119 <sup>th</sup> -18	Proposal for issue of Environmental Clearance for the proposed San				
F.No.6637/2018	Quarrying in River Cauvery over an extent of 11.81.0 Ha in S.F.No.149/1				
	Keelamullakudi Village, Thiruverumbur Taluk, Tiruchirappalli District				
	submitted by The Executive Engineer PWD/WRD, Mining & Monitoring				
	Division, Tiruchirappalli - Regarding.				
	The Project Proponent has applied for Environment Clearance for the Proposal seeking Environmental Clearance for River Sand Quarry at S.F. No.				
	149/1 (P) in Cauvery River of Keelamullakudi Village Thiruverumbur Talu				
	Tiruchirappalli District.				
	The proposal along with District Survey Report (DSR) and Minin				
	Plan was placed before the 119 <sup>th</sup> State Expert Appraisal Committee meeting				
	held on 09.08.2018. Replying to the certain queries pointed out by the SEAG				
	members, the PWD have also furnished the following data and information t				
	consider the request of EC for their proposed sand quarry.				
	I. 1. The details of the location to cover land use and ecologically				
	sensitive areas, if any.				
	2. Details of wells in the vicinity, ground water tables and othe				
	surface water bodies in the vicinity.				
	3. Borelog Test report indicating thickness of Sand and it				
	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.				
	quantes 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.				
	said area area mining needs to be sublimited.				
	IV. Justification for usage of heavy earth moving machinery (poclains)				

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#### Minutes of the 119th SEAC Meeting held on 09th August 2018

- 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.

The PWD made a presentation with a video (helicam footage) presentation of the quarries along with ecological features related to the mining projects. on 09.08.2018 highlighting the mining projects with emphasis on the information and data requested by the aforesaid SEAC during the meeting. The PWD also submitted a report covering the ecological aspects in this regard.

Regarding the maximum number of poclains to be used in the quarry was decided based on the quantity of sand in each of the quarries yet to be mined. The number of poclains will have a 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 m³ sand yet to be mined maximum 2 poclains
- 2. One lakh Two lakh m³ sand yet to be mined maximum 3 poclains
- 3. Two lakh Four lakh m³ sand yet to be mined maximum 4 poclains
- 4. Four lakh Seven lakh m³ sand yet to be mined maximum 5 poclains

For the sand quarry project at Keelamullakudi Village, Tiruchirappalli District, 248275 cu.m of sand is to be mined. As per the above criteria, the maximum number of poclains permitted is 4 **Nos**.

Based on the discussions with the PWD Engineers, SEAC has decided to recommend the proposal for the grant of Environmental Clearance to SEIAA subject to the fulfilment of the following conditions in addition to the normal conditions as required to be fulfilled by the PWD:

1. The proponent shall fix flag posts at boundaries for the proposed

- mining area covering an extent of  $\{675 \text{ m X } (200 + 150)/2\} \text{ X 1m}$  or 11.81.0 Ha. There should be no deviation/ violation with respect to the area demarcated for quarrying.
- 2. The depth of sand quarrying shall be restricted to 1m from the theoretical bed level.
- 3. To prevent dust pollution, suitable working methodology needs to be adopted taking wind direction into consideration.
- 4. At no cost the impact of sand mining should interfere with the habitation and cultivation in the nearby area along the river bed.
- 5. The mining area must be demarcated leaving atleast 50m from the river embankment on either side.
- Contouring of the river bed has to be taken to ascertain the relative levels of sand in the river and also to suggest the depth of sand mining.
- 7. To ensure safety measures along the boundary of the quarry site, security guards are to be engaged during the entire period of mining operation.
- 8. 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.
- 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.
- 10. 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.
- 11. It is reported that there are few habitations closer to the Keelamullakudi project but all of them are 600 800m away from the mining area. Also there are 6 number of open wells/bore wells

Member-Secretary, SEAC

- closer to the mining area. The mining operation should not lead to depletion of water in the wells.
- 12. 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 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.
  - 13. The pathway used by all machineries should be properly constructed and maintained by the PWD in order to avoid pollution.
  - 14. The mining operation should be above the ground water table.
  - 15. 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.
    - 16. Adequate statutory manpower to be deployed for complying with the provisions to use heavy machineries as per Mines Safety Regulations (MCDR, 2017 & MMR, 1961).
    - 17. As per the approved District Survey Report, the information contained at page 76 to point 18, the sand potential in Cauvery river for a length of 74 km in Thiruchirapalli District is estimated at 84.95 x 10<sup>6</sup> MT consisting 60% total mineral potential ie. 51

- million Cum. In this river bed an area of 103.6 x10<sup>6</sup> sq.m is recommended for grant of mineral concession.
- 18. As against the recommended area of 103.6 x 10<sup>6</sup> sq.m, presently an area of 118100 sq.m only is being considered and only 248275 cu.m is permitted to excavate which is less than 0.5% of Mineable Mineral Potential and hence the project is sustainable.
- 19. For the sand quarry at Keelamullakudi Village, Thiruverumbur Taluk, Tiruchirappalli District, of 130175 cu.m of Shoals & 118100 cu.m of Sand (248275 cu.m) is to be mined. The maximum number of Poclains permitted is 4 Nos.
- 20. The quantity estimated to be mined through manual mining is 19000 cu.m and the manual operation area of 1.2 ha should be demarcated in the plan before commencement of the project. Mining of machineries and manual operations should be carried out strictly as committed by the project proponent.
- 21. During the sand mining work, appropriate progressive mine closure activities must be implemented to restore the river bed to its original status for ensuring the free flow.

The recommendation for the grant of EC is also subject to the condition that the proponent Executive Engineer / WRD, Mining and Monitoring Division, Trichy Division fulfils the conditions imposed by the Hon'ble Madurai Bench of Madras High Court, in the order in W.P.(MD) Nos. 4251, 7960, 14577, 15121, 8655, 13836, 16150, 15343, 11376, 17143 and 17531 of 2017 and connected Miscellaneous Petitions, dated:16.02.2018.

S.No	Name	Designation	
1	Dr. K. Thanasekaran		Signature
3	Dr.K.Valivittan	Member	Symmy
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	Dr.Indumathi M. Nambi	Member	
	Dr. G. S. Vijayalakshmi	Member	
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6	Dr. M. Jayaprakash	Member	The state of the s
7	Shri V. Sivasubramanian	Member	
8	Shri V. Shanmugasundaram	Member	Bhong ahmaram
9	Shri B. Sugirtharaj Koilpillai	Member	(Som)
10	Shri. P.Balamadeswaran	Co-opt Member	1 San
11	Shri. M.S. Jayaram	Co-opt Member	ayaram.
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Member-Secretary,

SEAC

Chairman

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