

In the case of the market model, all the lessees/ certified dealers in the State should register themselves on the online portal/ mobile app. For registering, the lessee/ certified dealer will have to enter the details of its concession/ stockyard, location, the quantity of sand expected on a weekly basis, as per the approved mining plan. Once registered, the online portal/ app will display the name of the reach/ stockyard and sand could be booked by the consumer from those leases/ stockyards and prices up to the delivery level. Further, the lessee/ certified dealer needs to regularly update the sand available in the reach/ stockyard, and they can decide the price at which they want to sell their sand. Anyone who wishes to purchase sand in the State will have the following options for buying:

1. *Mobile app*
2. *Online portal*
3. *Customer care/ telephone call*
4. *Licensed traders*

The consumer needs to register on the portal and log in using his/her credentials (Aadhar card based only). After logging in, the portal will display the entire list of reaches/ stockyards along with the quantity of sand available in those reaches/ stockyards and the quality and price of

sand. The consumer can filter/ sort the reaches/ stockyards based on such parameters as location, quality and price, and book from the lease/ stockyard he/she wishes to. The consumer should also have the option to purchase the sand by ordering at customer care. Also, stockyards should be made around all the major consumption hubs in the State based on their estimated demand.

Para 1.2.12.3 Controlled market prices

In case the prices are regulated by the State Government, the only difference from the previous model is that the price of sand at the river reach/ stockyard shall be uniform across the State/ district based on the quality and transportation lead. A consumer after logging in may choose the reach/ stockyard from which he/she wishes to purchase the sand. The payment for booking the sand in both the cases should be made on the portal/ app so that proper accounting of the sale of sand can be maintained by the Government. Also, stockyards should be made around all the major consumption hubs in the State based on their estimated demand.

It is suggested that the State Government should develop an online portal for sale and purchase of Sand & RBM. In addition to this State Government shall decide on the model viz. *Under market model or Controlled market prices or both* to be adopted for their respective States. The State Government shall accordingly modify their Minor Mineral Concession Rules within 6 months of publication of these guidelines. It is suggested that the controlled price model is more effective in controlling illegal sand mining. Because if the State Government is the only agency to provide the sand in the State, then price and supply of sand can be controlled more effectively. There will be no confusion in the consumers about legality of the purchase as the only source of sand provider is the State Government through its network of registered stockiest, retailers and transporters. The consumers

can fill the online request, pay the amount, select the transporter and give its feedback after the receipt of the sand. The transportation can also be controlled as the tippers used for transportation is registered tippers with GPS facility, the transportation route is well defined for easy monitoring, control over overloading of tippers, control over spillage of mineral etc. The State Govt. shall also make provision for penalizing the persons/agency buying the sand and RBM from the illegal sources.

6.4.2 The Ministry of Mines in its Sand Mining Framework also mentioned the following different level of monitoring:

Para 1.2.13.1 Level 1- Reach/ Stockyard level monitoring

For monitoring of the active reaches:

a. *Quantity of sand to be extracted from the reach should be based on the quantity of sand assessed in the reach by the Joint Inspection Team.*

b. *The lease boundary should be demarcated with geo-coordinates or geo-fenced to ensure that sand extraction is going on only within the permitted area.*

c. *De-casting from river beds should be monitored on a regular basis to keep a track of excavated quantity.*

d. *After every two years, a mandatory audit of the quantity extracted and quantity permitted along with the replenishment rate.*

e. *Mandatory e-pass/ e-permit should be made available at reach level for transportation of any sand by any GPS enabled vehicle with the provision of entering the vehicle number of the sand carrying vehicle and expected delivery address and customer name/ mobile number. Also, provision should be made available for stockyards/ stockiest of sand. In the case of*

nomination based (controlled pricing) business model, the margin of private stockist should be capped over a fixed percentage of notified prices.

f. At the stockyard, the stock supervisor should verify the authenticity of online payment receipt before issuing the transit pass. The loading of sand should be monitored electronically and all transporting vehicles should pass through an electronically monitored weighbridge. g. Real-time data capture for transportation

Para 1.2.13.2 Level 2 - Transportation monitoring

To make transportation monitoring effective and useful, all the sand carrying vehicles (tractors/ trucks) should be registered with the department and GPS equipment should be installed in all the sand carrying vehicles. Weighbridges with CCTV should be installed at all the stockyards, active reaches to ascertain the exact quantity of sand being transported in the vehicle. Check posts with CCTV cameras should be established near all major consumption centres to check if all the transporting vehicles are carrying a valid transport permit. The transport permit generated should contain the security features mentioned under section 5.11 so that one permit cannot be re-used by generating photocopies of the permit.

Para 1.2.13.3 Level 3 - End consumer monitoring/ bulk consumer

For end consumer monitoring, a customer grievance redressal center should be established to enquire about the grievances faced by the sand consumers. The telephone number of the call center should be advertised so that it reaches the general public through which anyone in the State can register his/her complain related to the sand, be it in terms of price or any other grievance. Additionally, profiles of customers should be analyzed such as the delivery of sand at the same address, usage pattern and its comparison with the estimated usage, as mentioned in purpose, etc. Further, surprise checking

should be conducted by the district level committee staff as per instructions of the monitoring agency.

Para 1.2.13.4 Level 4 - Indirect monitoring

Indirect monitoring can be done by determining sand consumption through the quantum of cement sales in the State, as the sale of cement is quite organized and data is easily available at the State level and district levels for the same. From district-wise cement consumption, the further trend of sand consumption can be derived. Any anomalies in the sand consumption/demand can be analyzed further.

Note: *The above monitoring mechanism is just a suggestion and the States may visit Andhra Pradesh and Telangana to study the monitoring mechanism in greater detail.*

It is suggested that State Government may consult with concern department of State of Telangana and Tamil Nadu to have better understanding on their experience and knowledge in adopting best sand mining enforcement provisions and monitoring practices and frame their own regulatory regime and monitoring framework. The framework of monitoring should essential include online sale & purchase of River Bed Material/ Auction of leases, Sand from rivers and other sources, online monitoring of excavation, storage and transportation of mineral for control of illegal mining.

The respective State Governments shall develop the online Sale & Purchase System after defining the model viz. Under market model or Controlled market prices model. The level of monitoring needs to be defined and guidelines need to be finalized by the respective State Governments as per their requirement with due consideration of suggestive guideline in this document. These all measure will help in curbing illegal mining.

7.0 Recommendations of High Power Committee:

A high power committee (HPC) was constituted by Hon'ble National Green Tribunal to assess the status of illegal mining the stretch of River Yamuna, under the chairmanship of Secretary, Ministry of Environment Forest & Climate Change. The committee after exhaustive field survey and interaction with stakeholders and having surprise visits submitted a comprehensive report on river sand mining along with certain recommendations on enforcement requirements and monitoring essentials. The same is provided in the following section for consideration of monitoring / regulatory authority to adopt applicable provisions in their monitoring framework and also to ensure that the infrastructural requirements recommended by the HPC are put in use at all locations including the lease area.

7.1 Recommendations of High Power Committee (HPC)

The following recommendation of the High Power Committee shall be considered while framing the monitoring mechanism by the State Government.

i. Project Proponent must ensure that following security features are included in the Transport Permission/Permits (TP) so that duplicate/fraudulent/forged TPs for transport, not accounted for in the IT-based system, is not possible.:

(a) Printed on Indian Bank Association (IBA) approved
(b) Magnetic Ink Character Recognition Code (MICR) paper;
(c) Unique Barcode;
(d) Unique Quick Response Code (QR);
(e) Fugitive Ink Background;
(f) Invisible Ink Mark;
(g) Void Pantograph;
(h) Watermark.

ii. Project Proponent must ensure that CCTV camera, Personal Computer (PC) or laptop, Internet Connection, Power Back up, access control of mine lease site; and arrangement for weight or approximation of weight of mined out mineral on basis of volume of the trailer of vehicle used at mine lease site are available.

iii. The PP has to enter the destination, distance between plot and destination, vehicle number etc in the system. After scanning, unique bar code number, invoice date time and validity date-time are generated by the software which gets printed individually on each TP Validity of TP is calculated based on the distance between plot and destination. After validity time is over the TP stands invalid.

iv. The officers involved in monitoring should be provided with mobile application and/or bar code scanners using which the TP can be checked anywhere on road. As soon as the bar or QR code on TP gets scanned through using the mobile application and/or scanner or vehicle number is entered into the application or sent by SMS to a predefined number, all details of TP such as plot details, vehicle details, validity time, etc. should be fetched from the server. This means if anything is re-written on TP and attempt is made to reuse the same, it can be traced immediately. Various reports can be generated using the system showing daily lifting reports and user performance report. This way the vehicles carrying sand can be tracked from source to destination.

v. The facility to fetch details using mobile app, website and SMS may be made available to the general public as well. However, they shall not be allowed to stop the vehicles to check the transportation. The only option that they should have is to check vehicle numbers of the passing vehicle in the mobile app or SMS for the validity of the pass. The only result that should be available to them should be if the vehicle carrying sand has a

valid permit at the relevant point of time or not. If the citizen finds that the vehicle doesn't have such a permit, as ascertained from mobile app or website or SMS, he should alert local authorities, who shall then take further action as per the law.

vi. In case, the vehicle break-down, the validity of Transport Permit or Receipt shall be extended by sending SMS by the driver in specific format to report the breakdown of the vehicle. The server will register this information and register the breakdown. The State can also establish a call center, which can register breakdowns of such vehicles and extend the validity period. The subsequent restart of the vehicle also should be similarly reported to the server/call center.

vii. The route of the vehicle from source to destination shall be tracked through the system using checkpoints, Radio-frequency identification (RFID) tags, and Global Positioning System (GPS) tracking.

viii. The system shall enable the Authorities to develop a periodic report on different parameters like daily lifting report, vehicle log/ history, lifting against allocation, and total lifting. The system can be used to generate auto mails/SMS. This will enable the District Collector / Magistrate and other authorities to get all the relevant details and will enable the authority to block the scanning facility of any site found to be indulged in irregularity. Whenever any authority intercepts any vehicle transporting illegal sand, it shall get registered on the server and shall be mandatory for the officer to fill in the report on action taken. Every intercepted vehicle should be tracked.

ix. It is necessary to prevent any truck/vehicle from transporting sand out of the identified plot bypassing the strong IT enabled system. Therefore, at each of the sand plot, the following additional measures should be taken.

(a) There shall be one entry and exit point provided for trucks/vehicles. The said entry point should have facilities as mentioned above. In case, it is necessary to have more than one entry/exit points, all such points shall have checkpoints with facilities as mentioned above. All other possible ways of entry/exit should be closed using barriers like compound, trench, etc. All provisions shall be made to not make it possible for any vehicle to enter or exit without entry into the computerized system.

(b) All such points should have 24X7 CCTV coverage, the footage of which should be made available online to the district administration. In cases, where sufficient internet bandwidth is not available, it may be deposited with the district administration on a weekly basis. If possible, the entry/exit points should have boom barriers which will record the vehicles entering and exiting the plot.

8.0 GENERAL APPROACH TO SUSTAINABLE SAND MINING

8.1 Pre-requisite for starting sand mining operation

i) All district to prepare a comprehensive mining plan for the district as per the provision of District Survey Report. These reports shall be put on the website of District Administration. No mining shall be allowed in the area which has not been identified in the comprehensive mining plan of the District.

ii) Replenishment study should be conducted on regular basis.

iii) All potential rivers mining zone/area shall be identified and put for auction with proper geo-tagged details by the auctioning authority concerned.

iv) The latitude and longitude of each mining lease shall be clearly mentioned in Letter of Intent issued to the potential mine lease. Such information shall be provided on the website of the district administration.

v) The provision of these guidelines shall be considered while identifying the potential stretches /locations and boundaries of the leases for the minable area.

vi) The LoI holder shall seek Environmental Clearance as per the provision of EIA Notification, and the regulatory authority shall ensure that the provision suggested in "Sustainable Sand Mining & Management 2016" and in this documents, as applicable are part of the clearance conditions.

vii) There shall be no river bed mining operation allowed in monsoon

period. The period as defined by IMD Nagpur for each state shall be adhered with.

viii) The monitoring infrastructures including weighbridge and adequate fencing of the lease area, CCTV, Transport permits, etc, as suggested in this document shall be ensured in order to reduce unrecorded dispatch.

ix) Regular monitoring of mined minerals and its transportation and storage shall be ensured and all information shall be captured at centralized database so that easy tracking of illegal material can be done.

x) Annual audit of each mining lease shall be carried out wherein three independent member of repute, nominated by District administration shall also participate.

8.2 Mining of Sand from Agricultural Fields

This practice is prevalent in Haryana; to ensure that mining from outside doesn't affect rivers, no mining is permitted in an area up to a width of 100 meters from the active edge of embankments or distance prescribed by Irrigation department whichever is critical. The top layer of soil varying between 1 and 2 meters is removed and stacked separately and thereafter the sand deposit which maybe 10-15 meter deep is mined. After removing the sand layer up to a maximum depth of 09 meters or the maximum mineable minerals, as permitted by competent authority. The topsoil stacked is spread out on the field and the same is brought under the cultivation. Though the level of this land (mined out area) is lowered to the depth of the excavation and in initial years of cultivation the productivity is low, but the productivity of the fields improves with continued cultivation and addition of organic manure in the field. In Haryana, some leases are of large area

(ranging from 1000 hectare to 2000 hectare) and agricultural fields and river bed both are included in the same lease for mining.

The following recommendations should be kept in mind for mining in such leases:

1. Mining of sand in such mine leases will require environment clearance.

2. The lease should be of sand mining either from the agricultural field or river. In the same lease, both types of area should not be included.

3. The sand mining from the agricultural field is being done in Haryana for a long time and it can be done in a more sustainable manner without adverse impact on agricultural productivity if proper environmental safeguards are taken.

4. The slope of mining area adjacent to agricultural fields should be proper (preferably 45 degree) and adequate gap (minimum 10 feet) be left from adjacent agricultural field to avoid erosion and scouring.

The provision for sand mining in agricultural field may be permitted, whenever replenishment of sand occurs due to natural phenomena.

Permission may also be granted by competent authority (District administration) for excavation of sand/Soil from agricultural fields, after due diligence of this prevailing condition in order to avoid any unacceptable impact on the environment and nearby livelihood from agriculture provided such objective of such excavation mining of Soil/Sand in limited increase the productivity of sand agricultural field.

9.0 MONITORING MECHANISM

9.1 Illegal Mining

The Hon'ble Supreme Court in its Judgment dated 2.08.2017 in W.P 114 of 2014 in the matter of Common Cause Vs Union of India & Ors, inter-alia passed the following:

Para 128. *The simple reason for not accepting this interpretation is that Rule 2(ii-a) of the MCR was inserted by a notification dated 26th July 2012 while we are concerned with an earlier period. That apart, as mentioned above, the holder of a mining lease is required to adhere to the terms of the mining scheme, the mining plan and the mining lease as well as the statutes such as the EPA, the FCA, the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981. If any mining operation is conducted in violation of any of these requirements, then that mining operation is illegal or unlawful. Any extraction of a mineral through an illegal or unlawful mining operation would become illegally or unlawfully extracted mineral."*

In view of above Judgement, any mining activities which are not governed under the provision of Environment (Protection) Act, 1985, The Water (Prevention & Control of Pollution Act, 1974, The Air (Prevention & Control of Pollution) Act, 1981, Forest Conservation Act-1980, Wildlife Protection Act - 1972, shall be considered as illegal mining within the provision of section 21(5) of Mines and Minerals (Development & Regulation) Act, 1957 (MMDR Act) and the concerned authority shall take necessary action within the provision of MMDR Act.

As per the provision of 23(C) of MMDR Act, the State Government is empowered to make rules for preventing illegal mining, and transportation

& storage of Illegal minerals. All such mining which qualifies under illegal, shall be dealt with in the provision of MMDR Act by the concern authorities.

State Pollution Control Board (SPCB) is the nodal authority in the State for dealing with cases related to pollution or environment management coming under the purview of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment Protection Act 1986. SPCB shall initiate appropriate action under the provision of these acts for non-compliance of violation of the provisions.

9.2 Environmental Damage due to illegal mining

The environmental damages incurred or resulting due to illegal mining shall be assessed by a committee constituted by District Administration having expertise from relevant fields, and also having independent representation of locals and State Pollution Control Board. Guidelines for assessment of ecological damages prescribed by the State Government or Concerned Pollution Control Boards or any other authority shall be applicable and compensation as fixed shall be paid by the project proponent, in light of Hon'ble National Green Tribunal orders.

9.3 Monitoring of Mining near Inter-district or inter-state boundary

There are situations where bifurcated river becomes district boundaries or state boundaries in such situation it is difficult to assess the mining potential, or to have close monitoring and enforcement of the regulatory provision. Such challenges have been identified and dealt with in SSMG-2016. However, in the absence of any standardized procedure, the monitoring has not been effectively practiced. This has been highlighted by the High Power Committee constituted by NGT in the matter pertaining to illegal mining.

The districts/state sharing the boundary shall constitute the combined task force for monitoring of mined materials, mining activity and also should actively participate in the preparation of DSR by providing appropriate inputs. In such cases, the draft DSR so prepared shall be put up for public consultation in both the districts through respective district administration website.

The task force shall meet every quarter to reconcile the data collected during the period and identify any gap/ lapses based on the outcome of such meeting. The respective district shall take action/ corrective measures. Effort shall be made for real-time data sharing between both the district.

The task –force shall include essentially the representative of respective districts from the mining department, transport department, regional office of SPCB concerned and a reputed citizen nominated by district administration. The Taskforce shall be headed by officer not less than ADM rank and quarterly outcome shall be submitted to District administration.

In addition to the above, there is a need for strict surveillance, particularly at night. The State of Gujarat has already initiated a program called '*Trinetra*' for night surveillance by using night-vision drones to control illegal mining incidents. This program is giving satisfactory results. Such type of system may also be developed by each State within a reasonable time.

A typical standard operating procedure for assessing illegal mining by the committee constituted shall, but not limited to, include the steps given in the following table. However, the process of assessing can be modified based on site-specific conditions and any deviation shall be recorded in the report with proper justification.

Suggestive standard Practice for assessing illegal mining

Step 1	The assessment team should collect the information and documents prescribed in the Pre-Requisite section.
Step 2	The assessment team should verify the applicability/validity of statutes under EPA-1986, Air and Water Act, MMDR 1957, State Mines and Mineral Rules, etc.
Step 3	Field visit should be conducted for identification of mining lease area (in hectare) and boundary pillar constructed to indicate the same.
Step 4	With the help of GPS instrument, the team should assess the area where any extraction or mining have been carried out on the day of visit and calculate the mined-out area in a hectare.
Step 5	If available, the team may avail the use of latest satellite images for calculating the total mined out area.
Step 6	The team should verify the Ground / Surface Level (in meter above MSL) of at least 04 highest points in or around the area where mining has been done. The Ground/surface level will then be computed based on averaging of 04 highest points verified by the team.
Step 7	With the help of Depth Measurement kit or any depth measuring instruments, the depth should be measured for at least 04 points in the mined-out area. For computing, the depth, averaging of the value obtained at 04 points should be done.
Step 8	Verification of compliance conditions of Environmental Clearance and Consent to operate, mining methodology under Mining Plan
Step 9	Identification of vulnerable impacts observed on the field and non-compliance of conditions of Environmental Clearance and Consent to Operate.

Step 10	Field Survey for identification, monitoring and verification of ecological species based on the information available and documents mentioned in the Pre-requisite section.
Step 11	Preparation of inventory of machinery used/observed on the field (optional)
Step 12	Preparation of inventory of hydraulic structures observed on the field (optional)
Step 13	Water sampling for assessment of water quality including physical and biological parameters. (optional)
Step 14	Reconciliation collation of data/information and compilation to maintain violation.
Step 15	Identification of restoration plan and computation of cost of the restoration plan.

9.4 Monitoring Mechanism

A uniform monitoring mechanism is required to assess the regulatory provision in quantitative terms, with robust institutional and legal framework. Based on past experience and suggestions available, the following requirements are suggested for defining a mechanism for monitoring of mining activities which will help in identification of mining which is operating either illegally or are violating the regulatory provisions. Some suggestion will facilitate direct or indirect information to help in such an assessment.

1. All precaution shall be taken to ensure that the water stream flows unhindered and process of Natural river meandering doesn't get affected due to mining activity.

2. River mining from outside shall not affect rivers, no mining shall be permitted in an area up to a width of 100 meters from the active edge of embankments or distance prescribed by the Irrigation department.

3. The mining from the area outside river bed shall be permitted subject to the condition that a safety margin of two meters (2 m) shall be maintained above the groundwater table while undertaking mining and no mining operation shall be permissible below this level unless specific permission is obtained from the Competent Authority. Further, the mining should not exceed nine-meter (9 m) at any point in time.

4. Survey shall be carried out for identifying the stretches having habitation of freshwater turtles or turtle nesting zones. Similarly, stretches shall be identified for other species of significant importance to the river eco-system. Such stretch with adequate buffer distance shall be declared as no-mining zone and no mining shall be permitted. The regulatory authority as defined for granting Environmental Clearance, while considering the application of issuance of ToR and/or EC for the adjacent block (to non-mining zone) of mining shall take due precaution and impose requisite conditions to safeguard the interest of such species of importance.

5. District administration shall provide detailed information on its website about the sand mines in its district for public information, with an objective to extend all information in public domain so that the citizens are aware of the mining activities and can also report to the district administration on any deviation observed. Appropriate feedback and its redressal mechanism shall also be made operational. The details shall include, but not limited to, lease area, geo-coordinates of lease area and mineable area, transport routes, permitted capacity, regulatory conditions for operation including mining, environmental and social commitments etc.

6. A website needs to be maintain to track the movement of centralised sand mining and a Centralised server system should be made to manage the data related to sand mining across India.

7. The mineral concession holders shall maintain electronic weighbridges at the appropriate location identified by the district mining officer, in order to ensure that all mined minerals from that particular mine are accounted for before the material is dispatched from the mine. The weighing bridge shall have the provision of CCTV camera and all dispatch from the mine shall be accounted for.

8. The mineral movement shall be monitored and controlled through the use of transit permit with security features like printing on IBA approved MICR papers, Unique bar/QR, fugitive ink background, invisible ink mark, void pantographs and watermarks papers or through use of RFID tagged transit permits and IT /IT-enabled services. Such monitoring system shall be created and made operationalised by State Mining department and district level mining officer shall be responsible for ensuring that all legal and operational mines are connected and providing the requisite information on the system. Regular check and associated report shall be submitted to DLTF and uploaded on the website.

9. State Government shall constitute a District Level Task Force (DLTF) under the Chairmanship of Deputy Commissioner/District Magistrate/Collector with Superintendents of Police and other related senior functionaries (District Forest Officer, District transport officer, Regional officer- SPCBs, Senior Officer of Irrigation Department, District Mining Officer) with one/two independent member nominated by the Commissioner concerned. The independent member shall be retired government officials/teacher or ex-serviceman or ex-judiciary member.

The DLTF shall keep regular watch over the mining activities and movement of minerals in the district. The DLTF shall have its regular meeting, preferably every month to reconcile the information from the mining activity, and other observations made during the month and take appropriate corrective and remedial action, which may include a recommendation for revoking mining lease or environmental clearance. The DLTF may constitute an independent committee of the expert to assess the environmental or ecological damage caused due to illegal mining and recommend recovery of environmental compensation from the miner's concern. The recommendation may also include action under the provision of E(P) Act, 1986.

10. The area not identified for mining due to restriction or otherwise are also to be monitored on a regular basis by the DLTF. Any observations of mining activity from the restricted area shall be reported and corrective measures shall be initiated on an urgent basis by the DLTF.

11. The dispatch routes shall be defined in the Environmental Clearance and shall be avoided through densely habituated area and the increase in the number of vehicle movement on the road shall be in agreement with the IRC guidelines / carrying capacity of the road. The alternate and dedicated route shall be explored and preferred for movement of mining to avoid inconvenience to the local habitat. The mining production capacity, by volume/weight, shall be governed by total permissible dispatch calculated based on the carrying capacity of dispatch link roads and accordingly, the production should be regulated.

12. The movement of minerals shall be reconciled with the data collected from the mines and various Naka/check posts. Other measures may also include a general survey of the potential mineable area in the district

which has not been leased/auctioned or permitted for mining due to regulatory or other reasons.

13. The location and number of check post requirement shall be reviewed by DLTF on a regular basis so that appropriate changes in location/number could be made as per the requirement. Such review shall be carried out on a regular basis for the district on inter-state boundary or district providing multiple passages between two districts of different states.

14. The district administration shall compile the information from their district of the permitted and legal mined out minerals and other details and share such information and intelligence with the officials of the adjoining district (Inter or/and Intra State) for reconciliation. The information shall include the area of operation, permissible quantity, mined out minerals (production) the permitted route etc., and other observations, especially where the mine lease boundary is congruent with the district boundary. Such coordination meeting shall be held on a quarterly basis, alternatively in two district headquarters or any other site in two districts decided mutually by the District Magistrate.

15. The mining department shall include submission of an annual environmental audit report as one of the conditions in the mining lease agreement. The annual audit for each river bed mining lease shall be carried out and the audit report shall be uploaded on the website of district administration. The audit shall be carried out by an independent team of 3 members nominated by District Collector/Magistrate/Commissioner comprising of Ex-Serviceman, Ex-Government officials of repute, Professor or Person having experience of mining/environment. The guidelines and method of the audit shall reflect adequately the monitor-able parameters and output and reflect

the compliance status with respect to the conditions imposed by the regulatory authorities including conditions of Environmental clearance.

16. The in-situ and ex-situ environmental mitigative measures stipulated as EMP, CER, CSR and other environmental and safety conditions in mines including the welfare of labours shall properly reflect in the audit report.

9.5 Suggestive additional requirements are

i. The requirement at the Mine Lease Site:

a. Small Size Plot (Up to 5 hectares): Android Based Smart Phone.
b. Large Size Plots (More than 5 hectares): CCTV camera, Personal Computer (PC), Internet Connection, Power Back up.
c. Access control of mine lease site.
d. Arrangement for weight or approximation of the weight of mined out mineral on the basis of the volume of the trailer of vehicle used.

ii. Scanning of Transport Permit or Receipt and Uploading on Server:

a. Website: Scanning of receipt on mining site can be done through barcode scanner and computer using the software;

b. Android Application: Scanning on mining site can be done using Android Application using a smartphone. It will require internet availability on SIM card;

c. SMS: Transport Permit or Receipt shall be uploaded on the server even by sending SMS through mobile. Once Transport Permit or Receipt get uploaded, a unique invoice code gets generated with its validity period.

iii. Proposed working of the system:

The State Mining Department should print the Transport Permit or Receipt with security features and issue them to the mining leaseholder through the District Collector. Once these Transport Permits or Receipts are issued, they would be uploaded on the server against that mine lease area. Each receipt should be preferable with pre-fixed quantity, so the total quantity gets determined for the receipts issued. When the

Transport Permit or Receipt barcode gets scanned and invoice is generated, that particular barcode gets used and its validity time is recorded on the server. So all the details of transporting of mined out material can be captured on the server and the Transport Permit or Receipt cannot be reused.

iv. Checking On Route:

The staff deployed for the purpose of checking of vehicles carrying mined mineral should be in a position to check the validity of Transport Permit or Receipt by scanning them using the website, Android Application and SMS.

v. Breakdown of Vehicle:

In case the vehicle break-down, the validity of Transport Permit or Receipt shall be extended by sending SMS by the driver in specific format to report the breakdown of the vehicle. The server will register this information and register the breakdown. The State can also establish a call center, which can register breakdowns of such vehicles and extend the validity period. The subsequent restart of the vehicle also should be similarly reported to the server or call center.

vi. Tracking of Vehicles:

The route of the vehicle from source to destination can be tracked through the system using checkpoints, RFID Tags, and GPS tracking.

vii. Alerts or Report Generation and Action Review:

The system will enable the authorities to develop a periodic report on different parameters like daily lifting report, vehicle log or history, lifting against allocation, and total lifting. The system can be used to generate auto mails or SMS. This will enable the District Collector or District Magistrate to get all the relevant details and shall enable the authority to block the scanning facility of any site found to be indulged in irregularity. Whenever any authority intercepts any vehicle transporting illegal sand, it shall get registered on the server and shall be mandatory for the officer to fill in the report on action taken. Every intercepted vehicle shall be tracked.

The monitoring of mined out mineral, environmental clearance conditions and enforcement of Environment Management Plan will be ensured by the regulatory authority and the State Pollution Control Board or Committee. The monitoring arrangements envisaged above shall be put in place. The monitoring of enforcement of environmental clearance conditions shall be done by the Central Pollution Control Board, Ministry of Environment, Forest and Climate Change and the agency nominated by the Ministry for the purpose.

Some of the State has followed the SSMMG-2016 and has also improvised or customized on the provisions given therein, and are successfully in operation. Salient provision adopted at different stages of sand mining in the state of Tamil Nadu is given as **Annexure VIII.**

9.6 Actions against illegal excavation and transport

Solapur district administration in Maharashtra had adopted a multi-pronged strategy to penalize the persons involved in illegal excavation and transport which resulted in a significant increase in revenue earned by the state. Following rules and procedures as mentioned in these guidelines will add to the costs of PP. Those involved in illegal activities are not required to bear these costs and this will make their supply in the market cheaper (though illegal). This will put the players running their business by following rules and procedures laid down by the government to disadvantage as far as the selling price is considered. Therefore, it is necessary to come down heavily on those involved in illegal excavation/transport, so that there is no incentive for players to abide by the rules.

The following action may be taken to achieve this deterrence against illegal business:

1. The action should be taken under all legal options available simultaneously. Thus, after identifying the case of illegal excavation, storage and/or transport of minor minerals (including sand), fine should be levied as per the land revenue laws/code(s) of the state. In addition, FIR should be lodged in the police station under relevant sections of law including sec 379 IPC. In addition, action under the Motor Vehicle Act, 1989 and relevant rules should initiate to cancel/suspend the driving license of the driver and permit of the vehicle. Further, action should be initiated under provisions in the Income Tax Act, 1961 for unaccounted income and under the Central Goods and Services Act, 2017 for non-payment of GST. (Earlier this was done under the state act pertaining to Value Added Tax/Sales Tax). Habitual offenders should also be taken up under local state laws for externment and/or preventive action. It is clarified that as per law, it is possible to take all actions under various laws

simultaneously for one offence. What is prohibited in law is an action under the same law for the same act more than once.

2. The action should be taken against all persons responsible. Often, there is a tendency to penalize only the drivers of the vehicles. The mafia of illegal mining and transport is much bigger and drivers are only one part of the system. It is necessary to identify all those involved in the offence. It is usually not possible to reach the place of excavation without creating a motorable pathway up to the same through land which may be private land. Such role of such landowners needs to be looked into for each offence and proceeded against simultaneously. Further, the role of vehicle owners needs to be probed. Role of the person who allowed his land to be used for illegal excavation and storage should also be examined. Lastly, the person who purchases such sand should also be probed. The legal proceedings stated above needs to be initiated against all of these together. An attempt should be made to fix the financial responsibility in joint and several ways so that recovery is easier.

3. There may be discretion available in law about the extent of the penalty to be levied. If such discretion is very wide, then it is advisable that guidelines may be laid down to reduce such discretion in law for levying penalties. For example, in Maharashtra, Land Revenue Code, fine of any amount of penalty up to thrice the value of the sand can be levied. Solapur district administration had instructed Tahsildars and SDMs not to use discretion and levy the fine of three times the value. Availability of discretion makes junior level functionaries susceptible to pressures and it may also lead to corrupt practices.

4. It is emphasized that actions, as stated above, are most important to ensure that the IT-based system works. If these exemplary actions are not taken against everyone, it shall create a strong disincentive to those

involved in legal excavation and transportation. For IT-based (or any other) legal system to work, it is necessary to ensure that illegal system stops working altogether.

Annexure-I

Details of Sand/M-Sand Sources

a) Rivers:

River Name/M-Sand Plant	Total Stretch of River (in KM)	Type of River (Perennial or Non-Perennial)

b) De-Siltation Location: (Lakes/Ponds/Dams etc.)

Name of Reservoir/Dams	Maintain/Controlled by State Govt./PSU etc.	Location	District	Tehsil	Village	Size(Ha)

c) Patta Lands/Khatedari Land:

Owner	Sy. No	Area (Ha)	District	Tehsil	Village	Agricultural Land (Yes/No)

d) M-Sand Plants:

Plant Name	Owner	District	Tehsil	Village	Geo-location	Quantity Tonnes/Annum

Note: For inclusion of M-Sand Plant/Patta Land in DSR the plant/landowners need to submit the request to the Mining Department with complete details. Inclusion in DSR does not give them the right to operate the M-Sand Plant/Sand Mining lease.

Annexure-II

List of Potential Mining Leases (existing & proposed)

Rivers

River Details	Lease Details	Area (in Ha)	Distance (in KM) from PA/BR/WC/	Distance from Forest Area (in KM)	Mining leases within 500 meters (if yes cluster area)	Total excavation in Tonnes /Annum considering digging depth max as 3 meters	Mineral to be mined (Sand/ Bajri/ RBM etc.)	Existing / Proposed

Patta Lands/Khatedari Land: (existing & proposed)

Owner	Sy. No	Area	District	Tehsil	Village	Total Reserve (MT)	Total Mineral to be mined (MT)	Existing /Proposed

De-Siltation Location: (Lakes/Ponds/Dams etc.) (Existing & proposed)

Name of Reservoir /Dams	Maintain /Controlled by State Govt./PSU etc.	Location	District	Tehsil	Village	Size (Ha)	Quantity MT / Year	Existing /Proposed

M-Sand Plants :(existing & proposed)

Plant Name	Owner	District	Tehsil	Village	Geo-location	Quantity Tonnes/Annum	Existing/Proposed

Annexure-III

Cluster & Contiguous Cluster details

Clusters:

River Name	Cluster No.	Lease No	Location (Riverbed / Patta Land)	Village	Area (in Ha)	Total Excavation (Ton)	Total Mineral Excavation (Ton)

Contiguous Clusters:

River Name	Contiguous Cluster No.	Cluster No	Number of leases in the cluster	Location (Riverbed / Patta Land)	Distance between clusters	Village	Area of Cluster (Ha)	Total Mineral Excavation (Ton)

Annexure-IV

Transportation Routes for individual leases and leases in Cluster

Lease No	Transportation Route No	Number of tippers /day of lease	Number of tippers /day of all the lease on route	Length of Route in KM	Type of Road (Black Topped/ unpaved)	Recommendation for road (Black Topped/ unpaved)	The road will be Constructed by Govt/ Lease Owner	Route Map & Location

Cluster No	Transportation Route No	Number of tippers /day of cluster	Number of tippers /day of all the clusters on route	Length of Route in KM	Type of Road (Black Topped/ unpaved)	Recommendation for road(Black Topped/ unpaved)	The road will be Constructed by Govt/Lease Owner	Route Map & Location

Annexure-V

Final List of Potential Mining Leases (existing & proposed)

Rivers

River Details	Lease Details	Area (in Ha)	Distance (in KM) from PA/BR/WC/	Distance from Forest Area (in KM)	Mining leases within 500 meters (if yes cluster area)	Total excavation in (MT/Yr) (Mine depth max as 3 m)	Mineral to be mined (Sand/Bajri/RBM etc.)	Existing /Proposed

Patta Lands/Khatedari Land: (existing & proposed)

Owner	Sy. No	Area	District	Tehsil	Village	Total Reserve (MT)	Total Mineral to be mined (MT)	Existing /Proposed

De-Siltation Location: (Lakes/Ponds/Dams etc.) (Existing & proposed)

Name of Reservoir/ Dams	Maintain/ Controlled by State Govt./PSU etc.	Location	Distt.	Tehsil	Village	Size(Ha)	Quantity MT/Year	Existing/ Proposed

M-Sand Plants :(existing & proposed)

Plant Name	Owner	District	Tehsil	Village	Geo-location	Quantity MT/Annum	Existing/Proposed

Annexure-VI

Final List of Cluster & Contiguous Cluster

Clusters:

River Name	Cluster No.	Lease No	Location (Riverbed / Patta Land)	Village	Area (in Ha)	Total Excavation (Ton)	Total Mineral Excavation (Ton)

Contiguous Clusters:

River Name	Contiguous Cluster No.	Cluster No	Number of leases in the cluster	Location (Riverbed /Patta Land)	Distance between clusters	Village	Area of Cluster (in Ha)	Total Mineral Excavation (Ton)

Annexure-VII

Final Transportation Routes for individual leases and leases in Cluster

Lease No	Transportation Route No	Number of tippers /day of lease	Number of tippers /day of all the lease on route	Length of Route in KM	Type of Road (Black Topped/ unpaved)	Recommendation for road(Black Topped/ unpaved)	The road will be Constructed by Govt/Lease Owner	Route Map & Location

Cluster No	Transportation Route No	Number of tippers /day of cluster	Number of tippers /day of all the clusters on route	Length of Route in KM	Type of Road (Black Topped/ unpaved)	Recommendation for road(Black Topped/ unpaved)	The road will be Constructed by Govt/Lease Owner	Route Map & Location

Annexure VIII

Salient provision for sand mining in the state of Tamil Nadu

STEPS TO BE FOLLOWED BEFORE EXECUTION:

- The state as a policy should endeavor to have single authority/agency responsible for all river sand mining in the state with an objective to ease the gap in demand and supply and accordingly, take necessary measures including planning, monitoring of mined material and its transport, and to curb illegal mining and sale of materials.

- The prospective site for sand quarry may be identified based on the availability of adequate sand deposits along the river beds, which hinders the free flow of water and results in flooding during monsoon seasons. Emphasis may be given to such quarry sites which is more viable for replenishment.

- A detailed study may be conducted by engaging expert from reputed Institutions to identify prospective sand reaches, assessment of the impact of sand quarrying on the Ground Water Table and water availability, conduct bore log details and study the social and environmental aspects. The generic requirement for replenishment study is to be followed.

- Once the site is identified for prospective sand quarry site based on the detailed replenishment study, the concerned department shall submit the proposal with the geo-tagged boundary of the proposed mining Precise Area Proposal to the District Collector for approval.

- A joint inspection may be carried out by the RDO/Sub-Collector, Assistant/Deputy Director,

- Executive Engineer, TWAD Board and the PWD officials to consider the various factors before giving consent to the proposal.

- The RDO concerned along with Revenue officials may verify the revenue records of the proposed sand quarrying area and give the NOC.

- The AD/DD Mines may verify the presence of permanent structures such as tower line, bridge, monuments if any, in the vicinity of the proposed mining site as per Tamil Nadu Minor Mineral Concession Rules,1959 (As per Rule 36 " there shall be no quarrying of sand in any river bed or adjoining area or any other area which is located within 500 meter radial distance from the location of any bridge, water supply system, infiltration well or pumping installation of any of the local bodies or Central or State Government Department or the Tamil Nadu Water Supply and Drainage Board head works or any area identified for locating water supply schemes by any of the above mentioned Government Department or other bodies" and " The distance of 50 meter shall be measured in the case of railway, reservoir or canal horizontally from the outer toe of the bank or the outer edge of the cutting, as the case may be …. "). Also, the availability of minerals may be cross verified with the available DSR.

- The TWAD officials may verify the drinking water schemes located nearby the proposed quarry site and the minimum distance required as per statutory norms.

- Based on the feasibility report of the joint inspection by the Revenue, Tamil Nadu Water Supply and Drainage Board and Mining officials/experts, the District Collector may give consent for the Precise Area proposal.

- After getting Precise Area approval, a detailed Mining Plan and sketch shall be prepared by the Executive Engineer, PWD using the services of a NABET accredited consultant who holds the pivotal role in the preparation of mining plan. Due responsibility will be expected on the concerned consultant in the mining plan preparation taking care of adhering to all mining rules, existing as on date. The mining plan shall contain the details of quantity to be excavated, the period of mining, method of excavation, deployment of required machinery, Environment Management Plan (EMP), proposed number of laborers to be deployed and Conceptual Mining Plan, as per Rule 41 of TNMMC Rules 1959. It is also the duty of the consultant to give the safe distance of 50 m or twice the bank height from the toe of the riverbank, whichever is higher and fixing the Geo coordinates for boundaries using DGPS instruments.

- The concerned Executive Engineer, PWD shall submit the Mining Plan prepared by the NABET accredited consultant to the concerned Assistant/Deputy Director, Department of Geology and Mines for approval, as per Rule 42 of TNMMC 1959. After scrutiny, the Assistant/Deputy Director, Department of Geology will present the Mining plan before the State Level Environment Impact Assessment Authority (SEIAA) for granting Environmental Clearance.

- The Executive Engineer, PWD shall prepare Form I and Pre-feasibility report with the help of the consultant and submit to SEIAA for an area less than 50 Ha. or to the Ministry of Environment and Forest and Climate Change (MoEF&CC) for the area more than 50 Ha.

- The State Expert Appraisal Committee (SEAC) under SEIAA, consisting of experts from renowned fields such as Mines, Environment, Sociology etc. shall conduct a site inspection of the proposed sand quarry site and after intense scrutiny, may recommend the proposal to SEIAA for approval.

- SEIAA shall grant Environmental Clearance for the sand quarry proposal after analyzing all the statutory provisions and based on the recommendation of the SEAC.

- The Environmental Clearance shall be informed to the public with basic details through advertisement in at least two widely circulated local newspapers with at least one in the vernacular language of the locality, within 7 days of the receipt of the clearance.

- On receipt of the Environmental Clearance, the Executive Engineer, PWD shall apply for Consent to Establish (CTE), from the Tamil Nadu Pollution Control Board as per the Air and Water Act, to enter upon the sand quarry site and commence the preliminary works such as construction of temporary sheds, bio-toilets, formation of biodegradable road using sugar cane leaves etc., drilling of bore wells etc. as per the statutory requirements. After all the preliminary works are completed, the Executive Engineer, PWD shall apply for the Consent to Operate (CTO) from the Tamil Nadu Pollution Control Board. Earmarking boundary of the identified land site through the concrete posts along with red flags need to be established.

- On receipt of the CTO, the Executive Engineer, PWD shall request the consent of the District Collector to commence the quarries. The District Collector shall request the Taluk Level Task Force comprising of Tahsildar, Inspector of Police, Officials from the Departments of Geology and Mining, Transport and Forest, Assistant Engineer, PWD and the Village Administrative Officer concerned, to verify the compliance of all preconditions mentioned in the Environmental Clearance and grant necessary permission to start the functioning of new sand quarries.

II. STEPS TO BE FOLLOWED DURING EXECUTION:

- Before the commencement of mining operations, the depth of sand quarrying needs to be measured accurately using Advanced technology and new gadgets like Total Stations, Global Positioning System (GPS) instruments etc. The Total Station and GPS instruments also need to be calibrated before measurement. Both the traditional and modern techniques may be infused in the right blend to get an accurate measure of the depth. A clear contour map (0.25m interval) of the levels within 2Km (one Km U/s and one Km D/s) needs to be prepared and submitted to both the Project Director, Sand Quarrying Operations and all the Monitoring Committee members. The depth of sand quarrying shall be restricted to 1 m from the theoretical/design bed level.

- The mining area must be demarcated at a minimum distance of at least 50 m away from the river embankment on either side. The boundaries of the quarries may be fixed with reference to the existing survey marks from the survey fields adjacent to the river. Sand quarrying lease area shall be demarcated on the ground with pucca stone or concrete pillars to show the present natural bed level and the depth of mining allowed.

- Modern techniques such as drone survey may be adopted to assess the depth and quantity of the mined area. Boundary pillars shall be erected at an interval of 50 m each on all four sides of the sand quarry site with red flags on every pillar and also in site pillars. The levels of shoal height, river bed height and depth to be excavated up to one meter downwards shall be marked in the pillars to avoid any deviation from the approved depth of excavation.

- It shall be ensured that no sand quarrying of any type is undertaken with 50m of the distance mentioned in the proposal (whichever is higher)

from both the banks of the river to control and avoid erosion of river banks.

- Temporary access roads or Katcha roads shall be formed between the banks of the river and the mining area with locally available bio-degradable materials such as sugarcane waste (bagasse), hay, etc.

- Proper entry and exit point for the movement of loading vehicles in and out of the sand quarry site shall be carefully located taking into consideration the habitations/settlements in the area.

- To monitor the groundwater level during sand quarrying operations, a network of existing wells may be established around the sand quarrying area and new piezometers must be installed at all sand quarry sites. Monitoring of Ground Water Quality in the vicinity (one Km radius from the sand quarrying site) shall be carried out once in two months.

- Periodic Monitoring (at least four times in a year – pre-monsoon, Monsoon, Post monsoon and winter) once in each season shall be carried out by PWD and the data thus collected may be sent regularly to SEIAA/TNPCB. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out, which includes immediate stopping of mining.

- Similar to the Baseline studies for data on water, soil and air etc., that is being done before the sand quarrying operations, the air and water quality may be checked periodically by Tamil Nadu Pollution Control Board to ensure that no pollution is caused due to Sand Quarrying Operations. 10. Safety gadgets such as earplugs, goggles, respiratory

devices, luminescent vests etc. may be provided to the workers at the sand quarry site.

- First aid kit with all essentials shall be kept ready at all quarry/depot site, in case of any emergency.

- To prevent air pollution due to the dust during sand quarrying operations and safeguard the persons in the sand quarry and depot site, constant water sprinkling on the pathways and dust prone areas may be done. The sand loaded vehicles are to be covered with a tarpaulin before moving out of the quarries/depots.

- Suitable depots shall be located in the vicinity of the sand quarry site to facilitate the sale of sand. While selecting the site for depots, it must be ensured that the site is within 25 km from the sand quarry site and has an area of around 10-15 Acres with parking facilities and proper entry and exit for smooth movement of the vehicles. The depot site shall preferably be a Government poramboke land, foreshore area of tank bund etc., near an NH/SH/MDR/ODR. In the absence of any Government land in the vicinity, private Patta land may be leased out and rent fixed as per the approved Government rates applicable therein.

- Permission must be obtained from the Electricity Board for power supply to operate the CCTV cameras at sand quarry site and depots.

- Minimum of two CCTV cameras, one each at the entry and exit point and one PTZ camera may be installed at all quarries/depots to monitor illegality if any taking place in the sand quarry/depot.

- To ensure uninterrupted seamless live streaming of videos from the surveillance cameras, a high-speed Internet Lease Line connection may

be made available at all quarries/depots. Arrangements may also be made for online monitoring of the sand quarrying, Centre for Assessing Real-Time Sand Mining (CARS) that could be located at the office of the Project Director in Chennai.

- The live streaming of the videos shall be monitored at a Centralised control room and the data shall be stored in the Server for future references. A robust Customer Care may also be functional 24 x 7 at the Control Room, to redress the grievance of the public.

- Drop gates shall be installed at the entry and exit points of all quarries/depots.

- Display boards shall be erected in local vernacular language at sand quarry/depot site, in the nearest village by which sand transportation will be carried and at the entrance of the village road from the main road.

- The concerned authority of PWD shall call for e-tender to select the contractors for loading/raising of sand at the quarry site, transporting contractors to transport sand from the quarry site to depots and loading/maintenance contractors at depots.

- Sand shall be loaded in the quarries in the PWD tendered GPS fitted vehicles and online transmit permit shall be issued by the competent authorities in PWD to the transporting vehicles to transport sand from the quarry to depots.

- On the arrival of the sand shunting vehicles from quarry to the depot, an online authentication shall be done to confirm the arrival of the

appropriate quantity of sand mentioned in the transport permit into the depot.

- The loading of sand from the depots shall be carried out by booking through the online portal "www.tnsand.in" as done presently. Online transit passes will also be issued to the loaded vehicles which could be verified by using an Android app "TNsand Investigator".

- During operation of the quarries, the PWD officers shall ensure that at no point in time, the depth of quarry exceeds 1 m depth from the river bed level and quarrying is done in a uniform manner over the entire mining area to avoid overexploitation and formation of pits at fixed places.

- Proper registers may be maintained at the entry and exit points of the sand quarry/depot sites and a Loading Register may be made available during inspection. An Inspection Register and a Complaint Register may be made available at the sand quarry/depot site.

- The functioning time of quarries/depots shall be from 7.00 AM to 6.00 PM. No sand transporting vehicles to be parked inside the quarry/depot site during night time.

- A copy of the approved mining plan may be kept at the quarry site for ready reference.

- Photographs and sketch showing the pit dimensions, depth etc. may be recorded every week and maintained in the sand quarry. The Executive Engineer, PWD may inspect each sand quarry on a weekly basis and ensure that mining activities are taking place within the approved boundaries/depth.

- The sand quarrying activity shall be stopped if the entire quantity is quarried even before the expiry of the sand quarry lease period and the same shall be mentioned by the PWD authorities.

- The Taluk Level Taskforce shall inspect the quarries every fortnight, as per G.O. (Ms) No. 135 of Industries Department, dated 13.11.2009 and record the status of the compliance in the registers maintained at the sand quarry site.

- The Taluk Level Task Force has to submit its inspection report to the District Level Task Force chaired by the District Collector. The District Level Task Force has to be convened every month to discuss cases of illegal quarrying. An Environmentalist from reputed State / Central Institution and a legal expert on environmental matters may be part of the District Level Task Force. The District Level Task Force shall also dispose of the petitions on illegal sand quarrying after due enquiry and scrutiny, and pass orders within a period of two months from the date of receipt of the complaint. If any person is aggrieved with the orders passed by the District Level Task Force, an appeal may be preferred before the Appellate Forum.

- The District Collector shall take necessary steps to strengthen the existing District and Taluk Level Committees and act on the complaints received, if any, on illegal sand quarrying and take strict remedial measures to rectify the same in a time-bound manner. The District Level Task Force may send its monthly report to the Appellate Forum formed as per G.O. (Ms) No. 27 of Industries Dept. dated 17.02.2015.

- The Appellate Forum shall hear the appeals filed against the orders passed by the District Level Task Force. The Appellate Forum comprises

of the Secretaries to Government from Industries Department, Public Works Department, Revenue Department, Environment and Forests Department, Commissioner of Geology and Mining and an Expert from a reputed Government Institution.

- The Appellate Forum may convene once in 2 months to deliberate on the reports from the District Level Task Force and shall dispose of the appeals made by the petitioners aggrieved with the orders passed by the District Level Task Force.

- Periodical Capacity building and sensitization of PWD officials on the environmental and legal aspects of sand quarrying may be made mandatory. Continuous training and awareness programs shall be scheduled and conducted by IIT/Anna University for the PWD staff to keep themselves aware of the best practices in this field. It may be ensured that the enforcement officials from the Departments of Revenue, Police, Geology and Mining and Transport in the districts where quarries are situated are given adequate training and capacity building on their duties and responsibilities with respect to inspection of sand quarries and sand transporting vehicles at specified time intervals.

- No blasting shall be carried out any point in time.

- It is the obligation of the Public Works Department to run the quarry in an environmentally friendly and ecologically sustainable manner.

- The Hon'ble High Court-appointed Monitoring Committee shall inspect the sand quarries periodically and submit a report to the Hon'ble High Court.

- The PWD should explore/take necessary steps to introduce Mining Surveillance System (MSS) in line with MSS evolved by the Indian Bureau of Mines and Bhaskaracharya Institute for Space Applications and Geo-informatics (BISAG).

III. STEPS TO BE FOLLOWED AFTER EXECUTION:

- A Judicious mine closure plan may be formulated once the quarry is closed after exhaustion of the quantity of sand.

- Reclamation works may be factored into the contract agreement and strict monitoring by the PWD officials may be initiated to scrupulously follow up the mine closure plan.

- It may be ensured that the total quantity of sand permitted in the EC shall not be exceeded in any case.

- After the exhaustion of the quantity of sand, the sheds constructed at the quarry site may be removed. All the roads and pathways may be levelled so that there is no obstruction for the normal flow in the river.

- All the records/registers may be carefully maintained by the PWD for future reference.

THIRU.DEEPAK S. BILGI, I.F.S.
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY-TAMILNADU
3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet,
Chennai - 600 015.
Phone No. 044-24359973
Fax No. 044-24359975

Extension -Environmental Clearance

Lr. No.SEIAA-TN/F.No.5093/EC/1(a)/ 3524/2016/Extn/2022/ Dated: 01.02.2023

To

The Executive Engineer
Public Works Department
Mines and Monitoring Division
Tiruchirappalli

Sir/Madam,

Sub: SEIAA, Tamil Nadu – Extension of Validity in Environmental Clearance for the existing Sand Quarry lease over an Extent of 16.18.0 Ha in S.F.Nos. 643/1(Part) in Oruvandhoor Village, Namakkal Taluk, Namakkal District, Tamil Nadu by M/s. The Executive Engineer, PWD/WRD – issue of Extension of validity in Environmental Clearance – Regarding.

Ref:
1. Earlier EC issued by SEIAA-TN vide Lr. No.SEIAA-TN/F.No. 5093/EC/1(a)/3524/2016, dated: 10.08.2016.
2. Amendment issued by SEIAA-TN vide Lr. No. SEIAA-TN/F.No.5093/EC/1(a)/3524(A)/2016, dated: 09.10.2017
3. Online Proposal No. SIA/TN/MIN/28664/2017, dated: 09.08.2018.
4. Proponent application for EC Extension dated: 09.08.2018.
5. Minutes of the 284th meeting of SEAC held on 10.06.2022.
6. Proponent reply dated: 30.12.2022
7. Minutes of the 343rd meeting of SEAC held on 05.01.2023.
8. Minutes of the 588th meeting of SEIAA held on 01.02.2023.

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SEIAA-TN

In the reference 1st cited above, the Environmental Clearance was accorded to M/s. The Executive Engineer, PWD/WRD for the existing Sand Quarry lease over an Extent of 16.18.0 Ha in S.F.Nos. 643/1(Part) in Oruvandhoor Village, Namakkal Taluk, Namakkal District, Tamil Nadu for the production of 198906cu.m of Shoals & 161800cu.m of Sand in Cauvery River, depth of mining 1m from River for the period of Two Years.

The project proponent has submitted form-6 (Application for extension of validity of Environmental Clearance) seeking EC Extension through online and offline vide reference 3rd & 4th cited.

SEAC Remarks:

Existing sand quarry lease over an extent of 16.18.0 Ha in S.F.Nos. 643/1(P), Oruvanthoor Village, Namakkal Taluk, Namakkal District, Tamil Nadu by the Executive Engineer - For Extension Environmental Clearance issued.
(SIA/TN/MIN/28664/2018)

Earlier, this proposal was placed in this 284th Meeting of SEAC held on 10.06.2022. The project proponent gave a detailed presentation. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Proponent, The Executive Engineer has obtained Environmental Clearance for the Proposed Sand quarry lease over an extent of **16.18.0** Ha in S.F.Nos. **643/1(P)Oruvanthoor Village, Namakkal Taluk, Namakkal District**, Tamil Nadu vide SEIAA-TN/F.No.5093/EC/1(a)/3524/2016 Dt. 10.08.2016 with valid up to 2 years from the date of execution of mining lease.
2. The project/activity is covered under Category "B" of item 1 (a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. It is proposed to quarry 1,98,906 cu.m of sand shoals and 1,61,800 cu.m of sand, overall – 3,60,706 Cu.m.
4. Now the PP has applied online through Parivesh portal vide Proposal No. SIA/TN/MIN/28664/2017 dated: **09.08.2018** for the extension of validity of Environmental Clearance issued when the lease and EC are subsisting.
5. The PP had cited the reasons of Public litigation case (WP. No 22433/2017) came to an end

MEMBER SECRETARY
SEIAA-TN

and court has given final verdict on 06.07.2018 to commence the quarry operation under the supervision of a 'Four member monitoring committee' under the head of Project Director (Sand quarry operation).

6. Further, as per Rc. No. 1198/Mines/2015 Dated: 23.05.2022, District collector has stated that "*If the Environmental Clearance may be obtained from the State level Environment Impact Assessment Authority (SEIAA) by the Executive Engineer WRD, Mining and Monitoring Division, Trichy for the above said Oruvandhur sand quarry, it may be considered as per the existing rules in force*". regarding request for extension of Lease period for quarrying remaining quantity of sand.
7. The SEAC observed that the lease was executed on 12.03.2017.
8. The PP also furnished the AD Geology & Mines vide Rc.No.1198/Mines/2015 Dt: 22.04.2022 and stated that

Sl.No	Particulars	Remarks
1.	Duration of operation	16.06.2017, 17.06.2017, 29.06.2017, 01.11.2017 to 04.11.2017 and 06.11.2017
2.	No of Days	8 days
3.	Qty of sand quarried out	3,514.86 Cu.m
4.	Qty of sand to be quarried out	3,57,191 Cu.m

Based on the presentation & documents furnished by the PP, SEAC noted that "as per the original mining plan the period of mining is restricted to two years and as per the modified mining plan (page 7), the remaining lease period is 1 year 1 month, hence the validity expired on 20.8.2018. SEAC, therefore, decided to obtain the following details from the PP.

1. The PP shall furnish revised/modified mining plan approved from competent Authority.

Now, the PP has furnished District Collector Lr No. Rc.No. 1198/Mines/2015 Dt. 18.12.2022 and it has stated that " *Considering the exclusiveness of Rule 38(A) of the Tamil Nadu Minor Mineral Concession Rules 1959, conferring the right to exploit sand in the State shall vest with the State Government and the Govt. Department Public works Department, WRO Mining & Monitoring Division are requesting for extension of the*

MEMBER SECRETARY
SEIAA-TN

permission period, which was lapsed beyond their control, sanction is hereby accorded for the revival of the lapse period of I year and 4 months from 07.11,.2017 to 11.03.2019 and extended it from the date of resumption of quarrying work in the S.F.No.643/1(P) over an extent of 16.18.0 Ha (Cauvery River) in Oruvandhur Village, Mohanur Taluk of Namatkal district subject to the following conditions" ....

1. As per the Rule 41 of Tamil Nadu Minor Mineral Concession Rules 1959, a revised and Modified Mining plan for quarrying and removal of 3,57,191.14cbm of sand in a period of 1 year and 4 months.
2. As per the Rule 42 of Tamil Nadu Minor Mineral Concession Rules 1959, necessary Environmental Clearance from SEIAA Chennai has to be submitted.
3. Prior to start quarrying activities the consent of TNPCB on Air and Water (prevention) of pollution has to be submitted.
4. As per the orders of the Honble High Court of Madrai dated O6.O7.2O1a in W.P.No.22433 of 2Ol7 all the sand quarrying operations in the subject area to be oversee by a Committee it was already constituted by the Hon'ble High Court of Madras.

During the meeting, the proponent stated that he had requested for an automatic extension as per the MoEF&CC notification dated 12.04.2022 and O.M dated 13.12.2022 and hence requested for the same.

SEAC noted that as per OM Dated 13.12.2022, Clarification on the amendment to EIA Notification 2006 issued vide S.O. No. 1807(E) dated 12.04.2022 with regard to validity of Environment Clearance, para 2 (ii) states that...

"The Environment Clearances for which the project proponents have submitted the application for extension of validity as per the provisions of the EIA Notification 2006 as on the date of publication of Notification i.e., 12.04.2022 shall stand automatically extended to respective increased validity as mentioned at Para no. 1 column (C) above."

Based on the presentation made by the proponent, the SEAC decided to confirm that the proposal is eligible for 'automatically extension to the respective increased validity' as per the aforementioned OM issued by the MoEF & CC.

SEIAA Remarks:

The proposal was placed in the 588th Authority meeting held on 01.02.2023. The authority noted that the subject was appraised in 343rd meeting of SEAC held on 05.01.2023.

MEMBER SECRETARY
SEIAA-TN

Sl.No	Particulars	Remarks
1.	Duration of operation	16.06.2017, 17.06.2017, 29.06.2017, 01.11.2017 to 04.11.2017 and 06.11.2017
2.	No of Days	8 days
3.	Qty of sand quarried out	3,514.86 Cu.m
4.	Qty of sand to be quarried out	3,57,191 Cu.m

During the meeting, the proponent stated that he had requested for an automatic extension as per the MoEF&CC notification dated 12.04.2022 and O.M dated 13.12.2022 and hence requested for the same.

SEAC noted that as per OM Dated 13.12.2022, Clarification on the amendment to EIA Notification 2006 issued vide S.O. No. 1807(E) dated 12.04.2022 with regard to validity of Environment Clearance, para 2 (ii) states that…

"*The Environment Clearances for which the project proponents have submitted the application for extension of validity as per the provisions of the EIA Notification 2006 as on the date of publication of Notification i.e., 12.04.2022 shall stand automatically extended to respective increased validity as mentioned at Para no. 1 column (C) above.*"

Based on the presentation made by the proponent, the SEAC decided to confirm that the proposal is eligible for 'automatically extension to the respective increased validity' as per the aforementioned OM issued by the MoEF & CC.

After detailed deliberations, SEIAA decided to grant extension of Environmental Clearance already issued, for the balance quantity of **3,57,191m^3 of Sand for the period of 1 year and 4 months from the date of execution,** subject to the following conditions.

1. 1. The conditions imposed in EC vide Lr. No. SEIAA-TN/F.No.5093/EC/1(a)/3524/2016 Dated: 10.08.2016 remains unchanged and unaltered.

MEMBER SECRETARY
SEIAA-TN

Copy to:

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Additional Chief Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Principal Secretary to Government, Public Works Department, Tamil Nadu.
4. The Additional Chief Secretary to Government, Industries Department, Tamil Nadu.
5. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai – 34.
6. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
7. The Chairman, TNPC Board, 76, Mount Salai, Guindy, Chennai-32.
8. The Member Secretary, Central Ground Water Authority, A2, W-3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
9. The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur- 440 001.
10. The District Collector, Namakkal District.
11. The Commissioner of Geology and Mines, Guindy, Chennai-32.
12. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
13. File Copy.

TAMILNADU POLLUTION CONTROL BOARD

Category of the Industry :

ORANG
E

LiFE
Lifestyle for Environment

CONSENT ORDER NO. 2305251195928 DATED: 03/04/2023.

PROCEEDINGS NO.F.1842NML/OS/DEE/TNPCB/NML/A/2023 DATED: 03/04/2023

SUB: Tamil Nadu Pollution Control Board –CONSENT TO OPERATE –DIRECT -M/s. ORUVANTHUR SAND QUARRY , S.F.No. 643/1 Part, ORUVANTHUR villageMohanur Taluk and Namakkal District - Consent for operation of the plant and discharge of emissions under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) –Issued- Reg.

Ref: 1. Unit's Application No: 51195928 for Consent to operate resubmitted on: 01.04.2023.
2. IR.No : F.1842NML/OS/AEE/NML/2023 dated 03/04/2023
3. Minutes of the 212th DLCCC meeting held on 03.04.2023 (Item No: 212-01)

CONSENT TO OPERATE is hereby granted under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) (hereinafter referred to as "The Act") and the rules and orders made there under to

The Executive Engineer,
M/s . ORUVANTHUR SAND QUARRY
S.F No.643/1 Part,
ORUVANTHUR Village,
Mohanur Taluk,
Namakkal District.

Authorizing the occupier to operate the industrial plant in the Air Pollution Control Area as notified by the Government and to make discharge of emission from the stacks/chimneys.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

This CONSENT is valid for the period ending March 31, 2024

3/4/23

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
NAMAKKAL

To
The Executive Engineer,
M/s.ORUVANTHUR SAND QUARRY,
O/o. Executive Engineer,
WRD, Mining and Monitoring Division,
Trichy.,
Pin: 620020

3/4/2023

Copy to:

1.The Commissioner, MOHANUR-Panchayat Union, Mohanur Taluk, Namakkal District .

2. Copy submitted to the Member Secretary, Tamil Nadu Pollution Control Board, Chennai for favour of kind information.

3. The District Environmental Engineer, Tamil Nadu Pollution Control Board, NAMAKKAL for favour of kind information.

4. File

TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. This consent to operate is valid for operating the facility for the manufacture of products (Col. 2) at the rate (Col. 3) mentioned below. Any change in the products and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Sl. No.	Description	Quantity	Unit
	Product Details		
1.	Sand Quarrying over an extent of 16.18.0 Ha (a). 11° 1' 18" N 78° 9' 52"E, b). 11° 1' 13" N 78° 9' 40" E, c). 11° 1' 26" N 78° 9' 33" E, d). 11° 1' 31" N 78° 9' 42" E)	357191	Cubic Meter/1 year 4 Months

2. This consent to operate is valid for operating the facility with the below mentioned emission/noise sources along with the control measures and/or stack. Any change in the emission source/control measures/change in stack height has to be brought to the notice of the Board and fresh consent/Amendment has to be obtained.

I	**Point source emission with stack :**			
Stack No.	**Point Emission Source**	**Air pollution Control measures**	**Stack height from Ground Level in m**	**Gaseous Discharge in Nm3/hr**
II	**Fugitive/Noise emission :**			
Sl. No.	**Fugitive or Noise Emission sources**	**Type of emission**	**Control measures**	
1.	Vehicle Movement	Fugitive	Water Spray	

3(a). The emission shall not contain constituents in excess of the tolerance limits as laid down hereunder :

Sl.	Parameter	Unit	Tolerance limits	Stacks

Annexure enclosed if applicable. :-

3.(b) The Ambient Air in the industrial plant area shall not contain constituents in excess of the tolerance limits prescribed below.

Sl. No.	Pollutant	Time Weighted Average	Unit	Tolerance Limits	
				Industrial, Residential, Rural and other area	Ecologically Sensitive Area (notified by Central Govt.)
1.	Sulphur Dioxide (SO2)	Annual 24 hours	microgram/m3 microgram/m3	50 80	20 80
2.	Nitrogen Dioxide (NO2)	Annual 24 hours	microgram/m3 microgram/m3	40 80	30 80
3.	Particulate Matter (Size Less than 10 micro M) or PM10	Annual 24 hours	microgram/m3 microgram/m3	60 100	60 100
4.	Particulate Matter (Size Less than 2.5 micro M) or PM2.5	Annual 24 hours	microgram/m3 microgram/m3	40 60	40 60
5.	Ozone (O3)	Annual 24 hours	8 Hours 1 Hour	100 180	100 180

Sl. No.	Pollutant	Time Weighted Average	Unit	Tolerance Limits	
				Industrial, Residential, Rural and other area	Ecologically Sensitive Area (notified by Central Govt.)
6.	Lead (Pb)	Annual 24 hours	microgram/m3 microgram/m3	0.5 1.0	0.5 1.0
7.	Carbon Monoxide (CO)	8 Hours 1 Hour	miligram/m3 miligram/m3	02 04	02 04
8.	Ammonia (NH3)	Annual 24 hours	microgram/m3 microgram/m3	100 400	100 400
9.	Benzene (C6H6)	Annual	microgram/m3	5	5
10.	Benzo(O) Pyrene (BaP) –particulate phase only	Annual	nanogram/m3	01	01
11.	Arsenic (As)	Annual	nanogram/m3	06	06
12.	Nickel (Ni)	Annual	nanogram/m3	20	20

3(c) The Ambient Noise Level in the industrial plant area shall not exceed the limits prescribed below:

Limits in L.eq.-dB(A)	Day Time	Night Time
ResidentialArea	55	45

4. All units of the Air pollution control measures shall be operated efficiently and continuously so as to achieve the standards prescribed in Sl. No.3 above.
5. The occupier shall not change or alter quality or quantity or the rate of emission or replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in change in quality and/or quantity of emissions without the previous written permission of the Board.
6. The occupier shall maintain log book regarding the stack monitoring system or operation of the plant or any other particulars for each of the unit operations of air pollution control systems to reflect the working condition which shall be furnished for verification of the Board officials during inspection.
7. The occupier shall at his own cost get the samples of emission/air/noise levels collected and analyzed by the TNPC Board Laboratory once in every 6 months/once in a year/periodically for the parameters as prescribed.
8. Any upset condition in any of the plants of the factory which is likely to result in increased emissions and result in violation of the standards mentioned in Sl.No.3 shall be reported to the Member Secretary / Joint Chief Environmental Engineer-Monitoring and the concerned District/Assistant Environmental Engineer of the Board by e-mail immediately and subsequently by Post with full details of such upset condition.
9. The occupier shall always comply and carryout the order/directions issued by the Board in this Consent Order and from time to time without any negligence. The occupier shall be liable for action as per provisions of the Act in case of non compliance of any order/directions issued.

Special Additional Conditions:

i. The unit shall install the approved retrofit emission control device/equipment with at least 70% Particulate matter reduction efficiency on all DG sets with capacity of 125 KVA and above or otherwise the unit shall be shift to gas based generators within the time frame prescribed in the notification No. TNPCB/Labs/DD(L)02151/2019 dated 10.06.2020 issued by TNPCB.

ii. The unit shall obtain No Objection Certificate (NOC) from the Tamil Nadu Bio Diversity Board /National Bio Diversity Authority if the unit is using any Biological resources or knowledge associated thereto as per the provisions of Biological Diversity Act 2002.

Additional Conditions:

TAMILNADU POLLUTION CONTROL BOARD

1. The unit shall adhere to Ambient Noise level/Ambient Air Quality standards prescribed by the Board.
2. The unit authority shall apply to extend the consent validity immediately after obtaining the mining lease execution for the further period to match the validity (1 year and 4 months after date of execution) as per the Extension environmental clearance dated 01.02.2023.
3. It shall be ensured that the quarrying operation shall be carried out only between 7 a.m and 5 p.m.
4. It shall be ensure that quarrying is not carried out within 500m of structures, bridges, dams, weirs, groundwater extraction points, water supply head works, extraction points for irrigation and any other cross drainage structures.
5. No change in mining technology and scope of working should be made without approval of SEIAA, Chennai.
6. The boundaries of the mining pit shall be recorded in GPS Co-ordinates and shall carry out the mining activity in the permitted area only.
7. The proponent shall carry out the quarrying operation in S.F.No.643/1part, Oruvandur Village, Mohanur Taluk, Namakkal District and within the latitude and longitude of (a). 11° 1' 18" N 78° 9' 52"E, b). 11° 1' 13" N 78° 9' 40" E, c). 11° 1' 26" N 78° 9' 33" E, d). 11° 1' 31" N 78° 9' 42" E) as mentioned in the Environmental Clearance Lr.No.SEIAA-TN/F.No.5093/EC/1(a) /3524/2016 dated 10.08.2016.
8. The volume of the sand excavated shall be recorded and monitored by the Applicant and ensure that the quantity shall not exceed the permitted quantity of mining.
9. The quarrying activity shall be carried out in strict accordance with the orders of the Government of Tamil Nadu and as per the orders of the Hon'ble High Court of Madras.
10. The quarrying activity shall be carried out in strict accordance with the orders of the Government of Tamil Nadu and as per the orders of the Hon'ble High Court of Madras and shall comply with all the directions in the W.P No 22433 of 2017 issued time to time.
11. The unit shall control the emissions due to vehicular movement through Water Sprinkling arrangements.
12. The unit shall ensure that the transportation of sand shall be carried out through the covered trucks to arrest erosion by winds.
13. In addition to the above conditions, the unit should comply with the terms and Conditions given by SEIAA vide Lr.No:SEIAA-TN/F.No. 5093/EC/1(a)/3524/2016 dated: 10.08.2016, Amendment Environmental Clearance Lr.No:SEIAA-TN/F.No.5093/EC/1(a)/ 3524(A)/2016-1 dated: 09.10.2017 and Extension Environmental Clearance SEIAA vide Lr.No.:SEIAA-TN/F.No.5093 /EC/1(a)/3524/ 2016/Extn/2022 dated: 01.02.2023.
14. The Water Resources Department authorities shall ensure to maintain the sand quarry area boundary demarcated with Reinforced Cement Concrete post with red flags in the latitude and longitude co-ordinates mentioned in the Environmental Clearance.
15. The Water Resources Department authorities shall ensure the mining area and the sand quantity should not exceed the quantities specified in the Environmental Clearance and TNPCB consent.

3/4/23

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
NAMAKKAL

3/4/2023

GENERAL CONDITIONS

1. The occupier shall make an application along with the prescribed consent fee for grant of renewal of consent at least 60 days before the date of expiry of this Consent Order along with all the required particulars ensuring that there is no change in production quantity and emission.
2. This Consent is given by the Board in consideration of the particulars given in the application. Any change or alteration or deviation made in actual practice from the particulars furnished, in the application will also be ground for review/variation/revocation of the Consent Order under Section 21 of the Act.
3. The conditions imposed shall continue in force until revoked under Section 21 of the Act.
4. After the issue of this order, all the 'Consent to Operate' orders issued previously under Air (Prevention and Control of Pollution) Act, 1981 as amended stands defunct.
5. The occupier shall maintain an Inspection Register in the factory so that the inspecting officer shall record the details of the observations and instructions issued to the unit at the time of inspection for adherence.
6. The occupier shall provide and maintain an alternate power supply along with separate energy meter for the Air Pollution Control measures sufficient to ensure continuous operation of all pollution control equipments to ensure compliance.
7. The occupier shall provide all facilities to the Board officials for collection of samples in and around the factory at any time.
8. The applicant shall display the flow diagram of the sources of emission and pollution control systems provided at the site.
9. The liquid effluent arising out of the operation of the air pollution control equipment shall also be treated in a manner and to the satisfaction of standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 as amended.
10. The air pollution control equipments, location of inspection chambers and sampling port holes shall be made easily accessible at all time.
11. In case of any episodal discharge of emission, the industry shall take immediate action to bring down the emission within the limits prescribed by the Board.
12. If applicable, the occupier has to comply with the provisions of Public Liability Insurance Act, 1991 to provide immediate relief in the event of any hazard to human beings, other living creatures/plants and properties while handling and storage of hazardous substances.
13. The issuance of this consent does not authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any natural watercourse or in Government Poromboke lands.
14. The issuance of this Consent does not convey any property right in either real personal property or any exclusive privileges, nor does it authorize any injury to private property or Government property or any invasion of personal rights nor any infringement of Central, State laws or regulation.
15. The occupier shall forth with keep the Board informed of any accident of unforeseen act or event of any poisonous, noxious or polluting matter or emissions are being discharged into stream or well or air as a result of such discharge, water or air is being polluted.
16. If due to any technological improvements or otherwise the Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any treatment system, either in whole or in part) the Board shall, after giving the applicant an opportunity of being heard, vary all or any of such conditions and thereupon the applicant shall be bound to comply with the conditions as so varied.
17. In case there is any change in the constitution of the management, the occupier of the new management shall file fresh application under Air (Prevention and Control of Pollution) Act, 1981, as amended in Form-I alongwith relevant documents of change of management immediately and get the necessary amendment with renewal of consent order.
18. In case there is any change in the name of the company alone, the occupier shall inform the same with relevant documents immediately and get the necessary amendments for the change of name from the Board.

19. The occupier shall display this consent order granted to him in a prominent place for perusal of the inspecting Officers of this Board.

3/4/23

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
NAMAKKAL

3/4/2023

TAMILNADU POLLUTION CONTROL BOARD

Category of the Industry :

ORANGE

CONSENT ORDER NO. 2305151195928 DATED: 03/04/2023.

PROCEEDINGS NO.F.1842NML/OS/DEE/TNPCB/NML/W/2023 DATED: 03/04/2023

SUB: Tamil Nadu Pollution Control Board –CONSENT TO OPERATE – DIRECT -M/s. ORUVANTHUR SAND QUARRY , S.F.No. 643/1 Part, ORUVANTHUR villageMohanur Taluk and Namakkal District - Consent for the operation of the plant and discharge of sewage and/or trade effluent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act 6 of 1974) – Issued- Reg.

Ref: 1. Unit's Application No: 51195928 for Consent to operate resubmitted on: 01.04.2023.
2. IR.No : F.1842NML/OS/AEE/NML/2023 dated 03/04/2023
3. Minutes of the 212th DLCCC meeting held on 03.04.2023 (Item No: 212-01)

CONSENT TO OPERATE is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act, 6 of 1974) (hereinafter referred to as "The Act") and the rules and orders made there under to

The Executive Engineer,
M/s . ORUVANTHUR SAND QUARRY
S.F No.643/1 Part,
ORUVANTHUR Village,
Mohanur Taluk,
Namakkal District.

Authorising the occupier to make discharge of sewage and /or trade effluent.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

This CONSENT is valid for the period ending March 31, 2024

3/4/23

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
NAMAKKAL

To
The Executive Engineer,
M/s.ORUVANTHUR SAND QUARRY,
O/o. Executive Engineer,
WRD, Mining and Monitoring Division,
Trichy.,
Pin: 620020

3/4/2023

Copy to:

1.The Commissioner, MOHANUR-Panchayat Union, Mohanur Taluk, Namakkal District .

2. Copy submitted to the Member Secretary, Tamil Nadu Pollution Control Board, Chennai for favour of kind information.

3. The District Environmental Engineer, Tamil Nadu Pollution Control Board, NAMAKKAL for favour of kind information.

4. File

TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. This consent to operate is valid for operating the facility for the manufacture of products (Col. 2) at the rate (Col. 3) mentioned below. Any change in the products and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Sl. No.	Description	Quantity	Unit
	Product Details		
1.	Sand Quarrying over an extent of 16.18.0 Ha (a). 11° 1' 18" N 78° 9' 52"E, b). 11° 1' 13" N 78° 9' 40" E, c). 11° 1' 26" N 78° 9' 33" E, d). 11° 1' 31" N 78° 9' 42" E)	357191	Cubic Meter/1 year 4 Months

2. This consent to operate is valid for operating the facility with the below mentioned permitted outlets for the discharge of sewage/trade effluent. Any change in the outlets and the quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Outlet No.	Description of Outlet	Maximum daily discharge in KLD	Point of disposal
Effluent Type : Sewage			
1.	Sewage	0.8	On Industrys own land
Effluent Type : Trade Effluent			

3. The effluent discharge shall not contain constituents in excess of the tolerance Limits as laid down hereunder.

Sl. No.	Parameters	Unit	TOLERANCE LIMITS - OUTLETS -Nos				
			Sewage		Trade Effluent		
			1				
1.	pH		5.5 to 9				
2.	Temperature	oC	-				
3.	Particle size of Suspended solids	-	-				
4.	Total Suspended Solids	mg/l	30				
5.	Total Dissolved solids (inorganic)	mg/l	-				
6.	Oil & Grease	mg/l	-				
7.	Biochemical Oxygen Demand (3 days at 27oC)	mg/l	20				
8.	Chemical Oxygen Demand	mg/l	-				
9.	Chloride (as Cl)	mg/l	-				
10.	Sulphates (as SO4)	mg/l	-				
11.	Total Residual Chlorine	mg/l	-				
12.	Ammonical Nitrogen (as N)	mg/l	-				
13.	Total Kjeldahl Nitrogen (as N)	mg/l	-				
14.	Free Ammonia (as NH3)	mg/l	-				
15.	Arsenic (as As)	mg/l	-				
16.	Mercury (as Hg)	mg/l	-				
17.	Lead (as Pb)	mg/l	-				
18.	Cadmium(as Cd)	mg/l	-				
19.	Hexavalent Chromium (as Cr+6)	mg/l	-				
20.	Total Chromium (as Cr)	mg/l	-				
21.	Copper (as Cu)	mg/l	-				
22.	Zinc (as Zn)	mg/l	-				
23.	Selenium (as Se)	mg/l	-				
24.	Nickel (as Ni)	mg/l	-				
25.	Boron (as B)	mg/l	-				
26.	Percent Sodium	%	-				
27.	Residual Sodium Carbonate	mg/l	-				
28.	Cyanide (as CN)	mg/l	-				
29.	Fluoride (as F)	mg/l	-				
30.	Dissolved Phosphates(as P)	mg/l	-				
31.	Sulphide (as S)	mg/l	-				
32.	Pesticides	mg/l	-				
33.	Phenolic Compounds (as C6H5OH)	mg/l	-				
34.	Radioactive materials a) Alpha emitters	micro curie/ml	-				
35.	Radioactive materials b). Beta emitters	micro curie/ml	-				
36.	Fecal Coliform	MPN/100ml	-				

4. All units of the sewage and Trade effluent treatment plants shall be operated efficiently and continuously so as to achieve the standards prescribed in Sl No.3 above or to achieve the zero liquid discharge of effluent as applicable.

5. The occupier shall maintain the Electro Magnetic Flow Meters/water Meters installed at the inlet of the water supply connection for each of the purposes mentioned below for assessing the quantity of water used and ensuring that such meters are easily accessible for inspection and maintenance and for other purposes of the Act.
   a. Industrial Cooling, Spraying in mine pits or boiler feed.
   b. Domestic purpose.
   c. Process.
6. The occupier shall maintain the Electro Magnetic Flow Meters with computer recording arrangement for measuring the quantity of effluent generated and treated for the monitoring purposes of the Act.
7. Log book for each of the unit operations of ETP have to be maintained to reflect the working condition of ETP along with the readings of the Electro Magnetic Flow Meters installed to assess effluent quantity and the same shall be furnished for verification of the Board officials during inspection.
8. The occupier shall at his own cost get the samples of effluent/surface water/ground water collected in and around the unit by Board officials and analyzed by the TNPC Board Laboratory periodically.
9. Any upset condition in any of the plants of the factory which is, likely to result in increased effluent discharge and result in violation of the standards mentioned in Sl. No.3 above shall be reported to the Member Secretary / Joint Chief Environmental Engineer-Monitoring and the concerned District/Assistant Environmental Engineer of the Board by e-mail immediately and subsequently by Post with full details of such upset condition.
10. The occupier shall always comply and carryout the order/directions issued by the Board in this Consent Order and from time to time without any negligence. The occupier shall be liable for action as per provisions of the Act in case of non compliance of any order/directions issued.
11. The occupier shall develop adequate width of green belt at the rate of 400 numbers of trees per Hectare.
12. The occupier shall provide and maintain rain water harvesting facilities.
13. The occupier shall ensure that there shall not be any discharge of effluent either treated or untreated into storm water drain at any point of time.
14. In the case of zero liquid discharge of effluent units, the occupier shall adhere the following conditions as laid under.
    i). The occupier shall ensure zero liquid discharge of effluent, thereby no discharge of untreated / treated effluent on land or into any water bodies either inside or outside the premises at any point of time.
    ii) The occupier shall operate and maintain the Zero liquid discharge treatment components comprising of Primary, Secondary and tertiary treatment systems at all times and ensure that the RO permeate/Evaporator condensate shall be recycled in the process and the final RO reject shall be disposed off with the reject management system ensuring zero liquid discharge of effluents in the premises.
    iii) The occupier shall operate and maintain the reject management system effectively and recover the salt from the system which shall be reused in the process if reusable or shall be disposed off as ETP sludge.
    iv) In case of failure to achieve zero discharge of effluents for any reason, the occupier shall stop its production and operations forthwith and shall be reported to the Member Secretary/Joint Chief Environmental Engineer-Monitoring and the concerned District/Assistant Environmental Engineer of the Board by e-mail immediately and subsequently by Post with full details of such upset condition.
    v) The occupier shall restart the production only after ascertaining that the Zero discharge treatment system can perform effectively for achieving zero discharge of effluents.

Special Additional Conditions:

The unit shall obtain No Objection Certificate (NOC) from the Tamil Nadu Bio Diversity Board /National Bio Diversity Authority if the unit is using any Biological resources or knowledge associated thereto as per the provisions of Biological Diversity Act 2002.

Additional Conditions:

1. The unit shall treat and dispose the sewage through temporary toilet facilities with Septic tank and soak pit arrangements.
2. The unit authority shall apply to extend the consent validity immediately after obtaining the mining lease execution for the further period to match the validity (1 year and 4 months after date of execution) as per the Extension environmental clearance dated 01.02.2023.
3. It shall be ensured that the quarrying operation shall be carried out only between 7 a.m and 5 p.m.
4. It shall be ensure that quarrying is not carried out within 500m of structures, bridges, dams, weirs, groundwater extraction points, water supply head works, extraction points for irrigation and any other cross drainage structures.
5. No change in mining technology and scope of working should be made without approval of SEIAA, Chennai.
6. The boundaries of the mining pit shall be recorded in GPS Co-ordinates and shall carry out the mining activity in the permitted area only.
7. The proponent shall carry out the quarrying operation in S.F.No.643/1part, Oruvandur Village, Mohanur Taluk, Namakkal District and within the latitude and longitude of (a). 11° 1' 18" N 78° 9' 52"E, b). 11° 1' 13" N 78° 9' 40" E, c). 11° 1' 26" N 78° 9' 33" E, d). 11° 1' 31" N 78° 9' 42" E) as mentioned in the Environmental Clearance Lr.No.SEIAA-TN/F.No.5093/EC/1(a) /3524/2016 dated 10.08.2016.
8. The volume of the sand excavated shall be recorded and monitored by the Applicant and ensure that the quantity shall not exceed the permitted quantity of mining.
9. The quarrying activity shall be carried out in strict accordance with the orders of the Government of Tamil Nadu and as per the orders of the Hon'ble High Court of Madras.
10. The quarrying activity shall be carried out in strict accordance with the orders of the Government of Tamil Nadu and as per the orders of the Hon'ble High Court of Madras and shall comply with all the directions in the W.P No 22433 of 2017 issued time to time.
11. The unit shall ensure that the transportation of sand shall be carried out through the covered trucks to arrest erosion by winds.
12. In addition to the above conditions, the unit should comply with the terms and Conditions given by SEIAA vide Lr.No:SEIAA-TN/F.No.5093/EC/1(a)/3524/2016 dated: 10.08.2016, Amendment Environmental Clearance Lr.No:SEIAA-TN/F.No.5093/EC/1(a)/3524(A)/2016-1 dated: 09.10.2017 and Extension Environmental Clearance SEIAA vide Lr.No.:SEIAA-TN/F.No.5093 /EC/1(a)/3524/2016/Extn/2022 dated: 01.02.2023.
13. The Water Resources Department authorities shall ensure to maintain the sand quarry area boundary demarcated with Reinforced Cement Concrete post with red flags in the latitude and longitude co-ordinates mentioned in the Environmental Clearance.
14. The Water Resources Department authorities shall ensure the mining area and the sand quantity should not exceed the quantities specified in the Environmental Clearance and TNPCB consent.

3/4/23

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
NAMAKKAL

3/4/2023

TAMILNADU POLLUTION CONTROL BOARD

GENERAL CONDITIONS

1. The occupier shall make an application along with the prescribed consent fee for grant of renewal of consent at least 60 days before the date of expiry of this Consent Order along with all the required particulars ensuring that there is no change in Production quantity and change in sewage/Trade effluent.
2. This Consent is issued by the Board in consideration of the particulars given in the application. Any change or alteration or deviation made in actual practice from the particulars furnished in the application will also be ground for review/variation/revocation of the Consent Order under Section 27 of the Act and to make such variation as deemed fit for the purpose of the Act.
3. The consent conditions imposed in this order shall continue in force until revoked under Section 27(2) of the Act.
4. After the issue of this order, all the 'Consent to Operate' orders issued previously under Water (Prevention and Control of Pollution) Act, 1974 as amended stands defunct.
5. The occupier shall maintain an Inspection Register in the factory so that the inspecting officer shall record the details of the observations and instructions issued to the unit at the time of inspection for adherence.
6. The occupier shall provide and maintain an alternate power supply along with separate energy meter for the Effluent Treatment Plant sufficient to ensure continuous operation of all pollution control equipments to maintain compliance.
7. The occupier shall provide all facilities to the Board officials for inspection and collection of samples in and around the factory at any time.
8. The occupier shall display the flow diagram of the sources of effluent generation and pollution control systems provided at the ETP site.
9. The solid waste such as sweepings, wastage, package, empty containers, residues, sludge including that from air pollution control equipments collected within the premises of the industrial plant shall be collected in an earmarked area and shall be disposed off properly.
10. The occupier shall collect, treat the solid wastes like food waste, green waste generated from the canteen and convert into organic compost.
11. The occupier shall segregate the Hazardous waste from other solid wastes and comply in accordance with Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.
12. The occupier shall maintain good house-keeping within the factory premises.
13. All pipes, valves, sewers and drains shall be leak proof. Floor washings shall be admitted into the trade effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
14. The occupier shall ensure that there shall not be any diversion or by-pass of trade effluent on land or into any water sources.
15. The occupier shall ensure that solar Evaporation pans shall be constructed in such a way that the bottom of the solar pan is at least 1 m above the Ground level (if applicable).
16. The occupier shall furnish the following returns in the prescribed formats to the concerned District office regularly.
    a) Monthly water consumption returns of each of the purposes with water meter readings in Form-I on or before 5th of every month.
    b) Yearly return on Hazardous wastes generated and accumulated for the period from 1st April to 31st March in Form–4 before the end of the subsequent 30th June of every year (if applicable).
    c) Yearly Environmental Statement for the period from 1st April to 31st March in Form –V before the end of the subsequent 30th September of every year(if applicable).
17. If applicable, the occupier has to comply with the provisions of Public Liability Insurance Act, 1991 to provide immediate relief in the event of any hazard to human beings, other living creatures/plants and properties while handling and storage of hazardous substances.
18. The issuance of this consent does not authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any natural watercourse or in Government Poromboke lands.
19. The issuance of this Consent does not convey any property right in either real personal property or any exclusive privileges, nor does it authorize any injury to private property or Government property or any invasion of personal rights nor any infringement of Central, State laws or regulation.

20. The occupier shall forth with keep the Board informed of any accident of unforeseen act or event of any poisonous, noxious or polluting matter or emissions are being discharged into stream or well or air as a result of such discharge, water or air is being polluted.

21. If due to any technological improvements or otherwise the Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any treatment system, either in whole or in part) the Board shall, after giving the applicant an opportunity of being heard, vary all or any of such conditions and thereupon the applicant shall be bound to comply with the conditions as so varied.

22. In case there is any change in the constitution of the management, the occupier of the new management shall file fresh application under Water (Prevention and Control of Pollution) Act, 1974, as amended in Form-II alongwith relevant documents of change of management immediately and get the necessary amendment with renewal of consent order.

23. In case there is any change in the name of the company alone, the occupier shall inform the same with relevant documents immediately and get the necessary amendments for the change of name from the Board.

24. The occupier shall display this consent order granted to him in a prominent place for perusal of the inspecting Officers of this Board.

3/4/23

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
NAMAKKAL

3/4/2023

PROCEEDINGS OF THE DISTRICT COLLECTOR, NAMAKKAL

PRESENT: Tmt. SHREYA P.SINGH, I.A.S.,

Roc.No. 1198 / Mines / 2015 **DATED: 05.05.2023**

Sub: Sand Quarry operations – Lease granted to Sand quarry over an extent 16.18.0 ha. in River Cauvery Poramboke located in S.F. No. 643/1(P), Oruvandhur Village, Mohanur Taluk, Namakkal District, Tamil Nadu – Lease period expired - Proposal seeking Environmental Clearance Extension for the existing sand quarry - to lift the remaining approved quantity of 3,57,191.14cu.m of sand - Request for extension of Lease period for quarrying remaining quantity of sand - Grant Extension of permission for the sand quarry for a period of 1 year and 4 Months - Order issued - Reg.

Ref:

1. The State Level Environmental Impact Assessment Authority, Tamil Nadu letter no. SEIAA-TN/ F. No. 5093/ EC.1(a)/ 3524/ 2016/ dated: 10.08.2016.
2. The District Collector, Namakkal, proceedings RC. No. 1198/ Mines/ 2015 dated: 12.03.2017.
3. The State Level Environmental Impact Assessment Authority, Tamil Nadu letter no. SEIAA-TN/ F. No. 5093/ EC.1(a)/ 3524(A)/ 2016-1/ dated: 09.10.2017.
4. Hon'ble High Court of Madras order dated: 06.11.2017 in WP 22433/2017.
5. Hon'ble High Court of Madras order dated: 06.07.2018 in WP 22433/2017.
6. The Executive Engineer, WRD, Mining and Monitoring Division, Trichy letter no. DB/ JDO.3/ 2018/ dated: 09.08.2018.
7. The Member Secretary, State Level Environmental Impact Assessment Authority, Tamil Nadu Letter No. SEIAA-TN/ F.No. 5093/2017 dated: 31.03.2022.
8. The Executive Engineer, WRD, Mining and Monitoring Division, Trichy letter no. DB/ JDO.3/F.No.23/120-M dated: 20.04.2022.
9. The Assistant Director, Department of Geology and Mining, Namakkal letter no. 1198/mines/2015 dated: 22.04.2022.
10. The Executive Engineer, WRD, Mining and Monitoring Division, Trichy letter no. DB/ JDO.3/F.No.23/ dated: 17.05.2022.

11. This Office letter even no dated: 18.12.2022.

12. The Chairman, State Level Environment Impact Assessment Authority (SEIAA), Tamilnadu, Chennai -18 Lr.No. SEIAA-TN/ F.No.5093 / EC / 1(a) / 3524 / 2016/Extn/2022 dated: 01.02.2023.

13. Tamil Nadu Pollution Control Board, Namakkal Proceeding No.F.1842 NML / OS / DEE / TNPCB / NML / (W & A) / 2023 dated: 03.04.2023.

14. This Office letter even no dated: 21.04.2023.

15. The Tahsildar, Mohanur letter Na.Ka.No. 1989 / 2023 / m-1, Dated: 03.05.2023.

& & & & &

Order:-

In the first reference read above, the State Level Environmental Impact Assessment Authority, Tamil Nadu has granted Environmental clearance for quarrying of River sand to a volume of 3,60,706 cubic meter from Cauvery River bed in Survey field number 643/1 (part) of Oruvandhur Village in Mohanur Taluk of Namakkal District for a period of two years.

In the second reference read above, the District Collector, Namakkal has granted the permission for a period of two years to lift the approved quantity of sand 3,60,706 cubic meter from Oruvandhur Sand Quarry. In this regard, quarrying operation in Oruvandhur Sand quarry has been commenced on 16.06.2017.

S.No.	Approved quantity of Sand (Cu.m)	Quantity of Sand Lifted (cu.m)	Balance Quantity of Sand (Cu.m)
1.	3,60,706	3,514.86	3,57,191.14

In the fourth reference read above, the Hon'ble Madras High Court has passed interim stay towards the operation of Oruvandhur Sand quarry vide writ petition number 22433/2017, filed by Thiru. K. Varadharajan, Mohanur. Thus, the quarry operation had been suspended on 06.11.2017 in the said quarry. Thus the total quantity of Sand lifted from Oruvandhur sand quarry is 3,514.86 cubic meter against the total approved quantity of 3,60,706 cubic meter.

In the fifth reference read above, the Hon'ble Madras High court has passed final order on 06.07.2018 for closer of above said writ petition number 22433/2017 with all related miscellaneous petition there on and constituted a committee to oversee the quarry operation and to submit a periodical report to the Court of law.

As, the final order of the Hon'ble Madras High court on W.P. No. 22433/2017 has been delivered on 06.07.2018 and the Environmental Clearance for the Oruvandhur Sand quarry itself expires on 09.08.2018, the time interval was not sufficient to operate quarry to lift the remaining approved quantity of 3,57,191.14cu.m of sand.

Under the above circumstances, the submission was made to the State Level Environmental Impact Assessment Authority, Tamil Nadu to issue addendum for further more two years to excavate the balance approved quantity vide the Executive Engineer, WRD, Mining and Monitoring division, Trichy letter read in sixth reference above.

In the reference seventh read above, on scrutiny of the application made by the Executive Engineer, WRD, Mining and Monitoring Division, Trichy, the State Level Environmental Impact Assessment Authority, Tamil Nadu has instructed to submit the details requested there in for further processing of application. The Executive Engineer has requested the certain details of the above said quarry vide ref.8th cited. The same details have been submitted to SEIAA through the Assistant Director, Department of Geology and Mining, Namakkal District vide the reference 9th cited.

In the ref. 10th cited the Executive Engineer WRD, Mining and Monitoring division, Trichy has requested the District Collector the lease period may be extended further to operate the sand quarry in the above said subject area for quarrying the remaining approved quantity of sand.

In the ref.11th cited, the District Collector, Namakkal has directed the Executive Engineer sanction is accorded for the revival of the lapse period of 1 year and 4 months from 07.11.2017 to 11.03.2019 and extended it from the date of resumption of quarrying work in the S.F.No.643/1(P) over an extent of 16.18.0 Ha (Cauvery River) in Oruvandhur Village, Mohanur Taluk of Namakkal district subject to the following conditions.

i) As per the Rule 41 of Tamil Nadu Minor Mineral Concession Rules 1959, a revised and Modified Mining plan for quarrying and removal of 3,57,191.14cbm of sand in a period of 1 year and 4 months.

ii) As per the Rule 42 of Tamil Nadu Minor Mineral Concession Rules 1959, necessary Environmental Clearance from SEIAA Chennai has to be submitted.

iii) Prior to start quarrying activities the consent of TNPCB on Air and Water (prevention) of pollution has to be submitted.

iv) As per the orders of the Hon'ble High Court of Madras dated 06.07.2018 in W.P.No.22433 of 2017 all the sand quarrying operations in the subject area to be oversee by a Committee it was already constituted by the Hon'ble High Court of Madras.

In the ref.12th and 13th cited, the Executive Engineer has obtained the SEIAA Clearance, Chennai and the Consent from the Tamil Nadu Pollution Control Board, Namakkal for the above said sand quarry.

In the ref.14th cited, the District Collector has directed the Chairperson, Taluk Level Task Force Committee, Mohanur to inspect the above said sand quarry as per the condition of SEIAA and conduct Taluk Level Task Force Committee meeting and to submit the report .

In this regard, the Tahsildar/Chairperson, Taluk Level Task Force Committee to inspect the above said sand quarry located in S.F.No.648/1(P) of Oruvandhur village along with the Taluk Level task force committee members. Therefore, Tahsildar, Mohanur submitted the report vide ref.15th cited as follows.

- The four side boundaries are demarcated and erected the stone pillars in the field of the sand quarry.
- Approach road facilities are made to the sand quarry.
- In Oruvandhur Village, Village Panchayath road and entrance of the Sand quarry sites, details of the sand quarry are erected in the name board.
- As per the SEIAA condition, the Environmental clearance of the sand quarry was published in the Newspaper. A copy of the Environmental clearance handed over to the Block Developmet Officer and got acknowledgement for the same.
- Drinking water, Toilet facilities and the First aid box are kept in the Quarry site for the Labourers.

- 4 CCTV cameras are installed for the surveilance of the sand quarry.

- To follow the State Level Environmental Impact Assessment Authority and the Tamil Nadu Pollution Control Board conditions scrupulously while operate the sand quarry.

In the above said circumstances, by accepting the Environmental Clearance from the State Level Environmental Impact Assessment Authority (SEIAA), Chennai, the consent from the Tamil Nadu Pollution Control Board, Namakkal and the Taluk Level Task force committee report, permission is accorded for the extension of sand quarry by the Executive Engineer, PWD, WRO, Sarabanga Basin Division, Namakkal to lift the approved quantity of 3,57,191.14 Cbm of sand in S.F.No. 643/1(P) over an extent of 16.18.0 hect of Cauvery River Poramboke (Mile 77/2+150 to 77/5+50) in Oruvanthoor Village of Mohanur Taluk and Namakkal District for a period of One year and Four Months (1 year and 4 Months) 05.05.2023 to 04.09.2024 subject to the *conditions imposed by the State Level Environmental Impact Assessment* Authority (SEIAA) and the consent from the Tamil Pollution Control Board, Namakkal.

(Signd xxx...dt.05.05.2023)
District Collector,
Namakkal.

//True Copy// By order //

For District Collector,
Namakkal.

RG
05/5/23.

To,
The Executive Engineer,
PWD, WRO
Mining & Monitoring Division,
Trichy.

Copy submitted to:-

1. The Secretary to Government, PWD, Secretariat, Chennai – 9
2. The Secretary to Government, Industries, Secretariat, Chennai – 9
3. The Commissioner of Geology and Mining, Chennai – 32.
4. The Revenue Divisional Officer, Namakkal.
5. Tashildar, Mohanur.
6. Village Administrative Officer, Oruvanthur Village.

IN THE HIGH COURT OF JUDICATURE AT MADRAS

DATED : 23.06.2023

CORAM:

THE HONOURABLE MR. JUSTICE D.KRISHNAKUMAR
AND
THE HONOURABLE MR JUSTICE P.DHANABAL

W.P.No.17725 of 2023
and WMP.No.16820 of 2023

The Executive Engineer,
Public Works Department,
Mining and Monitoring Division,
Water Resources Department,
Trichirapalli. ... Petitioner

Vs.

1.T.Saravanakumar

2.The Tamilnadu State Environment Impact
Assessment Authority,
Rep. by its Member Secretary,
3rd Floor, Panagal Maligai,
No.1 Jeenis Maliga, Saidapet,
Chennai-600 015. .. Respondents

PRAYER: Writ Petition filed under Article 226 of the Constitution of India, praying for the issuance of a Writ of Certiorari calling for the records in respect of the order dated 31.05.2023 passed in Original Application No.77 of 2023 (SZ) by the National Green Tribunal, Southern Zone, Chennai and quash the same.

For Petitioners : Mr.P.S.Raman, Senior Standing Counsel
assisted by
Mr.P.Muthu Kumar
State Government Pleader

For Respondents : Mr.A.Yogeshwaran for R1
Mr.AR.L.Sundaresan,
Assistant Solicitor General
for Mr.V.Chandrasekaran,
Senior Panel Counsel for R2

ORDER

[Order of the Court was made by *D.KRISHNAKUMAR, J.*]

By consent of both sides, this Writ Petition is taken up for final disposal.

Challenge in this writ petition is to the order passed by the National Green Tribunal, Southern Zone, Chennai dated 31.05.2023 in Original Application No.77 of 2023 (SZ).

2. The case of the petitioner is that the petitioner, being a project proponent, had proposed to quarry river sand in Cauvery River and identified an area measuring 16.18 Ha comprised in S.F.No.643/1 (P) of Oruvanthoor Village, Namakkal Taluk, Namakkal District and sent a proposal seeking new quary outlet to the District Collector, vide letter dated 17.12.2015. Pursuant to the above

proposal, joint field inspection was conducted by various authorities concerned as to the technical visibility and feasibility of quarrying of sand and recommended for grant of permission for opening of new sand quarry in the subject area. Based on the recommendations and in compliance of the EIA Notification, 2006 and its amendments, the petitioner applied for Environmental Clearance for the subject quarry under B2 category, vide proposal dated 22.02.2016.

3. The above proposal was placed before the 79th SEAC (State Level Expert Appraisal Committee) meeting held on 08.08.2016, wherein the application and other supporting documents were appraised by the experts and recommended for grant of EC to SEIAA. The recommendation of SEAC was placed before the 503rd SEIAA meeting held on 10.08.2016 and granted EC for the subject quarry in favour of the petitioner with various general and specific conditions. In the said EC, it was permitted to use two poclains for excavation of sane. The relevant condition reads as follows:

"5. **Specific Conditions:**

....

iv..... The Project Proponent is restricted to use judicious use of minimum number of poclains and not more than two poclains in the project site till the expiry of lease period or excavation of approved quantity whichever is earlier.

v. Loading and use of poclains, transport of sand shall not be entertained between 7.00 pm to 5.00 a.m.

vi. The project proponent is allowed to engage lorries or tippers to transport the sand."

4. In compliance of the conditions imposed in the EC dated 10.08.2016, the petitioner obtained necessary consents from the Tamil Nadu Pollution Control Board under Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974 on 05.01.2017. The District Collector, Namakkal vide proceedings dated 12.03.2017 has granted permission to operate the subject quarry. After the receipt of all the permissions / approvals / clearances from competent authorities and in compliance of the conditions imposed therein, the petitioner commenced its quarry operation on 16.06.2017.

5. In the meantime, based on Sand Mining Guidelines 2016, the Government of Tamil Nadu issued G.O.Ms.No.21 dated 02.06.2017, wherein it

was directed that the Public Works Department may move SEIAA on case to case basis to permit more number of poclains for sand quarries. The petitioner had applied for modified proposal to SEIAA on 26.07.2017 and the same was placed before the 93rd SEAC meeting held on 12.08.2017 and the Committee directed the petitioner to submit comprehensive report, which was complied with by the petitioner and made a presentation on 12.08.2017. Subsequently, SEAC recommended the amendment with respect to usage of 4 poclans in the subject quarry. The above proposal was placed before the 241st SEIAA Meeting held on 09.10.2017 and the amended EC dated 10.08.2016 which is valid upto 09.08.2018.

6. In the meantime, one Mr.Varadharajan had approached this Court and filed a Public Interest Litigation in W.P.No.22433/2007 and an order of interim stay was granted vide order dated 06.11.2017 in WMP.No.23563 of 2017. The quarry operation was stopped by the petitioner immediately on 06.11.2017. This Court, vide order dated 13.11.2017, wherein suo motu impleaded SEIAA as a party, extended the interim order and directed SEAC as follows:

"5..... In the light of the materials placed before this Court in the form of additional typed set of documents, the State Level Expert Appraisal Committee shall cause inspection of the quarry in question, after putting the petitioner on notice and find out as to whether the general conditions imposed in the Environmental Clearance dated 10.08.2016 issued by the State Level Environment Impact Assessment Authority are complied with or not and such a report shall be filed on or before 27.11.2017."

7. This Court, vide final order dated 06.07.2018 in W.P.No.22433/2017 and appointed an independent monitoring agency comprising of four members, to oversee the quarry operations and to report periodically.

8. As the validity period of EC as well as the mining lease was expired on 09.08.2018, the petitioner had applied to the District Collector, Namakkal and SEIAA for time extension of EC for a further period of two years to excavate the remaining quantity of sand. The District Collector, Namakkal, vide letter dated 18.12.2022 approved the lease extension for remaining quantity of sand in the

subject quarry. Subsequently, on 01.02.2023, SEIAA extended the period of EC for 1 year and 4 months.

9. According to the petitioner, as per the Water and Air Acts, the petitioner had obtained necessary consents from the Tamil Nadu Pollution Control Board on 03.04.2023. The District Collector, Namakkal, vide proceedings dated 05.05.2023 granted permission to resume the quarry operations in the subject site. Subsequently, the petitioner resumed the quarry operations in the subject site on 10.05.2023 as per the conditions stipulated in the above approvals/ permissions, without any deviation.

10. In the meantime, one Mr.Saravanakumar / first respondent herein, who claimed to be the activist, had filed an Original Application in O.A.No.77 of 2023 (SZ) under Sections 14, 15 and 18(1) of the National Green Tribunal Act, 2010, before the National Green Tribunal, Southern Zone, Chennai, on 30.05.2023, despite being aware that the original EC was granted on 10.08.2016, amendment to the original EC was granted

on 01.02.2023 and also necessary permissions were already obtained from the competent authorities for quarry and also sought for the following reliefs before the Tribunal:

> *"A. Direct the 2nd respondent to carry on mining manually at SF No.643/1 (Part) (Mile 77/2 + 150 to 77 / 5 + 150), Oruvandhoor Village, Namakkal District, pursuant to the Environmental Clearance dated 10.08.2016 extended by order dated 01.02.2023 issued by the 1st respondent, in compliance with OM dated 24.12.2023.*
>
> *B. Direct the 1st respondent to strictly comply with OM dated 24.12.2013 in issuing environmental clearances for mining of minor minerals.*
>
> *C. Issue such other orders as it deems fit in the interest of the case and render justice."*

11. According to the petitioner, the prayer sought for in the OA is contrary to the conditions stipulated in the EC/Amendment/Extension already granted by the second respondent, who is the expert body, wherein the petitioner is permitted to use 4 nos. of Poclains in the subject quarry and the prayer in the OA is nothing but challenging the conditions in the EC, which can be challenged before the National Green Tribunal, under Section 16(h) of the NGT Act, 2010 within 30 days from the date of EC.

12. The NGT, Southern Zone, Chennai vide interim order dated 31.05.2023, has observed that since a similar issue was questioned in Appeal No.80 of 2022, which is posted on 05.07.2023 and as this matter also involves the same issue, posted the original application on the same day and till such time the matter is taken up for hearing and the counter is filed by the respondents 1 and 2, the mining operations can go on, however, only manually and the operations with poclains is impermissible. Challenging the said interim order of the Tribunal, the petitioner has filed this instant writ petition.

13. Mr.P.S.Raman, learned Senior Standing Counsel for the petitioner contended that the above OA was filed and the pleadings were served through Whatsapp on the State's Counsel, after office hours on 30.05.2023 and the said OA was numbered as O.A.No.77 of 2023 and originally the matter was not listed on 31.05.2023, however, it came to the knowledge that upon mentioning to list the matter by the first respondent, on the same day on 31.05.2023, i.e., the last working day of NGT, the OA was taken up in the additional list at the end. It is

further contended by the learned Senior Counsel that in the said OA, the first respondent did not implead the Ministry of Environment, Forest and Climate Change (MEF &CC) as a party, who is the authority issued various Guidelines, Office Memorandums, Notifications etc., for the protection of Environment and effective implementation. The learned Senior Counsel for the petitioner contended that when the matter was taken by the Tribunal, it was requested on behalf of the State to grant sufficient time to respond / file a detailed response by the State, since the matter was not listed originally, however the Tribunal did not consider the request and proceeded to pass the interim order and therefore, the impugned order has been passed without affording any opportunity to the petitioner to place all the materials and to place correct facts before the Tribunal by filing counter affidavit. The learned Senior Counsel for the petitioner submitted that without disclosing the aforesaid facts, the first respondent has approached the Tribunal/NGT and based on the materials produced, the Tribunal has granted interim orders, against which the petitioner is before this Court. The learned Senior Counsel for the petitioner further contended that based on the various consents/permissions/approvals obtained from all the authorities, the

petitioner commenced the quarrying operations and all the subsequent orders / guidelines / amendments have not been placed before the Tribunal and sufficient opportunity ought to have been given by the Tribunal to place all the materials, before passing the interim orders and therefore, the impugned order of the NGT is liable to be set aside to the extent of restraining the petitioner Department from using poclains for quarrying operations.

14. Mr.AR.L.Sundaresan, learned Assistant Solicitor General appearing for the second respondent submits that Environmental Clearance was already given to the petitioner and therefore, they are permitted to use poclains for quarrying operations.

15. Mr.A.Yogeshwaran, learned counsel for the first respondent strongly objected that papers have been served to the petitioner Department in advance and opportunity was granted to the petitioner before the NGT and the learned Government Pleader appeared before the Tribunal on that day and therefore, the petitioner cannot contend that sufficient opportunity was not given to the petitioner. \

16. Heard the rival submissions and perused the materials on record.

17. A perusal of the impugned order of the Tribunal would disclose that the tribunal has considered the original application by relying upon Office Memorandum dated 24.12.2013, classifying the subject site under B2 category and the mining should be done manually and the subsequent amendment to the memorandum is required to be placed before the Tribunal, for which necessary opportunity is to be afforded to the petitioner to place all the materials / consents/approvals / permissions to the Tribunal. It is the case of the petitioner that case papers were served to the petitioner only on 30.05.2023 and on the next day i.e, on the last working day of the Tribunal, the matter was taken up by way of additional list and effective opportunity was not afforded to the petitioner to represent their case. The Tribunal has failed to consider that approvals/permissions/clearances were obtained by the petitioner from various authorities under SEIAA and passed interim orders without affording sufficient opportunity to the petitioner and therefore, the impugned order of the NGT warrants interference on the ground of violation of principles of natural justice.

18. According to the petitioner, even though permission is granted to carryout quarrying operations, the impugned order restraining them to operate the poclain is totally unsustainable. However, this Court is not inclined to go into the merits of the case. The learned Senior Counsel for the petitioner has stated that NGT may pass appropriate interim orders, after providing opportunity to the parties and after serving counter affidavit and reply affidavit to the parties concerned, NGT may pass appropriate orders on or before 04.07.2023, which reopens on 03.07.2023. The learned counsel for the first respondent also agreed to file reply affidavit on or before 02.07.2023 in response to the counter affidavit filed, if any within the aforesaid time and for reconsideration of the grant of interim orders afresh by NGT.

19. In view of the above factural scenario, submissions made and in the interest of justice, this Court is inclined to pass the following order:

(i) As agreed by both the parties, the Tribunal shall reconsider to pass appropriate interim orders afresh after affording sufficient opportunity to the parties, on or before 04.07.2023. Both the parties have agreed that they will extend their cooperation for passing of the

interim orders by the NGT.

(ii) The learned Senior Counsel for the petitioner as well as the learned Additional Solicitor General for the second respondent TN-SEIAA agreed that they will serve the copy of the counter affidavit to the first respondent in advance on or before 28.06.2023.

(iii) Thereafter, the first respondent shall file his reply / response to the counter affidavit on or before 02.07.2023.

(iv) It is made clear that in the interregnum, if the petitioner is carrying on any quarry operations, they shall use 2 poclains in strict compliance of the conditions imposed under EC/approvals/permissions given by the authorities concerned, and if there is any violation of the conditions, it is open to the first respondent to place the same before the Tribunal.

(v) The petitioner department shall videograph the entire quarrying operations in the quarry site in question by using drone facility and the entire video recording shall be placed before the Tribunal.

(vi) The Tribunal shall decide the case on its own merits, without being influenced by any observations made by this Court.

(vii) The impugned order of the National Green Tribunal, Southern Zone, Chennai dated 31.05.2023 in O.A.No.77 of 2023 is modified to the above extent.

20. The Writ Petition stands partly allowed with the above directions. No costs. Consequently, connected miscellaneous petition is closed.

(D.K.K., J.) (P.D.B., J.)
23.06.2023

Intex : Yes/No
Internet : Yes/No
Jvm
Note: Issue Order on 26.03.2023

To
The Member Secretary,
The Tamilnadu State Environment Impact
Assessment Authority,
3rd Floor, Panagal Maligai,
No.1 Jeenis Maliga, Saidapet,
Chennai-600 015.

D.KRISHNAKUMAR, J.
and
P.DHANABAL, J.
Jvm

W.P.No.17725 of 2023

23.06.2023

BEFORE THE NATIONAL GREEN TRIBUNAL,

SOUTHERN ZONE, CHENNAI

Original Application No. 77 of 2023 (SZ)

T. Saravanakumar,
S/o.Thangavel

... Applicant

Versus

The Tamilnadu State Environment Impact Assessment Authority,

Rep by its Member Secretary ,
& another

... Respondents

TYPED SET OF PAPERS
FILED BY 2nd RESPONDENT
(VOLUME II)

DR. D SHANMUGANATHAN

COUNSEL FOR 2nd RESPONDENT