ADDENDUM TO ENVIRONMENTAL IMPACT ASSESSMENT & ENVIRONMENTAL MANAGEMENT PLAN

FOR

BOULDER, GRAVEL & SAND MINE "RATTEWALI BLOCK – PKL-B-10"

LOCATION: - VILLAGE – RATTEWALI, TEHSIL –BARWALA, DISTRICT – PANCKULA, HARYANA

Production Capacity: - 19,00,000 TPA

Area: - 45.00 Ha.; Survey No.:- 141 Min; LOI was issued on16.06.2017 (7.0 Years)

Study Period: - October, November and December' 2017 (Carried out by Former ACO) by Vardhan Envirolab, Gurgaon (NABL approved Laboratory).

Project Cost: - Rs. 7.0 Crore

Proposal No.:– IA/ HR/ MIN/ 66257/ 2017, File No.:- J-11015/ 75/2017-IA.II (M)

ToR issued vide letter no.:- J-11015/ 75/ 2017-IA.II (M) dated 14.09.2017.

FOR

ENVIRONMENTAL CLEARANCE

("A" category 1(a) of EIA Notification dated 14.09.2006 and its subsequent amendment)

Applicant: - Tirupati Roadways

Authorized Signatory: - Gurupreet Singh Sabharwal (POA).

#3, Sadashiv Properties, Katras Road, Bank More, Dhanad, Jharkhand – 826 001.

Email: - gurpreetsabharwal@hotmail.com;

Phone No.: - 09829981244

ENVIRONMENTAL CONSULTANT

ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

Accredited EIA Consultant Organization by NABET, QCI, New Delhi at S. No. 45 (MoEF&CC as on March' 2019)

Validity: - Up to 14.05.219

Corporate Office: - # 92 Heera Nagar - A, Near Shalimar Bagh, Ajmer Road, Jaipur (Raj.). - 302 021

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ANNEXURE

INTRODUCTION

PURPOSE OF ADDENDUM TO EIA REPORT

An addendum is an additional document to EIA/EMP report not included in the main part of the EIA/EMP. It is an ad hoc item, compiled and executed after the Final EIA/EMP was appraised; the additional requisite information/Clarification desired by the Hon'ble Expert Appraisal Committee is stated unalloyedly. The relevant information desired is sequentially arranged with regards to proper referencing to the parent document (final EIA/ EMP). The addendum to EIA/ EMP report is a not a seclusion and may be considered as a correction factor to the submitted final EIA/EMP.

1.0 BRIEF

Application for grant of Environmental Clearance was uploaded online on 27.04.2018 and the proposal was technically appraised on 31st EAC Meeting held on 14 – 15th May' 2018 by former ACO Vardhan Environet, Gurgaon (Serial No. 152 of List of Accredited Consultant Organizations (Alphabetically) Rev. 66 Rev. June 05, 2018). Subsequently, the project was deferred and the ACO was flagged off for certain anomalies.

Thus, Project Proponent approached/ re-appoint new Consultant "Enkay Enviro Services Pvt. Ltd., Jaipur" (Listed at S. No. 45 under the list of NABET Accredited consultant organizations as on August 05, 2018) for providing further technical advisory on the proposed project henceforth.

In reference to the above matter, No Objection Certificate was obtained from Vardhan Environet, Gurgaon (Former Consultant), wherein the onus of the baseline data generated for a period of Post Monsoon- October, November and December' 2017 was obligated by the former ACO. Enclosed as **Annexure– I.**

An EDS was generated on dated 10.08.2018 stating that "The Ministry has sought clarification from DMG, Haryana on 20.08.2018 regarding mining in Rattewali. The reply from the Office of DMG is yet to be received by the Ministry with regards to our case in particular, however, a letter stating the existing scenario and follow-up of Sustainable Sand Mining Guidelines with respect to similar mines downstream has been issued from the Office of DMG stating addressing our mines as well which was informed to MoEF&CC vide letter no. DMG/ HY/ Cont…/ Shamtoo – 2 Block/ PKL B-12/ 2017/ 5295 dated 23.10.2018. Subsequently, based on the reply submitted our proposal was considered in the EAC appraisal. The copy of reply submitted is enclosed as **Annexure – II.**

The project was technically evaluated for Environmental Clearance at 1st Meeting of the Reconstituted Expert Appraisal Committee (Non-Coal Mining Sector) held on 23.01.2019 at agenda Item No. 2.22.

As per the Minutes of the Meeting posted at MoEF&CC Website on 01.02.2019 as well as ADS generated online on 02.02.2019, few observations/ queries has been raised and suggested to submit the Addendum to EIA Report including all the observations raised by EAC. Enclosed as **Annexure – III.**

1.1 CONSEQUENCES OF PROJECT APPRAISAL

The proposal of Tirupati Roadways is for production of 19,00,000 TPA —Rattewali Block/ PKL - B -10 falling in Dudgarh River Bed having mining lease area of 45.0 Ha located at

Village- Rattewali, Tehsil- Barwala District- Panchkula, Haryana. The mine lease area falls on the Survey of India Toposheet No. H43K14 & H43L2. The geographical location of the mine lease fall between Latitude: - N30°38'33" to N30°39'24.6" and Longitude: - E 76°59'17.50" to E 76°50'00.00". As per EIA Notification dated 14th September, 2006 and its subsequent amendment thereafter, the project is categorized as B-1. The project was appraised at MoEF&CC as it is falling at a distance of 1.90 km from Wildlife Sanctuary Khol Hai Raitan.

The application of TOR for the said project was made on 18.07.2017 and its subsequent appraisal events are tabulated as under:-

Table No. 1.1: Chronology of the event

S. No.	Particulars	Details
1.	Date of Application for TOR	18.07.2017
2.	Terms of Reference issued on	14.09.2017 (Vide letter no. J-11015/ 75/ 2017-IA.II (M))
3.	Baseline Data Generation	October, November and December' 2017 (Carried out by Former ACO)
4.	Public Hearing was conducted on	17.04.2018
5.	Final EIA/ EMP uploaded online	27.04.2018 (by Former ACO)
6.	Technical Presentation for EC	14 -15th May' 2018 (31st EAC Meeting – Non-Coal Mining by Former ACO)
7.	MOM pasted on MoEF&CC website	May' 2018
8.	Approved Modified Mining Plan	07.08.2018 (Revised Modified Mining Plan w.r.t revised reserve estimation based on grid pattern by using datamine software and the same will be incorporated for revision of Mining Plan after EC approval).
9.	Revised EIA/ EMP Report uploaded online (With new ACO).	03.09.2018.
10.	EDS generated Online *The reply from DMG is yet to be received by the Ministry. The proposal could only be consider after receiving the reply from DMG.*	10.09.2018
11.	Reply submitted on	02.11.2018.
12.	Based on the Minutes of Meeting posted on MoEF&CC website dated 01.02.2019, the project was deferred with a view to incorporate the requisite information as addendum to EIA Report.	

Note:-When the application for TOR was made based on the LOI issued, the project did not constitute the formation of cluster. The other LOI's are issued thereafter, thus the inventorization of the same was not considered in this case. The appraisal of the case is as per MoEF&CC norms and to be dealt as Category "A**".*

As on date, the mine constitutes a part of cluster. Thus, the general conditions stands inapplicable but is regulated by OM No. J-11013/ 41/ 2006-IA.III dated 23.10.2017, thus the project will continue to be appraised further at MoEF&CC.

1.2 REGULATION OF LEASE

The LOI for an area of 45.0 Ha. of Mining lease was granted by the Director General, Department of Mines & Geology, Haryana vide memo no.- DMG/ HY/ Cont/ Rattewali Block/ PKL B 10/ 2017/ 2658 dated 16.06.2017 for a period of 7 years. The lease area lies on riverbed (non-perennial) of Dudgarh in District Panchkula (Haryana). Subsequently, Mining Plan and Progressive Mine Closure Plan of this proposed mining lease area was approved by Director General of Mines and Geology Department vide memo no. DMG/ HY/ MP/ Rattewali Block/ PKL/ B-10/ 2017/ 405 on dated 24.01.2018 with production capacity of 19,00,000 TPA. Subsequently, after the observations made in the EAC appraisal, the Modified Mining Plan including Progressive Mine Closure Plan for 19,00,000 TPA was again approved by the Office of State Mining Engineer, Director Mines & Geology, Haryana vide Memo no. DMG/ HY/ MP/ Rattewali Block/ PKL B – 10/ 3989 – 92 dated 07.08.2018 incorporating all requisite suggestions.

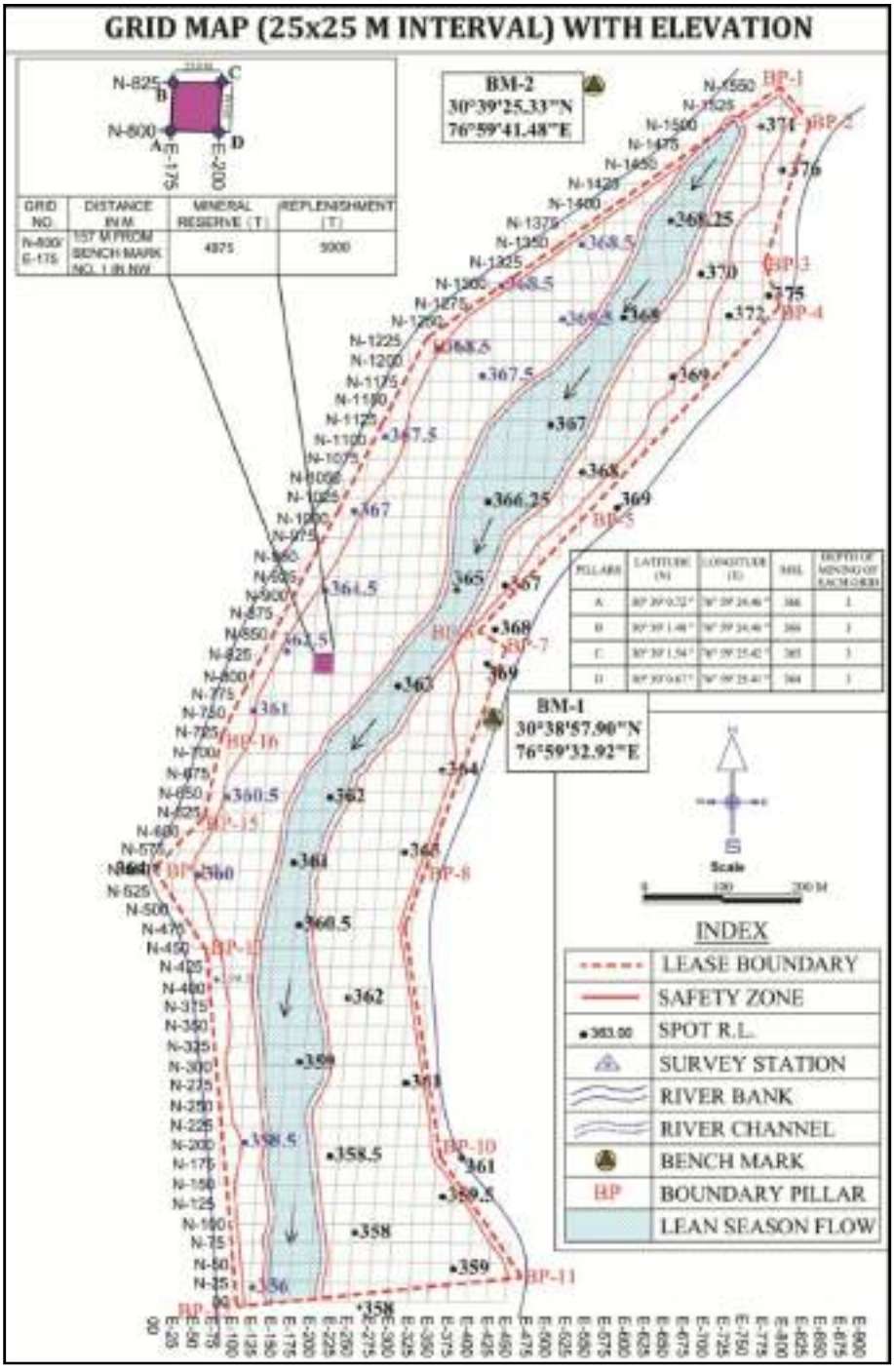
1.3 RESERVE ESTIMATION AND METHOD OF MINING

The total geological reserve estimated earlier was 27,00,000 Tonnes and Mineable Reserve was 22,95,000 Tonnes. The reserve estimation re-calculated using datamine software estimates the total geological reserve as 35,10,000 Tonnes out of which mineable reserve is 23,73,356 Tonnes.

The mining activity will be carried out by open cast semi-mechanized method without drilling and blasting. Mining is proposed is restricted at a depth of 3.0m in river bed. River bed mining is for extracting Boulder, Gravel and Sand from River bed. Light weight excavators will be used for digging and loading of mineral in tippers. No OB/ waste material will be produced. It was submitted that sand shall be excavated by deploying Nos. 05 JCB/ excavator of capacity 0.9m^3 and transported through trailer of 25 Tonne tri-axle having gross weight of vehicle about 49 tonnes in case of rigid vehicles and 55 Tonnes in case of

semi-articulated trailer. Thus, there will be no change in no. of trips. It is also submitted to deploy 5 Nos. water tankers mounted with canon mist generator of 5000 liters for dust suppression. The inclusion of the same is done in the list of machinery and cost to be incurred is considered in the project cost, any escalation towards this will be subjective and incorporated in the capital cost.

Figure 1.0: Grid Map depicting working, Non-working, safety zone and Grid Identification with respect to lease boundary and River boundary



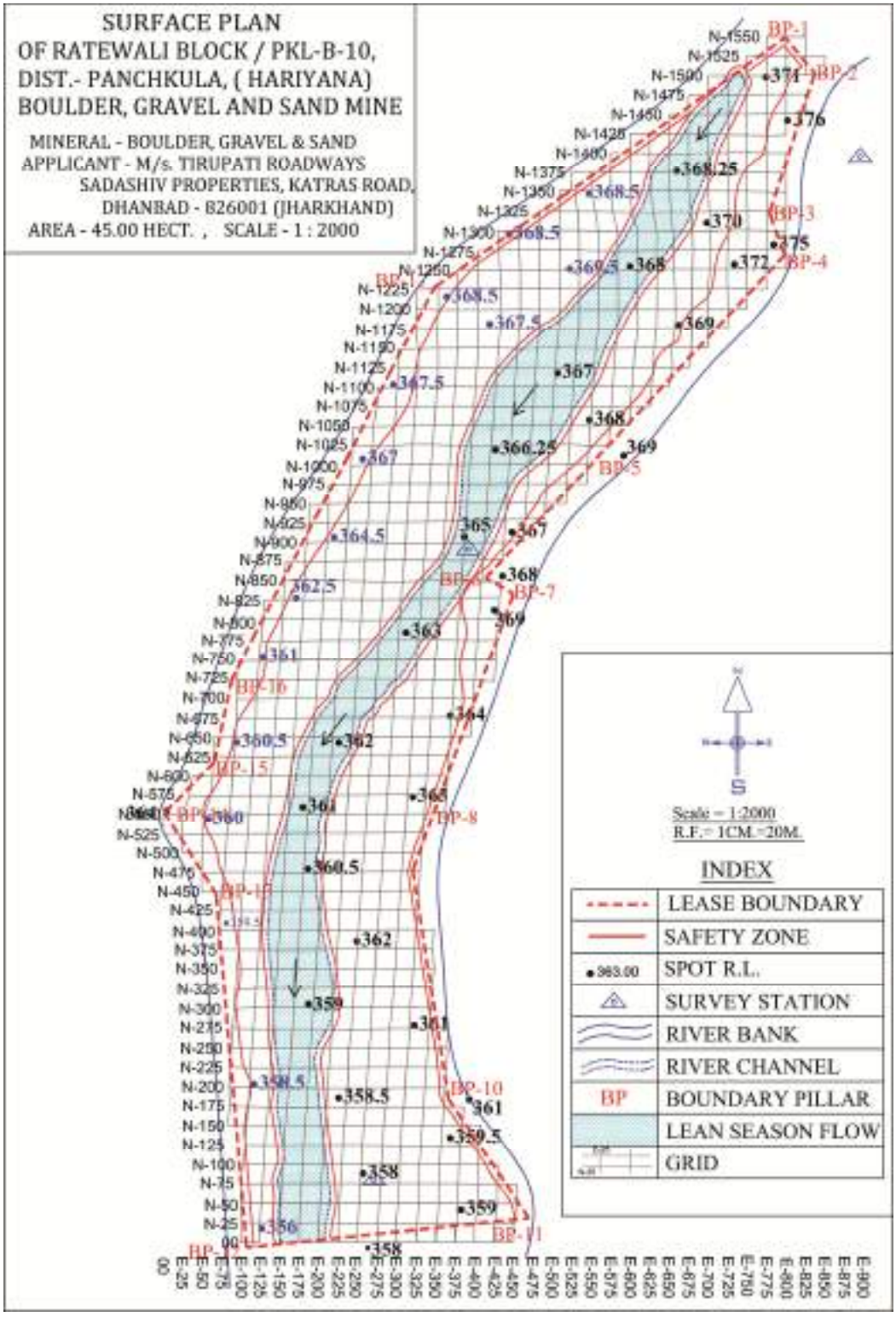
As depicted in the above figure, it is clarified working grid, non-working grid (statutory boundary) and nomenclature of each grid for traceability and identification. Map showing Key plan is as under:-

Figure 1.1: Key Plan – Scale – 1:50000

1.4 LEASE AREA SURFACE DESCRIPTION

The allocated lease area of 45.00 Ha., showing all its peripheral co-ordinates along with grid co-ordinates measurably scaled is stated under:-

Figure 1.2: Surface Plan – Scale – 1:2000



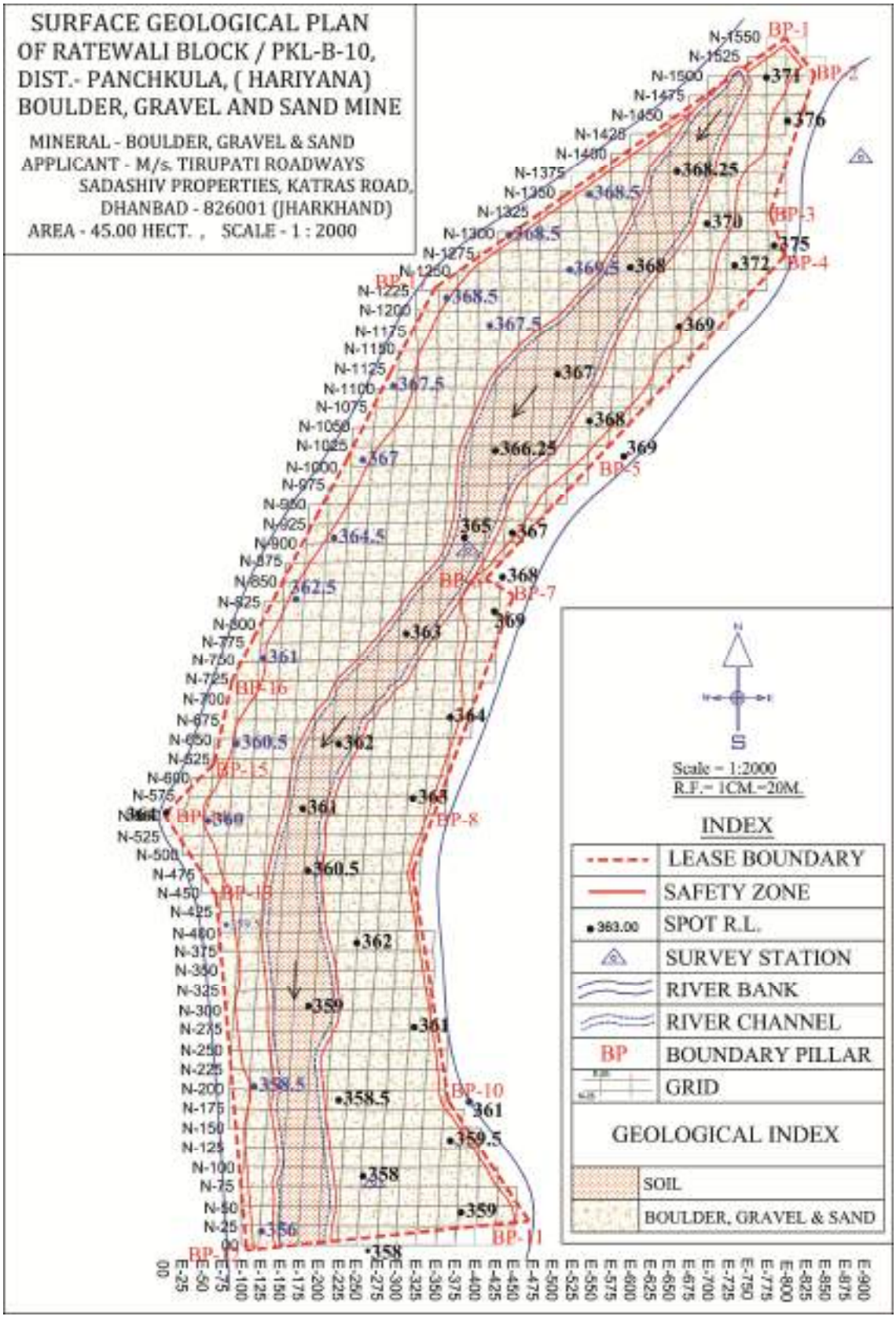
1.5 GEOLOGY OF THE LEASE AREA

The litho units encountered in the riverbed and surrounding areas belongs to the Siwalik Super group. The deposited sediments on the river bed are a mixture of boulders, pebbles, sand, silt and clay resulted due to traction and saltation during the peak flow of the river on recitation of the water in the river (non-monsoon), these river borne sediments are deposited on the bed. This is categorized by sedimentary lithology in the sub-Himalayan zone comprising Subathus, Dagshais, Kasaulis and Siwaliks. The regional stratigraphic sequences depict the recent formation of weathered parent rock.

Table No. 1.2: Regional Stratigraphic Sequences

Age	Super group	Group	Formation	Lithology
Holocene			Newer alluvium and Newer Aeolian Deposits	Gravel, Sand, Silt, Clay, Limestone, Gypsum
Lower to upper Pleistocene			older alluvium and Older Aeolian Deposits	Gravel, Grey Sand, Silt, Clay, Brown Sand, Calcrete
Lower to Middle Pleistocene	S I W A L I K	Upper Siwalik	Boulder Conglomerates formation	Conglomerate, sandstone, silt, clay
Upper Pliocene			Pinjore Formation	Coarse grit, red sand stone and clay, conglomerate
			Tat rot Formation	Friable Sandstone and variegated clay
		Middle Siwalik	Dhokpathar Formation	Brown sandstone and orange clay
Middle Miocene			Nagri Formation	Hard grey sand stone, mudstone and minor shale
		Lower Siwalik	Nahan Formation	Coarse gritty,clay and red sandstone often calcareous, brownish shale with lignite lenticels, greenish white Quartzite
Lower Miocene		Sirmur	Kausauli Formation	Grey and stone, green shale and grey clay
			Dagsai Formation	Purple and green sand stone, deep red gritty, clay, white sandstone with ferruginous concretions
Upper Eocene			Subathu formation	Sandstone with grit clay. Impure fossiliferous limestone calcareous slate, greenish shale and dark brown quartzite
Pre-proterozoic			Tundapathar	Thickly bedded, stromatolite limestone with carboniferous shale and quartzite.

Figure 1.3: Geological Plan – Scale – 1:2000



1.6 SURROUNDING MINING SCENARIO

The LOI was sanction from the Office of DMG, Haryana vide letter no. DMG/ HY/ Cont/ Rattewali Block/ PKL B 10/ 2017/ 2658 dated 16.06.2017 for a period of 7 years. The details of other LOI are sanctioned by the Office of DMG, Haryana were not known prior to November' 2018, by then, the said project was subjected to final appraisal of EC at EAC. Thus, the formation of cluster as on date stands valid wherein the general conditions as per MoEF&CC Notification no. S.O.3977 (E) dated 14.08.2018 is not applicable for B1 category project in cluster. As per OM No. J-11013/ 41/ 2006-IA.III dated 23.10.2017 the project will have to be dealt at the Ministry.

During the entire EC procedure undertaken until the final EIA/ EMP appraisal undertaken at MoEF&CC, there was only one mine at 8.5 Km towards SE and the same was mentioned during the appraisal. The TOR for the other mines allotted in the 39th EAC appraisal held in November' 2018 was not considered.

The details of other surrounding mining leases are tabulated as under:-

Table No. 1.3:- Details of other mining leases

S. No.	Project Proponent	Name Mining Block/ Project	Location of Mining Block - Villages	Area (Ha.)	Production Capacity per Annum (TPA)	LOI issued on	ToR issued on
1.	M/s Tirupati Roadways	Rattewali Block/ PKL B-10	Rattewali	45.00	19,00,000	16.06.2017	14.09.2017
2.	M/s Starex Minerals	Shamtoo – 1 Block/ PKL B-11	Shamtoo and Rattewali	46.50	20,00,000	23.02.2018	17.12.2018
3.	M/s Ganesh Enterprises	Shamtoo – 2 Block/ PKL B-12	Shamtoo	45.00	18,00,000	16.11.2017	17.12.2018
4.	M/s Shiv Enterprises	Sukhdarshanpur Block/ PKL B-13	Sukhdarshanpur and Shamtoo	37.38	14,50,000	Not Available	Not Available

1.7 REPLENISHMENT STUDY

The Modified Mining Plan was approved on the conventional practice of using theoretical empirical formula with estimation of bed load transport comprising of analytical models to calculate the replenishment estimation is as stated under:-

- The iso-pluvial maps of IMD have been used for estimation of rainfall.
- Catchment yield has been computed using the Strange's runoff method (Strange's Monsoon runoff curves) for the runoff coefficient.
- Peak flood discharge for the study area calculated by using Dickens, Jarvis, and Rational formula at 25, 50 and 100 years return period.
- The estimation of bed load transport using Meyer Peter equation.

On suggestion made by Hon'ble EAC (Former EAC), we derived at the reserve estimation by using Datamine software and stimulated the replenishment accordingly.

- Based on the actual topographic survey (Pre – Monsoon) and identification of permanent bench mark the lease area was virtually divided into 25m x 25m grid both working and non-working.
- Each grid was then identified with unique coding with respect to bench mark and geo-referenced on factual basis.
- Each identified grid with appropriate dimension and coordinates was earmarked with respect to MSL.
- Depth of each grid was mentioned on Z axis.
- All working grid were than fixed for a depth of 3m and reserve estimation of each grid was identified.
- The working and non working grids were categorically marked out separately.

The output reserve estimation with use of datamine software is total reserve is as under:-

Geological reserve: - 3.48 MT.

Mineable Reserve: - 2.36 MT

With respect to the above estimation derived using data mine software, is almost in sync with the reserve stated in approved Mining Plan.

The empirical formula's used to derive the replenishment of about 116% depicts carry off huge bed load which has to be periodically removed.

To derive at actual replenishment, the existing deposit will be mined out and then after monsoon the replenishment will take place and prior to post-monsoon mining, survey the area again and determine the replenishment using the datamine software. The

reserve estimation derived in Pre-Monsoon and Post- Monsoon will differentiate the replenishment as actual.

'The same was putforth in the appraisal at EAC, wherein it was formally agreed upon to allow us EC sanction for one year with limiting the production capacity to 10,00,000 Lacs ton/annum.'

1.7.1 INTER-ALIA INTERPRETATION OF LEGAL ORDERS

The Hon'ble SC in its order dated 16.11.2017 in SLP(C) No.34134 of 2013 (State of Rajasthan Vs. Nature Club of Rajasthan) inter-alia mentioned that "In Court, serious allegations have been made that the State of Rajasthan is complicit with the miners/quarry holders and sand and bajri is being mined with impunity. Without giving any credence to the allegations made until we hear from the Chief Secretary of Rajasthan on affidavit, we restrain all the 82 mining lease/quarry holders from carrying out mining of sand and bajri unless a scientific replenishment study is completed and the matter is fully and dispassionately considered by the Ministry of Environment, Forest and Climate Change and an environmental clearance is granted or rejected. This order will come into force with immediate effect."

This order may be read in line with the orders of Hon'ble Supreme Court:

1. ***Order dated; 25.11.2013……."the letter of intent holders who have submitted their application to the Ministry of Environment and Forests for clearance(numbering 82 only) can carry on mining operations in accordance with the notification dated 21.06.2012 of the mines (Act-2) department, Govt. of Rajasthan issued under rule-65A of the Rajasthan Mine and Mineral Concession rules 1986"……..*** Order of the Hon'ble Supreme Court is enclosed as **Annexure – IV.**
2. **Order 24.02.2014……." "can carry out mining operations in accordance with the notification dated 21.06.2012 of Mines (Act 2) Department, Govt. of Rajasthan issued under Rule 65A of the Rajasthan Mines and Mineral Concession Rules, 1986** will continue to remain in operation"…… Order of the Hon'ble Supreme Court is enclosed **Annexure – V.**
3. **Order dated 27.03.2014……."can carry out mining operations in accordance with the notification dated 21.06.2012 of Mines (Act 2) Department, Govt. of Rajasthan issued under Rule 65A of the Rajasthan Mines and Mineral Concession Rules, 1986** ***till the end of February'2014, we make it clear that the above direction is extended till we***

hear further and pass order"……. Order of the Hon'ble Supreme Court is enclosed as **Annexure – VI.**

4. **Order dated 16.11.2017……."For several months, if not years, without any environmental clearance and without any scientific replenishment study, unabated mining is going on by 82 parties before us"….** Order of the Hon'ble Supreme Court is enclosed as **Annexure – VII.**

The orders as stated above are for the 82 leases, which were functional without EC under the Shelter of Hon'ble Supreme Court.

After the grace period accorded by Hon'ble Supreme Court, the 82 leases failed to obtain EC on account of non submission of replenishment report, which in their case was valid as they were operative and had to submit the actual replenishment data.

*Note: - With the orders of Hon'ble Supreme Court all the 82 mines (LOI Holders) were allowed to operate on submission of ToR application itself. They were allowed to operate till the end of February' 2014, which was subsequently extended by interim orders of Hon'ble Supreme Court until 16.11.2017. They were allowed to work – 3 years 11 months 22 days/ 47 months.

This is a green field project and are yet to be operative, thus the actual replenishment is not possible. After being operative as per the guidelines stipulated by MoEF&CC we will be able to submit the actual replenishment data/ refilled sand statics.

The replenishment study will be if the pre-monsoon mining is allowed and the deposition in monsoon on the excavated bed undertaken will determine the actual replenishment, which can be excavated in post monsoon. (Replenishment synonym to restock or refill as the name suggests.)

Applicability of common cause order and statutory requirement in pursuance to OM dated 30.05.2018 is not implied. However, an undertaking by the way of affidavit to comply with the common cause order and other statutory requirement in pursuant to OM dated 30.05.2018 was submitted as an Annexure – XVIII at page no. 875 along with the EIA/ EMP report. Copy of the same is enclosed as Annexure – VIII.

1.8 TRANSPORTATION OF VEHICLE

The mining is proposed at a depth of 3.0m in the river bed, by extracting boulder, gravel and sand from the river using light – weight excavator and loading the mineral in 25 tonner tri-axle trailer GWV (Gross Weight of Vehicle) will not exceed beyond 55 Tonnes in semi-

articulated trailer.

The total production of 7,090 tonnes/ day will be dispatched vide 25 Tonner making a trip of 283.

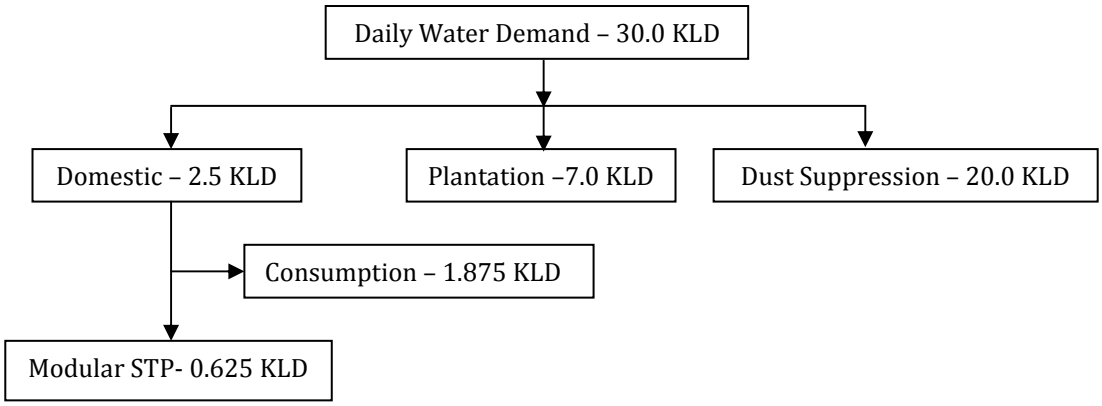
The specific density of the material considered 2.6tonnes/ m^3 based on analysis carried out for a similar mine in different state (Rajasthan) by a credible laboratory. Enclosed as **Annexure- IX.**

The restriction of mining depth will be 3m bgl in River-Bed; the ground water exists at an average depth of 8 -10m bgl, so at no point of time ground water table will be encountered.

1.9 UTILITIES AND SITE FACILITIES

The daily water demand as revised is 29.5 KLD or say 30.0 KLD, out of which 2.5 KLD water will be used for domestic purpose, 20.0 KLD for dust suppression and 7.0 KLD for plantation. The water demand will be met from nearby wells.

Figure 1.4: Water Balance (Revised)



Note:- Based on the discussions held in EAC and its subsequent outcome suggestions the water balance was revised as stated above, the basis of which is tabulated as under:-

Table No. 1.4: Basis of Water Demand

S. No.	Particular	Parameter	Total Water Demand (KLD)
1	Domestic	73 workers X 30 liters/ day = 2,190 liters or say 2.5 KLD	2.5KLD
2	Dust Suppression	1.55Km (Haul road – 0.5Km + 0.6Km + 0.45Km) x 1,000 x 3.3 = 5,115 Feet. Total Water Requirement/ Year = 2 Gallon x 5,115 Ft x 268 days = 27, 41,640 Gallon/ Year. 27, 41,640 Gallon/ year x 3.78 lit. = 1, 03, 63,399.2 lit/ year (1 Gallon = 3.78 liter). Water Requirement/ day = 1,03,63,399.2 / 268 days = 38,669.4 lit/ day i.e., 38,669.4 / 1,000 = 38.66 KLD or say 39.00 KLD	39.0KLD (Reduced 50% by using Mist canon generator i.e. **20.0KLD**).
3	Plantation	Total Water Requirement = 4,760 (No. of trees require 1 Gallon of water on a thumb rule, however, it has to be adjusted as per the site. The water holding capacity of the area on an average is 30%. Thus, the daily water requirement works out as 2.6 lts/ tree/ day. Excluding monsoon spell the watering day/ year is 122 days. 4,760 x 2.6 = 12,376 lts or say 12.5 KLD.	12.5KLD (Reduced 50% by using Drip Irrigation i.e. **7.0KLD**).
Total			**30.0 KLD***

Source: - Enclosed as **Annexure –X (a to c)**

1) CPHEEO Manual on Water Supply and Treatment dated 17.04.2015 for Domestic.
2) Surface Mining, Second Edition. Edited by B. A. Kennedy, Society for Mining Metallurgy and Exploration (US).
3) Plantation:-http://www.ourcityforest.org/blog/2015/2/26/the-ultimate-watering-guide, http://regreenspringfield.com/water/)

****The water demand will be reduced 50% from 54.0 KLD to 30.0 KLD by using effective water atomization and drip irrigation.***

There will be no ground water withdrawal without due permission from CGWA. The application for NOC in regards to withdraw ground water has been submitted to the Office of CGWA vide letter no. Nil dated 26.04.2018. Receipt is enclosed as **Annexure – XI.**

1.10 AIR QUALITY EXISTING AND PROPOSED

The primary baseline data for specific Micro-Meteorology data , ambient Air Quality, Water Quality, Noise Level, Soil and Flora & Fauna was collected during the Post-Monsoon period i.e. October, November and December' 2017 by former ACO.

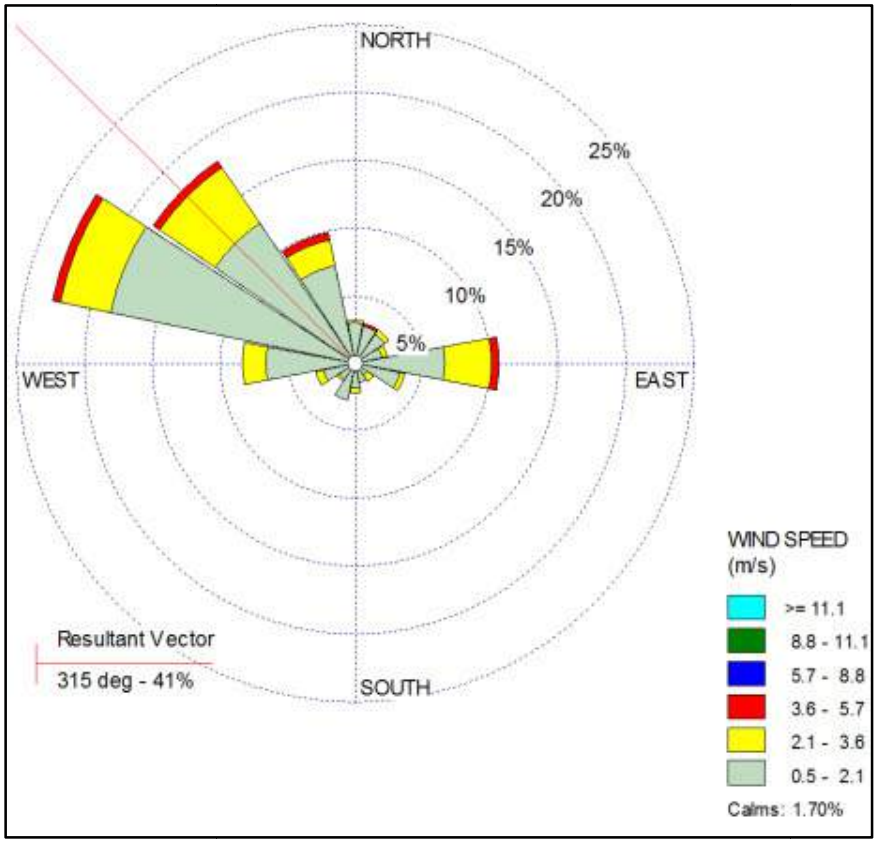
The concentration of PM_{10} and $PM_{2.5}$ were marginally more than NAAQS at Village – Rajpur Rani (103.8 µg/ m^3 and 64.1 µg/ $m^{3)}$ and at other locations i.e. at Mine Site, Villages(s) – Rattewali, Parwala, Rajpura PF near Bharoli, Alipur and Khetprali values were almost equivalent to the NAAQS values.

In the controlled case scenario of GLC's of PM_{10} and $PM_{2.5}$ are on higher side because of background emissions, ***due to burning of agricultural crop residues during the months of October and November every year.***

The predicted GLC's of PM_{10} and $PM_{2.5}$ in controlled scenario is 6.42µg/ m^3 and 3.80742µg/ m^3 at Mine Site.

Wind Rose Diagram: - The wind rose diagram is an output of the micro-meteorological data generated by the former ACO. The wind rose generated earlier was similar to the output generated by AERMOD. The resultant wind rose is stated as under:-

Figure 1.5:- Revised Wind Rose Diagram



1.11 PLANTATION

The total plants will be 31,455 for an area of 20.97Ha. during a span of seven years in seven Villages. Details are as given below:-

Table 1.5: Year wise Plantation programme in Villages

Locations										
Year	**Name of Villages**	**Village Area (In Ha.)**	**1% of the Village Area (In Ha.)**	**Approach Road / Village Road (In Ha.) & (No. of plants)**	**School**	**Public Health Center**	**Panchayat Bhawan**	**Community Center**	**Total Number of Plants**	**Density**
I	Rattewali	486.00	4.86	1.5 (2250)	0.84 (1260)	0.84 (1260)	0.84 (1260)	0.84 (1260)	7,290	1,500
	Ganeshpur	165.95	1.65	0.65 (975)	0.25 (375)	0.25 (375)	0.25 (375)	0.25 (375)	2,475	1,500
II	Bharoli	125.49	1.25	0.25 (375)	0.25 (375)	0.25 (375)	0.25 (375)	0.25 (375)	1,875	1,500
	Amrala	187.66	1.87	0.87 (1305)	0.25 (375)	0.25 (375)	0.25 (375)	0.25 (375)	2,805	1,500
III	Alipur	155.36	1.55	0.55 (825)	0.25 (375)	0.25 (375)	0.25 (375)	0.25 (375)	2,325	1,500
IV	Parwala	312.03	3.12	0.72 (1080)	0.6 (900)	0.6 (900)	0.6 (900)	0.6 (900)	4,680	1,500
V	Kambala	212.76	2.12	1.0 (1500)	0.28 (420)	0.28 (420)	0.28 (420)	0.28 (420)	3,180	1,500
VI	Taparian	303.18	3.03	1.03 (1545)	0.5 (750)	0.5 (750)	0.5 (750)	0.5 (750)	4,545	1,500
VII	Kanauli	152.13	1.52	0.52 (780)	0.25 (375)	0.25 (375)	0.25 (375)	0.25 (375)	2,280	1,500
			20.97						**31,455**	
Total									**31,455**	

CC = Community Centre **PHC** = Public Health Centre **PB** = Panchayat Bhawan **AP** = Approach Road **SC** = School

The geo-location of the plantation area with address and photographs will be subjective and will be in consultation with Local DFO, Gram Panchayat, Public Health Centre Village Administration and School.

- Vetiver grass in 7.5 meter of the safety zone around the lease boundary to protect the banks of the river will be undertaken with all due permission from the Surface Water Department/ Water Resources Department.

Table 1.6: Budget for Green belt Development

Particulars	No of Plants	Amount (Rs In Lacs)
Capital cost @121/ plant* (The budget includes cost of digging of pits, fertilizers, saplings and maintenance).	9,765	11,81,565
	4,678	5,66,038
	2,325	2,81,325
	4680	5,66,280
	3,180	3,84,780
	4,545	5,49,945
	2,280	2,75,880
Total		**Rs. 38,05,813**
Recurring Cost/ Annum (25% inclusive of maintenance, casualty replacement etc.).		**Rs.9,51,453**

1.12 ECO-SENSITIVE ZONE

A Wildlife Sanctuary Khol Hai Raitaan is situated at a distance of 1.90 Km towards N from the periphery of the mine Site. The same has been authenticated to the Office of Forest Department, Government of Haryana, O/o P.C.C.F. Cum Chief Wildlife Warden, Haryana vide letter no. 1912 dated 30.08.2018. Enclosed as **Annexure – XII.**

The application for obtaining NOC from NBWL was online uploaded vide proposal no. FP/ HR/ MIN/ 1851/ 2017 dated 27.10.2017.

1.12.1 CONSERVATION PLAN OF SCHEDULE – I SPECIES

As per approved Conservation Plan obtained from the Office of PPCF cum Wildlife Warden, Panchkula, Haryana vide letter no. 1912 dated 30th August 2018. Four Schedules-I species were reported in Panchkula district i.e. Indian Peafowl, Python, Leopard and Pangolin.

Table 1.7: List of Schedule – I Species

S. No.	Name of Species	Zoological Name	Schedule	Capital Cost (Rs. In Lacs)	Status
1	Indian Peafowl	*Pavo cristatus*	I	5.0	Approved
2	Python	*Phyton molurus*	I	5.0	Approved
3	Leopard	*Panthera pardus*	I	5.0	Approved

4	Pangolin	*Manis crassicuda*	I	8.60	Under process
Total				**23.60**	

An undertaking on Rs. 100/- non-Judicial Stamp paper regarding deposition of cost of conservation plan will be deposited prior to initiation of work after obtaining the Environmental Clearance.

1.13 DISTRICT SURVEY REPORT

The District Survey report for Sustainable Sand Mining has been obtained from the Office of Mining Engineer, DMG Panchkula vide Memo No. DMG/ HY/ DSR/ PKL/ 2017/ 2120 dated 24.04.2018. In reference to that a letter addressed to "The Director, MoEF&CC, New Delhi" has been issued Memo No. DMG/ HY/ DSR/ PKL/ 2017/ 3769 dated 31.07.2018 stating "***It is informed that the DSR report already notified on District Website, now is the final District Survey Report, therefore, it is requested that the mining projects of District Panchkula may be finalized for grant of Environmental Clearance***" is enclosed as **Annexure – XIII.**

1.13.1 INFERENCE OF SUB-DIVISIONAL COMMITTEE

It is stated to constitute a sub-divisional committee comprising of Sub-Divisional magistrate, Officer form Irrigation Department, State Pollution Control Board or Committee, Forest Department, Geology or Mining Officer, Revenue Department to recommend after site visit on the suitability of the area, thereof by identification of area, infrastructural installation if any, verification of lease boundary, suggestive transportation route, safety zone/ restricted area in consensus with the Sustainable Sand Mining Management Guideline 2016, S. O. 141 (E) dated 15.01.2016. It is desired to have the actual value of specific gravity location of Weigh Bridge, verification of initial level of mining, verification of baseline air quality data.

It is submitted that the lease was allocated by Office of Mines and Geology, Govt. of Haryana taking into consideration, the mineral deposit, restriction, pro-tracted litigation, defined methodology of mining, restricted depth of mining in line with the Sustainable Sand Mining Management Guideline 2016, S. O. 141 (E) dated 15.01.2016.

The demarcation of the lease area will be undertaken prior to the operation after sanction of EC, along with appropriate location of weigh-bridge with defined level of initial mining level. It is pertinent to state that the baseline air quality, along with

minimum impacted transportation route, etc. will be considered prior to mining operations.

1.14 PUBLIC HEARING

The Public Hearing for the proposed project was held on 17.04.2018 at Mine Site, Village – Rattewali, Tehsil – Barwala, District – Panchkula, Haryana under the Chairmanship of Mr. Mukul Kumar, HCS, Additional Deputy Magistrate, Panchkula (Haryana).

In public hearing, the major issue raised by local public is construction of haul roads and for dust-suppression. An amount of Rs. 12.0 Lacs/ Year has been earmarked for maintenance of haul road and the same has been included in EMP.

1.15 ENVIRONMENT MANAGEMENT PLAN

The overall investment for implementation of proposed EMP is about Rs. 127.15 Lacs and Rs. 47.01 Lacs are proposed as recurring cost. The breakup of the proposed cost for Environment Protection Measures is given as under:-

Table No 1.8: Environmental Protection Measures

S. No.	Particulars	Capital Cost (Rs. In Lacs)	Capital investment Year Wise (Rs. In Lacs)							Recurring Cost/ Annum (Rs. In Lacs)
			I	II	III	IV	V	VI	VII	
1.	Environmental Monitoring (Micro Meteorology, Air, Water, Noise etc.)	00	00	00	00	00	00	00	00	5.0
2.	Pollution Control (Dust Suppression & Water Sprinkling etc.) Rs. 22.5 Lacs @Rs. 4.5 Lacs/ Tanker Total:- 5 Nos.	22.5	4.5	9.0	9.0	00	00	00	00	6.0
3.	Occupational Health and Safety (Initial & Periodical Medical Check-ups)	15.0	3.0	6.0	2.0	1.0	1.0	1.0	1.0	10.0
4.	Plantation and Socio – Phase – Wise Development in the Nearby Villages during the Life of Mine)*	38.05	11.82	5.66	2.81	5.66	3.85	5.50	2.75	9.51
5.	Conservation Plan of Schedule – I Species (i.e. Indian Peafowl, Phyton, and Leopard)	15.00	5.00	4.00	2.00	1.00	0.50	1.00	1.50	00
	Pangolin	8.60	1.30	1.30	1.30	1.30	1.30	1.05	1.05	00
6.	De-silting (Nearby Village Pond)	4.0	1.0	1.0	1.0	1.0	00	00	00	2.0
7.	Maintenance of Haul Road	12.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	3.0

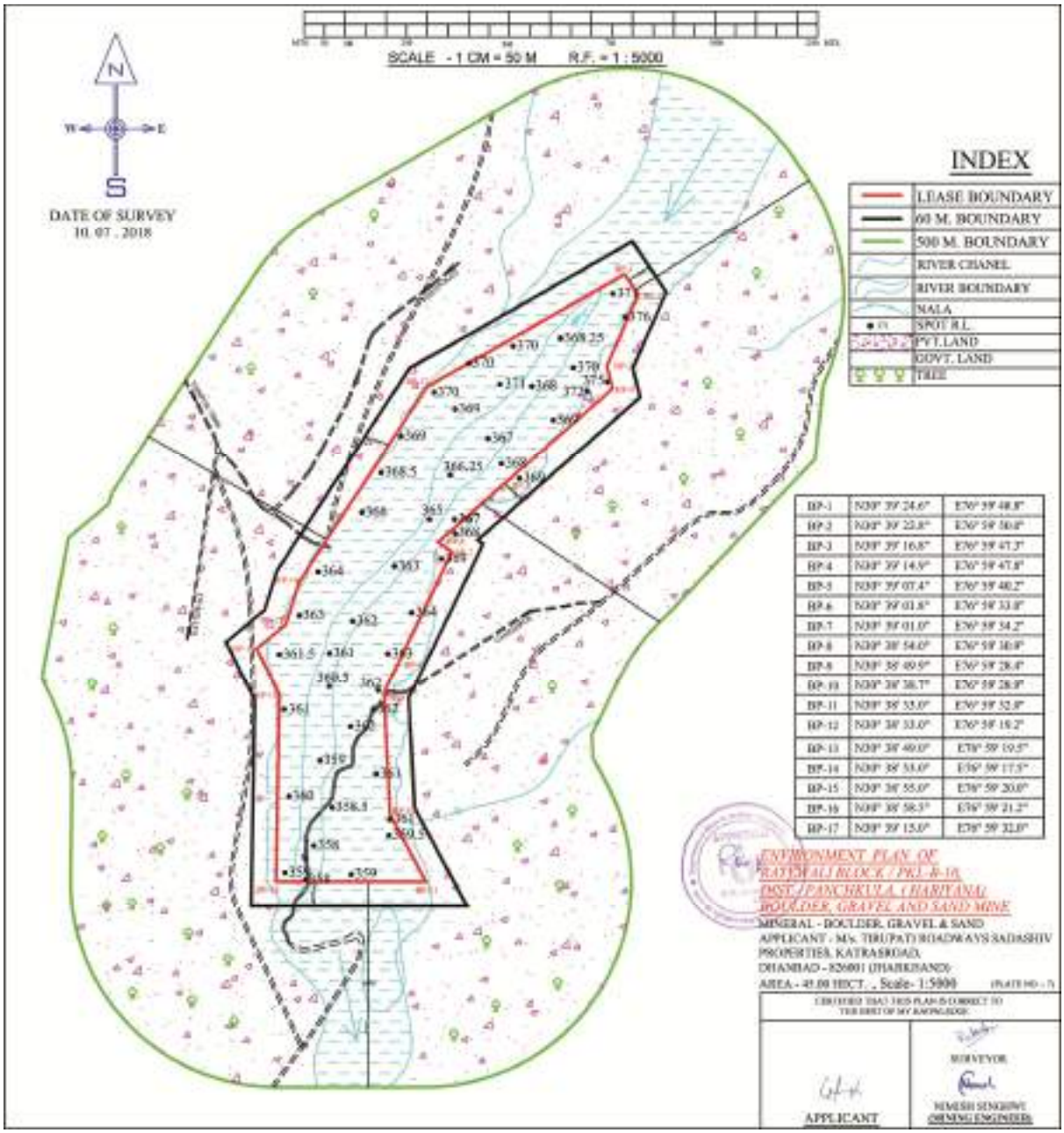
8.	Replenishment Study (Pre and Post Monsoon) & Mining Plan	10.0	3.0	2.0	1.0	1.0	1.0	1.0	1.0	10.00
9.	Environmental Awareness Program	2.0	0.5	0.5	0.25	0.25	0.25	0.25	00	1.5
Total		**127.15**	**32.12**	**31.46**	**21.36**	**13.21**	**9.9**	**10.8**	**8.3**	**47.01**

The cost towards manpower is recurring and need based, which will not impact the project cost; the total manpower envisaged including manpower for EMP will be 73. There will be increase of manpower from 69 to 73. The implementation of EMP will be part and parcel of the manpower already engaged by the lessee for mining and few of them will be deputed for this purpose.

The budget for plantation is Rs. 38.05 Lacs which is higher than the cost projected by the former ACO as Rs. 27.00 Lacs @ Rs. 121 per sapling.

The same may kindly be considered additional to the projected EMP cost with additional Rs. 11.05 Lacs, the same was oversight error.

Figure 1.6: ENVIRONMENTAL PLAN – SCALE – 1:5000



1.16 ENVIRONMENT SOCIAL COMMITMENT

The total capital of Rs. 34.49 Lacs and Rs. 15.0 Lacs will be incurred for Corporate Environmental Responsibility.

Table 1.9: CER Activities

S. No.	Activity	Action Undertaken	Cost (Rs. In Lacs) / Year	Capital Investment Year wise (Rs. In Lacs)							Recurring (Rs. In Lacs)/ Year
			Capital	I Year	II Year	III Year	IV Year	V Year	VI Year	VII Year	
1.	Infrastructure work for education	All the activity implements are proposed Four Village. **Village Name** 1. Rajkiya Vidhyalya, Tibbi:- **Distance 1.60 Km, NNW** 2. Rajkiya Vidhyalya, Rattewali:- **Distance 0.6 Km, SSW.** 3. Rajkiya Vidhyalya , Parwala:- **Distance 1.97 Km, SE** 4. Rajkiya Vidhyalya , Shamtu:- **Distance 2.05 Km, SSW**									
		New Classroom Construction proposed for Government School. **Total No. of New Classroom – 8*** **Construction cost in each school for two classroom Rs.90,000/-**	7.20	1.80	Nil	1.80	Nil	1.80	1.80	Nil	2.5
		➢ Construction of new toilet for Students in Government primary and secondary	2.80	1.40	1.40	Nil	Nil	Nil	Nil	Nil	1.5

		school. ➢ Eight Public toilet (04 Male & 04 Female) **Total No. of toilet – 16** **Toilet 16 Number @Rs.17,500/-**									
		Existing toilet repairs in the nearby villages other than new construction including septic tank and soak pit **Total No. of Toilet to be repaired 17 @ Rs.16,470.58 each**	2.80	0.40	0.40	0.40	0.40	0.40	0.40	0.40	2.5
		➢ Renovation of Computer Lab in Secondary Government School. **6 computers with table will be installed in each School.** **6x4 =24 @30,000 each**	7.20	1.80	Nil	1.80	Nil	1.80	Nil	1.80	3.5
2.	Infrastructure work for Drinking Water/ Sanitation	➢ Drinking water R.O. installation in at 1. Public Health Centre ➢ Bus Stand. At Village 1. Rattewali 2. Shamtu 3. Parwala 4. Tibbi	7.84	3.92	3.92	Nil	Nil	Nil	Nil	Nil	3.0

		Total No. of water ATM Machine to be installed @98,000/- each									
3.	Medical & Health	Organize Health check up camps and Medicine distribution programme **Malnutrition checkup and free diagnostic Treatment Programmes** to the nearest habitation of : **Health check-up camp in each village @ 75000/- village** **5 x Rs.75,000/-**	3.75	0.75	0.75	0.75	0.75	0.75	Nil	Nil	1.0
		Awareness through distribution of Sanitary napkin made by S.H.G. (Women's Empowerment & Health & hygiene). Awareness on Personal Hygiene. Cost of 1 Packet : 40/- INR Estimated Beneficiaries : Approx between 3500 - 6,000/- Total : 6,000 Beneficiaries	2.9	1.10	Nil	0.60	Nil	0.60	Nil	0.60	1.0
Total			**34.49**	**11.17**	**6.47**	**5.35**	**1.15**	**5.35**	**2.2**	**2.8**	**15.0**

* The total no. of classrooms will be 8 in numbers and construction cost in each school for two classrooms will be Rs. 90,000/- as on date. The cost earmarked for the same is a projection, which may vary with various influenced parameter.

However, the actual cost incurred at the time of construction can have variable factors governed by the construction cost; the intent is to have two classrooms in each school with 4 schools under consideration.

1.17 CONCLUSION

It is imperative to adhere to the Sustainable Sand Mining Management Guidelines' 2016 as well as the conditions imposed by MoEF&CC as well as the recommendation of Sub-Divisional Committee prior to initiation of operation. The stated budget allocation along with requisite expense to be incurred towards CER and EMP will be followed in true spirit. The DGPS survey of the factual status of the area in the pre-operational phase with grid 25 x 25 will be undertaken to determine the actual level of each grid with reference to installed bench mark. It is requested to impose all requisite condition with permission to operate under sanction of EC.

****

ANNEXURE

Vardan EnviroNet

Regd. Off: D-142, Sushant Lok-III, Sector-57, Gurugram - 122003 (Haryana)
Laboratory: Samaspur, Opp. Amity School Sector-51, Gurugram - 122001 (Haryana)
Branch Off: Plot No.24&25, Narayan Vihar, B-Block, Jaipur-302035 (Rajasthan)
QCI-NABET Accredited EIA Consultant | NABL Accredited| MoEF&CC Recognized | HSPCB Approved

TO WHOM SOEVER IT MAY CONCERN

This is to certify that I, R.S Yadav, Managing Director of Vardan Environet, Gurgaon with its Head Office D-142, Sushant Lok – III, Sector 57, Gurgaon, Haryana and listed at S. No. 154under the list of NABET Accredited Consultant Organizations as on August10, 2018, were responsible for carrying out Environmental Impact Assessment/ Environmental Management Plan for the following projects:-

S. No.	Name of Applicant	Name of Project	Lease area	Location	Production Capacity	MoEF&CC File No.
1.	Tirupati Earth & Works Pvt. Ltd.	Sand Mining of Nagla Rangran Block/ YNR – B-14, Block – PKL – B-10	89.48 Ha.	Village – Nagla Rangran, Tehsil – Radaur, District – Yamunanagar, Haryana	38,60,000 TPA	76/ 2017
2	Tirupati Roadways	Boulder, Gravel and sand Mining of Rattewali Block – PKL – B -10.	45.00	Village – Rattewali, Tehsil – Barwala, District – Panchkula, Haryana	19,00,000 TPA	75/ 2017

I herby take the onus and responsibility of the baseline data and other statistical parameters stated in the above reports as factually correct and shall own the responsibility for the same.

I also submit "**No Objection Certificate**" for change of Accredited Consultant Organizations and shall extend my willing co-operation for the same.

For Vardan Environet

(Managing Director) 17-8-2018

Speed Post/Registered

From

The Director,
Mines and Geology, Haryana,
30-Bays Building, 1st Floor, Sector-17, Chandigarh.

To

Ministry of Environment, Forests and Climate Change,
3rd Floor Vayu Block, Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj New Delhi.

Memo No.DMG/HY/Cont./Shamtoo-2 Block/PKL B-12/2017/ 5295
Dated Chandigarh, the 23.X.2018

Sub:- Mining of 18,00,000 TPA of Boulder, Gravel and Sand (Minor Minerals) from Dangri River Bed having mining lease area of 45 ha located at village Shamtoo, district Panchkula, Haryana by **M/s Ganesh Enterprises** [File No. J-11015/31/2018-IA-II(M); Proposal No. IA/UK/MIN/72297/2017; Consultant: Voyants Solution Private Limited]- Clarification Regarding.

Kindly refer to your letter dated 20.08.2018 on the subject cited above.

2. The above said case relates to grant of EC to **M/s Ganesh Enterprises** for mining of minor minerals from riverbed area of river Dangi/ Tangri and its Tributaries. The area for mining falls under the revenue estate of village **Shamtoo district Panchkula**, Haryana. However, there are other mining contracts/ mineral concessions granted in the other parts of river situated on upstream and downstream also. The EAC considering that above mining areas are adjacent to each other took the overall view on the cluster situation.

In this regard, it is clarified that the above projects areas are otherwise category B-1 / category A projects and not of B2 projects. Hence, the cluster i.e B2 projects in nearby area (500 metre radius) having total area more than 25 ha is not relevant. However, the concern of the EAC is valid to address the related concerns on the basis of the EIA report submitted for **Rattewali Block-10** as per which air quality data even in the control scenario is more than prescribed limits. The **EAC** apprehended that the mining in other areas will add pollution and air quality may further deteriorate as the cumulative quantity of extraction of three mining leases.

3. In this regard, it is stated that the areas in question are situated in such region where there are minimum industrial activities. The data collected by PP of **Rattewali** project was apparently for the period of crop harvesting and it is well

known that at times stubble burring by the farmers despite all related restraint orders, deteriorates the air quality. Further, cumulative effect of mining in all blocks is also not likely to have any such alarming impact on the PM_{10} and $PM_{2.5}$ as the mining shall be over widespread areas and with required precautions of adequate sprinkling of water.

It may be considered that there are total 07 mining blocks in the nearby areas - the mining contracts in respect of 04 mining blocks namely Rattewali Block/PKL B-10, Shamtoo-1 Block/PKLB-11, Shamtoo-2 Block/PKLB-12, Sukhdarshanpur Block PKL B-13 have already been granted. The area of block namely 'Kot Block/PKL B 8 & 9' falls within another river namely "Krishna". No other area of river under consideration has been granted on contract.

4. The EAC in the MoEF & CC, GoI, with regards EC of the mining project/s of upstream side to downstream side of the river area has sought additional information.

Sr. No.	Project Proponent	Name mining block/ Project	Location of mining block - villages	Area (in ha)	Production capacity per annum (TPA)
1	M/s Tirupati Roadways	Rattewali Block/PKL B-10	Rattewali	45.00	19,00,000
2	M/s Starex Minerals	Shamtoo-1 Block/PKL B- 11	Shamtoo and Rattewali	46.50	20,00,000
3	M/s Ganesh Enterprises	Shamtoo-2 Block/PKL B- 12	Shamtoo	45.00	18,00,000
4	M/s Shiv Enterprises	Sukhdarshanpur Block/PKL B- 13	Sukhdarshanpur and Shamtoo	37.38	14,50,000

It is stated that related PPs while seeking EC and other approvals do ask for optimum level production which can only be achieved if all other mines comes to closure or demand goes on extremely high side. The details given in paras below may also be read as part of submissions/ clarification in this regard.

5. The **EAC/ MoEF & CC, GoI**, in view of above has sought clarification:-

a) As regard **selection of area for mining following may be considered:**

I. The district, Panchkula is situated in the foothills of the Shivalik hills. The formation of the area is such that huge amount of mineral i.e boulder, gravel and sand -construction material are brought along with water during rainy season.

II. The minerals deposited in the riverbed areas are being excavated from the riverbed areas since long/ decades from the various parts and in the past

mineral concessions/mining contracts for very large area were being granted through open auctions. Initially the mineral concessions were being granted on revenue estate basis and subsequently for number of villages and unit block and lastly (till 2009) all mines of district as one unit.

III. The mining was being permitted only in the area free from restrictions as applicable for riverbed mining.

IV. It is also relevant to point out that due to a protracted litigation created by the vested interests the mining in the area remained closed from 01.03.2010. The State could auction its minor mineral mines in Dec,2013 for grant of Mining contracts.

V. In December, 2013 the mining areas of district Panchkula were auctioned by forming three different units which interalia were having number of mining blocks. The contracts were awarded in January, 2014 and they were required to seek EC before mining. However, the mining contracts of these three units got cancelled in January, 2015 through Hon'ble High Court as the highest bidders created confusion regarding the mineable area created litigation.

VI. The state government thereafter decided to grant smaller blocks so that even small entrepreneurs could also enter in the mining business and monopoly of few could be broken.

VII. The areas available for mining in the riverbed (being free from all exiting applicable restrictions) were selected and 18 mining blocks in district Panchkula were formed and in **April,2015** were notified for auction to be held in May,2015. The auctions were conducted subject to condition that actual mining will be allowed to be undertaken only after prior EC is obtained.

VIII. Hence, the blocks including that of the mining blocks under consideration were selected/ formed much before the policy of **MoEF& CC GoI, 2016**.

b) As regard replenishment of the mineral, it would be relevant to state here that:

i. The riverbed areas of this part are situated in the foothills of the Shivalik Hills and enormous quantity of sediments/ minerals in the form of Boulder, Gravel and Sand and/or sand deposits are brought every year during the rainy season.

ii. Further, though the river is not perennial and water comes mainly during rainy season. The mineral deposits of bigger size (boulder and gravel)

gets settled in the upstream side and finer and finer size of mineral in the form of sand gets deposited in the downstream side. The sand deposits so brought by the fluvial action are found much beyond the area in question on the downstream side.

iii. It is important to state here that replenishment of mined out area and its study could be possible only after the mining area are used for mining. The area in question were not being used for mining since March, 2010.

iv. It may be appreciated that each of the project proponent/s in all cases by and large suggests/ sought for clearances for excavation of mineral based on the **maximum mine-able reserves of the area**. However, the past practice/ records shows that actual mining remains much less than that of optimum capacity of a mine. The actual production of a mine depends on demand of mineral /constructions material in the area and also operation of other nearby mines.

v. Notwithstanding the same, it is further clarified that on the basis of restriction of maximum permissible depth of 3 meters the mineral concession holder at any point of time cannot go beyond said limit- i.e. **can not undertake mining below 3 meter of the existing bed level.**

vi. During every rainy season mineral / sediments are brought due to fluvial action and get deposited in the area and as a natural course the mineral so brought at the first instance gets deposited in the low lying mined out area (depression created due to excavation in the riverbed- in case mining had been undertaken). This process takes place in the upstream side mining areas / excavation and then in the pits/ depressions created in downstream side.

vii. The sediments over and above the same get deposited in the other parts of the river bed – un-mined area also -depending upon the force in water stream.

viii. The mining in the upstream side of the project in question in no way affects the replenishment of the project under consideration or other projects in the downstream side of the project as huge quantity of sediments are brought during rainy season.

ix. It may further be explained that in case the mineral excavated during any season (pre-monsoon) in the river results in creation of depression of bed level say of 3 meters i.e in case the mineral is excavated for full

permissible depth of 3 meters and after monsoon season the mined out areas get replenishment.

x. However, for argument sake if it is considered that it is partly replenished/ filled up [say 2 meters only] in that case in next season (post monsoon) the project proponent will not be able to excavate mineral beyond such replenished depth. The project proponent will be under obligation to take and maintain record of the river bed level after regular intervals to ensure that his mining operations at no point of time go beyond the level of 3 meter from the original/existing level of river bed.

xi. It is worth pointing out that the process of making records of the riverbed levels by the project proponents may be considered to be stipulated as additional condition under EC as it will also act as regular replenishment study of the area during the contracted period.

xii. At the cost of repetition, it is again stated that the actual production of any mine/ area are depends on the demand of the mineral. The demand of the mineral dependents on the development works in and around area. The production of any particular mine also depends on the other mines operating in and around the same.

c) **As regard selection of areas the details given under sub para a) may be considered.** However it may also be pointed out that areas selected for mining are free from other restrictions such as area near bridge/s or any other structures or Forest etc. The PP shall be undertaking excavation of mineral out of his lease hold area depending upon replenishment – which would be different in each rainy season- depending upon the fluvial action during said rains. It needs to be elaborated that actual area requires replenishment is the actual area from where mining is carried out in the leased area and not over whole riverbed. It is appealing to state here that in case of areas in question in the upstream side areas falling in the Shivalik Hills no mineral excavation is involved over several thousand square kilometers/ the catchment areas.

d) **As regard certain areas in the riverbed stated to be not filled up for want of sediments deposited during current rainy season** – it is clarified that all of the riverbed areas are filled up and it is not correct to state that old mining pits are still not filled up. It may be relevant to point out that the entire river stretch is leveled. The photographs of riverbed area taken in the month of September, 2018 right from **Rattewali** Block to **Sukhdarshanpur** Block falling in 'Dudgarh

Wali Nadi' have been taken recently are attached, the visual of same would make it is clear that no stretch of riverbed has remained un-replenished. Hence, the apprehension of the MoEF & CC, GoI with regard to non-replenishment of riverbed area is not correct.

e) **As regard some areas of river already having depth of 3 meters it is clarified that the level difference between outside and inside land of riverbed** with reference to level of adjoining areas - in the case of existing areas the natural topography is such that at some places the river flows just on the edge of hilly area. However, the same does not mean that riverbed area has gone down due to any excavation.

f) **With regard to difference in area of various blo**cks it is submitted that there may be difference in taking DGPS readings. It is clarified that area granted by the department are calculated based on revenue records. The same is authenticated, dependable recorded, and survey undertaken with the help of DGPS by PP can be having small difference due to any human error.

g) **With regard to mention of illegal mining in district Panchkula** as stated by the PP before EAC, it is not clear as to on what basis they stated so or made such general remark. However, the EAC may be informed that there is no illegal mining in the district Panchkula. It may also be noted that in general the private persons seeking approvals tries to convince the authorities to give them clearance raising such issues- and tries to impress upon as if clearance is not given quickly the illegal mining and/ or proposed operations may happen. The same needs to be taken on records only on the basis of facts and not surmises. It is submitted that District Level Task Forces under the Chairmanship of Deputy Commissioner concerned have been constituted in each district wherein senior functionaries of the departments of Police, Transport, Forest, Pollution Control Board and Sales Tax and Mines and Geology are members. The officials of the department of Mines and Geology jointly and severally inspect the areas round the clock to check illegal mining. Apart from some stray incidents of theft of mineral, there is no illegal mining in the area.

In district Panchkula, presently 53 **stone crushers** are in place (out of which only **36 are operational**. All crushers in operation have valid approvals- **crusher License and CTO of the HSPCB**. The crushers are procuring mineral from the mines operating in district Panchkula and in the past were procuring material from adjoining operational mines in other parts of the state as well as from the Himachal Pradesh and Punjab. It is again stated that the crushers are

also operating at sub optimal capacity. As per information collected the total installed crushing capacity of these **36 operational stone crushers** is about 11,000 MT per day. However, these crushers do not operate at optimum capacity/ mainly for want of raw material as well as demand of construction material.

12. In view of above, the MoEF&CC, GoI is requested to consider deciding the applications for grant of EC in related cases on merit.

State Mining Engineer,
for Director, Mines and Geology,
Haryana

Endst. No.DMG/HY/Cont./Shamtoo-2 Block/PKL B-12/2017/ Dated;

A copy is forwarded to M/s Ganesh Enterprises, C-16, TDI City, Panipat, Haryana, 132013 for information and necessary action.

-Sd-
State Mining Engineer,
for Director, Mines and Geology,
Haryana.

h) The Committee observed that although there is no major non-compliance reported in the RO Compliance Report but as the report is almost three-year-old.

i) In the EMP, PP has not addressed the fugitive emission from the crusher and screening plant, the Committee also observed that although PP has proposed pre & post-employment health check-up but activity wise time bound budget for the same is not explicitly mentioned, the Committee also observed that Ministry has finalized the Standard EC conditions for non-coal mining projects and PP should prepare the activities and budget allocation in line with the Standard EC Conditions. The clear time line activity wise for the activities proposed in EMP needs to be submitted with budgetary allocation.

j) The PP has provided only capital cost of the project what about the recurring cost. Thus, details of the same needs to be provided. The PP should revise the cost of project based on the different activities proposed for this project.

k) The PP & Consultant should give an undertaking that EIA/EMP Report and all documents submitted in this regard to the Ministry are factually correct and PP & Consultant are fully responsible for the same. The Committee observed that as the PP has applied earlier online Form-II was not submitted.

l) The PP should approach State Government in case any violation of Common Cause Order dated 02.08.2017 for raising the demand if any. The Committee also requested the Ministry to examine the matter in light of Common Cause Order dated 02.08.2017 and S.O. 804(E) dated 14.03.2017 for any violation.

(2.22). Mining of Boulder, Gravel and Sand Minor Minerals at Rattewali Block/PKL B 10 over an area of 45.00 ha, with production capacity of 19, 00,000 TPA located at Village- Rattewali, Tehsil- Barwala District-Panchkula, Haryana by M/s Tirupati Roadways (File No: J-11015/75/2017-IA-II (M); Proposal No IA/HR/MIN/66257/2017; Consultant:Enkay Enviro Services Pvt. Ltd)-Consideration of EC

The proposal of M/s Tirupati Roadways is for production of 19,00,000 TPA M/s Tirupati Roadways from "Rattewali Block/PKL B 10" in Dudgarh River Bed having mining lease area of 45.0 Ha located at Village- Rattewali, Tehsil- Barwala District- Panchkula, Haryana. The mine lease area falls in the Survey of India Topo-Sheet No. H43K14 & H43L2.The latitudes and longitudes of the Mine lease fall between Latitude: - N 30° 38' 33" to N 30° 39' 24.6 " and Longitude: - E 76° 59' 17.50" to E 76° 50' 00.00". As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "B1", Project as the mining lease area is less than 100 Ha. Further, as per EIA notification, 2006, "Any project or activity specified in Category 'B' is treated as Category 'A', if located in whole or in part within 5 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive

areas, (iv) inter-State boundaries and international boundaries". In the instant case the Khol Hai Raitan Wildlife Sanctuary is within 1.98 km from the mine lease boundary and thus the project was considered as Category 'A' project in the Ministry. Further, as per S.O.3977 (E) dated 14.08.2018 the general condition is not applicable for B1 category project in cluster. The SEIAA Haryana is not functional and due to this the proposal is considered in the Ministry.

The Project Proponent applied online vide proposal no IA/HR/MIN/66257/2017 on 18.07.2017 for prescribing Term of Reference (ToR) and submitted the Form-1 and Pre-Feasibility report. The proposal was considered & recommended for prescribing Term of Reference (ToR) in EAC Meeting held on 29-30 August, 2017 and ToR was issued on 14.09.2017. The Project Proponent applied vide proposal No. IA/HR/MIN/66257/2017 for grant of EC online on 27.04.2018 and submitted the EIA Report after conducting the Public Hearing. The proposal was placed in EAC Meeting held on 14-15 May, 2018, wherein, the Committee **returned** the proposal in present form due to shortcomings. The PP now applied online vide proposal no. IA/HR/MIN/66257/2017 dated 30.11.2018 for grant of EC and the proposal is now placed in the EAC meeting held during 22-23, January 2019.

The proponent mentioned that the LOI over an area of 45.0 ha of Mining lease has been granted by the Director General, Department of Mines & Geology, Haryana vide memo no.- DMG/ HY/ Cont/ Rattewali Block/ PKL B 10/ 2017/ 2658 dated 16.06.2017 for a period of 7 years. The lease area lies on riverbed of Dudgarh in District Panchkula (Haryana). The PP submitted that Mining Plan and Progressive Mine Closure Plan of this proposed mining lease area is approved by Director General of Mines and Geology Department vide memo no. DMG/HY/MP/Rattewali Block/PKL/B-10/2017/405 on dated 24/01/2018 with production capacity of 19, 00,000 Tonneand thereafter as per direction of EAC PP prepared the Modified Mining Plan including Progressive Mine Closure Plan for 19,00,000 TPA at get it approved by the Office of State Mining Engineer, Director Mines & Geology, Haryana vide Memo no. DMG/ HY/ MP/ Rattewali Block/ PKL B – 10/ 3989 – 92 dated 07.08.2018.

The proponent mentioned that the mining activity will be carried out by open cast semi-mechanized method without drilling and blasting. Mining is proposed up to a depth of 3.0 m in river bed. River bed mining is for extracting Boulder, Gravel and Sand from River bed.Light weight excavators will be used for digging and loading of mineral in tippers. No OB/ waste material will be produced.PP submitted that sand shall be excavated by deploying Nos. 05 JCB/excavator of capacity 0.9 $m^3$and transported through tippers 25 Nos. Trucks/Tippers/tractor of 25 tones capacity. PP submitted that 5 Nos. water tanker of 5000 liters is proposed for proper dust suppression.The PP previously submitted that total geological reserve is 27, 00,000 and Mineable Reserve is 22, 95,000 Tonnes. The PP now re-calculated the geological reserves using datamine software and submitted that now the total geological reserve is 3510000 Tonnes out of which mineable reserve is 2373356 Tonnes.

Observation of EAC: The Committee observed that i) during the meeting Committee asked the PP & Consultant that how the material will be taken out from the mining pit. The PP submitted that material will be taken out from the pit by tractor and then dumped at

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storage site from there it will be loaded into trucks for further transportation. The Committee observed that on perusal mining plan it has come to the notice that PP has proposed that material will be taken out from pit through excavator and then it will be loaded into the trucks for further transportation. Thus there is a contradiction in statement made by the PP & Consultant.

ii) The Consultant also submitted that payload of transportation vehicle to be used will be 16 tons. The Committee asked the consultant to verify the data but the consultant confirms that 16 tonners will be used. The Committee observed that in mining plan and EIA Report the 25 Tonne capacity tippers was mentioned for calculation of number of trips; even for the air qualities modeling 25 tonne capacity vehicles were proposed. Thus,the Committee is of the view that PP should confirm the carrying capacity of the vehicles to be used for this project and accordingly calculate the number of trips, traffic study and air quality modeling.

iii) The Committee observed that the based on the methodology proposed by earlier EAC the PP has collected the base line data and also PP has calculated the total geological reserve considering the specific density of the material as 2.6 Tonne/m3 but in the same riverbed other PP submitted that the specific gravity of the material in the said river bed is 1.82 Tonne/m3. Considering this the total reserve in the mining lease comes out to be 2457000 Tonnes and minable reserve as 1661349.2 Tonnes. Considering the average specific gravity of 2.0 Tonne/m3 the total reserve in the mining lease comes out to be 2700000 Tonnes and minable reserve as 1825658.5 Tonnes.

PP submitted that the maximum working depth of mining will be 3 m bgl in river bed where the groundwater table exists at an average depth of 8-10 m bgl, so mining depth will not intersect the ground water table. PP submitted that the water will be taken from existing water sources from nearby villages or tanker supplier. PP has submitted that an application regarding ground water extraction has been submitted to CGWA on dated 24.04.2018. The PP submitted that total water requirement was previously 120 KLD which is now reduced to 30 KLD (20 KLD for dust suppression, 2.5 KLD for Domestic use, 7.0 KLD for plantation).

Observation of EAC:i) The committee observed that Permission from CGWA is still awaited and thus provision of Ministry's O.M No 21-103/2015-IA.III dated 2.11.2018 is applicable for this project which is regarding terms of reference related to ground water withdrawal wherein it has mentioned that following ToR shall be invariably incorporated to address the issues while prescribing ToRs for various developmental projects:

a) In the projects where ground water is proposed as water source, the project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority(SGWA), as the case may be, for obtaining No Objection Certificate (NOC), if applicable, the MoEF&CC/SEAC may ensure that such application has been made.

b) Approval/permission of CGWA/SGWA shall be obtained before drawing ground water for the project activities. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.

ii)The PP has proposed that use of atomizer water tanker will reduce the water consumption by 50% but the same is not mentioned in the list of mining machinery. Thus, PP should provide the number of water tanker having mist generator cannon for this project and accordingly revise the EMP cost.

The PP previously submitted that the total plantation will be 22300 covering an area of 15 Ha. The PP now submitted revised plantation plan wherein 31455 saplings will be planted on 20.97 Ha area covering 7 villages [Rattewali (7290 saplings), Ganeshpur (2475 saplings), Bharoli (1875 saplings), Amrala (2805 saplings), Alipur(2325 saplings), Parwala(4680 saplings), Kambala(3180 saplings), Taparian(4545 saplings), and Kanauli (2280 saplings)]. Inside the villages plantation will be carried out on Village Road (Panchayat Bhawan, Community Center, School and Public Health Centre.

Observation of EAC: The Committee has observed that PP has selected large area for plantation but in order to monitor the same the PP should submit the detailed plantation plan which clearly mention the name, address, geo-location and photograph of school, Panchayat Bhawan, Community Center and Public Health Centre where plantation shall be carried out. In addition to this PP should submit the length & geo-locations of roads along which plantation will be carried out. The PP should clearly bring out the number of saplings, area to be covered under plantation in each of these locations. The Committee also suggested that PP should carry out plantation of vetiver grass in 7.5 meter of the safety zone around the lease boundary to protect the banks of the river. The budget for plantation shall be included in the EMP.

The Project Proponent reported that there is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves/ Critically Polluted areas/Aravali located within the radius of 10 km of the mine lease area. However, Khol Hai Raitan Wildlife Sanctuary lies at the distance of 1.98 Km in N direction. In this regard the proponent submitted LR No. 5113 dated 19.09.2017received under RTI Act, 2005 from Forest Department, Haryana.

Schedule-1 Species & Wildlife Conservation Plan: In this regard the proponent submitted LR No. 5113 dated 19.09.2017received under RTI Act, 2005 from Forest Department, Haryana. In the same letter the list of flora and fauna is also provided. The PP submitted that there are three Schedule-1 species in the study area viz. Leopard, Indian Peafowl and Indian Python and their conservation plan (Rs. 15 Lakhs) which includes i) Rs 5.0 Lakh for Planting of trees groves in surrounding area and Promotion of agro forest in villages planting fruits trees, ii) Rs 5.0 Lakh for artificial nests, feeding and watering arrangement for animals , iii) Rs 2.0 Lakh for Workshops, Training and awareness programs, iv) Rs 2.0 Lakh for Water supply and v) Rs 1.0 Lakh for Contingencyhas been prepared and submitted to APCCF Panchkula Haryana for their approval on 22.12.2017. The PCCF (Wildlife), Panchkula, Haryana has approved the conservation plan (total amount ₹ 15 Lakh) vide LR No 1912 dated 30.08.2018. There is one more Schedule-1 species Pangolin (*Manis crassicuda*) for

which conservation plan has been submitted via email for approval of Chief Wildlife Warden on 19.11.2018. The PP has revised the budget of Conservation plan for all the Schedule-1 species to 23.60 Lakh.

Observation of EAC: The Committee is of the view that PP should confirm whether the amount already approved for the conservation plan has been deposited in the Government account or not and what is the status of approval of revised conservation plan.

PP has submitted the District Survey Report for Sustainable Sand Mining for Districts Panchkula.

The Primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post Monsoon season i.e. October to December, 2017. The monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of October 2017-December 2017 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples. However,the concentration of PM_{10} and $PM_{2.5}$ is slightly more than NAAQS at location number 5 (Rajpur Rani) and other location also values are slightly less than NAAQS.

The PP previously submitted (CALINE) the following GLC in worst case and control case scenario and now submitted (AERMOD V 7.1.0) are as follows:

Previous: (CALINE) PM_{10}

Location Code	Location Name	Max Baseline Conc. (µg/m3	Cumulative GLC (µg/m3) (PM10) Worst Case	Cumulative GLC (µg/m3) (PM10) Control Case
A1	Project Site	98.3	127.8981	**105.8901**
A2	Near Village Rattewali	96.1	132.7945	**105.2985**
A3	Near Village Parwala	91.7	98.8248	93.5048
A4	Near Rajpura PF Near Bharoli	88.3	91.82943	89.19743
A5	Near Village Rajpura Rani	103.8	104.9762	**104.0802**
A6	Near Village Alipur	98.2	98.20159	98.20159
A7	Near Village Khetprali	97.2	107.058	99.66598

Revised: (AIRMOD 7.1.0) PM_{10}

Location Code	Location Name	Max Baseline Conc. (µg/m3	Cumulative GLC (µg/m3) (PM10) Worst Case	Cumulative GLC (µg/m3) (PM10) Control Case
A1	Project Site	98.3	113.1	104.7
A2	Near Village Rattewali	96.1	101	98.2
A3	Near Village Parwala	91.7	93.3	92.4
A4	Near Rajpura PF Near Bharoli	88.3	88.8	88.5
A5	Near Village Rajpura Rani	103.8	104.1	103.9
A6	Near Village Alipur	98.2	98.4	98.2
A7	Near Village Khetprali	97.2	97.3	97.2

Previous: (CALINE) $PM_{2.5}$

Location Code	Location Name	Max Baseline Conc. (µg/m3	Cumulative GLC (µg/m3) (PM2.5) Worst Case	Cumulative GLC (µg/m3) (PM2.5) Control Case
A1	Project Site	59.2	62.12158	59.93758
A2	Near Village Rattewali	55.5	59.19655	56.39655
A3	Near Village Parwala	50.7	51.42848	50.86848
A4	Near Rajpura PF Near Bharoli	50.3	50.63605	50.41205
A5	Near Village Rajpura Rani	57.4	57.51201	57.45601
A6	Near Village Alipur	53.5	53.50006	53.50006
A7	Near Village Khetprali	57.3	58.30807	57.52407

Revised: (AIRMOD 7.1.0) $PM_{2.5}$

Location Code	Location Name	Max Baseline Conc. (µg/m3	Cumulative GLC (µg/m3) (PM2.5) Worst Case	Cumulative GLC (µg/m3) (PM2.5) Control Case
A1	Project Site	59.2	68	63
A2	Near Village	55.5	58.4	56.4

	Rattewali			
A3	Near Village Parwala	50.7	51.7	51.1
A4	Near Rajpura PF Near Bharoli	50.3	50.5	50.3
A5	Near Village Rajpura Rani	57.4	64.2	64.1
A6	Near Village Alipur	53.5	53.5	53.5
A7	Near Village Khetprali	57.3	57.3	57.3

Observation of EAC: The Committee observed that in the Control Case Scenario also there is slight increase in GLC values of PM_{10}& $PM_{2.5}$ as compared to NAAQS. The Committee observed that previously committee asked the PP to verify the wind rose diagram but it has observed that the same not has been changed. The Committee also observed that although PP has not submitted the Cluster Certificate but there are other mining leases within 500 meters of this mining lease. Thus, air quality modeling needs to be done taken maximum production capacity of all the mining leases in the cluster and EMP for cluster needs to be prepared so that Committee can decide on the quantity of the material that can be permitted for this mining lease.

The Project Proponent reported that public hearingfor the proposed project of "Rattewali Block PKL / B-10" of M/s Tirupati Roadways was held under Chairmanship of Mr. Mukulkumar HCS, Additional Deputy Magistrate, Panchkula at the mine site, on dated 17.04.2018 at 3:00 PM as per the EIA Notification dated 14th September 2006, as amended by the Ministry of environment and Forest, New Delhi. The advertisement for public hearing was published in *'The Tribune' & 'Amar Ujala'* on 14.03.2018.The issues raised during public hearing were also deliberated during the meeting which includes provision of road for transportation of mineral, dust suppression, provision for dust suppression,employment, social welfare, compensation to land owners, installation of crusher, and maintenance of roads. The commitments made during PH by the PP was Rs 21 Lakh/annum is proposed under CSR, Rs 30.50 Lakh under EMP which include Rs 18 Lakh (Capital Cost) for construction of roads and Rs 4 Lakh/annum for maintenance of roads. Further, PP committed that preference will be given to local in employment and around 400-500 person will get direct and indirect employment form the projects, motarable road shall be constructed, every year about 5000 trees will be planted and about 22000 trees will be planted in 5 years of local species after consulting with the forest department. Tree guards will be erected around the plants for their protection and survival. Watering of plant will be done regularly by the gardeners, and compensation of land owner on mutually agreeable rates. PP reported that there is no court case/ litigation pending against the project.

Observation of EAC: The Committee observed that i) the ToR was issued on 24.09.2017. The baseline data was collected during October, 2017 - December, 2017. The PP obtained the approval of mining plan on 24.01.2018. The public hearing notice was given on 14.03.2018. The PH was conducted on 17.04.2018. The PH was chaired by Additional District Magistrate, Panchkula.

ii) The Committee observed that PP has increased the number of saplings to be planted, proposed to engage separate manpower for implementation of EMP, the PP has proposed for atomized water spraying, thus budget for all these activities to be the same needs to be included in EMP. The Committee also observed that major issue raised by local public is construction of roads and dust suppression. Thus PP should revise the EMP considering all these factors.

PP has submitted that budget of Environment Social Commitment shall be ₹ 21.0 Lakhs/annum out of which ₹ 5.0 Lakhs shall be used for Sanitations (installation of 6 bio toilets@40000 Rupees/toilet) and drinking water facility at Village Rattewali (₹ 2.50 Lakh), ₹ 5.0 Lakhs for Sanitations (installation of 6 bio toilets @40000 Rupees/toilet) and drinking water facility at Village Ganeshpur(₹ 2.50 Lakh), ₹ 5.0 Lakhs for Sanitations (installation of 6 bio toilets@40000 Rupees/toilet) and drinking water facility at Village Tibbi(₹ 2.50 Lakh) PP submitted that this target will be achieved within 1 year of mining activity started. PP proposed ₹ 6.0 Lakhs for one day health checkup camps in every 6 months in each year at mine site and nearby villages (Rattewali, Ganeshpur, &Tibbi).

The PP now revised the CER cost which is Rs. 45.0 Lakh (Capital Cost) & Rs 21.0 Lakh (Recurring) the details of the same are as follows:

Activity-1: Infrastructure work for education
(All the Activity Implements in Four Villages viz. i) Rajkiya Vidhyalya, Tibbi; ii) Rajkiya Vidhyalya, Rattewali, iii) Rajkiya Vidhyalya , Parwalaand iv) Rajkiya Vidhyalya,Shamtu)

*a) New classroom construction in Government School. (Total No. of New Classroom - 8 ;Construction New Classroom in each school 2*Rs.90,000/-)*

Capital Investment Year wise (Rs. In Lacs)as follows & recurring cost /annum is 2.5 Lakh.

Activity	1st	2nd	3rd	4th	5th	6th	7th	Total
Activity (1 a)	1.80	Nil	1.80	Nil	1.80	Nil	1.80	7.2

b) Construction of new Toilet for students in Government School, (Total No. of New Toilet - 8 (4 male & 4 females; cost Rs. 17,500/- per toilet)

Capital Investment Year wise (Rs. In Lacs) as follows & recurring cost /annum is 1.5 Lakh.

Activity	1st	2nd	3rd	4th	5th	6th	7th	Total
Activity (1 b)	1.4	1.4	Nil	Nil	Nil	Nil	Nil	2.8

c) Toilet Repair in nearby villages other than new construction including septic tank and soak pit (Total No. of Toilet repair -17; @Rs. 16,470/-)

Capital Investment Year wise (Rs. In Lacs)as follows & recurring cost /annum is 2.5 Lakh.

Activity	1st	2nd	3rd	4th	5th	6th	7th	Total
Activity (1 c)	0.40	0.40	0.40	0.40	0.40	0.40	0.40	2.8

d) Renovation Computer Lab in secondary Government School(Total No. of Computer - 24, Computer with Installation and Computer Table in each school 6*Rs. 30,000/-)

Capital Investment Year wise (Rs. In Lacs) as follows & recurring cost /annum is 3.5 Lakh.

Activity	1st	2nd	3rd	4th	5th	6th	7th	Total
Activity (1 d)	1.80	Nil	1.80	Nil	1.80	Nil	1.80	7.2

Activity-2: Infrastructure work for Drinking Water/ Sanitation*(Drinking water R.O. installation in Machine in Public Health Centre (PHC) at Village 1. Rattewali, 2. Shamtu ,3 Parwala,4. Tibbi; Total No. of water ATM Machine: 4; One R.O. Water 4*Rs.98000/-)*

Capital Investment Year wise (Rs. In Lacs) as follows & recurring cost /annum is 3.0 Lakh.

Activity	*1st*	*2nd*	*3rd*	*4th*	*5th*	*6th*	*7th*	*Total*
Activity (1 d)	*3.92*	*3.92*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*7.84*

Activity-3: *Medical & Health* *(Organize Health check-up camps and Medicine distribution programme to provide Malnutrition checkup camps and Access Treatment Programmes to the nearest habitation of village1. Rattewali, 2. Shamtu ,3 Parwala, 4. Tibbi; Health check-up camp in each village 4*Rs. 75,000/-)*

Capital Investment Year wise (Rs. In Lacs)as follows & recurring cost /annum is 1.0 Lakh.

Activity	1st	2nd	3rd	4th	5th	6th	7th	Total
Activity (1 d)	0.75	0.75	0.75	0.75	Nil	Nil	Nil	3.75

Activity-4: *Awareness through distribution of Sanitary Napkin made by S.H.G (Women's Empowerment & Health & Hygiene). Awareness on personal hygiene (cost of 1 pack Rs 40; number of beneficiaries 3500-6000)*

Capital Investment Year wise (Rs. In Lacs) as follows & recurring cost /annum is 1.0 Lakh.

Activity	1st	2nd	3rd	4th	5th	6th	7th	Total
Activity (1 d)	1.10	Nil	0.60	Nil	0.60	Nil	0.60	2.9

Observation of EAC: The Committee observed that amount proposed by PP for construction of class in room is just Rs 90,000 which is not a feasible estimate; Thus budget under CER needs to be revised.

The PP submitted that the as no (R & R) is involved in this project.

The Project Proponent submitted that the budget earmarked for Environmental Management Plan (EMP) shall be ₹ 44 Lakh (Capital) & ₹ 30.5 Lakh (recurring/annum) which includes i) Pollution monitoring – Air, Water, Noise and Soil, ₹ 5 Lakh (recurring), ii) Dust Suppression ₹ 20 Lakh (Capital) &₹ 5 Lakh (recurring), iii) Plantation will be at Village-Rattewali, near School- Doon Public School and along the Haul road of these villages, ₹ 2 Lakh (Capital) &₹ 5 Lakh (recurring),iv) Rainwater recharging (outside the project site) ₹ 4 Lakh (Capital) &₹ 0.5 Lakh (recurring), v) Haul road and other roads repair and maintenance ₹ 18 Lakh (Capital) & ₹ 4.0 Lakh (recurring), and vi) Pre monsoon and Post Monsoon survey for sedimentation in ₹ 10.0 Lakh (recurring). The PP also submitted that in order to implement the EMP 5 persons will be engaged viz. Manager (EHS) [₹ 23000 /Month], Asst. Manager (Environment) [₹ 20000 /Month], Environmental Executive [₹

20000 /Month], Horticulturist [₹10000 /Month], and Supervisor [₹8000 /Month]. The total budget for the staff will be 9.72 Lakh/annum.

Observation of EAC: The PP has proposed to increase the number of plants to be planted from 22300 to 31455 and amount previously proposed for plantation was Rs 27.0 Lakh @ Rs 121/sapling. The revised budget proposed under plantation is Rs 38.05 Lakh (Capital) & 9.51 Lakh (25% recurring). But the plantation cost in EMP is mentioned as Rs 2 Lakh (Capital) & Rs 5 Lakh (recurring). Further, the PP has reduced the water consumption by atomized water spraying but did not provide the budget for Water tanker having mist generator canon attachment. Thus, the EMP cost needs to be revised by including plantation cost ₹ 38.05 Lakh (Capital) & ₹ 9.51 Lakh (25% recurring)., cost of one water taker having mist generator canon attachment 25 Lakh, and cost of manpower for implementation of EMP. Thus, the total cost of EMP works out to be 105.05 Lakh (Capital) & ₹ 44.73 Lakh (recurring/annum).

PP has submitted that the budget for Occupational Health and Safety shall be ₹10.0 Lakhs/annum out of which ₹1 Lakh shall be used for Measures to Prevent Accidents during mineral Loading, ₹1 Lakh for measures to Prevent Accidents during minerals Transportation, ₹1 Lakh for measures to Prevent Accidents due to Trucks/ Dumpers etc., ₹2 Lakh for measures to Prevent Dangerous Incidents during Inundation/Flooding, ₹2 Lakh for education awareness and first aid kit, ₹3 Lakh for medical Examination Schedule.

Previously the Project Proponent submitted that the total project cost shall be ₹ 7.0 Crore and shall give direct employment to 69 persons. PP now submitted that the Project Cost shall be read as 7.6914 Crores and 73 people shall be employed.

Observation of EAC: The PP has mentioned that 5 persons shall be engaged for the implementation of EMP thus the total employment shall be 78 and PP needs to revise the project cost based on the suggestion of the EAC.

The PP also submitted the point wise compliance of the suggestion previously made by the EAC. The suggestion proposed by EAC and reply of the PP are as follows:

The Proponent should collect the baseline data in respect of initial level of the mining lease. For this Permanent Bench Marks (BM) needs to be established at prominent location preferably close to mining leases in question and should have precisely known relationship to the level datum of the area, typically mean sea level. The entire mining lease should be divided suitably in the grids of 25 Meter x 25 Meters with the help of sections across the width of river and along the direction of flow of the river. The levels (MSL & RL) of the corner point of each grid need to be recorded. Each Grid should be suitably numbered for identification. PP should identity grids which will we worked out and grids which will come under no mining zone i.e. safety barriers from the river bank, safety barrier at lease boundary, restrictions as per condition of LoI/Mining Lease deed, restriction as Mineral Concession Rule of the Concerned State, restrictions as per sustainable sand mining management guidelines 2016 etc. The PP should ascertain the level of

the river bed with the help of sections drawn across the width of the rivers and along the direction of flow of the river and based on this ascertain the depth of mining of each grid. The PP should provide a detailed map and table clearly showing the grid wise material availability, dimension of grid, location of grid (lat & long of the corner points), level of grid (AMSL and RL), depth of mining in each grid, grids left under no mining zone etc.

PP submitted that Bed Level in Lease area is ranging from 376 MSL (Northern point) to 358 MSL (Southern point). Two Permanent Bench Marks at prominent location close to mining lease are established. Coordinates are as below:-

Bench Mark	*Latitude (N)*	*Longitude (E)*	*Elevation (MSL) In reference to Nearest RS (Chandimandir Cantonment RS – 13Km towards WNW i.e. 381 MSL (Latitude:- 30°43'37.34"N; Longitude:- 76°53'13.03"E) and NH – 73, Mattewali – 5.35Km, SSW (Latitude:- 30°36'59.72"N; Longitude:- 76°56'27.42"E)*
BM-1	*30°38'57.90"*	*76°59'32.92"*	*368.00*
BM-2	*30°39'25.33"*	*76°59'41.48"*	*373.00*

Lease is divided into 25m x 25m grid along the length and width of the lease area.Bed Level in the Lease area is ranging from 376 MSL (Northern point) to 358 MSL (Southernpoint). Each grid is numbered (62 parallel grid lines (00 to N-1550) and 38 cross Sectional grids (00 to E -900)) has been marked and numbered. Each grid is numbered (62 parallel grid lines (00 to N-1500) and 38 Cross Sectional grid lines (00 to E -900)) has been marked and numbered.

Season	***Working Grid***	***Non-Working Grid***
Pre-Monsoon *(1st April to 14th June)*	*Western Zone –* *N-00 to N – 1325/ E-75 to E-700*	*N-00 to N – 1425/* *E – 100 to E - 875*
Monsoon *(15th June to 1st*	*All the grids are non-working*	

October)		
Post-Monsoon *(2nd October to 31st March)*	*Western Zone –* *N-00 to N – 1325/ E-75 to E-700* *Eastern Zone –* *N – 00 to N -1300/ E – 175 to E - 925*	*N 1275/ E-400* *N1500/ E-825*

No mine working zone i.e. safety barriers from the river bank, safety barrier at lease boundary has been laid by as per condition of LoI/ Mining Lease Deed, restriction as Mineral Concession Rule of the Concerned State, restrictions as per Sustainable Sand Mining Management Guidelines' 2016 etc. Map showing 63 sections of the lease area with coordinates and its subsequent cross sections with geo-reference established with respect to bench mark are depicted in X-Y-Z axis. 08 Sections (Along the river flow) have been made showing the bed level and river flow. Depth of the mining bed will be up to 3m/ 2m above the groundwater. Depth of the mining of each grid is shown on slide no. 5 of presentation. Detailed map showing grid wise material availability, dimension of grid, location of grid, level of grid, depth of grid (Mineable) is shown indicatively on Slide no. 5 of the presentation. Reserve estimation of the mineable area (63 cross sections) is given in approved Modified Mining Plan at page no. 23.

PP should suitably name each section line. Section Plan for both sections drawn across the river and along the direction of the river needs to be submitted. Each Section should have level on vertical axis and distance from the bank of river on horizontal axis. For the section along the direction of the river the levels to be shown on vertical axis and distance from upstream to downstream should be shown on horizontal axis.

Each grid corner point i.e. 62 parallel grid lines (00 to N-1550) and 38 Cross Sectional grid lines (00 to E -900) has been marked and numberedCross section along the river has been drawn with respect to X- Y-Z values. Section including level and distance from the bank has been prepared.

The modified Mining Plan should be prepared based on the actual replenishment study, above mentioned survey and all the information sought above needs to be a part of the mining plan. In the Mining Plan year wise production plan should be prepared in three plates for each year. Plate-1 shows the mine working for the Pre-Monsoon period (1st April - 14th June), Plate-2 should show the status of the mine after the replenishment (as per actual replenishment study) and no working should be proposed in this period (15th June-1st October) as the Mining Lease area needs to be left for the replenishment of the river bed mineral and Plate-3 show

the mine working after replenishment of the river bed i.e. Post Monsoon period (2nd October - 31st March).

Modified Mining Plan based on the actual replenishment study has been approved from the Office of Department of Mines and Geology, State Mining Engineer, Haryana vide letter DMG/ HY/ MP/ Rattewali Block/ PKL –B – 10/ 2017/ 3989 – 92 dated 07.08.2018.In the Modified Mining Plan, year-wise working plan for targeted production to the tune of 19,00,000 TPA capacity of mineral has been prepared in three plates for each year. In the Modified Mining Plan, year-wise working plan for targeted production to the tune of 19,00,000 TPA capacity of sand has been prepared in three plates for each year (Pre-monsoon) as below:-

Season	**Working Grid**
Pre-Monsoon (1st April to 14th June)	*Western Zone – N-00 to N – 1325/ E-75 to E-700*

Plate Nos.	**Year of working**	**Time period**
6A	*I st*	*1st April – 14th June*
6D	*II nd*	
6G	*III rd*	
6J	*IV th*	
6M	*V th*	

Plate-2 should show the status of the mine after the replenishment (As per actual replenishment study) No working should be proposed in this period (15th June-1st Oct) as the mining lease area needs to be left for the replenishment of the river bed mineral. No mining will be carried out during monsoon i.e. 15th June to 1st October.

Plate Nos.	**Year of working**	**Time period**
6A	*I st*	*15th June – 1st October*
6D	*II nd*	
6G	*III rd*	
6J	*IV th*	

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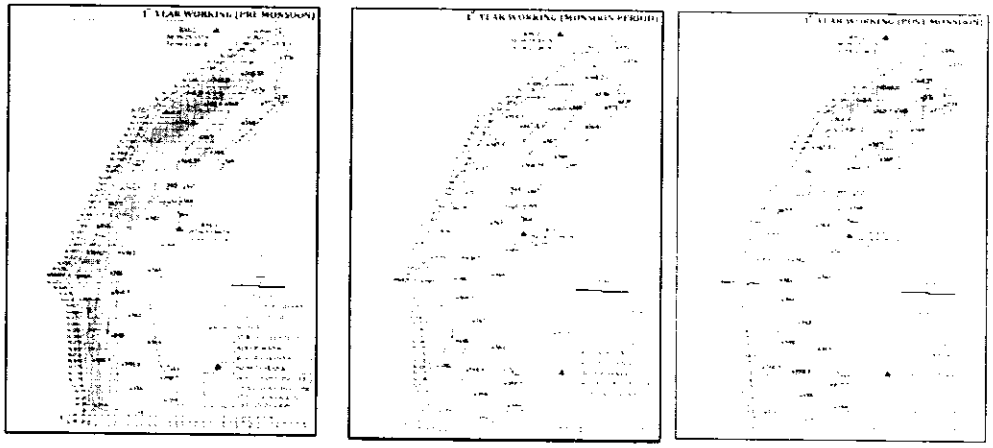
6M	V^{th}	

Plate-3 show the mine working after replenishment of the river bed i.e. post monsoon period (2nd October-31st March).



Reserve Scenario as Per Topo sheet Boundary

Scenario	**Parameter**	**Density**				
			Volume	**Tonnes**	**Volume**	**Tonnes**
Scenario 1	*3m down from the surface*	*2.6*	*13,64,912.11*	*35,48,771.49*	*4,77,410.17*	*12,41,266.45*
Scenario 2	*3m down from average section RL at each section*	*2.6*	*13,46,630.22*	*35,01,238.57*	*4,66,891.87*	*12,13,918.87*
Scenario 3	*3m down from max RL of first or last point at each section*	*2.6*	*10,54,598.86*	*27,41,957.04*	*3,62,446.73*	*9,42,361.49*

Reserve Scenario as Per Google Earth

Scenario	Parameter	Density	Geological		Mineable	
			Volume	Tonnes	Volume	Tonnes
Scenario 1	3m down from the surface	2.6	13,64,912.11	35,48,771.49	6,54,169.92	17,00,841.80
Scenario 2	3m down from average section RL at each section	2.6	13,46,630.22	35,01,238.57	6,24,687.70	16,24,188.03
Scenario 3	3m down from max RL of first or last point at each section	2.6	10,54,598.86	27,41,957.04	4,84,947.36	12,60,863.13

*Note:- Based on the reserve estimation drawn for each grid on the basis of datamine software modeling, the revision of the Mining Plan will be undertaken after approval of EC.

Observation of EAC: The Committee observed that PP has not provided the effective area of mining and area to be kept in the safety zone. The Committee also observed that specific gravity of the material used is 2.6 but as per theoretical replenishment study report it is 2.0 and data submitted by other mining lease it is 1.83 tons/m3. The Committee noted that already in the cases of the nearby mining leases the EAC sought inspection report of Sub-Committee and it was also mentioned that the sub-committee may verify the specific gravity of the material.

PP should specifically mention in the mining plan that in the subsequent scheme of mining/review of mining plan, the year wise data pertaining to replenishment study (all five years) shall be provided which include the level (AMSL & RL) of river bed recorded before and after the monsoon, year wise replenishment quantity, all plan & sections of the replenishment study for the past five years.

PP submitted that the same has been incorporated in the approved Modified Mining Plan. The year-wise data pertaining to replenishment study (all five years) is given in approved Modified Mining Plan at page no. 15 to 24 & Annexure-III. For first year, three working plan/ Sections utilizing data mine for period: - Pre-Monsoon from 1st April to 14th June; Monsoon (Non-working) from 15th June to 1st October and Post-Monsoon from 2nd October to 31st March. Similarly, an excel sheet showing X-Y-Z will be maintained for both working seasons.

PP should also submit an undertaking to the effect that each year after the replenishment study the plan & section shall be submitted to concerned Department of Mining & Geology of the State for verification and Official Record.

PP submitted that Legal undertaking on Rs. 50/- Non-Judicial stamp duly notarized by the Project Proponent to the effect that each year after the replenishment study the plan & section will be submitted to the Office of State Mining Engineer, DMG, Haryana for verification and official record.

The PP should also submit a kml file wherein the above mentioned grid plans is superimposed on the satellite imaginary.

PP shown the Grid Plan superimposed on Satellite Imagery.

PP should submit the detailed replenishment study report.

PP submitted that the lease area was virtually divided into 25m x 25m grid both working and non-working. Each grid was then identified with unique coding with respect to bench mark and geo-referenced on factual basis. Each identified grid with appropriate dimension and coordinates was earmarked with respect to MSL. Depth of each grid was mentioned on Z axis. All working grid were than fixed for a depth of 3m and reserve estimation of each grid was identified. This gave the actual quantification of sand replenished in Post-Monsoon. Similar study in Pre-Monsoon will determine the depth of each working grid to be excavated. All the data of every season and year will be reportedly taken prior to mining and submitted to respective department. ***The replenishment estimation as approved in the Modified Mining Plan is based on theoretical empirical formula with estimation of bed load transport comprising of analytical models to calculate the replenishment estimation****. The iso-pluvial maps of IMD have been used for estimation of rainfall. Catchment yield has been computed using the Strange's runoff method (Strange's Monsoon runoff curves) for the runoff coefficient. Peak flood discharge for the study area 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.*

Observation of EAC: The Committee observed that the PP has not submitted the actual replenishment study report rather a report on theoretical calculation is submitted.

PP should ensure that plan and section that will be submitted to EAC should be in proper scale.

PP submitted that all the Plans along with sections submitted to EAC are in proper scale.

SL. No.	***Maps***	***Scale***
1.	*Key Plan*	*1:50,000*
2.	*Surface Plan*	*1:2,000*
3.	*Geological Plan/ Section*	*1:1000/ 1: 2000*
4.	*Environmental Plan*	*1:5,000*

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Observation of EAC: The PP did not submit the plan & section on the above mentioned scale.

Detailed traffic plan needs to be submitted clearly mentioning the number of tucks to be deployed, number of trips during the day, road that will be used for the transportation of mineral, impact of transportation on the nearby area, mitigative measures to be adopted, the plan on the suitable scale needs to be submitted clearly road network of the existing mining leases and also of the other mining lease within the study area to ascertain the cumulative impact of the transportation. The PP should optimize the production & transportation requirement by taking into account the traffic density due to other mining projects.

PP submitted that 130 trucks will be deployed for the transportation of sand.283 number of trips per day (@25 Tonner each).

S. No.	Particulars	Remark
1	Total Production Per Day in Tons	7,090
2	No. of Trips Per Day (@25 Tonner)	283
3	No. of Trips per Hour (@10Hrs working)	29

PP submitted that mineral will be dispatched to the destination connecting haul road (0.5 Km + 0.6Km + 0.45Km X 10m width each) via Village by pass road and finally merges on the National Highway NH-73. Traffic density on the Village by pass Road and National Highway is 65 and 150 Vehicles/ hour respectively, which will increased to 179 Vehicles/ hr. (150 +15 vehicles per hour). The cumulative scenario for air emission in the area with presence of other mining -at a distance of 8.5 Km towards SE will not ascertained as the impact scenario persist only on the unpaved area at max. Existing V/ C ratio is 0.26 and 0.24 on village road/ MDR and National Highway - 73 and Level of Service is B which is 'Very Good' as per classification. After commencement of production V/c ratio will be 0.38 and 0.29 on Village Road/ MDR and National Highway respectively and Level of Service will be B on village road/ MDR and National Highway is 'good' and 'very good' as per IRC Guidelines. The impacts due to transportation has been estimated using AERMOD View as provided in slide nos. 26 - 27 of the presentation.

S. No.	Emission (Kg/V,Km/ T)	PM_{10}	$PM_{2.5}$

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1	Working pit to Village Road (Unpaved)	1.261	0.3783
2	Village Road to End Use (Paved)	0.0697	0.021
*Source: - USEPA -42 Series 13.2.1(Paved) and 13.2.2. (Unpaved)			

The mitigation measures proposed by PP are i) Plantation along on haul road will be carried out ,2) Regular water sprinkling on haul roads will be done,3) Only PUC certified vehicle will be allowed for transportation,4) Overloading of vehicles will be avoided. All the vehicles will covered using tarpaulin sheets,5) Speed limit as per statutory rules will be maintained. The PP also submit the transportation route map showing road network and other mining leases with the study area to ascertain the cumulative impact due to transportation.

The PP submitted that the traffic density has been considered during planning of production. Due to proposed project, 29 trips per hour are envisaged to be added in the existing traffic. Thus, the peak transport load augmented will be max. 10%, contributing to less than 1% of the emission load at max. After commencement of production V/C ratio will be 0.26 and 0.24 for Village Road/ MDR and National Highway respectively. So, the Level of Service is B for Village Road/ MDR and National Highway is 'very good' as per IRC Guidelines.

S. No.	Mining Lease	Area (Ha.)	Production Capacity (TPA)	No. of Trips	
				Per Day	Per Hour (@10 Hrs/ Day)
1	Tirupati Roadways	45	19,00,000	283	29
2	Gobindpur Block/ PKL - B- 18	28.4	12,78,000	190	19

Observation of EAC: The Committee observed that there are other mining leases near this mining lease and details of the same is not provided by the PP. Thus, traffic study is incomplete.

PP should optimize the production requirement based on the data collected above; the GLC of various pollutants should be well within the prescribed NAASQ Standards limit, reduces the water consumption, reduce the traffic density on the

roads, after taking into consideration the pollution load of the other mining leases in the study area

Scenario showing worst case (without EMP) and case with EMP

Pollutant	Maximum Incremental GLC's (µg/m³)	
	With EMP (75%)	Without EMP
PM_{10}	6.42	14.763
$PM_{2.5}$	3.807	8.822
NOx	0.039	0.039
CO	0.021	0.021

Traffic	Existing 150 Vehicles	Incremental will be 15 Vehicles	Thus, an increment of 10% with emission load of less than 1%.	With effective EMP, the emission load contributed will be less than 0.5%.
Water	120 KLD (Proposed by former ACO)	30 KLD with all effective conservation measures.	Atomized water sprinkling for dust suppression and drip irrigation for plantation.	

Cumulative Ground Level Concentrations (With EMP) at Different Locations

Location	Ground Level Concentrations of PM_{10} in mg/m³			
	Predicted	Background (Max.)	Total Expected	CPCB Standard
Mine Site	6.42	98.3	104.7*	100
Rattewali	2.14	96.1	98.2	100
Parwala	0.71	91.7	92.4	100
Raipura PF near Bharoli	0.2	88.3	88.5	100
Raipur Rani	0.1	103.8	103.9	100
Alipur	<0.1	98.2	98.2	100

Khatauli	*<0.1*	*97.2*	*97.2*	*100*
Location	***Ground Level Concentrations of $PM_{2.5}$ in mg/m^3***			
	Predicted	***Background (Max.)***	***Total Expected***	***CPCB Standard***
Mine Site	*3.807*	*59.2*	*63.0**	*60*
Rattewali	*0.85*	*55.5*	*56.4*	*60*
Parwala	*0.4*	*50.7*	*51.1*	*60*
Raipura PF near Bharoli	*<0.1*	*50.3*	*50.3*	*60*
Raipur Rani	*<0.1*	*64.1*	*64.1*	*60*
Alipur	*<0.1*	*53.5*	*53.5*	*60*
Khatauli	*<0.1*	*57.3*	*57.3*	*60*
Location	***Ground Level Concentrations of NO_2 in mg/m^3***			
	Predicted	***Background (Max.)***	***Total Expected***	***CPCB Standard***
Mine Site	*0.04*	*38.6*	*38.6*	*80*
Rattewali	*<0.1*	*34.2*	*34.2*	*80*
Parwala	*<0.1*	*30.2*	*30.2*	*80*
Raipura PF near Bharoli	*<0.1*	*30.3*	*30.3*	*80*
Raipur Rani	*<0.1*	*33.5*	*33.5*	*80*
Alipur	*<0.1*	*35.3*	*35.3*	*80*
Khatauli	*<0.1*	*33.6*	*33.6*	*80*

** Reason for High value:- agricultural crop residues are burnt during the months of October and November each year in the Indo-Gangetic Plains (IGP) which has significant impact on greenhouse gas emissions and aerosol loading (Badarinath et al., 2009).*

Note: - The GLC's for SOx cannot be determined as the GLC obtained is negligible as compared to other pollutant like PM_{10}, $PM_{2.5}$, NO_x& CO. As the combustion of fuel (low sulphur content) will have values of SO_x that cannot be determined in the modeling results. The values less than 0.1g/ km is considered as negligible.

Cumulative Ground Level Concentrations (Worst Scenario) at different locations

Location	***Ground Level Concentrations of PM_{10} in mg/m^3***			
	Predicted	***Background (Max.)***	***Total Expected***	***CPCB Standard***
Mine Site	*14.763*	*98.3*	*113.1*	*100*

Rattewali	4.92	96.1	101	100
Parwala	1.64	91.7	93.3	100
Raipura PF near Bharoli	0.5	88.3	88.8	100
Raipur Rani	0.3	103.8	104.1	100
Alipur	0.2	98.2	98.4	100
Khatauli	0.1	97.2	97.3	100
Location	**Ground Level Concentrations of $PM_{2.5}$ in mg/m^3**			
	Predicted	**Background (Max.)**	**Total Expected**	**CPCB Standard**
Mine Site	8.822	59.2	68	60
Rattewali	2.94	55.5	58.4	60
Parwala	0.98	50.7	51.7	60
Raipura PF near Bharoli	0.2	50.3	50.5	60
Raipur Rani	0.1	64.1	64.2	60
Alipur	<0.1	53.5	53.5	60
Khatauli	<0.1	57.3	57.3	60

Observation of EAC: The Committee observed there are other proposed mining lease close to this mining lease and impact on air quality due to the same is not considered. Thus, the above predictions are incomplete. In addition to this PP also not optimized the production quantity based to bring the GLC values within the NAASQ limits. Impact along the road side supported with line model is also not provided by the consultant.

Clear illegible copy of Advertisement published in national daily and vernacular daily for conduction public hearing needs to be submitted with name of newspaper and date of publication.

Public Hearing notice was published in two regional newspapers one in English and other in Hindi. 1. "The Tribune" – 14.03.2018 & 2. "Amar Ujala" – 14.03.2018.

All documents, certificates, and reports provided in EIA report should be legible.

PP submitted that the legible copies of all annexure, certificate and reports have been submitted.

List of schedule-1 species duly authenticated by State forest department clearly mentioning the number of schedule-1 species present in the study area and proof of submission of conservation plan to concerned chief wildlife warden.

PP submitted that Three Schedule – I species i.e. Python molurus (Phyton), Pavo cristatus (Pea-fowl) and Panthera pardus (Leopard) were reported in the buffer zone during the primary Survey. As per approved Conservation Plan obtained from the Office of the P.C.C.F. cum Wildlife Warden, Haryana vide letter no. 1912 dated 30th August 2018; following Scheduled I species are present in the entire district of Panchkula

S. No.	Name of Species	Zoological Name	Schedule	Remarks
1	Indian Peafowl	Pavo cristatus	I	Approved
2	Phyton	Phyton molurus	I	Approved
3	Leopard	Panthera pardus	I	Approved
4	Pangolin	Manis crassicuda	I	Under process

Observation of EAC: The Committee is of the view that PP should clarify whether the amount already approved has been deposited in the Government account or not and what is the status of approval of conservation plan.

Number of persons to be employed directly in the project.

As per approved Modified Mining Plan, approx. 73 local persons will be employed.

Observation of EAC: The Committee observed that PP has not included the manpower to be engaged for implementation EMP in the total employment.

Revised EIA after compliance of all the TOR conditions and after making necessary changes as suggested by the EAC.

The same has been noted and complied.

Observation of EAC: The Committee noted that EIA Report uploaded online is not page numbered.

Undertaking from PP & Consultant& NABET Certificate: Consultant submitted that the consultant shall be fully accountable for any misleading information mentioned in this statement.

Observation of EAC: The Committee observed that PP has already submitted an undertaking in this regard and Consultant also given an undertaking during the meeting.

Form-II: The requirement of submission is after the issuance of O.M. No. 22-8/2018 IA.III (M) dated 20.04.2018. The PP applied under Form-II.

Observation of EAC: The Committee observed that Consultant did not taken due care while filling the Form-II. It has observed that many a places wrong PDF file was uploaded.

Previously also consultant was advised by the Committee to take due care while filling the Form-II but it appears that consultant is not complying with the direction of EAC. Committee feels that one of the purpose of Form-II is that the various stakeholders have access to information uploaded for the project but if the NABET Accredited consultant do not pay due care in uploading the information than it will not only cause in-convenience to various stakeholders but also delayed the process of appraisal due to ADS & EDS.

The proposal is a **green field project** and does not requires verification in pursuant to Hon'ble Supreme Court order dated 02.08.2017 in the matter of Common Cause and S.O 804(E) dated 14.03.2017.

Observation of EAC: The PP needs to submit an undertaking by the way of an affidavit to comply with the Common Cause Order and other statutory requirements in pursuant to O.M dated 03.05.2018.

Replenishment Study: The PP has submitted a replenishment study report conducted by Hydro Geo Solutions, Jodhpur. Wherein it has mentioned that the river is Dudhgar Kee Nadi is an ephemeral stream in nature. Further, in the recommendation it has mentioned that *"the authenticated replenishment can only be established in the post monsoon period of 2018 after actual verification of the replenishment pits and river cross sections (difference in elevation) already established in the field."*

Observation of EAC: The Committee observed that PP has not carried out the realignment study and requested for grant of temporary permission. The Committee initially thought of granting limited quantity but also desired to know the background of the issue, legal position, decision already taken by MoEF&CC in this regard.

It is informed the Committee that EAC in its earlier meeting held on 24.10.2016 mentioned that *"The sand mining proposals from other States namely Uttarakhand, Himachal Pradesh, Uttar Pradesh, Jammu and Kashmir, Haryana, and Bihar wherein there are **perennial rivers** and are, therefore, replenished during monsoons. Such annual replenishments raise the river bed at certain places along the river and need to be mined to avoid threat of floods during subsequent monsoon season. The Committee is of the view that in such States like Uttarakhand, Uttar Pradesh, Himachal Pradesh, Jammu & Kashmir, Haryana and Bihar the replenishment study is not required at the time of EC application and PP shall submit the replenishment study after 02 years of grant of EC."* In the instant case the mining lease is falling on non-perennial river and thus require prior replenishment study report before grant of EC.

It is also informed to the Committee that The Hon'ble SC in its order dated 16.11.2017 in SLP(C) No.34134 of 2013 (State of Rajasthan Vs. Nature Club of Rajasthan) inter-alia mentioned that *"In Court, serious allegations have been made that the State of Rajasthan is complicit with the miners/quarry holders and sand and bajri is being mined with impunity. Without giving any credence to the allegations made until we hear from the Chief Secretary of Rajasthan on affidavit, we restrain all the 82 mining lease/quarry holders from carrying out mining of sand and bajri unless a scientific replenishment study is completed and the*

matter is fully and dispassionately considered by the Ministry of Environment, Forest and Climate Change and an environmental clearance is granted or rejected. This order will come into force with immediate effect."

It is informed the Committee that as per direction of the Hon'ble Supreme Court the proposal from Rajasthan was considered in the EAC Meeting held on January 2018 and May 2018 wherein the Committee, inter-alia, asked the PP to submit the detailed replenishment study report.

It is also informed to the Committee that in the instant case the ToR was granted on 14.09.2017 wherein it was explicitly mentioned at ToR point no 2 that detailed replenishment study for the river Dudgarh is required. The PP then applied for grant of EC on 27.04.2018 and proposal was placed in EAC Meeting held on 14-15 May, 2018 wherein the Committee **returned the proposal in present form** as the proposal was pre-mature and also issued show cause notice to the consultant. In the minutes of the meeting the Committee explicitly mentioned that *"a) The mining lease is on non-perennial river bed and due to this additional condition was prescribed in the ToR granted for this project. The PP did not conduct the replenishment study and prepared mining plan get it approved from DMG and conducted public hearing. As the replenishment study was not conducted, the basic purpose of the appraisal and decision making process was failed. Thus, the committee was of the view that proposal submitted by the PP is pre-mature at this stage,* ***and without replenishment study report it is difficult to ascertain the quantity of the mineral that could be allowed for the extraction.*** *The Committee takes it seriously that consultant and PP was aware of the facts that replenishment study, initial level of the mining lease and sections at regular interval are required for the appraisal of the project still they did not conduct the replenishment study and submitted a pre-mature proposal to the Committee."*

It is also informed to the Committee that there are other mining leases in this area for which ToR was issued by the Ministry. In those cases, the Ministry after seeking comments of the State Government decided to reduce the production capacity which in line with decision already taken by the Ministry in case of proposal from Rajasthan. The Committee also specifically mentioned in the ToR that *"A Sub-Divisional Committee comprising of Sub-Divisional Magistrate, Officers from Irrigation department, State Pollution Control Board or Committee, Forest department, Geology or mining officer , revenue department shall visit the site and make recommendation on suitability of site for mining or prohibition thereof after (a) identification of the areas of aggradations or deposition where mining can be allowed; (b) identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited; (c) verify the mining lease boundary; (d) verify the area of the mining lease; (e) suggest the route for transportation of the mineral so that to cause minimum impact on the nearby habitation& agricultural fields; (f) identify the safety zone/restricted area and the area that can be consider for mining after excluding the area as per recommendation of EAC , after considering the other restrictions mentioned in the Sustainable Sand Mining Management Guidelines 2016, S.O. 141(E) dated 15.01.2016, Letter of Intent & District Survey Report; (g) finalize the specific gravity of the material to be mined by the mining lease holders; (h) proposed location for the installation*

weigh bridge; (i) verification of the initial level of the mining lease already collected by the PP; (j) verification of the baseline air quantity data collected by the PP and any other point to be considered for the protection environment and health of the nearby habitation. Recommendation of the Committee needs to be annexed with EIA/EMP Report."

The Committee did not find any reason which has restricted the project proponent for carrying out post-monsoon replenishment study. The PP has sufficient time for the same, even the EAC has reminded the PP for the same in its meeting held during May 2018. The then consultant was also given show cause notice for submitting a pre-mature proposal. But still the PP has not conducted the post monsoon survey. The Consultant also did not refer to the earlier recommendation of the EAC and uploaded a pre-mature proposal for the consideration by the EAC.

The Committee observed that submission of wrong information, uploading of incomplete information, not submitting the required documents, submitting the misleading facts during the appraisal of the proposal is an un-professional behavior of the consultants. The NABET Accredited Consultants are entrusted to assist the Committee in taking a decision on the various environmental issues associated with the proposal. Thus, Committee is of the view that consultant should be warned for the same.

Based on the discussion held, documents submitted and after considering the above facts the Committee **deferred the proposal** and is of the view that the same can only be considered after submission of the following information as an **addendum to EIA Report:**

1) Actual Replenishment Study based on pre-monsoon and post monsoon data needs to be submitted within 15 days.

2) The PP should confirm the capacity of the tippers to be used. In case it is different from what mentioned in mining plan and EIA Report then PP needs submit the number of trips, traffic study, emission rate and air quality modeling for the same.

3) The Budget of EMP needs to be revised after including the cost of plantation, manpower used for implementation of EMP, cost of water tanker having mist generator cannon attachment to be used for dust suppression.

4) The Committee has observed that PP has selected large area for plantation but in order to monitor the same the PP should submit the detailed plantation plan which clearly mention the name, address, geo-location and photograph of school, Panchayat Bhawan, Community Center and Public Health Centre where plantation shall be carried out. In addition to this PP should submit the length & geo-locations of roads along which plantation will be carried out. The PP should clearly bring out the number of saplings, area to be covered under plantation in each of these locations. The Committee also suggested that PP should carry out plantation of vetiver grass in 7.5 meter of the safety zone around the lease boundary to protect the banks of the river. The budget for plantation shall be included in the EMP.

5) The Wildlife Conservation Plan has already been approved and PP should confirm whether the amount already approved has been deposited in the Government account. In addition to this of approval of revised conservation plan also need to be submitted.

6) Previously committee asked the PP to verify the wind rose diagram but it has observed that the same not has been verified and changed. The Committee also observed that although PP has not submitted the Cluster Certificate but there are other mining leases within 500 meters of this mining lease. Thus, air quality modeling (worst & control case) and traffic study needs to be done considering the maximum production capacity of all other mining leases in the cluster and impact and mitigative measures needs to be suggested. The PP should submit the EMP for entire cluster,so that Committee can decide on the quantity of the material that can be permitted for this mining lease. The line source model should be run to show the impact zone of the both side of the road and mitigative measures to be adopted by the PP.

7) The Committee observed that amount proposed by PP for construction of class in room is just Rs 90,000 which is not a feasible estimate. Thus budget under CER& EMP needs to be revised considering the issues raised during public hearing.

8) The PP needs to submit an undertaking by the way of an affidavit to comply with the Common Cause Order and other statutory requirements in pursuant to O.M dated 03.05.2018.

9) A Sub-Divisional Committee comprising of Sub-Divisional Magistrate, Officers from Irrigation department, State Pollution Control Board or Committee, Forest department, Geology or mining officer , revenue department shall visit the site and make recommendation on suitability of site for mining or prohibition thereof after (a) identification of the areas of aggradations or deposition where mining can be allowed; (b) identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited; (c) verify the mining lease boundary; (d) verify the area of the mining lease; (e) suggest the route for transportation of the mineral so that to cause minimum impact on the nearby habitation & agricultural fields; (f) identify the safety zone/restricted area and the area that can be consider for mining after excluding the area as per recommendation of EAC , after considering the other restrictions mentioned in the Sustainable Sand Mining Management Guidelines 2016, S.O. 141(E) dated 15.01.2016, Letter of Intent & District Survey Report; (g) finalize the specific gravity of the material to be mined by the mining lease holders; (h) proposed location for the installation weigh bridge; (i) verification of the initial level of the mining lease already collected by the PP; (j) verification of the baseline air quantity data collected by the PP and any other point to be considered for the protection environment and health of the nearby habitation. Recommendation of the Committee needs to be annexed as addendum to EIA/EMP Report.

ITEM NO.310 COURT NO.6 SECTION XVII

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

CIVIL APPEAL NO(s). 9703-9706 OF 2013

CHIEF SECY.GOVT. OF RAJASTHAN Appellant (s)

VERSUS

NATIONAL GREEN TRIBUNAL BAR ASSN. & ORS. Respondent(s)

Certified to be true copy
Assistant Registrar

(With application for permission to place additional documents on record, exemption from filing certified copy of the impugned judgment and office report)

WITH SLP(C) NO. 34134 of 2013
[STATE OF RAJASTHAN & ORS. V. NATURE CLUB OF RAJASTHAN (NGO)]
(With prayer for interim relief and office report)
SLP(C) NO. 34811 of 2013
[NAVEEN SHARMA V. STATE OF RAJASTHAN & ORS.]
(With prayer for interim relief and office report)

Date: 25/11/2013 These Appeals were called on for hearing today.

CORAM :
HON'BLE MR. JUSTICE A.K. PATNAIK
HON'BLE MR. JUSTICE SURINDER SINGH NIJJAR
HON'BLE MR. JUSTICE FAKKIR MOHAMED IBRAHIM KALIFULLA

For Appellant(s) IN SLP 34134 & Appeal
Mr. Harish N. Salve, Sr. Adv.
Dr. Manish Singhvi AAG.
Mr. Amit Lubhaya, Adv.
Ms. Pragati Neekhra, Adv.

in SLP 34811
Mr. Huzefa Ahmadi, Sr. Adv.
Mr. Yashvardhan, Adv.
Mr. Merusagar Samantaray, Adv.

For Union of India
Mr. Mohan Parasaran, SG.
Mr. Harris Beeran, Adv.
Mr. Mushtaq Salim, Adv.

For Respondent(s)
Mr. Ashok Kumar Gaur, Sr. Adv.
Mr. Sandeep Singh Shekhawat, Adv.
Mr. Lal Ppratap Singh, Adv.
Mr. Umesh Pratap Singh, Adv.
Ms. Ruchi Kohli, Adv.

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Mr. Ram Niwas, Adv.

In SLP 34134

Mr. C.A. Sundaram, Sr. Adv.
Mr. Himanshu Shekhar, Adv.

In RP No. 1

Mr. Raj Panjwani, Sr. Adv.
Mr. Rahul Choudhary, Adv.
Ms. Anitha Shenoy, Adv.

UPON hearing counsel the Court made the following

O R D E R

Pursuant to orders passed by this Court on 11th November, 2013, the learned Solicitor General has submitted a status note on behalf of the Ministry of Environment and Forests on the applications for environmental clearance in respect of mining lease of bajri in the State of Rajasthan which is pending before the Ministry of Environment and Forests.

From the aforesaid status note it appears that the time period prescribed under Environmental Impact Assessment Notification 2006 for processing the applications of 82 letter of intent holders/project proponents received from the State of Rajasthan will expire some time in February, 2014. Obviously the mining activity with regard to the bajri lease in the State of Rajasthan cannot be totally kept in abeyance till February, 2014.

We, therefore, direct that till the end of February, 2014, the letter of intent holders who have submitted their applications to the Ministry of Environment and Forests for clearance (numbering 82 only) can carry on mining operations in accordance

with the Notification dated 21st June, 2012 of the Mines (Act 2) Department, Government of Rajasthan issued under Rule 65A of the Rajasthan Mines and Mineral Concession Rules, 1986.

We make it clear that the orders that will be passed by the Ministry of Environment and Forests on the 82 applications will be in accordance with the Notification, Environmental Impact Assessment 2006 dated 14th September, 2006.

The State of Rajasthan will ensure that this interim order is not violated in any manner.

It has been mentioned by Mr. Raj Panjwani, learned counsel appearing for the National Green Tribunal Bar Association that besides the Rajasthan matters, other matters are pending before the Tribunal. We make it clear that the other matters may go on in the Tribunal if there are no specific orders of this Court staying the proceedings in the particular matter.

[KALYANI GUPTA]
COURT MASTER

[INDU POKHRIYAL]
COURT MASTER

ITEM NO.315 & 317 COURT NO.5 SECTION XI

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

ITEM NO. 315
IA NO. 3 in
Petition(s) for Special Leave to Appeal

(From the judgement and order dated
13189/2012 and DBCMA No.250/2013 of
AT JAIPUR)

STATE OF RAJASTHAN & ORS Petitioner(s)

VERSUS

NATURE CLUB OF RAJASTHAN (NGO) Respondent(s)

(For extension of time and office report.

AND

ITEM NO. 317
IA NO. 2 in
Petition(s) for Special Leave to Appeal

NAVEEN SHARMA Petitioner(s)

VERSUS

STATE OF RAJASTHAN & ORS. Respondent(s)

(For extension of time and office report)

Date: 24/02/2014 This Petition was called on for hearing today

CORAM :
HON'BLE MR. JUSTICE A.K PATNAIK
HON'BLE MR. JUSTICE SURINDER SINGH NIJJAR
HON'BLE MR. JUSTICE FAKKIR MOHAMED IBRAHIM KALIFULLA

For Petitioner(s) Mr. P.S. Narasimha, Sr. Adv.
IN SLP 34134 Mr. S.S. Shamshery, AAG.

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Mr. Varun Punia, Adv.
Mr. Sandeep Singh, Adv.
Mr. Irshad Ahmad, Adv.

Mr. Junaid Ahmadi, Sr. Adv.
Mr. Yashvardhan, Adv.
Mr. Merusagar Samantaray, Adv.

Mr. [illegible] Sr. Adv.
Mr. [illegible] Adv.
Mr. [illegible] Adv.
Mr. [illegible] Adv.
Mr. Ram Nawal, Adv.
Mr. V.S. Arya, Adv.
Mr. Ruchi Kohli, Adv.

UPON hearing counsel the Court made the following

O R D E R

These matters be listed on 31st March, 2014.

In terms of our order dated 25th November, [illegible] the end of February, 2014 letters of intent holders who have submitted their applications with the Ministry of Environment and [illegible] can carry on mining operations in accordance with the Notification dated 21st June, 2012 of the Mines (Act 2) Department, Government of Rajasthan issued under Rule 65A of the Rajasthan Mines and Minerals Concession Rules, 1986 will continue to remain in [illegible]

[KAUSHAL GUPTA]
COURT MASTER

[SNEH LATA SHARMA]
COURT MASTER

071

ITEM NO.MM-I COURT NO.5 SECTION XV

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

ITEM NO. 315
IA NO. 3 in
Petition(s) for Special Leave to Appeal (Civil) No(s). 34134 2013

(From the judgement and order dated 21/10/2013 in SBCWP No. 13189/2012 and DBCMA No.250/2013 of The HIGH COURT OF RAJASTHAN AT JAIPUR)

STATE OF RAJASTHAN & ORS Petitioner(s)

VERSUS

NATURE CLUB OF RAJASTHAN (NGO) Respondent(s)

(For extension of time and office report)

AND

ITEM NO. 317
IA NO. 2 in
Petition(s) for Special Leave to Appeal (Civil) No(s). 34811/2013

NAVEEN SHARMA Petitioner(s)

VERSUS

STATE OF RAJASTHAN & ORS. Respondent(s)

(For extension of time and office report)

Date: 27/03/2014 These Applications were mentioned today.

CORAM :
HON'BLE MR. JUSTICE A.K. PATNAIK
HON'BLE MR. JUSTICE SURINDER SINGH NIJJAR
HON'BLE MR. JUSTICE FAKKIR MOHAMED IBRAHIM KALIFULLA

For Petitioner(s) IN SLP 34134 Mr. P.S. Narasimha, Sr. Adv.
Mr. S.S. Shamshery, AAG

Mr. Irshad Ahmad, Adv.

IN SLP 34811 Mr. Merusagar Samantaray, Adv.

For Respondent(s) Ms. Ruchi Kohli, Adv.

UPON hearing counsel the Court made the following

O R D E R

When the matter was taken up on 24th February, 2014 we had directed that the letter of intent holders who have submitted their applications to the Ministry of Environment and Forests for clearance (numbering 82 only) can carry on mining operations in accordance with the Notification dated 21st June, 2012 of the Mines (Act 2) Department, Government of Rajasthan issued under Rule 65A of the Rajasthan Mines and Mineral Concession Rules, 1986 till the end of February, 2014.

We make it clear that the above direction is extended till we hear further and pass orders.

[KALYANI GUPTA]
COURT MASTER

[SHARDA KAPOOR]
COURT MASTER

ITEM NO.MM-I COURT NO.5 SECTION XV

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

ITEM NO. 315
IA NO. 3 in
Petition(s) for Special Leave to Appeal (Civil) No(s).34134 of 2013

(From the judgement and order dated 21/10/2013 in DBCWP No. 13189/2012 and DBCMA No.250/2013 of The HIGH COURT OF RAJASTHAN AT JAIPUR)

STATE OF RAJASTHAN & ORS Petitioner(s)

VERSUS

NATURE CLUB OF RAJASTHAN (NGO) Respondent(s)

(For extension of time and office report)

AND

ITEM NO. 317
IA NO. 2 in
Petition(s) for Special Leave to Appeal (Civil) No(s).34811/2013

NAVEEN SHARMA Petitioner(s)

VERSUS

STATE OF RAJASTHAN & ORS. Respondent(s)

(For extension of time and office report)

Date: 27/03/2014 These Applications were mentioned today.

CORAM :
HON'BLE MR. JUSTICE A.K. PATNAIK
HON'BLE MR. JUSTICE SURINDER SINGH NIJJAR
HON'BLE MR. JUSTICE FAKKIR MOHAMED IBRAHIM KALIFULLA

For Petitioner(s) IN SLP 34134 Mr. P.S. Narasimha, Sr. Adv.
Mr. S.S. Shamshery AAG

Mr. Irshad Ahmad, Adv.

IN SLP 34811 Mr. Merusagar Samantaray, Adv.

For Respondent(s) Ms. Ruchi Kohli, Adv.

UPON hearing counsel the Court made the following

O R D E R

When the matter was taken up on 24th February, 2014 we had directed that the letter of intent holders who have submitted their applications to the Ministry of Environment and Forests for clearance (numbering 82 only) can carry on mining operations in accordance with the Notification dated 21st June, 2012 of the Mines (Act 2) Department, Government of Rajasthan issued under Rule 65A of the Rajasthan Mines and Mineral Concession Rules, 1986 till the end of February, 2014.

We make it clear that the above direction is extended till we hear further and pass orders.

[KALYANI GUPTA]
COURT MASTER

[SHARDA KAPOOR]
COURT MASTER

ITEM NO.9 COURT NO.4 SECTION XV

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

Petition(s) for Special Leave to Appeal (C) No(s).34811/2013

(Arising out of impugned final judgment and order dated 21-10-2013 in DBCMA No. 250/2013 21-10-2013 in DBCWP No. 13189/2012 passed by the High Court of Judicature for Rajasthan at Jaipur)

NAVEEN SHARMA Petitioner(s)

VERSUS

THE STATE OF RAJASTHAN AND ORS. Respondent(s)

WITH
SLP(C) No. 34134/2013 (XV)
(WITH Application for Direction ON IA 9/2017, Application for Direction ON IA 10/2017, IA No.119289/2017-impleading party and IA No.119291/2017-CLARIFICATION/DIRECTION and IA No.119298/2017-impleading party and IA No.119300/2017-CLARIFICATION/DIRECTION and IA No.120769/2017-impleading party and IA No.120772/2017-CLARIFICATION/DIRECTION)

C.A. No. 9703-9706/2013 (XVII)

C.A. No. 17379-17380/2017 (XVII)
(WITH IA No.111271/2017-EXEMPTION FROM FILING C/C OF THE IMPUGNED JUDGMENT and IA No.111268/2017-EXEMPTION FROM FILING O.T. and IA No.111270/2017-APPROPRIATE ORDERS/DIRECTIONS and IA No.111269/2017-PERMISSION TO FILE ADDITIONAL DOCUMENTS)

Date : 16-11-2017 These matters were called on for hearing today.

CORAM : HON'BLE MR. JUSTICE MADAN B. LOKUR
HON'BLE MR. JUSTICE DEEPAK GUPTA

For Petitioner(s) Mr. Irshad Ahmad, AOR

Mr. S.S. Shamshery, AAG Rajasthan
Mr. Amit Sharma, Adv.
Mr. Sandeep Singh, Adv.
Mr. Ankit Raj, Adv.
Ms. Indira Bhakar, Adv.
Ms. Ruchi Kohli, AOR

Ms. Pragati Neekhra, AOR

Mr. Yashvardhan, Adv.

Mr. Ambuj Dixit, Adv.
Mr. Merusagar Samantaray, AOR

Dr. Surender Singh Hooda, AOR
Mr. Premtosh Mishra, Adv.

For Respondent(s)/
applicant(s)

Mr. Ajit Kumar Sinha, Sr. Adv.
Mr. Sarad Kumar Singhania, Adv.
Mr. Anis Kumar Gupta, Adv.
Mr. G.S. Makker, Adv.

Mr. C.A. Sundaram, Sr. Adv.
Mr. Harish Pandey, AOR
Mr. Himanshu Shekhar, Adv.

Mr. Neeraj Kishan Kaul, Sr. Adv.
Mr. Anand Varma, AOR
Mr. Sandeep Singh Shikhawat, Adv.
Ms. Shubhangini Jain, Adv.

Mr. Ansar Ahmad Chaudhary, AOR

Mr. D. K. Devesh, AOR

Dr. Surender Singh Hooda, AOR
Mr. Premtosh Mishra, Adv.

Ms. Ruchi Kohli, AOR

Mr. Sandeep Sekhawat, Adv.
Mr. Lal Pratap Singh, Adv.
Mr. Umesh Pratap Singh, Adv.
Mr. R. C. Kohli, AOR

Mrs. Rachna Gupta, Adv.
Ms. Alka Sinha, Adv.
Mr. Siddhant S. Malik, Adv.

Mr. Sanjeeb Panigrahi, AOR

Ms. Kiran Bhardwaj, AOR

Mr. Pradeep Misra, AOR
Mr. Suraj Singh, Adv.

Ms. K. Enatoli Sema, AOR
Mr. Edward Belho, Adv.
Mr. Amit Kumar Singh, Adv.
Mr. K. Luikang Michael, Adv.

Mr. Vijay Panjwani, AOR

Mr. Ritesh Khatri, AOR

Ms. Nandini Sen, Adv.
Mr. Chanchal Kumar Ganguli, AOR

Ms. Rachana Srivastava, AOR
Mr. Sukrit R. Kapoor, adv.

Ms. Aruna Mathur, Adv.
Ms. Anuradha Arputham, Adv.
for M/S. Arputham Aruna And Co

Mr. M. R. Shamshad, AOR

Mr. Anil Grover, AAG
Mr. Vishal Chauhan, Adv.
Mr. Sanjay Kumar Visen, AOR

Mr. M. Shoeb Alam, AOR

Ms. Shibani Ghosh, AOR

Ms. G. Indira, adv.
Mr. K.V. Jagishvaran, Adv.
Mr. Bhupesh Narula, Adv.

UPON hearing the counsel the Court made the following

O R D E R

In these matters, SLP(C) No.34134 of 2013 (State of Rajasthan Vs. Nature Club of Rajasthan) should be taken as the main case. Accordingly, in the cause list this matter be shown as the main case.

We have heard learned counsel for the parties and we are horrified with what is happening in the State of Rajasthan with regard to *bajri* and sand mining/quarrying.

For several months, if not years, without any environmental clearance and without any scientific replenishment study, unabated mining is going on by 82 parties before us.

It is quite obvious that the Ministry of Environment, Forest and Climate Change is not concerned about the degradation of the environment in Rajasthan and what is even worse is that the State of Rajasthan is totally unconcerned about it.

In Court, serious allegations have been made that the State of Rajasthan is complicit with the miners/quarry holders and sand and *bajri* is being mined with impunity.

Without giving any credence to the allegations made until we hear from the Chief Secretary of Rajasthan on affidavit, we restrain all the 82 mining lease/quarry holders from carrying out mining of sand and *bajri* unless a scientific replenishment study is completed and the matter is fully and dispassionately considered by the Ministry of Environment, Forest and Climate Change and an environmental clearance is granted or rejected.

This order will come into force with immediate effect.

List the matters after the affidavit from the Chief Secretary of Rajasthan is filed.

C.A. No. 17379-17380/2017

Detag.

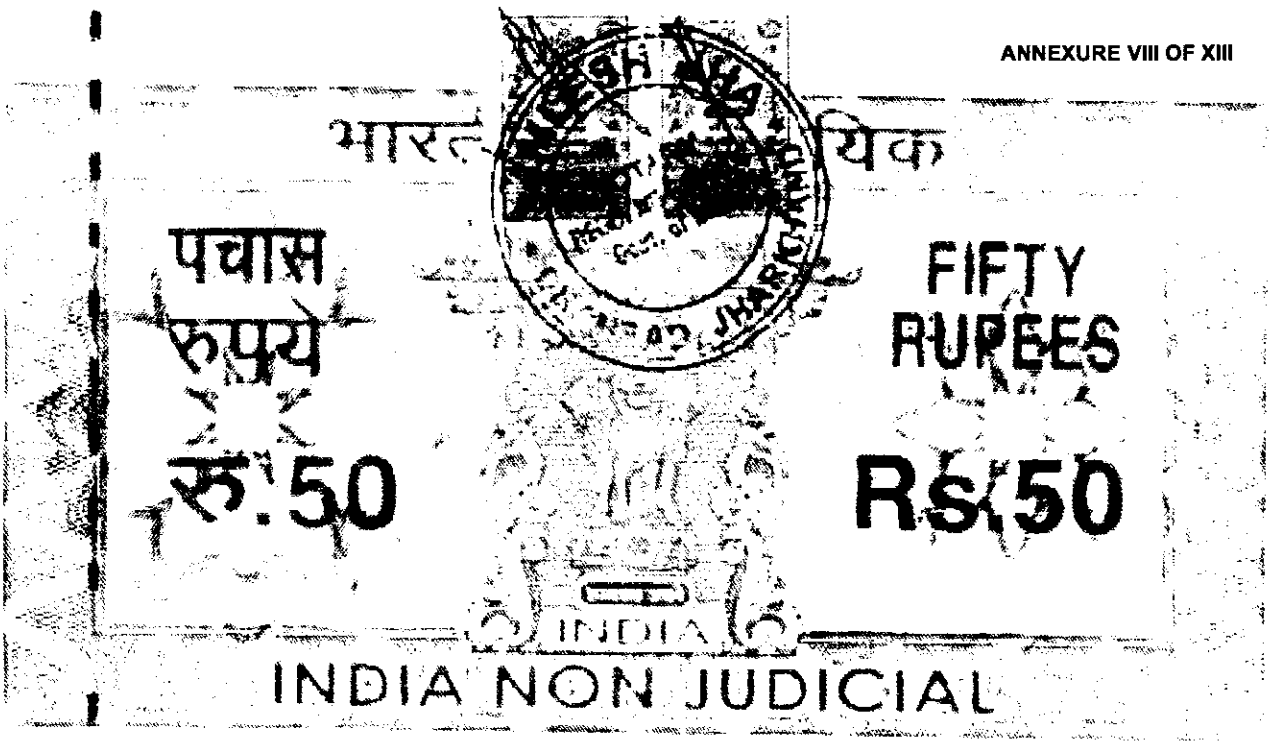
Reply be filed within four weeks.

List the matter immediately after four weeks.

(SANJAY KUMAR-I)
AR-CUM-PS

(KAILASH CHANDER)
COURT MASTER

079



झारखण्ड JHARKHAND

C 895272

Sl. No. 32 Date 27 AUG 2018

NOTARY
DHANBAD

Affidavit

I Lakhmir Singh Sabharwal S/o Jaswant Singh Sabharwal Proprietor of Tunjuni Roadways, R/o of 3 Sidashiv Properties, Kattas Road, Dhanbad – 826001 (Jharkhand) do solemnly affirm and undertake as under :-

1. That as Proprietor I am responsible for operating the "Sand Mine (Rattewali/ PKL - B- 10)" situated at Village – Rattewali, Tehsil – Barwala, District – Panchkula, Haryana.
2. That our Mine complies with all the statutory requirements and Judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
3. That I hereby ensure that all the Environmental Laws and Legislations pertaining to our project "Sand Mine (Rattewali/ PKL - B- 10)" are followed and we shall ensure that we will not violate the Environment (Protection) Act' 1986.

Date:- 27.08.2018
Place - Dhanbad

(Lakhmir S. Sabharwal)
Proprietor

L. S. SABHARWAL

VERIFICATION

Verified at Dhanbad on this 27.08.2018 that the above contents of this affidavit are true and correct to the best of my knowledge and belief and nothing has been concealed there from.

Date:- 27.08.2018
Place - Dhanbad

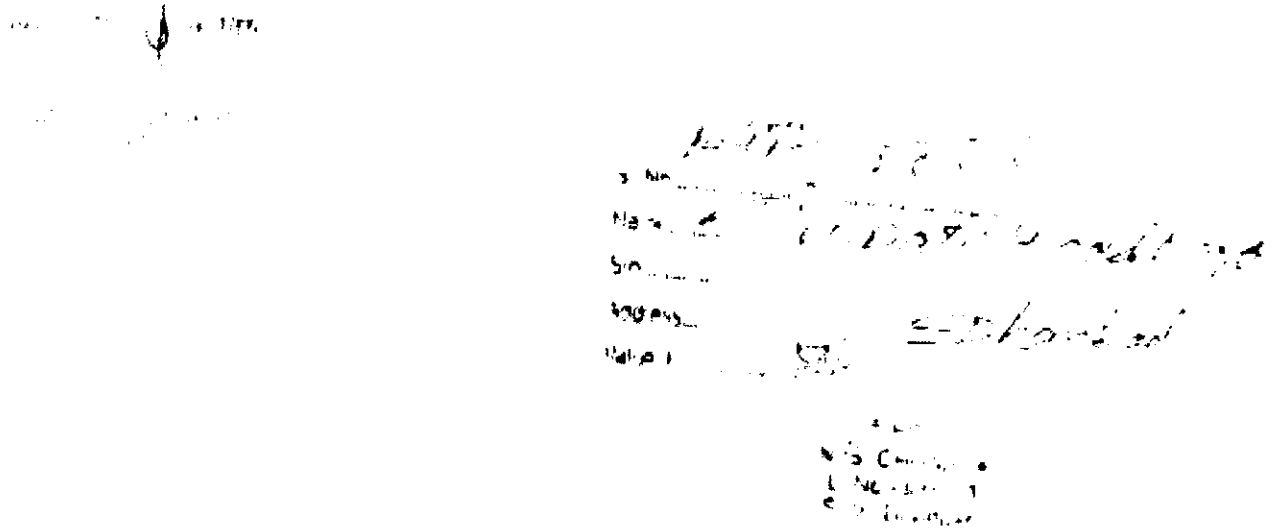
(Lakhmir S. Sabharwal)
Proprietor

RAMLESH JHA
NOTARY
Govt. of India
JHARKHAND

Authorised
U/s 297 (i) (c) of the Cr. PC 1973
Act No. 11 of 10 & u/s (1)
of the Notaries Act, 1952

NOTARY
DHANBAD

180 080



ISO9001:2015 Certified Testing Lab.

M. E. TESTING LABORATORY

(ISO 9001 : 2015 Certified & NABL Accredited Lab.)

Lab. : C-31, Urmila Marg, Hanuman Nagar, Khati Pura Road, (Behind HDFC Bank, Hanuman Nagar Br.) Jaipur (Rajasthan) INDIA Phone/Fax : 0141-4048372
Mob. : 9214045103-109-114 E-mail : me.testinglaboratory@gmail.com
www.metestinglaboratory.com

TEST REPORT

Description of sample: Sand
Source: Banas

Report No. METL/JPR/025(103)/2018
Date of Report: 01/02/2018
Date of Testing: 29-01-01/02/2018
Date of Receipt: 29/01/2018

Issued to:

Shri Sai Supreme Enterprises Pvt Ltd
Jaipur (Raj)

S.No.	Parameters	Test Value	Requirement as IS: 383-1970	Method of test ref to:
1.	Sieve Analysis			
	I.S. Sieve	% Passing		
i)	10 mm	100	100	IS-2386 (Part-I)-1963
ii)	4.75mm	98	90-100	
iii).	2.36mm	90	75-100	
iv)	1.18mm	72	55-90	
v)	600 micron	52	35-59	
vi)	300 micron	11	8-30	
vii)	150 micron	4	0-10	
2.	Fineness Modulus:	2.73	----	CPWD Spec.
3.	Silt Content, %	2.9	Max8*	CPWD Spec.
4.	Bulk Density, Kg/liter	1.638	----	IS-2386 (Part-III)-1963
5.	Water Absorption, % w/w	1.10	----	IS-2386 (Part-III)-1963
6.	Specific gravity	2.606	----	IS-2386 (Part-III)-1963

Remarks: - With respect to the above test sample complies with* CPWD specification.

*******End of Report******

Page No 1/1

M.E. TESTING LABORATORY Ram Kishor Sharma

Authorised Signatory

1/1 082

1. The result listed only to the tested samples and applicable parameters endorsement of product is neither inferred nor implied
2. Total liability of our Lab. is limited to the invoiced amount
3. Samples will be destroyed after 10 Days 30 Days form the date of issue of test report
4. This report is not be reproduced wholly or in part and cannot be used as evidence of the court of law and should not be used in any advertising media without our special permission in writing

MANUAL ON WATER SUPPLY AND TREATMENT

THIRD EDITION - REVISED AND UPDATED

Prepared by

THE EXPERT COMMITTEE

Constituted by

THE GOVERNMENT OF INDIA

CENTRAL PUBLIC HEALTH
AND ENVIRONMENTAL ENGINEERING ORGANISATION

MINISTRY OF URBAN DEVELOPMENT, NEW DELHI
MAY, 1999

Sl.No.	Institutions	Litres per head per day
8.	Junction Stations and intermediate stations where mail or express stoppage (both railways and bus stations) is provided	70
9.	Terminal stations	45
10.	Intermediate stations (excluding mail and express stops)	45 (could be reduced to 25 where bathing facilities are not provided)
11.	Day schools / colleges	45
12.	Offices	45
13.	Factories	45 (could be reduced to 30 where no bathrooms are provided)
14.	Cinema, concert halls and theatre	15

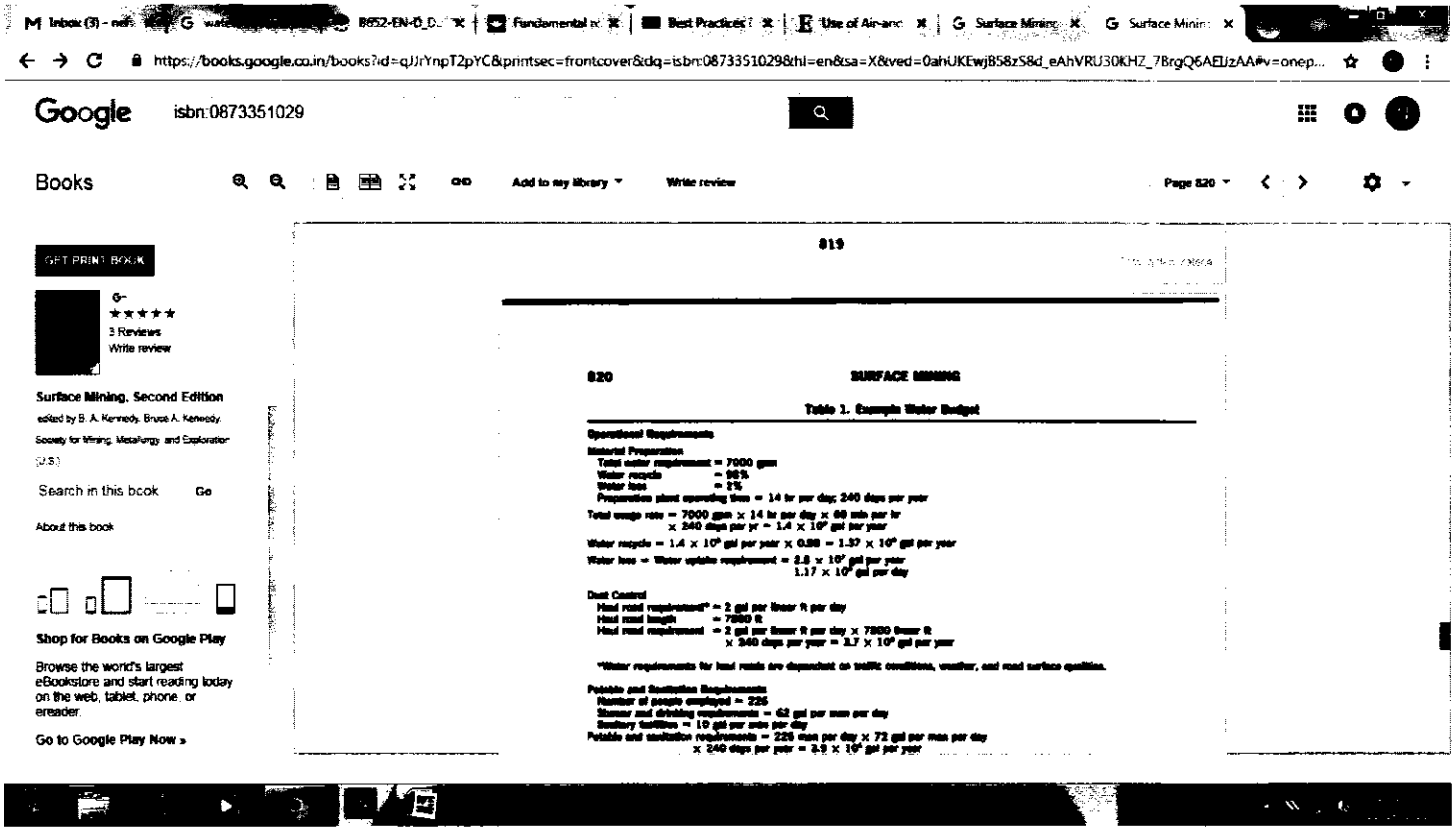
c) Fire Fighting Demand

It is usual to provide for fire fighting demand as a coincident draft on the distribution system along with the normal supply to the consumers as assumed. A provision in kilolitres per day based on the formula of $100\sqrt{p}$ where, p = population in thousands may be adopted for communities larger than 50,000. It is desirable that one third of the fire-fighting requirements form part of the service storage. The balance requirement may be distributed in several static tanks at strategic points. These static tanks may be filled from the nearby ponds, streams or canals by water tankers wherever feasible. The high rise buildings should be provided with adequate fire storage from the protected water supply distribution as indicated in 10.3.2.

d) Industrial Needs

While the per capita rates of supply recommended will ordinarily include the requirement of small industries (other than factories) distributed within a town, separate provisions will have to be included for meeting the demands likely to be made by specific industries within the urban areas. The forecast of this demand will be based on the nature and magnitude of each such industry and the quantity of water required per unit of production. The potential for industrial expansion should be carefully investigated, so that the availability of adequate water supply may attract such industries and add to the economic prosperity of the community. As can be seen from the tabulation, the quantities of water used by industry vary widely. They are also affected by many factors such as cost and availability of water, waste disposal problems, management and the types of processes involved. Individual studies of the water requirement of a specific industry should, therefore, be made for each location, the values given below serving only as guidelines. In the context of reuse of water in several industries, the requirement of fresh water is getting reduced considerably.

2962 UA&E/97—48


https://books.google.co.in/books?id=qJJrYnpT2pYC&printsec=frontcover&dq=isbn:0873351029&hl=en&sa=X&ved=0ahUKEwjB58zS8d_eAhVRU30KHZ_7BrgQ6AEIJzAA#v=onep...
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isbn:0873351029
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Write review
Page 820
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3 Reviews
Write review
Surface Mining, Second Edition
edited by B. A. Kennedy, Bruce A. Kennedy
Society for Mining, Metallurgy, and Exploration (U.S.)
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819
820
SURFACE MINING
Table 1. Example Water Budget
Operational Requirements
Material Preparation
Total water requirement = 7000 gpm
Water recycle = 96%
Water loss = 1%
Preparation plant operating time = 14 hr per day; 240 days per year
Total usage rate = 7000 gpm x 14 hr per day x 60 min per hr
x 240 days per yr = 1.4 x 10^9 gal per year
Water recycle = 1.4 x 10^9 gal per year x 0.96 = 1.37 x 10^9 gal per year
Water loss = Water uptake requirement = 2.8 x 10^7 gal per year
1.17 x 10^6 gal per day
Dust Control
Haul road requirement* = 2 gal per linear ft per day
Haul road length = 7800 ft
Haul road requirement = 2 gal per linear ft per day x 7800 linear ft
x 340 days per year = 3.7 x 10^6 gal per year
*Water requirements for haul roads are dependent on traffic conditions, weather, and road surface qualities.
Potable and Sanitation Requirements
Number of people employed = 225
Shower and drinking requirements = 62 gal per man per day
Sanitary facilities = 10 gal per man per day
Potable and sanitation requirements = 225 men per day x 72 gal per man per day
x 240 days per year = 3.9 x 10^6 gal per year

1. **TREE WATERING GUIDE**

Water your tree 5 gallons every 3 - 4 days, or a total of 10-15 gallons weekly. Because this is only a rule of thumb, it will need to be adjusted to your unique site. To do this, check the soil moisture a few inches below the soil surface of the root ball. If the soil is very dry or leaves look wilted you will need to water more frequently. It should feel moist, but not soggy. If there is any excess moisture, wait 1-2 days then check the soil moisture again before watering. Too much water is just as bad as not enough	
Seasonal Information	
Dry Season and Summer Months	Irrigate trees planted during the dry season 2 to 3 times a week for the first few months and every 3 to 4 days thereafter until the rainy season. It may be necessary to water more frequently during particularly dry, hot weather.
Rainy Season and Winter Months	Irrigate trees planted in the late winter to early spring on a weekly basis, when rain is lacking. Begin deep watering once to twice a week with the approach of warm, dry weather – water thoroughly.
Yearly Information	
1st Year after Planting	Most young trees need 10-15 gallons of water each week for the first year. We recommend watering 5 gallons every 3 - 4 days. Note: to determine the duration needed to water 5 gallons, you can time how long it takes to fill a 1 or 5 gallon bucket at a given flow rate.
2nd Year after Planting	Gradually reduce the frequency of watering during the second year to a weekly basis. Begin in late spring and continue through early winter as needed.
3rd Year after Planting	By the third year, deep watering every other week should suffice, but remember to check your tree often. Watering during the rainy season may not be necessary - remove the soil berm that forms the watering basin - Do not pile soil/mulch up against the tree trunk or change the grade of the soil under the canopy
4th & 5th Years after Planting	Many trees will thrive with 2 or 3 deep soakings during the summer of the fourth or fifth year. Most established trees will benefit from periodic, but infrequent deep watering, particularly during the dry season. Monitor your tree carefully! Water your tree 5 gallons every 3 - 4 days
REFERENCE	HTTP://WWW.OURCITYFOREST.ORG/BLOG/2015/2/26/THE-ULTIMATE-WATERING-GUIDE. HTTP://BLOG.DAVEY.COM/2018/08/HOW-MUCH-WATER-DOES-A-NEWLY-PLANTED-TREE-NEED/

2. TREE WATERING GUIDE

<table>
<tr><td colspan="2">How much water your tree should receive depends upon the tree size. A general rule of thumb is to use approximately 10 gallons of water per inch of trunk diameter for each watering. Measure trunk diameter at knee height</td></tr>
<tr><td>General formula</td><td>Tree Diameter x 5 minutes = Total Watering Time</td></tr>
<tr><td>Example:</td><td>When you hand water using a hose at medium pressure, it will take approximately 5 minutes to produce 10 gallons of water. If you have a 4" diameter tree, it should receive 40 gallons of water – multiply by 5 minutes to equal total watering time of 20 minutes</td></tr>
<tr><td colspan="2">1 Gallon = 3.7854 ltr. 5 gallon = 3.7854 x 5 = 18.92 ltr
Everyday required water =18.92/3 = 6.30ltr</td></tr>
<tr><td colspan="2">Young or newly planted trees need weekly watering during the growing season. Their water needs are easy to meet because they are small. They can be watered with a hose end spray, soaker, drip or a perforated five gallon bucket. A five gallon bucket with several 1/8-inch holes drilled in the bottom can be quickly filled and left to slowly drain out onto the root ball of the new tree, while you go on to hand water other trees. A 2-inch diameter tree would need four buckets or two buckets filled two times to meet its 20 gallons of water.
If you have more trees to water than you can get to in the two-hour weekly period, try putting them on a rotation so they get a good watering every two to three weeks or even four if you have that many trees. It would be better to do a good, deep watering once every few weeks than to apply a little water to each tree.
What if the water goes into the soil too slowly or runs off? Water the drip line of the tree until water begins to stand or run off and move to another tree. After 10 to 30 minutes go back to that tree and the soil should be able to take water at a faster rate.
Mulch trees with 4 inches of organic mulch out to the dripline. Shredded tree limbs, shredded bark, pine needles and other forms of mulch can be used. Mulch will slow the evaporation of water from the soil and keep weed and grass growth down (you may want to kill the grass before applying mulch) so they don't compete for water. Mulch keeps the soil temperatures cooler so roots function better and will improve the water infiltration rates and reduce runoff.</td></tr>
<tr><td>Reference:</td><td>A. http://regreenspringfield.com/water/
Bhttps://wateruseitwisely.com/100-ways-to conserve/landscape-watering-guide/plant/</td></tr>
</table>

3. **TREE WATERING GUIDE**

How to water newly planted trees	Young, newly planted trees are the most difficult to water because your watering strategy needs to constantly adapt to the tree's growing needs. For the first several months after planting, the trees roots will remain in the original "root ball." The root ball is that chunk of soil you see surrounding the roots when you buy a new plant and take it out of the container to plant it. For the first several months, you should focus your watering on that "root ball" area. Then, gradually expand the watering area to cover the entire area under the canopy. Now for the really important question – how much water does a newly planted tree need? A good rule of thumb is that your watering radius (as described above) should always be moist – not dry and not sopping wet. Newly planted trees are incredibly sensitive to too much or too little water. Usually a steady stream of water from a hose for 30 seconds about twice a week should be sufficient. Increase to three times a week when the weather has been very dry
Reference:	https://www.gardeners.com/how-to/when-to-water-trees/7931.html https://extension.umn.edu/planting-and-growing-guides/watering-newly-planted-trees-and-shrubs

4. TREE WATERING GUIDE

Year	Amount	Frequency
Year 1		
First month of planting	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water three (3) times a week over the root ball.
Second month of planting	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water two (2) times a week over the root ball.
Third month of planting	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water once (1) per week over the root ball.
Fourth to ninth month of planting	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water twice per month over the root ball.
YEAR 2		
Hottest months	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water twice per month, twice the width of the root ball only During a drought, water once weekly.
Cooler months		Monitor and respond
YEAR 3		
Hottest months	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water twice per month, twice the width of the root ball. During a drought, water once weekly.
Cooler months		Monitor and respond
Hottest months	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water twice per month, twice the width of the root ball. During a drought, water once weekly.
YEAR 4 &5		

Hottest months	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water twice per month, twice the width of the root ball. During a drought, water once weekly.
Hottest months	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water twice per month, twice the width of the root ball. During a drought, water once weekly.
Hottest months	Trunks smaller than 2" (5 cm): 1 gallon per inch of trunk diameter. Trunks larger than 2" (5cm): 2 gallons per inch of trunk diameter.	Water twice per month, twice the width of the root ball. During a drought, water once weekly.
For young trees, water the roots around the trunk (not the trunk itself, and not the area outside the root ball). I also recommend creating and maintaining a 3-foot wide, 1" to 3" (2.5 cm to 7.5 cm) deep organic (wood chip) mulch ring around the trunk for its entire life, to help maintain soil moisture. For mature trees (>25 years), or those with a trunk more than 12" (30 cm) in diameter, water deep and occasionally. About 10 gallons per 1 inch (2.5 cm) of trunk diameter per week (ex., a tree with 12" DBH would receive 120 gallons) during drought. If there is unlimited water, there are records of trees absorbing 150 gallons of water in a single day. '		
Reference	http://www.deeproot.com/blog/blog-entries/how-much-should-you-water-your-tree	

Miners, Transporters & Contractors

Date: 25.04.2018

To
Regional Director,
Central Ground Water Board, North Western Region
BhujalBhavan, Plot No 3 A,
Sector 27-B, Chandigarh - 160019

Subject: Application for permission to abstract ground water of 120 KLD for mining use at our unit M/s Tirupati Roadways at Rattewali Block/PKL B 10 Village- Rattewali, Tehsil Barwala, District- Panchkula (Haryana).

Reference: Application Number: 21-4/1374/HR/MIN/2018 submitted online on 24.04.2018

Dear Sir,

With reference to the above-cited subject, please find enclosed herewith the hard copy of application bearing number 21-4/1374/HR/MIN/2018 submitted online on 24.04.2018 regarding permission to abstract ground water of 120 KLD for mining use at our unit M/s Tirupati Roadways at Rattewali Block/PKL B 10 Village- Rattewali, Tehsil Barwala, District-Panchkula (Haryana). The application is annexed with all project related documents as per CGWA checklist.

A sum of Rs 1000 (One thousand rupees) only has been paid online through Non Tax Receipt Portal (http://bharatkosh.gov.in) on account of Application Processing Fee. The copy of payment receipt bearing number 2504180001428 dated 25.04.18 is attached herewith.

You are requested to acknowledge the receipt of this application and process our case further.

Thanking You
M/s Tirupati Roadways

(Authorised Signatory)

26/04/18
C.G.W.B. Chandigarh

Government of India
Central Ground Water Authority (CGWA)
Ministry of Water Resources, River Development and Ganga Rejuvenation
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/1374/HR/MIN/2018

1. **General Information:**

Water Quality:	Fresh Water
Whether Ground Water Utilization for:	New Industry
Date of Commencement Mine/Project:	
Date of Expansion:	
Application Type Category/ Type of Application	Mineral Products

2. **Name of Mine/Project:** M/S TIRUPATI ROADWAYS

3. **Location Details of the Mining Unit- (Attach Site, Approved Mining Plan) ($) :**

Address Line 1 :	RATTEWALI BLOCK PKL/B-10 VILLAGE- RATTEWALI, TEHSIL-BARWALA, DISTRICT- PANCHKULA
Address Line 2 :	
Address Line 3 :	
State:	HARYANA
District:	PANCHKULA
Sub-District:	BARWALA
Village/Town:	Rattewali (222)
Latitude:	
Longitude	
Area Type :	Non-Notified
Area Type Category :	Critical

4. **Communication Address**

Address Line 1:	M/S TIRUPATI ROADWAYS 3, SADASHIV PROPERTIES,
Address Line 2:	KATRAS ROAD, BANK MORE,
Address Line 3:	DHANBAD, JHARKHAND
State:	JHARKHAND
District:	DHANBAD
Sub-District:	DHANBAD
Pincode:	826001
Phone Number with Area Code:	
Mobile Number:	91 9431121931
Fax Number:	
E-Mail:	gurpreetsabharwal@hotmail.com

5. **Salient Features of the Activity:**

Mining of Boulder, Gravel and Sand (Minor Mineral)

6. **Land Use Details of the Surroundings (km 10 Radius – Outside): ($)**

Land Use Details of the Surroundings(km 10 radius):

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/1374/HR/MIN/2018

7. Land Use Detail of Project Area

Land Use Details	Existing (sq meter)	Proposed (sq meter)	Grand Total (sq meter)
Green Belt Area		0.00	0.00
Open Land		450000.00	450000.00
Road/ Paved Area		0.00	0.00
Rooftop area of building/ sheds		0.00	0.00
Total		450000.00	450000.00

8. Topography of the Area

a) Regional — Dudhgarh River

b) Project Area — Dudhgarh River

9. Drainage in the Area (River / Nala etc)

a) Regional — Dudhgarh River Bed

b) Project Area — Dudhgarh River Bed

10. Source of Availability of Surface Water – Furnish Details: NA

11. Average Annual Rainfall in the Area (in mm): 1057.00

12. Townships/Villages within 10 km radius of the Project: Village Rattewali

13. Whether the Groundwater Table will be Intersected by Activity :- No

(a) At What Depth (m bgl)	Pre-monsoon	Post-monsoon
Minimum (m bgl)		
Maximum (m bgl)		

(b) Maximum Depth Proposed to Dewater (m bgl)

(c) Groundwater Flow Direction (Attach Map)($)

(d) Any Other Information

14. Total Water Requirment for various Purpose to be Mentioned

	(m3/day)	(m3/year)
Ground Water Required through Abstract Structure	120.00	32160.00
Ground Water Abstracted on account of Dewatering / Mining Seepage		
Total Ground Water Withdrawal	120.00	32160.00

15. Details of De-Watering Structure

(a) De-Watering Existing Structure

Number of Existing Structures: 0

SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours(Day) / Days (Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA /If so Details Thereof

Government of India
Central Ground Water Authority (CGWA)
Ministry of Water Resources, River Development and Ganga Rejuvenation
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/1374/HR/MIN/2018

(b) De-Watering Requirment and Proposed Structure Detail

Number of Proposed Structures: 0

SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours(Day) / Days(Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA/If so Details Thereof

16. Proposed Utilization of Pumped Water (Please Attach Details)(m3/year) ($)

(a)	Domestic Use in Mines	938.00
(b)	Water Supply	
(c)	Agriculture	
(d)	Green Belt Development	8040.00
(e)	Suppression of Dust	23182.00
(f)	Recharge	
(g)	Any Other Item	

17. Monitoring of Ground Water Regime (Attach Map($))

(a)	Location Details of the Wells / Piezometers (Latitute, Longitude, Reduced Level)	30 39 24.6 N AND 76 59 48.8 E
(b)	Number of Wells / Piezometers	NA
(c)	Attach Details of GW Level of Observation Wells / Piezometers(At Least for One Year)($)	NA
(d)	Number of Wells / Piezometers Proposed to Monitor	1
(e)	Number of Piezometers Proposed to Monitor to Construct in Surroundings	1
(f)	General Water Quality Report from NABL accredited lab(in the Arae and Surroundings) ($)	Fresh
(g)	Any Other Item	NA

18. Proposed Pump / Pumping Groundwater Outside the Mine Pit for Domestic or Other Use (If so, give Details):

Number of Existing Structures: 0

SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours (Day) / Days (Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA/If so Details Thereof

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Government of India
Central Ground Water Authority (CGWA)
Ministry of Water Resources, River Development and Ganga Rejuvenation
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/1374/HR/MIN/2018

Number of Proposed Structures: 1

SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours (Day) / Days (Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA/If so Details Thereof
1	Borewell / 2018	28.00 / 202	20.00	12.00	10 / 268	Submersible Pump	5.00	Yes	No / -

19. Groundwater Availability Report (Please Enclose a Comprehensive Report on Groundwater Condition / Groundwater Quality in and Around 5Km of the Area) Map showing location of groundwater regime monitoringwells, flow chart showing details of water requirment and recycle water use and gainfull of pumped water- ($)

Enclosed

20. Details of Rainwater Harvesting / Artificial Recharge Measures for Groundwater Recharge in the Area. If already Implemented, details may be Furnished. (Attach Report on Comprehensive & Feasible Rainwater Harvesting / Recharge Proposal).- ($)

Enclosed

21. TOR/EC/Approval letter from statutory bodies viz Ministry of Environment & Forest (MoEF) or State Pollution Control Board (SPCB) or State Level Expert Appraisal Committee(SEAC) or State Level Environment Impact Assessment Authority (SLEIAA)- ($)

Attached Referral Letter

Letter Number

S.No	Attached Referral Letter	Attachment Name	File Name
1	Ministry of Environment and Forests	TOR	ToR.PDF

22. Have you Applied Earlier for the Same Purpose with CGWA / State Ground Water Authority:

If Yes, so Details thereof with Status:

MINING USE- Self Declaration

☑ It is to Certify that the Data and Information Furnished Above are True to the Best of My Knowledge and Belief and I am Aware that if any Part of the Data / Information Submitted is Found to be False or Misleading at any Stage the Application will be Rejected Out Rightly.

1. Application Proforma is subject to modification from time to time.

2. Application should be submitted to Regional Office.

Regional Director,Central Ground Water Board North Western Region, Bhujal Bhawan, Plot No. 3B, Sector 27-A, CHANDIGARH, CHANDIGARH, 160019

3. Incomplete Application will be Summarily Rejected.

Submitted Application will not be Processed till the Print Out of the Signed Complete Application is Submitted to Regional Office.

4. Applicant has to Submit Processing Fee of Rs. 1000.00/- (Rupees One Thousand Only) through NON TAX RECEIPT PORTAL (https://bharatkosh.gov.in). A receipt will be generated. Please fill in the Transaction Ref No. and Date from the receipt, in print out of application and attach receipt along with hard copy of application.

Bharatkosh Details:-

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Government of India
Central Ground Water Authority (CGWA)
Ministry of Water Resources, River Development and Ganga Rejuvenation
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/1374/HR/MIN/2018

Transaction Ref Number:-

Dated:-

Note:- The Processing Fee is Non-Refundable. Applicant should ensure and Check Eligibility of Submission of Application and Required Documents before Submitting Online Application.

Attached Files:

1). Site Plan : (Refer 3)

S.No	Attachment Name	File Name
1	Digitize map	Digitization.pdf

2). Approved Mining Plan : (Refer:3)

S.No	Attachment Name	File Name
1	Mine Plan	Mine Plan.pdf

3). Toposketch of Surroundings 10 km Radius Outside : (Refer: 3)

S.No	Attachment Name	File Name
1	Key Plan	Key plan.pdf

4). Document of Ownership of the land : (Refer-7)

S.No	Attachment Name	File Name
1	LOI	LOI.pdf

5). Source of Availability of Surface Water : (Refer-10)

No Attachment Found!

6). GroundWater flow Direction Map : (Refer: 13-C)

No Attachment Found!

7). Proposed Utilization of Pumped Water : (Refer: 16)

S.No	Attachment Name	File Name
1	Water Balance	Tirupati Water Balance.pdf

8). Monitoring of Groundwater Regime Map : (Refer: 17)

No Attachment Found!

9). GW Level of Observation Wells / Piezometer : (Refer: 17-C)

No Attachment Found!

10). General Quality of Ground Water in the Area : (Refer: 17-f)

No Attachment Found!

11). Hydrogeological Report (Previous:Groundwater Availability Report) : (Refer: 19)

S.No	Attachment Name	File Name
1	Hydrogeology Report	Hydrogeology Report Final.pdf

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Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/1374/HR/MIN/2018

12). Rain Water Harvesting/Artificial Recharge proposal (Previous:Details of Rainwater Harvesting and Artificial Recharge Measures) : (Refer: 20)

S.No	Attachment Name	File Name
1	RWH REPORT	RWH Rattewali Block Final.pdf

13). Authorization Letter (Previous:Authorization) :

S.No	Attachment Name	File Name
1	Authorization	Authorization format.pdf

15). Extra Attachment :

No Attachment Found!

16). Scanned Mining Application :

No Attachment Found!

17). TOR/EC/Approval Letter :

No Attachment Found!

Date :

Place :

Name & Signature of the applicant

(With official seal)

Associated User : anshul523

Submitted By User : anshul523

Submission Date : 24/04/2018

* In case signed by any authorized signatory, the details of the signatory with the authorization shall be enclosed.

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Forest Department, Government of Haryana
O/o P.C.C.F. cum Chief Wildlife Warden, Haryana
Van Bhawan,- C-18, Sector-6, Panchkula-134109 Phone/Fax 0172-2561224, E-mail- apccfwl@gmail.com

No. 1912 Dated 30/8/2018

To,

M/s Tirupati Roadways
3, Sadashiv Properties Katras Road.
Bank More, Dhanbad,
Jharkhand.

Subject: Approval of Conservation Plan with a budget of Rs. 15.00 Lakhs for the Proposed Project of Mining of Boulder, Gravel and Sand (Minor Mineral) at village Rattewali, Block/PKL B-10, Tehsil Barwala, District-Panchkula.

The project site was inspected on 22-06-2018 by a team comprising Conservator of Forest (WL), Panchkula, DWLO, Panchkula and Inspector Wildlife, Panchkula:-

1 This is proposed Mining Project named as M/s Tirupati Roadways 3, Sadashiv Properties Katras Road Bank More, Dhanbad, Jharkhand of Mining of Boulder Gravel and Sand at Rattewali Block/PKL-B 10 (area- 45 ha.) at Village- Rattewali, Tehsil- Barwala, District- Panchkula, Haryana. The letter of Intent has been issued by the Director General, Mines and Geology Department, Govt. of Haryana, vide Memo No. Rattewali Block/PKL B-10/2017/2658 dated Chandigarh, the 16-06-2017.

2 There is a Khol-Hi-Raitan Wildlife Sanctuary with in 10 km of the radius but the distance of mining site approximately more than 1.9 Km from the boundary of Wildlife Sanctuary. The Project situated outside the Eco-Sensitive Zone.

3 Main vegetation found in the area are Dalbergia sissoo, Acacia nilotica, Acacia catechu, Shorea robusta, Ficus religiosa, Syzygium cumini, Magnifera indica, Butea monosperma, Terminalia arjuna, Melia azadirach, Pongamia pinnata, Albizia lebbek, Tamaridus indica, Phoenix sylvestris, Moringa oleifera, Populas deltoids, Eucalyptus hybrid, Calotropis procera, Cyperus rotundus, Sachharum munja, Cannabis sativa, Ipomea cornea, Zyziphus mauritiana etc.

4 The committee has perused the conservation plan submitted by the project proponent. The conservation plan (copy attached) prepared for Schedule-I and Schedule-II animal found in the area is in order hence acceptable as it includes all the necessary interventions required for the conservation of the local fauna included in schedule I and II of Wildlife Protection Act, 1972. The species of Schedule-I and Schedule- II includes Indian Panther (Panthera pardus schedule-I), Neelgai, (Boselaphus tragocamelus), Jackal (Canis aureus-Schedule-II), Monitor Lizzard (Varanus bengalensis-schedule-II), Pangolin (Manis crassicauda), Five stripped palm squirrel (Funambulus pennant, schedule-IV), Indian Cobra (Naja naja) Wild pig (Sus scrofa), Sambar (Cervus unicolor) Chital (Axis axis), Indian Hare (Lepus nigricollis, Schedule-IV) Cattle Egrets (Bubulcus ibis, Schedule-IV), Peafowl (Pava cristatus Schedule-I) Parrot (Psitta culakrameri, Schedule – IV), small blur Kingfisher (Alcedo atthis, Schedule-IV), Rat Snake (Ptyas mucosus, Schedule-II) and aquatic life of Riverine Ecosystem. The interventions in the proposed Conservation Plan include planting of tree groves, promotion of agro-forestry in the area, plantation of shelterbelt on the road/canals, construction of water area include construction of water ponds to providing drinking water to the Wildlife Animals , Planting of herb/shrub/bushes along the river bank. Awareness Generation among the labourer and local people. The proposed Conservation Plan will be implemented in a phased and local people. The proposed conservation Plan will be implemented in a phased manner with a total cost of Rs. 15.00 lac within a period of (7) years. You are hereby directed to deposit the conservation plan cost with DWLO, Panchkula.

5 The mining activities at proposed site will have negative impact on the local flora and fauna. The possible adverse impact includes hampering of natural & regeneration, the tree grooves, making available water to the wild animals by taking necessary measures. cost of Plantation/trench etc.

6 The clearance of the forest related laws, rules and instructions may be obtained from the Conservator of Forests (Forests Conservation).

7 The project proponent will seek necessary/mandatory permissions from the other concerned department as applicable and will not violate the Hon'ble Court order, if any.

8 The Project Proponent shall carry out mining operations strictly in accordance with the orders of the Hon'ble Supreme Court, dated the 4th August, 2006 in

the matter of T.N. Godavaman Thirumulpad Vs. Union of India in Writ Petition (Civil) No. 202 of 1995 and dated the 21st April, 2014 in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 435 of 2012.

9 The project proponent shall furnish an undertaking on 100 rupees non judicial stamp paper regarding deposition of cost of conservation plan and other conditions mentioned in this letter. The undertaking must be duly signed by the authorized person of the firm and attested by notary.

PCCF (Wildlife)
Chief Wildlife Warden,
Haryana, Panchkula.

Endst. No. Dated

A copy is forwarded to following for information & necessary action :-

1 CF (Wildlife), Panchkula
2 DWLO, Panchkula

PCCF (Wildlife)
Chief Wildlife Warden,
Haryana, Panchkula.

ANNEXURE XII OF XIII

Registered

From

The Director,
Mines & Geology, Haryana,
30 Bays building, Sector-17, Chandigarh.

To

The Director,
Ministry of Environment, Forest and Climate Change,
(Impact Assessment Division)
Indira Paryavan Bhawan, Jorbagh Raod,
New Delhi- 110003.

Memo No. DMG/HY/DSR/PKL/2017/ 3769
Dated Chandigarh, the 31/7/18

Subject:- Submission of District Survey Report for sustainable Sand Mining - Regd.

On the subject cited above.

2. It is submitted that the 'District Survey Report' duly approved by the committee under the Chairmanship of the Deputy Commissioner, Panchkula was sent to him vide this office letter dated 24.04.2018 with request to place the 'District Survey Report' on the website of the district for seeking suggestion/objections from the public, so that suggestion/objections received, if any and found fit, can be incorporated in the final report. The Deputy Commissioner, Panchkula vide letter dated 29.06.2018 has sent final 'District Survey Report' to this office for further necessary action.

3. In the light of above, it is informed that the DSR report already notified on district website, now is the Final District Survey Report, therefore, it is requested that the mining projects of district Panchkula may be finalized for grant of Environmental Clearance.

State Mining Engineer,
for Director, Mines and Geology,
Haryana.

DISTRICT SURVEY REPORT FOR SUSTAINABLE SAND MINING DISTRICT, PANCHKULA - HARYANA

The Boulder, Gravel and Sand are one of the most important construction materials. These minerals are found deposited in river bed as well as adjoining areas. These aggregates of raw materials are used in the highest volume on earth after water. Therefore, it is the need of hour that mining of these aggregates should be carried out in a scientific and environment friendly manner. In an endeavor to achieve the same, District Survey Report, apropos "the Sustainable Sand Mining Guidelines" is being prepared to identify the areas of aggradations or deposition where mining can be allowed, and identification of areas of erosion and proximity to infrastructural and installations where mining should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.

With reference to the Notification Issued by the Ministry of Environment Forest and Climate Change dated 15/01/2016, S.O. 141 (E), the preparation of District Survey Report of River bed mining and other minerals, appendix 10 of the Notification, every effort have been made to cover sand mining locations, areas and overview of Mining activity in the district with all relevant features pertaining to geology & mineral wealth in replenishable and non-replenishable areas of rivers, stream and other Boulder, gravel and sand mining sources. This report will act as a model guideline document which is a compendium of available mineral resources, geographic setup, environmental and ecological setup of the district and is based on data available on various government departments, published reports and websites.

1. Introduction: -

As per Notification wide S.O. 141 (E) 15th January 2016 a survey shall be carried out by the District Environmental Impact Assessment Authority (DEIAA) with assistance of irrigation department, Drainage department, forest department, Mining department and Revenue department. Methodology adopted for calculating Mineral potential as per sustainable sand mining management guidelines 2016, the mineral potential is calculated by based on field investigation and geology of the catchment area of the river/streams. As per the policy of the state and location,

depth of minable mineral is defined. The area for the removal of mineral of mineral in a river or stream can be decided depending on geo-morphology and other factors, it can be 50% to 60% of the area of a particular river/stream. Other constituent like clay and silt are excluded as waste while calculating the mineral potential of particular river or stream.

This District Survey Report shall from the basis for application for environment clearance, preparation of reports and appraisal of projects. The report shall be updated once every five years.

Minor Mineral Deposits:

1.1 Panchkula district of Haryana is located in northern part of Haryana State and lies between 30°26': 30°55' North latitudes and 76°46': 77°10' East longitudes. Total geographical area of the district is 898 sq. km. in which there are 264 Villages, 2 tehsils and 4 sub-tehsils. Panchkula District is divided into two tehsils and four development blocks viz. Pinjore, Barwala, Raipur Rani and Morni. Himachal Pradesh bound the district, in North in the east by Uttar Pradesh, in west by Ambala district, in south by Karnal and Kurukshetra districts.

1.2 The district has a sub-tropical continental monsoon climate where we find seasonal rhythm, hot summer, cool winter, unreliable rainfall and immense variation in temperature. In winters, frost sometimes occurs during December and January. The district also gets occasional winter rains from cyclones. The rain fall is mostly received in rainy season. The important river/ stream of district are Ghaggar, Tangri, Begna and Sirsa river etc.

1.3 Boulder, Gravel and Sand (Minor Minerals) finding use as construction material are found in the river bed areas. The size and the concentration of material gradually reduce towards downstream as the heavy material of larger size settles with reduction in flow of water stream. The mineral deposits are found in river bed areas as well as outside river bed areas of concerned villages of the districts Panchkula. All rivers in the district Panchkula are seasonal rivers. The water released in river during rainy season bring huge quantity of Boulder, Gravel and Sand which gets

deposits in the river bed area. The flood plains also have huge deposits of Boulder, Gravel and Sand up to a depth of 10-12 meter.

2. Overview of Mining Activity in the District

Grant of Mineral Concessions for Mining of Minor Minerals.

Mode of grant of mineral concession

2.1 Before giving details of actual sites / number of sites or mineral concessions it would be appropriate to explain that the Mineral Concession in respect of minor minerals are granted as per the provisions of the State Rules, framed by the State Government in exercise of powers conferred under section 15 of the Mines and Minerals (D&R) Act, 1957.

2.2 The State of Haryana at the time of bifurcation opted prevailing Rules namely "Punjab Minor Mineral Concession Rules 1964". These Rules were amended from time to time as per policy of the State Government. The Hon'ble Supreme Court vide its order dated 27.02.2012 directed all State Governments to revise their State Rules making provisions in accordance with various recommendations contained in the report of the MoEF & CC, GoI, on mining of minor minerals and the Model draft guidelines issued by the Ministry of Mines, GoI.

2.3 Accordingly, the State of Haryana framed & notified on 20.06.2012 comprehensively revised Rules namely, the "Haryana Minor Mineral Concession, Stocking, Transportation of Minerals, and Prevention of Illegal Mining Rules, 2012", repealing the prevailing Rules namely "Punjab Minor Mineral Concession Rules 1964".

2.4 The mineral concessions in the Haryana are being granted in the form of **"Mining Contract"** or **"Mining Lease"** through competitive bidding process. The Mining Contracts are granted for a minimum period of 07 years and maximum period of 10 years. Whereas the Mining Leases are granted for a minimum period of 10 years and maximum period of 20 years. In district Panchkula mineral concessions are/were granted in the form of Mining contacts for the period varying between 7 to 10 years. The

contracts are being granted through open auction/ e-auction mode. The Mineral concessions are being granted subject to condition that actual mining operation shall be allowed only after environment Clearance is/are obtained from the competent authority as per requirement of EIA Notification dated 14.09.2206 of the MoEF&CC. GoI.

2.5 The mineral concession holders are required to prepare a detailed **"Mining Plan"** for their specific project through Registered Qualified Person and get in approved from authorized officer of the State Government. The exhaustive mining plan are prepared interalia giving details of mineral reserves, method of mining, extent of proposed mining and other related details. These are the projects specific details. Based on these details itself the project proponents/ mineral concession holders obtains environmental clearances.

3. Method of Mining and Conditions in which mining in river bed areas is to be allowed

3.1 The river bed areas apart from other related condition for mining are allowed to excavate minerals (Boulder, Gravel or Sand) to ensure safety of rivers bed structures and the adjoining areas on the following specific conditions:

(i) No mining would be permissible in a river-bed up to a distance of five times of the span of a bridge on up-stream side and ten times the span of such bridge on down-stream side, subject to a minimum of 250 meters on the up-stream side and 500 meters on the down-stream side;

(ii) There shall be maintained an un-mined block of 50 meters width after every block of 1000 meters over which mining is undertaken or at such distance as may be directed by the Director or any officer authorized by him;

(iii) The maximum depth of mining in the river-bed shall not exceed three meters measured from the un-mined bed level at any point in time with proper bench formation;

(iv) Mining shall be restricted within the central 3/4th width of the river/ rivulet;

3.2 The above said conditions have been decided after detailed discussions and recommendations of the PWD (B & R) department and Irrigation department, Haryana.

3.3 As the mining in river bed remains restricted in the Central 3/4th part of the river bed, the area left on both side of the river bank not only ensures the safety of banks (bank cutting due to water stream) but also ensures that in the central part of river, water stream flows smoothly during rains and process of river meandering does not occur.

3.4 The light weight excavator/JCBs are being deployed to remove mineral from river bed up to maximum depth of 03-meter layer from general level of the bed. The mining in the river bed are undertaken in mechanized manner. At times the RQPs do refers the excavation in river bed mining through excavators as "Semi Mechanized Mining".

3.5 The mineral excavated is directly loaded in the vehicles/dumpers and the vehicle owners and drivers take away the mineral directly to the stone crushers or screening plants or consumers. In certain cases, mineral concession holders stacks mineral on the river bank in case are not able to sell the material on actual mining itself.

4. Method of Mining in river bed areas (semi-mechanized / mechanized or manual)

4.1 The Hon'ble NGT with regards to river bed mining has specifically desired to examine the mode of mining – shall the same be **semi mechanized /mechanized or manual**.

4.2 There is no specific definition of **Semi – Mechanized Mining.** The term Semi – mechanized mining in general is used where method of working in general are undertaken mechanically, however, some operations are also undertaken manually. Therefore, the semi mechanized mining or mechanized mining, is the same method of working. Sometime mechanized mining with light machines are also referred as semi- mechanized mining. The term semi mechanized mining is being used in general parlance where in the very same mining area in part area as per requirement manual mining is also undertaken along with mechanized mining of sand/river bed mining.

4.3 Whereas **Manual** mining operations are undertaken using conventional hand tools only like Spade, Pan, Crowbar etc. and operations are only labour intensive. As per requirement in manual mining lifting of sand and directly

loading the sand in tractor trolleys etc. is being carried out through labours itself.

4.4 The **Mechanized** mining operations in respect of sand mining are undertaken with the help of excavator-cum-loaders. In this process sand is lifted/excavated from the river bed through excavator-cum-loaders and directly loaded in dumpers or other mode of transport. The vehicles carrying the mineral from mines to site of use/ site of construction or sale stocks outside lease hold areas (*an independent business than that of mining*).

4.5 In the current scenario it is impractical to undertake manual mining because: -

(i) The labours are not easily available:

(ii) Manual mining cannot be undertaken in systematic and scientific manner as compared to mechanical mining which can be undertaken systematic/ scientific and controlled mining.

(iii) In case of manual mining to achieve desired level of production more number of manpower would be required meaning thereby human interface within river bed area would increase and more ecological damage would be caused.

4.6 The method of mining even otherwise cannot be uniform even for same area and all the methods have their own pros and cons, however, considering the current scenario wherever feasible mechanized (semi-mechanized or mechanized is same thing) mining should be preferred over manual method.

5. General Regulation relating to Mining

5.1 As per prevailing State Rules the Mineral Concession holders are required to get a Mining Plan for the area prepared from a "Registered Qualified Persons". The mining plan includes the area specific details along with the Mine Closure Plan (Progressive & Final) taking into consideration the details of the Geology and lithology of the area including the estimated mineral reserves of the area. Proposed method of mining/ development of mines, use of explosives and blasting operations, if any, stacking and disposal of minerals, mine-drainage pattern, handling of the overburden, location of weigh bridges, and mineral processing, if any, The extent of manual mining or mining with the use of machinery and mechanical devices along Level of

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Production (production from year-to-year for a period of five years) Mechanization, Type of Machinery to be used, nature and extent of the mineral body/ spot or spots where the mining operations are proposed to be undertaken; natural water courses, limits of mineral reserves and other forest areas and density of trees, if any, assessment of impact of mining activity on land surface and environment including air and water pollution i.e. the environment management plan. In addition to this Mining plan also suggests the details of scheme of restoration/ rehabilitation of the area through afforestation, land reclamation, use of pollution control devices and such other measures as may be directed by the State Government from time to time.

5.2 The Mining Plan are to be got approved from the authorized officer of the State Government. Based on mining plan prior environmental clearance from the competent authority as per provisions of EIA Notification dated 14.09.2006 of MoEF & CC, GoI is obtained.

5.3 After obtaining the Environmental Clearances, to comply with requirement of Air Act, 1981 the Consent to Establish and **"Consent to Operate"** from State Pollution Control Board are also obtained before actual mining

5.4 The above said provisions mainly relates to mineral conservation and environmental protection. With regards to provisions related to safety in mines and welfare of labours provisions under the Mines Act, 1952 are ensured by the Directorate General Mines Safety, a department under the Ministry of Labour, Government of India.

6. Areas selected for Mining in District Panchkula

Background

6.1 As per rough estimate total area of rivers beds (all rivers and tributaries/rivulets) passing through district Panchkula is about 58000 sq m. A larger part of which is otherwise under various uses including agriculture. As regards selection of area for mining it may be pointed out that: -

(i) Earlier, (about 16-18 years back) mineral concession/mining contracts were being granted on revenue estate basis (without giving any specific

details of areas), subject to various restrictions. The mineral concession holders used to undertake mining in areas after leaving restricted area.

(ii) Initially about **65 villages** were being offered for mining, however, over a period of time the number of villages/quarries reduced to about 29, as area of some of the villages came under other restrictions either because of construction of some bridges on river bed or due to other development projects including habitation.

(iii) The mode of grant of mining contracts of individual quarries/revenue estates in Panchkula district was changed in late nineties and instead granting individual quarries on contract, number of adjoining quarries were clubbed for the purpose of granting mineral concession. This mode was further changed and all minor mineral quarries of the district were given "as one unit". In this way their used to be a single contractor for all minor mineral quarries **"district as one unit"**. In district Panchkula last such contract for **"district as one unit"** was granted from 2002 to 2008.

(iv) Needless to state that such **mineral concession areas** used to have even the areas having no mineral deposits, the areas otherwise not permissible for mining. The mineral concession holders were under obligation to undertake mining only in the areas free from all restriction and as per prevailing Rules and Regulations. Mineral Concessions for minor Mineral prior to 14.09.2006 were not required to obtain environmental clearance.

(v) The EIA notification dated 14.09.2006 became applicable for fresh contacts/ leases and in the year 2008 for grant of mineral concessions in respect of other areas in the State fresh auctions were notified subject to condition that mining will be allowed to be undertaken only after prior environmental clearance is obtained as per requirement of EIA notification dated 14.09.2006 of MoEF & CC, GoI. However, said condition was challenged by some prospective bidders on the plea that the notification dated 14.09.2006 was not applicable for mining of minor minerals.

(vi) The operation of notification dated 14.09.2006 for mining of minor

mineral was stayed by the Hon'ble Punjab and Haryana High Court vide its interim order dated 07.04.2008 in CWP No. 4578 of 2008- Chandi Mandir Stone Crusher Consumer Company Vs. Union of India and Others.

(vii) The State could not have granted long term contracts during the pendency of said case because operation of the notification was under stay and in case long term contracts were granted the mineral concession holders would have claimed that at the time of grant the notification was not applicable for them or may have sought to cancel the contract.

(viii) Subsequently, the Hon'ble High Court on 15.05.2009 while disposing of the above said writ petition (along with CWP no 20134 of 2004 Vijay Bansal v/s State) upheld that notification dated 14.09.2006 was applicable for mining of minor minerals also.

(ix) However, as regards the process of obtaining the prior environmental clearance, the Hon'ble High Court directed the process to be followed in two parts. In the first stage, it was directed that the state of Haryana would submit the ToRs to the EAC and the EIA report will be prepared by Expert Appraisal Committee (EAC) in the MoEF&CC GoI before conducting the auctions. Subsequent to the holding of the auctions, the successful bidder shall obtain the prior environmental clearance from the competent authority.

(x) The Hon'ble High Court, considering that some time would be required for completing the process as per above, and general public would face problems due to sudden closure of mining, permitted mining without environmental clearance for the period up to 28.02.2010.

(xi) Accordingly, no long-term contact in Panchkula area could be granted due to above litigation and after expiry of the last contract the mining operations was allowed in district Panchkula (as well as in other part of the state) for the period of up to 28.02.2010 without environmental clearance as per orders of Hon'ble High

Court.

(xii) However, the order dated 15.05.2009 of Hon'ble High Court relating to preparation of EIA report by the State Government was not acceptable to the MoEF&CC, GoI. The MoEF was of the view that state being regulating agency cannot prepare the said report at its own. Therefore, the applications submitted by State of Haryana for approval of ToR were not considered.

(xiii) The MoEF initially filed a Review Application before the Hon'ble High Court and thereafter SLP before the Hon'ble Supreme Court. During the pendency of said matter the state of Haryana neither could take further action relating to preparation of EIA report nor could auction its minor mineral areas for grant of mineral concessions subject to condition that Environmental Clearance shall be obtained by the project proponent.

(xiv) The mining in district Panchkula /other parts of the State came to a grinding halt on 01.03.2010. The mining in the district Panchkula remained closed. The mining operations prior to 01.03.2010 were either undertaken by the contactors to whom contract was granted prior to 14.09.2006 or under special dispensation granted by the Hon'ble High Court to operate mines without Environment clearance till 01.03.2010.

(xv) Subsequently, the Hon'ble Supreme Court on 28.10.2013 while disposing of the SLP No. 729 of 2011 of the MOEF & CC, GoI held that prior environmental clearance is to be obtained by the concerned mining lease holders and not by the State Government. In other words, the process for obtaining prior environmental clearance was to be followed as prescribed by MoEF, CC, GoI under its notification dated 14.09.2006 as amended to time to time (uniformly applicable for country).

(xvi) In view of above the State of Haryana in November, 2013 could issue notifications for grant of mineral concessions in various parts of the State including district Panchkula through open auctions to be held in December, 2013.

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7. Areas Selected for mining in November/ December, 2013 and thereafter (the areas at present on contracts or to be granted on mining contracts)

7.1 In November, 2013 it was decided that instead of the auctioning all of minor mineral quarries of a district as a single unit, the same should be granted in the form of big mining units. The mineral concessions for district as one unit were found to be resulting in monopoly of a few in the business of mining in a district.

7.2 At the cost of repetition it is stated that mineral concession areas of large size blocks/units used to have even such areas which otherwise were not permissible for mining. The restricted area were not meant to be used for actual mining operations but otherwise permissible for subsidiary activities like installation/establishment of check posts/weighbridge etc.

7.3 In December, 2013 a total of 05 Mining Blocks having contiguous area were carved out and were auctioned as 03 separate units (one unit was having number of blocks). The said mineral concessions were granted subject to condition that mining would be allowed to be commenced only after prior environmental clearance is obtained by the concerned mining contracts LoI holders.

7.4 The areas of each of these Mining Units except that of Unit No. 1 to Unit No. 5 are very large. However, subsequently 03 of the LoI holders got their bids cancelled through Hon'ble High Court. The area of such cancelled of large size contracts became available for fresh grant. It was decided to be auctioned afresh by carving our small size blocks as compared to large size areas auctioned in the December, 2013.

7.5 The area available for actual mining out of area of above said 03 units and a few of other areas which earlier could have been offered due to some issues relating to access road etc., were notified for fresh grant by carving out **18 Mining Blocks.** While auctioning comparatively smaller blocks the total area available for grant of mineral concession got further reduced to **449.04** hectare (Auction in April 2015).

8. Annual Capacity of Areas selected for mining of minor minerals

8.1 In order to make estimates of mineral deposits and mineable reserves of any mineral a detailed exploration is required to be undertaken. The economic life of a mine based on the mineral estimates including current mining production plans are made on the basis of study taking into consideration the quantity and quality of the minerals extracted during the reporting time, changes in Economic Viability due to changes in prices and costs, development of relevant technology, newly imposed environment or other regulations, and data on exploration conducted concurrently with mining. It presents the current status of the deposits, providing a detailed and accurate, up-to-date statement on the reserves and the remaining resources.

8.2 However, in case of minor minerals like Boulder, Gravel and Sand as the same are available in abundance and estimates can be made on the basis of mineral seen at surface or through the area operated in past and on the basis of permissible limits to excavate minerals.

8.3 The minerals are non-renewable resources, however, minor minerals found in the river bed areas have peculiar condition relating to mineral reserves. The minerals removed from the river bed areas get replenished after every rainy season with minerals brought along with water from hilly areas. The mineral reserves for mining on replenishment remain almost same every year after rainy season.

8.4 On the other hand, in case of areas outside river bed or any area used for mining, the mineral reserves reduce after every year after mining operations. Hence, total mineable reserves after mining gets depleted and the life of any mine also reduces. This is a normal practice for mineral reserve estimation for all types of mining activities other than river bed areas.

8.5 The mineral reserves for river bed areas are calculated on the basis of maximum depth of 3 meters. The area multiplied with depth gives volume and volume multiplied with bulk density gives the quantity in M.T. In case of river bed areas per hectare area, maximum availability of mineral for actual mining is 60,000 MT. However, as explained above the mineral excavated

from river gets replenished after every year, therefore, the same quantity remains available for mining again and again.

8.6 In case of areas outside river bed the maximum depth of 9 meters from ground level is considered for calculation of capacity of a mine. The area multiplied with 09 gives the volume and volume multiplied with bulk density gives quantity of total mineral available in M.T. However, on an average half meter to 1-meter layer is of ordinary earth, so actual mineral can be excavated up to maximum depth of about 08 meters per hectares area outside river bed in general provides 1,60,000 M.T. of mineral.

9. Capacity of Minor Mineral Mines/ Areas selected for mining

9.1 The capacity of any mining area mainly depends upon of mineable reserves, economical viability and demand of minerals. In most of the cases particularly in respect of minor minerals the mineral deposits are found in huge quantity However, the demand of material depends upon other factors such as ongoing infrastructure projects and other related private constructions. The operation of other minor mineral mines in and around any area/mine is one of the important factors affecting the production plan.

To illustrate for example if total demand of particular area for construction material is "X" M.T. per annum, all operating mines in and around any particular area depending upon market forces would be supplying the material Accordingly, if operation in any of the mines stops, the demand of the market would be met by the remaining operating mines. In other words, the production level of operating mines shall increase. The annual production plan is prepared by mining contractors/lease holders considering their maximum capacity However, in all cases peak capacity in general may or may not be achieved at any point of time.

9.2 As per documents submitted by the Mineral Concessionaires maximum annual capacity of each of the 18 Mining Units/Blocks of District Panchkula, are given as under:

Sr. No.	Mining Unit/Block Location	Area (In Hect.)	Period (In yrs)	Name of Minor Minerals	Status of Granted of Mineral Concession	Annual Capacity as per EC/Mining Plan/TOR in lakh MT.	Present Status
				Riverbed Mining Areas	**Yes**	**582300**	**Running**
1	Gorkhnath	12.94	7	Boulder, Gravel, Sand	Yes	603000 MT	Running
2	Kiratpur	13.40	7	Boulder, Gravel, Sand	Yes	1278000 MT	Running
3	Gobindpur	28.40	10	Boulder, Gravel, Sand	Yes	1468350 MT	Not Working/EC/CTO awaited
4	Naraingpur	32.63	7	Boulder, Gravel, Sand	No	792000 MT	Not Working/EC/CTO awaited
5	Mandlai	13.20	10	Boulder, Gravel, Sand	No	530000 MT	Not Working/EC/CTO awaited
6	Mandlai-2	10.60	7	Boulder, Gravel, Sand	No	675390 MT	Not Working/EC/CTO awaited
7	Manak Tabra	14.48	9	Boulder, Gravel, Sand	No		Not Working/EC/CTO awaited
8	Charnia	30.55	10	Boulder, Gravel, Sand	No	1900000MT	Not Working/EC/CTO awaited
9	Rattewali	45.00	7	Boulder, Gravel, Sand	No	360000 MT	Not Working/EC/CTO awaited
10	Karanpur	17.05	9	Boulder, Gravel, Sand	No		Not Working/EC/CTO awaited
11	Kot	31.59	10	Boulder, Gravel, Sand	No		Not Working/EC/CTO awaited
12	Shamtoo-2	45.00	10	Boulder, Gravel, Sand	No		Not Working/EC/CTO awaited
13	Natwal	48.18	9	Boulder, Gravel, Sand	No		Not Working/EC/CTO awaited
14	Shamtoo-1	46.50	9	Boulder, Gravel, Sand	No		Not Working/EC/CTO awaited
15	Basawal Block	20.00	9	Boulder, Gravel, Sand	No		Not Working/EC/CTO awaited
16	Sukhdarshanpur	37.38	7	Boulder, Gravel, Sand	No		Not Working/EC/CTO awaited
17	Khatauli Block	24.15	9	Boulder Gravel Sand	No		Not Working/EC/CTO awaited
18	Nagpal Block	27.99	10	Boulder Gravel Sand	No		Not Working/EC/CTO awaited

9.3 The annual capacities of above mines have been ascertained on the basis of area available for mining and production plans suggested by the mineral concession holders under their Mining Plan/ Application for seeking Environment clearance. In case of the areas not granted till now, the average reserves had been taken into account. Further, the annual capacity of river bed areas is calculated on the basis of assumption that the quantity lifted during any year would get replenished after every rainy season.

9.4 That as explained in for forging paras the demand of mineral is most crucial factor in deciding the actual production of any mine or area. The total demand of mineral in the areas can be estimated on the basis of past production of minor minerals. During last 10 years the production of minor minerals excavated are tabulated as below: -

Year	Boulder/Gravel/Bajri/Sand
2008-2009	
2009-2010	
2010-2011	NIL
2011-2012	NIL
2012-2013	NIL
2013-2014	NIL
2014-2015	NIL
2015-2016	NIL
2016-2017	680956
2017-2018	1243280
Total	1924236
Average Per yr.	**192423**

10. DETAILS OF ROYALTY/REVENUE RECEIVED IN LAST THREE YEARS

Sr.	Year	Revenue (In Rs)
1	2014-15	NIL (Mining Closed)
2	2015-16	17460552
3	2016-17	63871306

11. DETAILS OF PRODUCTION OF MINOR MINERAL OF LAST THREE YEARS

Sr.	Year	Production (In MT)
1	2014-15	NIL (Mining Closed)
2	2015-16	NIL (Mining Closed)
3	2016-17	680956

12. PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVER OF DISTRICT

The deposition in a river bed is more pronounced during rainy season although the quantum of deposition varies from stream to stream depending upon numbers of factors such as catchment, lithology, discharge, river profile and Geomorphology of the river course. It has been observed that during rainy season all of the pits created due to excavation of minerals are completely filled up and as such the excavated area is replenished with new harvest of minerals.

In order to calculate the mineral deposits in the stream beds, the mineral constituents have been categorized as Clay, Silt, Sand, Gravel and Boulder. However during present calculation, the waste material i.e silt, clay which vary from 10 to 20% in different streams have been included in the total production The mineral reserves have been included only up to 1.00-meter depth although there are some portions in the river beds such as channel bars, point bars and central islands where the annual deposition is raising the level of river bed thus causing shifting of the rivers towards banks resulting in to cutting of banks and at such locations, removal of this material up to the bed level is essential to control the river flow in its central part to check the bank cutting. While calculating the mineral potentials, the mineral deposits lying in the sub-tributaries of that particular stream/river has not been taken into consideration. Since these mineral deposits are adding annually to the main river, the mineral deposits will be much more.

The important rivers/streams of the district are Ghaggar, Tangri, Sirsa, All this river rainy seasonal river and takes its birth in the rolling foot hill plains. Generally, the slope of the district is from north-east to south-west, in which direction of most of rivers/nadis/rainfed torrents flow down.

13. GENERAL PROFILE OF THE DISTRICT

Country	India
State	Haryana
Headquarters	Panchkula
Sub Divisions	Panchkula, Kalka
Tehsils	Panchkula, Kalka, Raipur Rani
Sub Tehsils	Barwala, Morni Hills, Raipur Rani

Area	898 km² (347 sq mi)
Population (2011)	
Total	5,58,890
Density	620/km²(1,600/sq mi)
Demographics	
Sex ratio	823
Website	Official website (panchkula.gov.in)

14. LAND UTILIZATION PATTERN IN THE DISTRICT

In District Panchkula, most of the areas are utilized for Agriculture and Horticulture, some area is used for Mining and rest of land is forest.

15. PHYSIOGRAPHY OF DISTRICT

The district is divided into four Physiographic units: -

- Siwaliks
- Dissected Rolling Plains
- Interfluvial Plains
- Active and Recent Flood Plains
- Relict Plains

Siwaliks hills Siwalik hill ranges occupy the northern fringe of Panchkula district and attain the height up to 950m AMSL. The hills are about 500m high with respect to the adjacent alluvial plains. These are characterized by the broad tableland topography that has been carved into quite sharp slopes by numerous ephemeral streams come down to the outer slopes of the Siwaliks and spread much of gravels boulders, pebbles in the beds of these streams.

Interfluvial plains – This tract is part of higher ground between Ghaggar and Tangri, Sarsa, Kosalya, Begna and includes high mounds and valleys. In general, the slope is from northeast to southwest.

16. Rainfall data: - Year Wise

Total Yearly rainfall data for last 10 years from IMD New Delhi.

Sr. No.	Year	Total Rainfall in mm
1	2004	652
2	2005	827
3	2006	831.2
4	2007	866
5	2008	957
6	2009	397.5
7	2010	707.4
8	2011	623.5
9	2012	662.1
10	2013	709.6
	Total	**7233.2**

Last five-year Monthly Rainfall Data (Source: IMD New Delhi)

	YEAR (Rainfall mm)				
Month	**2012**	**2013**	**2014**	**2015**	**2016**
JAN	13	37.5	37.5	40.3	0.3
FEB	0.7	70	40.5	27	2.6
MAR	0	8.4	39.7	134.6	21
APR	22.3	0	10	14.2	5.2
MAY	0.2	4.3	21.2	4.8	23.8
JUN	3.8	109.1	18	31.7	62.5
JUL	191.2	155.2	124.5	171.6	137.5
AUG	240	223.4	110.7	161.9	165.6
SEPT	188.9	71.9	65.8	56.9	37.8
OCT	1	20.5	9.8	4.5	2.3
NOV	0	4.5	0	0.7	0
DEC	1	4.8	60	3	17.6
Total Rainfall	**662.1**	**709.6**	**537.7**	**651.2**	**476.2**

17. GEOLOGY AND MINERAL WEALTH

The north-eastern and central part of Haryana is predominantly characterized by sedimentary lithology in the sub-Himalayan zone comprising Subathus, Dagshais,

Kasaulis and Siwaliks. A general Regional Stratigraphic sequence in the area is given in the table.

Table: Regional Stratigraphic sequence

Age	Super Group	Group	Formation	Lithology
Holocene			Newer alluvium and Newer Aeolian Deposits	Gravel. Sand. Silt. Clay. Limestone. gypsum
Lower to upper Pleistocene			Older alluvium and older Aeolian deposits	Gravel. grey sand. silt clay brown sand. calcrete
Lower to Middle Pleistocene		Upper Siwalik	Boulder Conglomerates formation	Conglomerate. sand stone. silt. Clay
Upper Pilocene			Pinjore Formation	Coarse grit. red sand stone and clay. conglomerate
			Tat rot formation	Friable Sand Stone and variegated clay
	Middle Siwalik		Dhokpather Formation	Brown Sandstone and variegated clay
			Nagri Formation	Hard grey sand Stone and minor shale
	Lower Siwalik		Nahan Formation	Course gritty. clay and red sandstone often calcareous. brownish shale with lignite lenticels greenish white quartizite
Lower Miocene	Sirmur		Kausauli Formation	Grey and stone. green shale and grey clay
			Dagsai Formation	Purple sand green sand stone. deep red gritty. clay. white sand stone with ferruginous concretions
Upper Eocene			Subathu Formation	Sandstone with grit clay. Impure fossliferous limestone calcareous slate. greenish shale and dark brown quartizite
Pre-Proterozoic			Tunda pathar	Tickly bedded. stromatolite limestone with carboniferous shale and quartzite

18. District Wise detail of river/stream and other Sand Sources:

S. No.	Name of River	Origin	End in C.G.	Width	Length in Ynr Distt. (km)	Remarks
1	Ghaggar River	Origin in Haryana Kalesar	Toda	100 M	15Km	

19. List of villages where minor minerals (Gravel, Boulder and Sand) are available.

As per above at the para no. 9.2

20. Reclamation and Restoration of mining area and provision of Fund for the same

20.1 As explained in foregoing paras mining in river bed areas takes place only up to a maximum depth of 3 meter from existing river bed level. that too in central 3/4th of the river bed. The material brought by the river due to fluvial action fills the void created in the process of excavation. In this way the area operated/ used for excavation of mineral from rivers gets reclaimed after every rainy season. Further, in the river bed areas there are no flora and fauna. Accordingly, as such river bed mining does not create any ecological impact. The excavation of minerals from central part of the river in fact provides void/space for settlement of sediments without raising the river bed level.

20.2 As it is well known that rising of bed level results in river meandering (change of course) and in the present day the change of course of any river results in floods and damages. Though sometimes areas in and adjoining river banks are affected because of unforeseen circumstances/water stream due to heavy rains.

20.3 Further, the area outside river bed requires levelling reclamation and restoration after mining. The land owners take compensation from the mining contractors in lieu of surface rights. The areas after mining are levelled by the contractors or land owners (depending upon mutual settlement between the contractor and land owners) to make the land reusable for cultivation. In

order to ensure that areas after mining in case needs reclamation/restoration are properly dealt/restored.

20.4 The State Rules, 2012 appropriately provide provisions of R&R Fund namely **"Mines and Mineral Development, Restoration and Rehabilitation Fund"**. The mineral concession holders are liable to deposit an amount equal to 10% of the dead rent or royalty or contract money paid to the state for Restoration and Rehabilitation works. Further, the state also contributes 5% of the amount received by it on account of the dead rent or royalty or contract money in a financial year to the Fund. The Fund has been created only for funding of the restoration or reclamation or rehabilitation works in the sites affected by mining operations. The Fund can be used for creating common facilities for the benefit of community in and around areas where mining activities are undertaken, development of infrastructure facilities for orderly growth of the mining operations and allied activities and other related works/schemes.

20.5 In compliance with amendment in the Mines and Minerals (Development & Regulation) Act,1957, vide which Section 9B has been inserted making it mandatory to form District Mineral Foundation(DMF) in each district, the State has recently (19.12.2017) notified Haryana District Mineral Foundation Rules-2017. The Foundations shall work for welfare and benefit of persons and areas affected due to mining operations. 1/3rd of the amount collected in **"Mines and Mineral Development, Restoration and Rehabilitation Fund"** shall be transferred in the **DMF Fund.** The projects to be carried out under **Pradhan Mantri Khanij Kshetra Kalyan Yojna** shall be implemented by the District Mineral Foundations.

20.6 The areas operated in past in the district Panchkula were restored (river bed filled up with sediments brought by fluvial action and areas outside river bed levelled by land owners for cultivation). However, some of the areas used for mining in land falling outside river bed were not put in use by private land owners after mining for the reasons known to them. The private land owners could not have been insisted for undertaking cultivation, in case they don't choose for the same.

21. Conclusion:

In district Panchkula a total of **449.04-hectare** area has been identified for mining of minor minerals under 18 mineral concessions (at para 9.2), though number of mineral concessions may change depending upon policy of the state from time to time. Further, use of mineral deposits and exploration/excavation in respect of minerals is an ongoing activity, therefore, as per requirement the area used for mining of minor minerals may have to be revised from time to time.

Forest Officer,
Forest Deptt. Panchkula

Executive Engineer,
Water Service Division,
Panchkula

SDO,
HSPCB, Panchkula
(Ref. of R.O. PKL)

(Rajiv Kumar)
Mining Officer, PKL

(Anil Kumar)
Mining Inspector, Pkl

SDE
PWD (B&R), Panchkula

(Mukul Kumar), HCS
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