IN THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH, NEW DELHI

O.A. No. 423 of 2022

Mohinder Pal and Another

Applicants

Versus

State of Haryana and Others

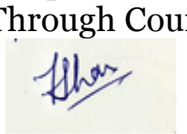
Respondents

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PLACE: Panchkula
DATED:- 13.02.2024

Respondent No. 8
Through Counsel:-



(M.F. KHAN, B. KRISHNA)
Advocates for the Respondent
MFK & Co.
Ch. No. 417, Additional Building, Block D,
Gate No. 03, Supreme Court of India,
New Delhi- 110001
Off at : 9, Todarmal Lane, Bengali Market,
New Delhi- 110001
lawyermfk@gmail.com, mfknco@gmail.com
+ 91 9818331923 ; 8130739289

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Respondents

Reply on behalf of respondent No. 8 i.e. M/s P.S. Buildtech Pvt. Ltd.

Respectfully Showeth:

1. That the answering respondent is a proprietorship concern and is filing the present reply through its proprietor Sh. Kulwinder Singh who is authorized and competent to file reply on behalf of the answering respondent.

Preliminary Submissions/ Objections:

2. That it is submitted that the answering respondent had participated in the e-auction which was conducted in pursuance of e-auction notice dated 30.09.2015 and submitted bid for grant of mining contract for **Kanalsi Mining Block**. As per Clause 4 of the auction notice, the area of the mining blocks was tentative and was notified "*as is where is basis*". However, the nature of the minerals available in the mining block were not mentioned in the auction notice. A copy of the auction notice dated 30.09.2015 is **Annexure R-8/1.**

3. That on account of being the highest bidder, respondent No. 1 had communicated the acceptance of bid to the answering respondent by way of letter of intent dated 30.11.2015. As per the letter of intent, the proposed mining contract was for sand minor mineral from the aforesaid mining block. A copy of the Letter of Intent dated 30.11.2015 is **Annexure R-8/2.**

4. That in pursuance of the letter of intent dated 30.11.2015, the answering respondent had submitted the Mining

Plan and Progressive Mine Closure Plan with respondent No. 1 which was duly approved on 10.06.2016. A copy of the Mining Plan is attached herewith as **Annexure R-8/3.**

5. That it shall be imperative to state that the Mining Plan was submitted for the purpose of extraction of sand minor mineral only; however, due to inadvertence, it was incorrectly mentioned as boulder, gravel and sand mine on the title page of the Mining Plan. It is, hereby, clarified that the mining plan as well as its approval was only for sand minor mineral.

6. That after the approval of the Mining Plan and the execution of the mining contract dated 10.06.2016 (Annexure A-1), the answering respondent had approached respondent No. 5 for grant of Environmental Clearance. The answering respondent had submitted the application by way of proposal No. SIA/HR/MIN/16141/2015 dated 17.06.2016 under the project name Mining of Sand (Minor Mineral) at Kanalsi Block/YNR B-5 by M/s P.S. Buildtech, Yamunanagar. In this regard, a copy of the timeline details, as available on the official website, are attached herewith as **Annexure R-8/4.**

7. That it shall be imperative to state that the answering respondent, in pursuance of the aforesaid application, had submitted EIA Report dated 11.06.2016 with respondent No. 5. The EIA report had specifically stated that the same was for sand minor mineral at the aforesaid mining block. There was no mention of boulder and gravel in the EIA report. A copy of the EIA Report dated 11.06.2016 is **Annexure R-8/5.**

8. That respondent No. 5, after due deliberation and discussion, had granted the Environmental Clearance dated 15.09.2016 to the answering respondent. A copy of

the Environmental Clearance dated 15.09.2016 is attached herewith as **Annexure R-8/6.**

9. That the answering respondent seeks to clarify that the application as well as the EIA report for the purpose of obtaining the environmental clearance was with regards to sand minor mineral only. However, as per the belief of the answering respondent, the environmental clearance dated 15.06.2016 had incorporated boulder and gravel due to inadvertence. For all means and purposes, the environmental clearance dated 15.09.2016 was for extraction of sand minor mineral only.

10. That it shall be imperative to state that the answering respondent had approached respondent No. 3 for the purpose of grant of consent in terms of the provisions of Water (Prevention and Control of Pollution) Act, 1974 as well as Air (Prevention and Control of Pollution) Act, 1981. Respondent No. 3 had granted Consent to Establish dated 14.12.2016 and Consent to Operate dated 25.01.2017 for sand minor minerals. A copy of the CTE dated 14.12.2016 and CTO dated 25.01.2017 are attached herewith as **Annexure R-8/7.**

11. That it shall be imperative to state that after seeking the necessary approvals and clearances, the answering respondent had commenced the mining operations in 2017 and had sold sand minor mineral as per the agreed terms and conditions as well as the applicable laws.

12. That after the extraction of sand minor mineral from the upper layers of the mining lease area, the answering respondent came across minor quantities of boulder and gravel that were inextricably mixed with sand. Immediately, the answering respondent submitted an application dated 24.12.2018 to respondent No. 1 seeking

permission to dispose boulder and gravel mined alongwith sand from the aforesaid mining block.

13. That the application dated 24.12.2018 submitted by the answering respondent was duly considered by respondent No. 1 and permission was granted in terms of Rule 56 (19) of Haryana State Mining Rules, 2012 to dispose off boulder & gravel as additional minerals vide letter dated 12.06.2019. However, respondent No. 1 had issued letter dated 12.07.2019 to the answering respondent and the permission was withdrawn with immediate effect without providing any opportunity of hearing as well as without assigning any reasons. The answering respondent had challenged the letter dated 12.07.2019 by way of appeal before Additional Chief Secretary, Mines & Geology Department, Government of Haryana. The appeal was disposed off with directions to respondent No. 1 to decide the issue after conducting a fresh survey of the site. In pursuance thereof, the answering respondent had submitted another letter dated 03.09.2019 for the said purpose.

14. That on the basis of the directions issued by Ld. ACS, Mines & Geology, Government of Haryana, respondent No. 1 had constituted a survey team comprising of three members i.e. AME, Charkha Dadri; Geologist (Jr.), Head Office; Mining Officer, Yamunanagar. The survey was conducted on 16.02.2020 and the report was submitted with respondent No. 1. As per the report, it was stated that boulder & gravel were found present in the mining lease area between 15% to 30%.

15. That it shall be pertinent to mention that respondent No. 1 did not accept the survey report submitted by the survey team. Respondent No. 1 had constituted another survey team for the purpose of conducting a fresh survey. The survey team consisted of State Geologist; Mining Engineer assisted by Mining Officer, Yamunanagar;

Senior Surveyor. The team had conducted the survey of the mining lease area on 24.09.2020 alongwith Sub-Divisional Magistrate (Civil), Yamunanagar and Tehsildar, Jagadhri. The report was submitted on 01.10.2020 with respondent No. 1; and as per the report, it was stated that 34.98% of the total minerals in the mining lease area was boulder and gravel.

16. That on the basis of the report dated 01.10.2020 submitted by the aforesaid survey team, respondent No. 1 was pleased to pass the Order dated 26.11.2020 in favour of answering respondent. A copy of the Order dated 26.11.2020 is attached herewith as **Annexure R-8/8.**

17. That the perusal of the order dated 26.11.2020 shall reveal that the same was passed in exercise of powers available under Rule 56(19) of Haryana State Mining Rules, 2012. However, as per the said order, there was neither any increase in the mining lease area nor any increase in the production capacity as mentioned in the EC dated 15.09.2016. Hence, the answering respondent was not required to obtain EC for the newly added minerals in view of paragraph No. 7 (ii) of the notification dated 14.09.2006 issued by MoEF and CC. A copy of the Notification dated 14.09.2006 is **Annexure R-8/9.**

18. That it shall be imperative to state that the EC dated 15.09.2016 was granted for a period of 5 years i.e. till 14.09.2021. However, in view of the notification dated 18.01.2021 issued by MoEF and CC, the period from 01.04.2020 to 31.03.2021 was to be excluded while calculating the validity of EC. Hence, the EC was valid till 14.09.2022. A copy of the Notification dated 18.01.2021 is **Annexure R-8/10.**

19. That on 14.12.2021, the answering respondent had submitted an application with respondent No. 5 seeking extension of environmental clearance dated 15.09.2016.

After due consideration and deliberation, respondent No. 5 had granted extension till 14.09.2025 by way of Letter dated 07.10.2022. A copy of the Letter dated 07.10.2022 is attached herewith as **Annexure R-8/11.**

20. That it shall be pertinent to mention that as per the letter dated 07.10.2022, the extension of EC was granted for sand minor mineral only. The said fact further makes it apparent that the mention of boulder and gravel in the EC dated 15.09.2016 was only an inadvertent mistake.

21. That despite the fact that the answering respondent was not under any legal obligation to obtain EC for the newly added minerals and as a matter of abundant caution, the answering respondent had submitted an application dated 28.10.2022 with respondent No. 5 seeking corrigendum in EC for the purpose of addition of boulder and gravel in the EC. The application was duly considered by State Expert Appraisal Committee (SEAC), Haryana in its meeting dated 30.11.2022 and 01.12.2022. The committee had considered the proposal and made its recommendations to respondent No. 5 for issuance of corrigendum. The matter is presently pending consideration before respondent No. 5. In this regard, the relevant extract of minutes of meeting dated 30.11.2022 and 01.12.2022 of SEAC, Haryana are attached as **Annexure R-8/12**; and the agenda of 151st meeting of respondent No. 5 is attached herewith as **Annexure R-8/13.**

22. That it is submitted that the answering respondent has been conducting mining operations in consonance with the agreed terms and conditions as well as in compliance of the applicable laws. The answering respondent was granted the permission to extract boulder and gravel as additional minerals in due exercise of powers by respondent No. 1. There was no delay on the part of answering respondent to inform respondent No. 1

regarding the discovery of additional minerals which had occurred during the course of mining. The answering respondent is disposing off the additional minerals after obtaining the necessary permissions / clearances and the allegations of illegal mining are completely false and baseless.

23. That it is humbly submitted that the original application filed by the applicant is without any merits and the same is liable to be dismissed with exemplary costs.

Reply on merits:

1. That the contents of paragraph No. A of the application are vehemently denied being false and misleading. It is submitted that there is no illegal mining of boulder and gravel by the answering respondent. In this regard, the contents of preliminary submissions are reiterated.

2. That the contents of paragraph No. 3 refers to the legal provisions contained in Rule 56 of the Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012. Hence, no reply is required to the contents of paragraph No. 3.

3. That the contents of paragraph No. 4 with regards to the averment relating to the auction dated 10.06.2015 are denied for want of knowledge. The rest of the contents are denied being false. It is submitted that the answering respondent had participated in the e-auction dated 05.11.2015 and 06.11.2015 conducted in pursuance of E-auction notice dated 30.09.2015. The answering respondent had initially extracted sand minor mineral only; and it was only after obtaining the orders from respondent No. 1, answering respondent started extracting boulder, gravel and sand. In this regard, the contents of preliminary submissions are reiterated.

4. That the contents of paragraph No. 5 are denied for want of knowledge. It is submitted that letter of intent was issued in favour of answering respondent on 30.11.2015.

5. That the contents of paragraph No. 6 are a matter of record.

6. That the contents of paragraph No. 7 re not in related to the answering respondent. Hence, no reply needs to be submitted.

7. That the contents of paragraph No. 8 are a matter of record.

8. That the contents of paragraph No. 9 are not related to the answering respondent. Hence, no reply needs to be submitted.

9. That the contents of paragraph No. 10 are not related to the answering respondent. Hence, no reply needs to be submitted.

10. That the contents of paragraph No. 11 are not related to the answering respondent. Hence, no reply needs to be submitted.

11. That the contents of paragraph No. 12 are not related to the answering respondent. Hence, no reply is required.

12. That the contents of paragraph No. 13 are not related to the answering respondent. Hence, no reply is required.

13. That the contents of paragraph No. 14 are not related to the answering respondent. Hence, no reply needs to be submitted.

14. That the contents of paragraph No. 15 as well as document vide Annexure A-9 are denied for want of knowledge. However, it is submitted that the applicant has failed to attach any proof of service vis-à-vis the representation dated 04.12.2021 and the same makes it apparent that the representation is just an afterthought.

15. That the contents of paragraph No. 16 are not related to the answering respondent. Hence, no reply needs to be submitted.

16. That the contents of paragraph No. 17 are not related to the answering respondent. Hence, no reply is required.

17. That the contents of paragraph No. 18 as well as the document vide Annexure A-12 are denied for want of knowledge. However, it is submitted that the applicant has failed to attach any proof of service vis-à-vis the representation dated 04.12.2021 and the same makes it apparent that the representation is just an afterthought.

18. That the contents of paragraph No. 19 as well as the document vide Annexure A-13 are denied for want of knowledge. However, it is submitted that the applicant has failed to attach any proof of service vis-à-vis the representation dated 04.12.2021 and the same makes it apparent that the representation is just an afterthought.

19. That the contents of paragraph No. 20 as well as the document vide Annexure A-14 are denied for want of knowledge. However, it is submitted that the applicant has failed to attach any proof of service vis-à-vis the representation dated 04.12.2021 and the same makes it apparent that the representation is just an afterthought.

20. That the contents of paragraph No. 21 as well as the document vide Annexure A-15 are denied for want of knowledge. However, it is submitted that the applicant has failed to attach any proof of service vis-à-vis the representation dated 04.12.2021 and the same makes it apparent that the representation is just an afterthought.

21. That the contents of paragraph No. 22 are a matter of record in so far as the same refers to the notification dated 17.03.2022 vide Annexure A-16. However, it is denied that there is any sort of violation of the provisions of the aforesaid notification by the answering respondent. It is submitted that the answering

respondent, in response to the notice dated 28.03.2022 issued by Haryana Water Resource Authority, had submitted a reply dated 30.05.2022. As per the reply, the answering respondent had stated that as per the Environmental respondent No. 5, the total requirement of water is 40 KLD and the source of the water shall be water tanks only. There is no requirement of ground water and the answering respondent was bound to comply with the terms and conditions mentioned in the EC. Hence, the answering respondent had requested the Authority to issue NOC. A copy of the reply dated 30.05.2022 is attached herewith as **Annexure R-8/14**.

22. That the contents of documents vide Annexure A-17 are a matter of record. However, the contents of paragraph No. 23 are denied being false on account of the fact that the contents of document vide Annexure A-17 have not been shown in the correct perspective. It is submitted that all the transit pass annexed with the original application vide Annexure A-17 have been issued after the passing of the order dated 26.11.2020 issued by respondent No. 1. The answering respondent had all the right to issue transit pass for boulder, gravel and sand after the passing of Order dated 26.11.2020.

23. That the contents of paragraph No. 24 read with sub-para No. 1 to 22 are denied as no ground is made out to grant any of the reliefs sought by the applicants in the original application. In this regard, the contents of preliminary submissions are reiterated.

24. That the contents of paragraph No. 25 (wrongly numbered as 23) are denied as no cause of action has arisen in favour of the applicants for the purpose of filing the original application before this Hon'ble Tribunal. The applicants have ostensibly tried to create a cause of action in their favour on the basis of representations dated 04.12.2021, 10.02.2022, 22.02.2022 and 08.03.2022. However, none of the alleged representations are

supported by any proof of service and the same are merely an afterthought.

25. That the contents of paragraph No. 26 (wrongly numbered as 24) are denied as the reference to the judgment of Hon'ble Supreme Court vide Annexure A-18 is completely misconceived. The original application is not maintainable as no cause of action has arisen in favour of the applicants. In this regard, the contents of preceding paragraph are reiterated.

26. That the contents of paragraph No. 27 (wrongly numbered as 25) are denied for want of knowledge. However, it is submitted that the as per the knowledge of the answering respondent, the applicants had previously filed *Appeal No. 19 of 2022* titled as *Junaid Ayubi & Another v. State of Haryana & others* wherein allegations of illegal mining were raised against respondent No. 9. The petitioners have intentionally and wilfully concealed the said fact in the present petition and are guilty of misleading this Hon'ble Tribunal.

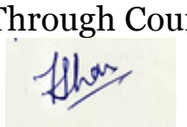
Prayer:-

In the light of the submissions made herein above, it is submitted that the Original Application filed by the applicants is liable to be dismissed with costs and the applicants are not entitled to any relief as prayed for.

PLACE: Panchkula

DATED:- 13.02.2024

Respondent No. 8
Through Counsel:-



(M.F. KHAN, B. KRISHNA)
Advocates for the Respondent
MFK & Co.
Ch. No. 417, Additional Building, Block D,
Gate No. 03, Supreme Court of India,
New Delhi- 110001
Off at : 9, Todarmal Lane, Bengali Market,
New Delhi- 110001
lawyermfk@gmail.com, mfknco@gmail.com
+ 91 9818331923 ; 8130739289

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Mohinder Pal and another **Applicants**

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AFFIDAVIT

I, Sh. Kulwinder Singh aged __ years S/o Sh. Trilochan Singh R/o #34, Vishal Nagar, Yamunanagar, District Yamunanagar, Haryana authorised signatory for M/s P.S. Buildtech do, hereby, solemnly affirm and declare as under:-

1. That the deponent is the authorised signatory on behalf of respondent No. 8 and the deponent is competent and authorised to file the accompanying reply on behalf of respondent No. 8.

2. That the facts and circumstances mentioned in the accompanying reply are based upon the documents maintained by respondent No. 8 in ordinary course of business as well as on the basis of the personal knowledge of the deponent.

3. That the contents of the accompanying reply may kindly be read as part and parcel of the present affidavit and the same have not be reproduced herein below for the sake of repetition.

OATH COMMISSIONER Subhash Chander Sharma Advocate PANCHKULA

NEW DELHI

DATED:-

DEPONENT

VERIFICATION:-

Oath Commissioner Panchkula

Verified that the contents of the present affidavit are true and correct as per my knowledge and belief. Nothing herein has been concealed or suppressed.

NEW DELHI

DATED:-

DEPONENT

9793

Verified that aforesaid affidavit has been made before me on oath SA at Panchkula 13.2.2024 By Kulwinder Singh S/o Baldev Singh R/o ... who is identified by Sh. Ashwani Mangla Adv.

13/2/2024

Subhash Chander Sharma
Oath Commissioner Panchkula

Haryana Government
Department of Mines and Geology
Sector-17, Chandigarh
30th September, 2015

e -Auction Notice

DMG/HY/e Auction/YNR/2015/8241

It is hereby notified for the information of the General Public that mining contracts for extraction of minor mineral namely Boulder, Gravel and Sand/only Sand from the mines of district of **Yamunanagar** will be granted through the process of **e-Auction**. The e-Auction will be held on **05.11.2015 at 9:00 hours** and bids can be submitted from **05.11.2015 from 9:00 am to 06.11.2015 upto 12:00 Noon extendable maximum up to 4.00 PM.** The important instructions for participation in the online e-Auction are as under:

A. The bids shall be made online on the **e-procurement** website https://haryanaeprocurement.gov.in.

B. The intending bidders before participation in the e- auction/ bidding process will be required to create **their *user account online by selecting the option of e auction from discipline column* and obtain user-id / password** on the website **https://haryanaeprocurement.gov.in** (If already created user account, this step needs to be skipped). For necessary instructions regarding participation in e-Auction of mines/blocks, please visit the aforementioned website and click on the available link **"How to…"** at the Home Page.

C. After getting the *user account created*, the prospective/ intending bidders shall upload following documents (in PDF format not exceeding limit of 10 MB for individual document) along with deposition of **earnest money (EMD**) and **e-service fee** in order to participate in the e-Auction latest **by 02.11.2015 till 05:00 PM** anytime after the publication of this document:

(i) **"No Dues Certificate"** from the concerned officer of district or an affidavit sworn before any Magistrate to the effect that no amount of contract money, royalty, dead rent or surface rent is due in respect of any mining lease/mining contract or mineral concession held by him earlier or in respect of any mineral concession currently held by him or his family members;

(ii) Copy of the **Partnership deed or Article of Association (in case of company),** or an affidavit (in case of sole proprietor). No transfer or addition or deletion of the partners/Directors will be permissible before execution of the agreement;

(iii) A copy of **authority letter** by the Partnership Firms or **Copy of resolution** of the Board of Directors (BoD) of the Company in favour of the person who shall be offering the bids online for such intending agency.

(iv) **Earnest Money** equal to 10% of the reserve price of the mining area/site for which bid has to be made, rounded by an amount of Rs.10,000/-, through online payment in due course of time i.e. up to **02.11.205 till 05:00 PM.** In case the intended bidder fails to pay online EMD fee under the stipulated time frame will not be allowed to enter in e-Auction of mine(s)/ block(s). The payment for EMD fee can be made by eligible bidders online through RTGS / NEFT or OTC**.** (Please refer to important Payment Guidelines under Annexure – 'A' provided by online payment gateway service provider i.e. ICICI Bank).

The payment shall be made against the beneficiary account number as mentioned in the challan to be generated online at the **e-Procurement portal https://haryanaeprocurement.gov.in**.

(v) Details of the bidding agency in case of requirement of **refund of EMD** (a) Refund Account Name (b) Refund Account No. (c) IFSC code of the Bank. Note: Please cross check the information to be submitted online before saving the same as the information in non editable.

(vi) The Bidders shall have to pay **e-Service Fee of Rs.1000/- online** by using the service of secure electronic payment gateway. The secure electronic payments gateway is an online interface between contractors and online payment authorization networks. The Payment for **e-Service Fee** can be made by eligible bidders/ contractors online directly through **Debit Cards & Internet Banking Accounts**.

Note: Any document uploaded as per **(i), (ii) and (iii)** above at later stage/ after auction found to be wrong/ false shall invite revocation /cancellation of bid and forfeiture of amount deposited at the time of auction apart from debarring the bidder from participation in any subsequent bids for a period of 5 years

D. In case of any query regarding process of **e-Auction**, the intended bidder can contact the service provider at below mentioned address:

M/s Nextenders (India) Pvt. Ltd*. O/o. Director Supplies and Disposal Haryana, SCO – 09, IInd Floor, Sector – 16, Panchkula – 134108 E - mail: Chandigarh@nextenders.com Help Desk: +91-172-2582008-09, 2618292 and* ***1800-180-2097*** *(Toll Free Number)*

Note- A training-cum-orientation program for the intending bidders will be held on **10th, 17th and 24th October, 2015** at Panchkula office of M/s Nextenders (India) Pvt. Ltd. from 11.00 A.M. to 1.00 P.M. Parties interested in attending the same are requested to contact/confirm participation to Sh. Kanwarjeet Singh Mobile 09592259876, Sh. Sat Dev Sharma 9872252144, Sh. Deepak Mobile – 9501176347, or the help desk on Toll Free No. 1800-180-2097 and 0172-2582008/2582009/2618292 or through E-mail: chandigarh@nextenders.com.

E. Any bidder interested to participate in the auction can submit his bid/s from date **05.11.2015 09:00 am to 06.11.2015 till 12:00 Noon**.

F. However, in case any bid in respect of any mine/ block is received 10 minutes prior to time fixed for closure for the bids i.e. bid received between **11:50 AM to 12 noon,** then the time for closure of the auction would be extended automatically by 10 minutes, so that equal opportunity is made available to the persons participating in the bidding process. Such extensions of ten minutes will continue till bids are received within next 10 minutes of last bid for any of the mine, otherwise the same would get concluded.

G. In case, the bidding would continue during such extensions of 10-10 minutes, the bidding process will finally conclude at **04:00 pm** and no further extension would be given thereafter.

H. The minimum bid incremental value during the initial time provided (i.e. **05.11.2015** from 9:00 AM to **06.11.2015** upto 12.00 noon) will be multiple of Rs. 50,000 (Fifty Thousand). However the increment during extended period (**06.11.2015** from 12:00 noon to 04:00 PM) will be multiple of 100000 (one lakh) instead of 50,000 (Fifty Thousand).

The details of the areas of the Mining Blocks along with reserve price and period of mining contract, which are to be granted on mining contracts and other terms and conditions of the auction, are given below:

District Yamuna Nagar:

Sr. No.	Name of Block/ Block No.	Name of Village	Details of Khasra No/Killa No	Area (In hect.)	Reserve Price (In Rs. Crores per annum)	Period (In years)
River bed Mining Blocks						
1	Kanalsi Block/ YNR B 5	Kanalsi	**41//16,** 24, 25 **42//16 to 19,** 20, 21,22 to25 **43//16,** 17 to 24, 25 **44//1,** 10, 11, 12, 19, 20, 21, 22 **45//1,** 2, 3 to 8, 9, 10 to11, 12, 13 to 18, 19, 20 to 21, 22, 23 to 24,	44.14	04.08	9

Sr. No.	Name of Block/ Block No.	Name of Village	Details of Khasra No/Killa No	Area (In hect.)	Reserve Price (In Rs. Crores per annum)	Period (In years)
			25/1, 25/2 **46//1,** 2, 3, 4, 5, 6, 7, 8, 9 to 17, 18, 19, 20, 21, 24, 25 **47//3,**4,5,6,7/1,7/2,8,9 min,11 min,12 to 25 **48//16 min,** 24 min, 25 **52//4 min,** 5, 6, 7, 15 **53//1,** 2, 3,4/1, 4/2, 5, 7, 8 to 13, 19			
2	Jairampur Jagir Block/YNR B 6	Jairampur Jagir	**2//20,** 21, 22 **6//16min,** 25 **7//3,** 4/1, 4/2, 5/1, 5/2, 6/1, 6/2, 6/3, 7/1, 7/2, 7/3, 8/1, 8/2, 12/2, 12/3, 13/1, 13/2, 13/3, 14/1, 14/2, 14/3, 15/1, 15/2, 15/3, 16**,** 17/1, 17/2, 18 to 23, 24. **8//1,** 2, 10/1, 10/2, 10/3. **11//**1 to 3**,** 8, 9 to 12, 13, 19 to 22 **12//4,** 5**,** 6, 7, 14, 15, 16, 17, 24, 25. **15//3,** 4 to 7, 8, 13, 14, 15, 16, 17, 18, 23, 24/1, 24/2, 24/3, 24/4, 24/5, 24/6, 25/1, 25/2, 25/3, 25/4, 25/5, 25/6. **16//1,** 2, 9, 10, 11, 12, 20, 21/1, 21/2, 21/3, 21/4, 21/5. **19//1,** 10 min, 11min, 19min, 20, 21, 22. **20//**3 to 8**,** 13 to 16, 17, 25. **23//1,** 2, 8, 9, 13 min, 17 min.	33.58	03.10	10
3	Odhari North Block/ YNR B 8	Odhari	**16// 25 min** **17//**20min, 16, 17, 18, 19, 21, 22, 23, 24, 25 **27//3min**, 4min**,** 5min, 7min, 8min, 9min, 10min, 11min, 12min **28//14min,** 15min 18min, 19min, 21min, 25/1min, 16, 17, 22, 23, 24, 25	10.00	03.41	9
4	Odhari South Block/ YNR B 9	Odhari	**36//5min,** 7min, 14min,17min, 18min, 23min, 6, 15, 16, 24, 25 **37//1/1,** 1/2, 2/2, 3, 4, 5, 6, 7, 8, 9/1, 9/2, 10, 11, 12, 13/1,13/2, 14, 15, 16, 17/1, 17/2, 18, 19, 20, 21/1, 21/2, 22, 23, 24, 25/1, 25/2 **38//11,** 12/1, 12/2, 13/1,13/2, 14, 15/1, 15/2, 16, 17, 18,19/1, 19/2, 20, 21, 22/1, 22/2, 23,24, 25 **47//1/1,** 1/2, 2/1, 2/2, 3, 4, 5, 6, 7, 8/1, 8/2, 9/1, 9/2, 10, 11, 12, 13/1, 13/2, 14/1, 14/2, 15, 16, 17/1, 17/2, 18, 19, 20, 21, 22/1, 22/2, 23, 24, 25/1, 25/2 **48//3min,** 2min, 9min, 12min, 19min, 20min, 21min, 4, 5, 6, 7, 8, 13, 14, 15, 16, 17, 18, 22, 23,	56.98	05.26	10

Sr. No.	Name of Block/ Block No.	Name of Village	Details of Khasra No/Killa No	Area (In hect.)	Reserve Price (In Rs. Crores per annum)	Period (In years)
			24, 25 **53//1,** 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14/1, 14/2, 15, 16, 17, 18, 19, 24, 25 **54//1,** 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 **58//1,** 2, 3, 4, 10/1, 10/2 **59//1,** 2, 3, 4, 5, 6, 7, 8, 15 **60//5**			
5	Jathlana Block/ YNR B 12	Jathlana	**103//11,** 19, 20, 21, 22 **104//7min,** 8min,9min, 10min, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21/1, 21/2, 22, 23 **105//6,** 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25/1, 25/2 **106//13,** 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 11, 12, **123//1 to 15,** 16, 17, 18, 19, 20, 21, 22, 23 **124//1,** 2, 3, 4/1, 4/2, 4/3, 5/1, 5/2, 5/3, 6/1, 6/2, 7, 8, 9/1/1, 9/1/2, 9/2, 9/3, 10, 11, 12/1, 12/2, 12/3, 13, 14,15,19,20, 21 **125//1,** 2, 3, 9/1, 9/2, 10,11,20 **107//14min,** 15min, 16,17, 18, 19min, 20min, 21, 22,23,24, 25 **108//25min** **121//5min,** 6, 7min, 14min, 13min, 15, 16 ,17, 18min, 23min, 24, 25 **122//1 to 23,** 24, 25 **126//1,** 2, 3, 4, 8, 9, 10, 11, 12, 21, 20 **127//3 to 8,**2min,9min,12min, 19min, 13, 14, 15, 16, 17, 18, 19, 25 **137//16,** 17, 18, 23, 24 ,25 **138//2,** 3 to 8, 9, 12, 13, 14, 15, 16 **139//1,** 2min, 8min, 9, 10, 11, 12, 20 **136//21min**	101.27	09.34	10
		Dhakwala	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19/1,19/2, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43 min, 44, 45, 46, 47, 48 min, 49 min, 50, 51, 52, 53, 54 min, 55 min, 56 min, 221, 222 min, 223 min, 224 min, 225 min, 226, 227, 228, 229, 230, 231, 232, 233/1,233/2, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246,			

Sr. No.	Name of Block/ Block No.	Name of Village	Details of Khasra No/Killa No	Area (In hect.)	Reserve Price (In Rs. Crores per annum)	Period (In years)
			247, 249 min, 251 min, 252, 253 min, 254 min, 340 min, 341, 342min, 343 min, 344, 345, 346, 347, 348, 349, 350, 351 min, 352 min			
6	M T Karhera Block/ YNR B 13	M T Karhera	**3//18,** 19min, 20min, 21min, 22, 23, **4//25min** **11//6,** 7, 8min,12, 13, 14, 15,16/1, 16/2, 17, 18, 19min, 20/1min, 21min, 22, 23, 24, 25 **12//1,** 2, 9, 10, 11, 20,21/1, 21/2 **13//1,** 10, 11, 20, 21, 22 **14//1 to 25** **15//5/2,** 6, 7, 14/2, 15, 16, 17, 18min, 23, 24, 25 **21//1 to 15,** 16min, 17, 18, 19, 20, 21,22, 23min, 24min. **22//1,** 2min, 9min, 10, 11 min, 20 min **26//1,** 10, 11, 20/2 **27//1,** 4, 5/1, 5/2, 6, 7, 8, 9/1, 9/2, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20/1, 20/2, 21, 22, 23, 24, 25. **28//5min,** 6min,15min, 16min, 25min **31//5,** 6, 7min, 14min, 15, 16, 17min, 24min, 25. **32**//1, 2, 3, 4, 5min, 6min, 7, 8, 9, 10, 11, 12, 13, 14, 15min, 17min, 18, 19, 20, 21, 22, 23, 24min. **37**//1, 2, 3, 4min, 8min, 9, 10, 11, 12, 13min, 19, 20, 21, 22. **38**//5, 6, 15. **42**//42	67.79	06.25	7
7	Nagla Rangran Block/ YNR B 14	Majri	31 min, 34, 35, 36, 32 min, 33, 37, 38, 70 min, 71 min, 42 min, 43, 133, 134, 135, 136 min, 142 min, 143, 144, 145, 152, 156, 157, 158 min, 153, 154, 155 min, 165 min, 166 min, 168, 169, 180, 184, 185 min, 177, 181, 182, 183, 206, 207, 208, 209, 210, 215, 219, 220, 221, 216, 218, 230, 231, 217, 229, 232, 233, 234, 238, 44, 36, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 146, 147, 148, 149, 150	89.48	08.25	9
		Nagla Rangran	**1//17min,** 18, 19, 21, 22/1, 23/1, 23/2, 24min **5//1,** 2, 3, 4min, 8min, 9, 10, 12, 13/1min, 19min, 22/2min, 6/5, 6, 7, 8, 13, 14/1, 14/2, 19, 20, 21, 22, 23, 24			

Sr. No.	Name of Block/ Block No.	Name of Village	Details of Khasra No/Killa No	Area (In hect.)	Reserve Price (In Rs. Crores per annum)	Period (In years)
			7//25 **8//4/1,** 4/2, 5/1, 5/2, 6, 7, 13, 14/1, 14/2, 15, 16, 17, 18, 22, 23/1, 23/2, 23/3, 24, 25 **9//1,** 2, 3, 4/1, 4/2, 5, 6, 7, 8, 9/1, 9/2, 10, 11/1, 11/2, 12, 13, 14, 15min, 16min, 17, 18, 19/1, 19/2, 20, 21, 22, 23, 24min **17//1,** 2, 3, 4min, 7min, 9, 10,11, 12, 13min,18min,19, 20/1, 20/2, 21, 22min **18//2,** 3, 4, 5, 6, 7, 8, 9, 12/1, 12/2, 13, 14, 15, 16, 17,18, 22, 23, 24, 25/1, 25/2 **19//2,** 3, 4, 5, 6, 7, 8, 9,12, 13, 14, 15/1, 15/2, 16, 19 **20//1,** 2min, 9min, 10, 11, 20, 35			
		Sandhala	**9//12min,** 13, 19, 20min, 21min, 22 **18//5min,** 6, 7min, 14min, 15, 16, 17, 18min, 23min, 24/1, 24/2, 25 **19//1,** 10, 11 **21//2min,** 3, 4, 5/1, 5/2, 6, 7, 8, 9min, 12, 13, 14, 15, 16, 17, 18, 19, 20min, 21min, 22, 23, 24, 25 **20//1,** 10, 11 **34//1,** 2, 3, 4, 5, 6, 7, 8, 9,10, 11, 12, 13, 14, 18, 19, 20, 21, 22, 23 **33//6min,**15min,16min, 25min **37//5min,** 6, 15, 16, 25 **36//1,** 2, 3, 8/1, 8/2, 13, 12/1, 12/2, 11, 20, 19/1, 19/2, 18, 21, 22, **45//5, 46//1,** 2			
8	Nagli Block/ YNR B 15	Nagli	**1//18min,** 19, 21, 22, 23min **5//1,** 2, 3min, 8min, 9, 10, 11, 12, 13min, 18min, 19, 20, 21, 22, 23min **6//5,** 6, 15, 16, 25 **11//5,** 6, 14, 15, 16, 17, 18, 19, 20min, 21, 22, 23, 24, 25 **12//1,** 2, 9, 10,11, 12min, 19min, 20, 21, 22min **21//1,** 2min,9min,10,11,20,21 **22//1 to 25** **23//4min,** 5, 6, 7min, 14min, 15, 16, 17min, 24min, 25 **28//4min,** 5, 6, 7min, 14min, 15, 16, 17min, 24min, 25 **29//1 to 25** **30//1,** 10, 11, 20 ,21 **37//1,** 10, 11, 20, 21min **38//1 to 24,** 25 **39//4min,** 5, 6, 7,8min, 12min, 13, 14, 15, 16, 17,18,19,20min, 21, 22, 23, 24, 25	77.25	07.12	10

Sr. No.	Name of Block/ Block No.	Name of Village	Details of Khasra No/Killa No	Area (In hect.)	Reserve Price (In Rs. Crores per annum)	Period (In years)
			40//16min, 17min, 24, 25 **41//5** **42//1 to 9,** 10, 12, 13 to 17, 18, 24, 25 **43//1,** 2, 3, 4, 8, 9, 10, 11, 12, 20, 19, 21 **44//1, 45//5**			
9	Gumthala South Block/ YNR B 17	Gumthala	**124//4 min,** 5, 6, 7 min, 14 min, 15, 16, 17 min, 24 min, 25, **125//1,** 2, 3 min, 8 min, 9, 10, 11, 12, 13 min, 18 min, 19, 20, 21, 22, 23, **136//3 min,** 2, 1, 8 min, 9, 10, 11, 12, 13 min, 18 min, 19, 20, 21, 22, 23 min, **137//5,** 6, 15, 16, 25, **147//5 min,** 6 min, 15 min, 16 min, 25 min, **148//1,** 2, 3, 8, 9, 10, 11, 12, 13 min, 18 min, 19, 20, 21, 22, 23, **157//1 ,** 2, 3, 8, 9, 10, 11, 12, 13, 14 min, 17 min, 18, 19, 20, 21, 22, 23, 24 min, **158//5 min,** 6 min, 15 min, 16 min, 25 min, **164//5,** 6, 15, 16, 25, **165//1,** 2, 3, 4 min, 7, 8, 9, 10, 11, 12, 13, 14 min, 17, 18, 19, 20, 21, 22, 23, 24, **172//1 min,** 2, 3, 4, 6 min, 7, 8, 9, 10 min, 11 min, 12, 13, 14, 15 min, 16 min, 17, 18, 19, 20 min, 21, 22, 23, 24, 25, **176//2,** 3, 4, 5, **177//1,** 10, **69//6,** 7, **46//8,** 9, 10, 11, 1min, 2min, **47//15min,** 6min	49.67	04.59	9
Outside River Bed Mining Blocks						
10	Churhpur Block/ YNR B 26 & 27	Churhpur YNR B 26	**15//22/1, 22/2,** 23min, **19//10min,** 11, 12, 13min, 16min, 17 , 18, 19, 20, 21, 22, 23, 24, 25, **20//2,** 3 , 4, 5min, 6, 7, 8, 9, 12, 13, 14, 15, 16, 17, 18 , 19, 24, 25/1 to 25/4, **32//4,** 5, 6, 7, 14, 15, 16, 17/1, 17/2, 17/3, 24, 25, **33//1,** 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 19, 20, 21/1, 21/2, 22/1, 22/2, **43//4,** 5/1, 5/2	50.40	07.46	8
		Churhpur YNR B 27	**50//2,** 3, 4, 5, 6, 7, 8, 9min, 13, 14, 15, 16/1, **51//1,** 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16/1, 16/2, 17, 18, 19, 20min, 22, 23/1, 23/2, 24, 25, **52//1,** 2, 3, 4, 5, 6/1, 6/2, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16min, 17min, 18, 19, 20, 21, 22/1, 23min, **53//1,** 2, 3/1, 3/2, 4, 5min, 7min, 8, 9, 10, 11, 12, 13, 14min, 20min			
11	Ismailpur Block/ YNR B 32	Ismailpur	**15//14,** 15, 16/1, 16/2, 16/3, 17, 18/1, 18/2, 22, 23, 23/1, 23/2, 24,	50.50	08.16	8

Sr. No.	Name of Block/ Block No.	Name of Village	Details of Khasra No/Killa No	Area (In hect.)	Reserve Price (In Rs. Crores per annum)	Period (In years)
			25, **16//11,** 12, 13, 14, 15, 16, 17, 18, 19/1, 19,2, 20, 21/1, 21/2, 22 to 25, **17//11,** 12,13, 14, 17, 18, 19, 20, 21, 22, 23, **22//1,** 2, 10, **23//1 to 15,** 17 to 23, **24//2/1, 2/2,** 3 to 8, 9/1, 9/2, 10/1, 10/2, 11, 12, 13/1, 13/2, 14 to 25, **25//15,** 23/1, 23/2, 24, 25, **28//3/1, 3/2,** 4, 5, 6, 7/1, 7/2, 8, 9, 13, 14, 15, 16, 17, 24, 25, **29//1/1, 1/2,** 2/1, 2/2, 3, 4, 5, 6, 7, 8, 9/1, 9/2, 10, 11, 12, 13, 14, 15/1, 15/2, 17 to 21, 22/1, 22/2, 23/1, 23/2, **35//1,** 2/1, 2/2, 9, 10			
12	Jaidhari Block/ YNR B 33	Jaidhari	**19//21,** 22. **20//21,** 22, 23, 24, 25. **21//21,** 22, 23/1, 23/2, 24/1, 24/2, 25/1, 25/2. **22//24,** 25. **31//4,** 5, 6, 7, 14, 15, 16/1, 16/2, 17, 24, 25. **32//1 to 9,**11 to 16, 18 to 25**,** **33//1,** 2, 3, 4/1, 4/2, 5, 6, 7/1, 7/2, 8, 9, 10, 11/1, 11/2, 12, 13, 14/1, 14/2, 15, 16, 17/1, 17/2, 18, 19, 20, 21/1, 21/2, 22, 23, 24/1, 24/2, 25/1, 25/2, 25/3. **34//1,** 2, 9, 10, 11, 12, 19, 20, 21/1, 21/2, 22. **38//1/1,** 1/2**,** 2/1, 2/2, 9/1, 9/2, 10, 11/1, 11/2, 12/1, 12/2, 19/1, 19/2, 20, 21, 22, **39//1 to 17,** 24, 25, **41//4,** 5/1, 5/2, 6, 7, **50//4,** 5, 6, 7, 14, 15, **51//1,** 2, 9, 10, 11, 12	48.60	07.35	8
13	Haldari Gujjar Block/ YNR B 35	Haldari Gujjar	**8//1 to 25, 14//1 to 25, 18//1/1, 1/2,** 2 to 9, 10/1, 10/2, 11 to 25, **19//1 to 25, 20//1 to 4,** 7 to 10, 11 to 14, 17 to 20, 21 to 24	46.80	06.93	8
14	Galauri Block/ YNR B 39	Galauri	**4//1,** 2, 9, 10, 11, 12/1, 12/2, 19/1, 19/2, 20, 21/1, 21/2, 22/1, 22/2, **5//3,** 4/1, 4/2, 5, 6/1, 6/2, 7/1, 7/2, 7/3, 8, 13, 14, 15, 16, 17, 18/1, 18/2, 23/1, 23/2, 24, 25, **8//3/1, 3/2,** 4, 5/1, 5/2, 6, 7/1, 7/2, 8, 13/1, 13/2, 14/1, 14/2, 15, 16, 17, 18/1, 18/2, 23/1, 23/2, 24, 25, **9//1/1, 1/2,** 2/1, 2/2, 9, 10, 11, 12/1, 12/2, 12/3, 19, 20/1, 20/2, 21, 22, **12//1,** 2, 9/1, 9/2, 10, **13//3,** 4, 5/1, 5/2, 6, 7, 8/1, 8/2.	24.00	03.55	8

The terms and conditions of the Auction:

1. The period of contract shall commence w.e.f. the date of grant of environmental clearance by competent authority as required under EIA notification dated 14.09.2006 and as amended from time to time by the MoEF, GoI or on expiry of a period of 12 months from the date of acceptance of highest bid/issuance of "**Letter of Intent**",(LoI) whichever is earlier;

2. Any site/area can be withdrawn from the Auction without assigning any reason;

3. Due care had been taken in specifying the details of the areas of the mining blocks. However, in case of any inadvertent clerical mistake, the same shall be got rectified/corrected even after the auction but before execution of contract agreement**;**

4. The Block areas are **Tentative** and are being notified on '**as is where is basis**' and all prospective bidders are expected and presumed to have surveyed the areas to make their own assessment for the potential of the areas for which bids are to be offered. The State government shall not be responsible for any kind of loss in land / area or any other loss to the bidders/contractors at any point of time (before or after grant of contract) on account of reduction of land/ area or otherwise. Further, the bidders are also expected to have gone through the terms and conditions of auction notice and also the applicable Acts and Rules for undertaking mining;

5. No request regarding reduction in bid amount on account of reduction in land/area of the Mining Block, on any account including that of change in description of khasra numbers / location etc. at any stage will be entertained on any ground. This shall also include any loss/reduction of area for actual mining for want of compliance of applicable laws/restrictions for mining or part of the contracted area had already been operated in the past. Needless to state that this also includes the changes, if any, as per condition no. (3) and the prospective bidder shall give their bids taking account of all such eventualities;

6. No person shall be eligible to participate in the Auction, who or any of his family members is a defaulter of any mining dues in respect of any mineral concession granted in the past or any other current mineral concession. In case any of the partners of a Partnership Firm or a Director of a company participating in the auction process or any of their family members are found to be defaulter, the bidder firm/company would be held ineligible.

   Further, any person, firm or company as the case may be who had been specifically debarred to participate in the auction would not be eligible to participate in the auction;

7. In case any bidder participated in the auction is found to be in arrears at any stage, his bid shall be revoked / cancelled with forfeiture of the amount deposited by him;

8. All intended participant can view the highest quoted bid during online bidding process. The highest bidder will be informed for confirmation of the same through **e-mail** and **SMS alert** at his online registered email and Mobile Number respectively;

9. The highest bid received shall become the **'annual contact money'** amount payable by the bidder/contractor. The amount of annual contact money initially determined on the basis of competitive bids/auctions shall be increased by 25% on completion of each block of three years;

   Explanation: If the initially determined annually bid/contract Rs. 100/, it shall be increased to Rs. 125/- with the commencement of the fourth year and to Rs. 156.25 with the commencement of the 7th year and so on and so forth for the next each block of three years.

10. The highest bidder would be informed about the same- confirmation that he being declared as **highest bidder**- as per which he shall be liable to deposit **25%** of the annual bid/contract money amount as **"security"** and **one month's advance contract money.** The above said amount shall be deposited as per following schedule:

(a) an amount equal to 10% of the annual bid amount/ highest bid, after adjusting the EMD deposited for said mine/ block, as 'initial bid security' **within 24 hours of conclusion of the bidding process**. The payment has to be made through RTGS/NEFT by secured online payment gateway ;

(b) balance amount of bid security i.e. 15% of the annual bid amount along with one month's advance contract money before commencement of the mining operation or before expiry of the period of 12 months, which ever is earlier;

11. In case the highest bidder fails to deposit 10% of the annual bid amount online towards the "Initial bid Security" within 24 hours given for the same the earnest money deposited shall stand forfeited. Further such bidder(s) shall not be eligible to participate in any future auctions/Tenders/competitive bidding process in respect of any area for obtaining mineral concession in the State for a period of 5 years;

12. The bids offered/ received during the e-auction process shall be provisionally accepted and the Director shall obtain the orders of Government thereon. No bid shall be regarded as successful bid unless accepted by the Government;

13. After deposit of 10% of the bid amount (as initial bid security) after the conclusion of auction by the highest bidder(s), No request from the highest bidder(s) regarding revocation or the withdrawal of the highest bid shall be considered. In case, any such request is made the same shall be followed by the Penal action i.e 10% amount deposited towards initial bid security shall stand forfeited and un-paid 15% amount towards security shall be recovered as arrears of land revenue and such bidder(s) shall debarred from participation in any future auctions/Tenders/competitive bidding process in respect of any area for obtaining mineral concession in the State for a period of 5 years;

14. The earnest money deposited by the bidders other than highest bidders shall be refunded upon completion of the auction proceedings;

15. After the acceptance of highest bid by the State Government and on issuance of Letter of Intent, the LoI holder shall execute an agreement in Form MC-I appended to the 'Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012' within a period of 90 days of the order of grant of LoI;

16. In case of failure to execute the agreement, after issuance of acceptance of bid/LoI within prescribed period, the acceptance/LoI shall be deemed to have been revoked and 10% amount deposited towards initial bid security shall stand forfeited and un- paid 15% amount towards security shall be recovered as arrears of land revenue and such bidder shall debarred from participation in any future auctions/Tenders/competitive bidding process in respect of any area for obtaining mineral concession in the State for a period of 5 years;

17. After execution of agreement, either before commencement of the mining operation or before expiry of the period of 12 months from the date of issuance of LoI, whichever is earlier. In case of failure to deposit the balance 15% amount towards security (as required under clause 10(b) above) the acceptance of bid/issuance of LoI/execution of agreement shall be deemed to have been revoked and 10% amount deposited towards as initial bid security after the conclusion of auction shall stand forfeited. Further un paid 15% amount towards security shall be recovered as arrears of land revenue and such biddershall debarred from participation in any future auctions/Tenders/competitive bidding process in respect of any area for obtaining mineral concession in the State for a period of 5 years;

18. The contractor shall also deposit/pay an additional amount equal to 10% of the due contract money alongwith installments towards the **'Mines and Minerals Development, Restoration and Rehabilitation Fund';**

19. The contractor shall be liable to pay advance Income Tax as per provisions of **Section 206 (c)** of the Income Tax Act, in addition to the contract money payable as per term and condition of the contract agreement;

20. On enhancement of the contract money with expiry of every three years period, the contractor shall deposit the balance amount of security so as to upscale the security amount equal to 25% of the

revised annual contract money as applicable for one year with respect to the next block of three years;

21. No interest, whatsoever, shall be payable on the security amount deposited under proper security head of the government;

22. The LoI holder/contractor shall also furnish a solvent surety for a sum equal to the amount of the annual bid for execution of the agreement. In case the surety offered by the contractor(s) during the subsistence of the contract is not found solvent, the contractor(s) shall offer another solvent surety and a supplementary deed to this effect shall be executed;

23. The mining contractor shall got prepare a Mining Plan along with the Mine Closure Plan (Progressive & Final) from the Recognised Qualified Person as per **chapter10 of the "Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012"** for mining area granted on contract. The contractor shall not commence mining operations in any area except in accordance with such Mining Plan duly approved by an officer authorized by the Director, Mines & Geology, in this behalf.

Further, the actual mining will be allowed to be commenced only after prior Environmental Clearance is obtained by the LoI holder/mining contractor for the Mining block(s)/area from Competent Authority as required under notification dated 14/09/2006 issued by the MoE&F, GoI or as amended from time to time.

24. The Mining contractor would also be liable to pay following to the land owners;

(a) The annual rent in respect of the land area blocked under the concession but not being operated, and;
(b) The rent plus compensation in respect of the area used for actual mining operations.

The amount of annual rent and the compensation shall be settled mutually between the landowner and the mining contractor. In case of non-settlement of the rent and compensation, the same shall be decided by the District Collector concerned in accordance with the provisions of Chapter 9 of the "Haryana Minor Mineral Concession, Stocking, and Transportation of Minerals and Prevention of Illegal Mining Rules, 2012".

25. The total mineral excavated and stacked by the concession holder within the area granted on mining contract shall not exceed two times of the average monthly production as per approved Mining Plan at any point of time;

26. The Mining contractor shall not stock any mineral outside the concession area granted on mining contract, without obtaining a valid mineral dealer license as per provisions contained in Chapter 14 of the "Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012";

27. The contractor shall not carry out any mining operations in any reserved/protected forest or any area prohibited by any law in force in India, or prohibited by any authority without obtaining prior permission in writing from such authority or officer authorized in this behalf. In case of refusal of permission by such authority or officer authorized in this behalf, contractor(s) shall not be entitled to claim any relief in payment of contract money on this account**;**

28. Following special conditions shall be applicable for excavation of minor mineral(s) from river beds in order to ensure safety of river-beds, structures and the adjoining areas:

a. 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;

b. 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 authorised by him;

c. The maximum depth of mining in the river-bed shall not exceed 3 meter from the un-mined bed level at any point in time with proper bench formation;

d. Mining shall be restricted within the central 3/4th width of the river/ rivulet;

e. In case of areas adjoining to rivers/rivulets, no mining shall be permissible in an area up to a width of 500 meters from the active edges of embankments on either side of all other rivers/ rivulets in case of river Yamuna. **(This clause is applicable for mining outside riverbed area);**

f. Any other condition(s), as may be required by the Irrigation Department of the state from time to time for river-bed mining in consultation with the Mines & Geology Department, may be made applicable to the mining operations in riverbeds.

29. That no mining operation shall be allowed in the urbansizable zone of area notified by Town and Country Planning Department. Further, in case of the agriculture zone notified by Town and Country Planning Department mining shall be permissible only after obtaining prior permission from the competent authority;

30. A safety margin of two meters (2m) shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this level unless a specific permission is obtained from the competent authority in this behalf. Further the depth of excavation of mineral shall not exceed nine meters (9m) at any point of time. **(This clause is applicable for mining outside riverbed area)**;

31. The contractor shall not undertake any mining operations in the area granted on mining contract without obtaining requisite permission from the competent authority as required for undertaking mining operations under relevant laws;

32. The contractor shall be under obligation to carryout mining in accordance with all other provisions applicable as per Mines Act, 1952, Mines and Minerals (Development and Regulation) Act, 1957, Forest (Conservation) Act, 1980 and Environment (Protection) Act.1986 and the rules made there under Wild Life (Protection) Act, 1972, Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981;

33. Sh. Rajbir Singh has filed a CWP No. 27700 of 2013 before the Hon'ble Punjab and Haryana High Court challenging (i) commencement of contract period after 12 months from the date of acceptance of highest bid/issuance of "**Letter of Intent**" or from date of obtaining of environmental clearance from competent authority which ever is earlier and (ii) payment of rent and compensation to surface right holder/land owners from where mining operations are to be carried out. Therefore, commencement of period of contract & payment of compensation to land owners shall be as per final outcome of court order in said CWP;

34. M/s Om Minerals, one of the LoI holders has filed a CWP No. 7991 of 2014. A few other LoI holders have also filed separate CWPs before the Hon'ble Punjab and Haryana High Court challenging levy of Stamp Duty on execution of 'Contract Agreement'. The said matter is still pending for adjudication; accordingly, the charging of stamp duty for the execution of contract agreement shall be as per final outcome of the said CWP's. Further, the auction of Mining Block at **Serial no. 10** shall be subject to outcome of CWP No. 12082 of 2015: Kulwant Singh & others Vs State of Haryana.

35. Further information, if any required, can be had on any working day from the office of the Mining officer, Mines & Geology Department, Yamuna Nagar or from the O/o the Director General, Mines and Geology, Haryana,30 Bays Building, Sector-17,Chandigarh.

Arun Kumar Gupta
Director General, Mines & Geology,
Haryana

Annexure-A

Guideline for Online Payments in e-Auction

Post registration, bidder shall proceed for bidding. Bidder shall proceed to select the e-auction he is interested in. On the respective Department's page in the e-auction portal, the Bidder would have following options to make payment for e-Service fee & EMD:

a. Debit Card
b. Net Banking
c. RTGS/NEFT
d. OTC

Operative Procedures for Bidder Payments

A) Debit Card

The procedure for paying through Debit Card will be as follows:

(i) Bidder selects Debit Card option in e-Procurement portal.
(ii) The e-Procurement portal displays the amount and the card charges to be paid by bidder. The portal also displays the total amount to be paid by the bidder.
(iii) Bidder clicks on "Continue" button
(iv) The e-Procurement portal takes the bidder to Debit Card payment gateway screen.
(v) Bidder enters card credentials and confirms payment
(vi) The gateway verifies the credentials and confirms with "successful" or "failure" message, which is confirmed back to e-Procurement portal.
(vii) The page is automatically routed back to e-Procurement portal
(viii) The status of the payment is displayed as "successful" in e-Procurement portal. The e-Procurement portal also generates a receipt for all successful transactions. The bidder can take a print out of the same,
(ix) The e-Procurement portal allows Bidder to process another payment attempt in case payments are not successful for previous attempt.

B) Net banking

The procedure for paying through Net banking will be as follows:

(i) Bidder selects Net banking option in e-Procurement portal.
(ii) The e-Procurement portal displays the amount to be paid by bidder.
(iii) Bidder clicks on "Continue" button
(iv) The e-Procurement portal takes the bidder to Net banking payment gateway screen displaying list of Banks
(v) Bidder chooses his / her Bank
(vi) The Net banking gateway redirects Bidder to the Net banking page of the selected Bank
(vii) Bidder enters his account credentials and confirms payment
(viii) The Bank verifies the credentials and confirms with "successful" or "failure" message to the Net banking gateway which is confirmed back to e-Procurement portal.
(ix) The page is automatically routed back to e-Procurement portal
(x) The status of the payment is displayed as "successful" in e-Procurement portal. The e-Procurement portal also generates a receipt for all successful transactions. The bidder can take a print out of the same.

(xi) The e-Procurement portal allows Bidder to process another payment attempt in case payments are not successful for previous attempt.

C) RTGS/ NEFT

The bidder shall have the option to make the EMD payment via RTGS/ NEFT. Using this module, bidder would be able to pay from their existing Bank account through RTGS/NEFT. This would offer a wide reach for more than 90,000 bank branches and would enable the bidder to make the payment from almost any bank branch across India.

i. Bidder shall log into the client e-procurement portal using user id and password as per existing process and selects the RTGS/NEFT payment option.

ii. Upon doing so, the e-procurement portal shall generate a pre-filled challan. The challan will have all the details that is required by the bidder to make RTGS-NEFT payment.

iii. Each challan shall therefore include the following details that will be pre-populated:

Beneficiary account no: (unique alphanumeric code for e-tendering) Beneficiary
IFSC Code:
Amount:
Beneficiary bank branch:
Beneficiary name:

iv. The Bidder shall be required to take a print of this challan and make the RTGS/NEFT on the basis of the details printed on the challan.

v. The bidder would remit the funds latest by **02.11.2015** in advance and make the payment via OTC to the beneficiary account number as mentioned in the challan.

vi. Post making the payment, the bidder would login to the e-Auction portal and go to the payment page. On clicking the RTGS / NEFT mode of payment, there would be a link for real time validation. On clicking the same, system would do auto validation of the payment made.

List of Net banking banks

1. Allahabad Bank
2. Axis Bank
3. Bank of Bahrain and Kuwait
4. Bank of Baroda
5. Bank of India
6. Bank of Maharashtra
7. Canara Bank
8. City Union Bank
9. Central Bank of India
10. Catholic Syrian Bank
11. Corporation Bank
12. Deutsche Bank
13. Development Credit Bank
14. Dhanlaxmi Bank
15. Federal Bank
16. HDFC Bank
17. ICICI Bank
18. IDBI Bank
19. Indian Bank
20. Indian Overseas Bank
21. Indusind Bank
22. ING Vysya Bank
23. J and K Bank
24. Karnataka Bank
25. Kotak Mahindra Bank

26. Karur Vysys Bank
27. Punjab National Bank
28. Oriental Bank of Commerce
29. South Indian Bank
30. Standard Chartered Bank
31. State Bank of Bikaner and Jaipur
32. State Bank of Hyderabad
33. State Bank of India
34. State Bank of Mysore
35. State Bank of Travencore
36. State Bank of Patiala
37. Tamilnad Mercantile Bank
38. Union Bank of India
39. United Bank of India
40. Vijaya Bank
41. Yes Bank

D) OTC

The bidder shall have the option to make the EMD payment via OTC. Using this module, bidder would be able to pay from their existing ICICI Bank account through CASH/DD/ICICI BANK CHEQUE.

i. Bidder shall log into the client e-procurement portal using user id and password as per existing process and selects the OTC payment option.
ii. Upon doing so, the e-procurement portal shall generate a pre-filled challan. The challan will have all the details that are required by the bidder to make OTC payment.
iii. Each challan shall therefore include the following details that will be pre-populated:

Beneficiary account no: (unique alphanumeric code for e-tendering) Beneficiary
IFSC Code:
Amount:
Beneficiary bank branch:
Beneficiary name:

iv. The Bidder shall be required to take a print of this challan and make the OTC on the basis of the details printed on the challan.
v. The bidder would remit the funds latest by **02.11.2015** in advance and make the payment via OTC to the beneficiary account number as mentioned in the challan.

For making payment through Demand Draft against the online Challan generated for OTC:

If the amount is more than 50,000 (Fifty Thousand) then the intended bidders are required to provide ICICI Bank cheque or draw demand draft in favour of below furnished details:-

Sr No.	Account Name/ title	Account no
1	GOH E- PROC EMD ESCROW A/C DSND - MINGEO	001305010048

Instructions for Intending Bidders to participate in Auction

How to Participate:

Part A

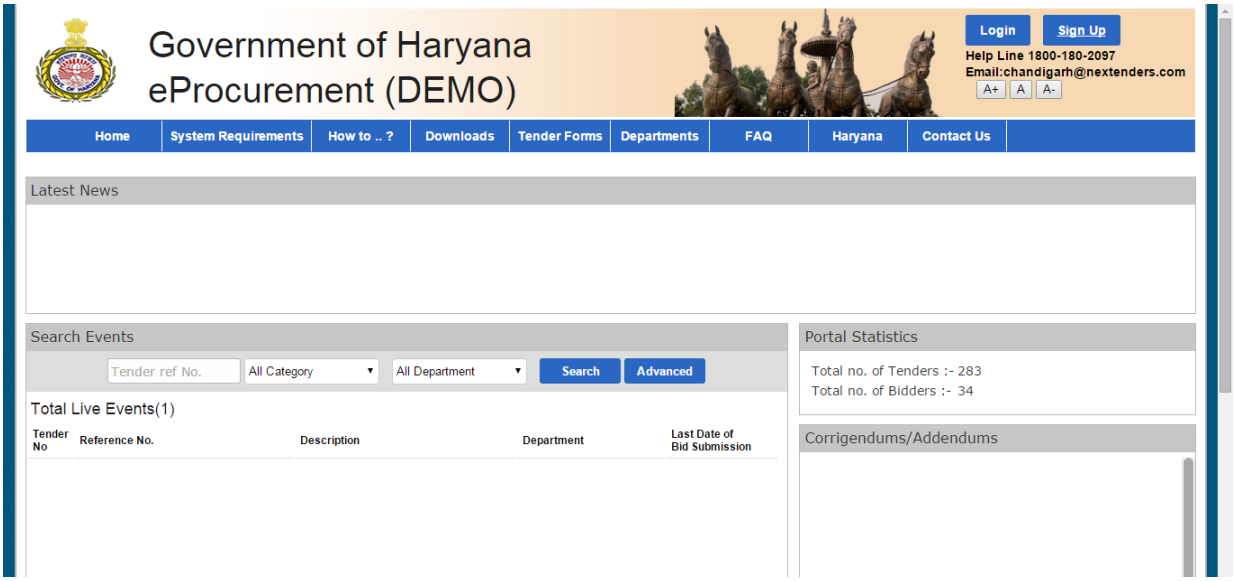
E-Auction Portal Signup & Bidding Process

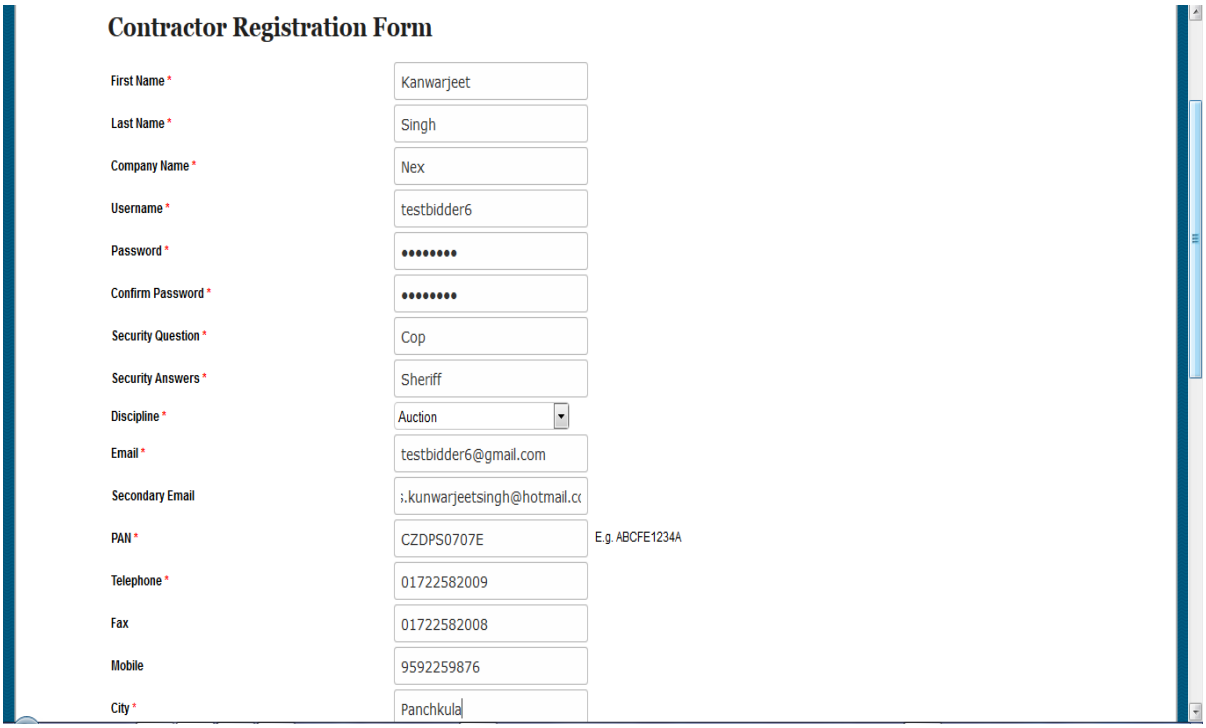
Web portal for e-Auction of Haryana Single e-Procurement portal at https://haryanaeprocurement.gov.in

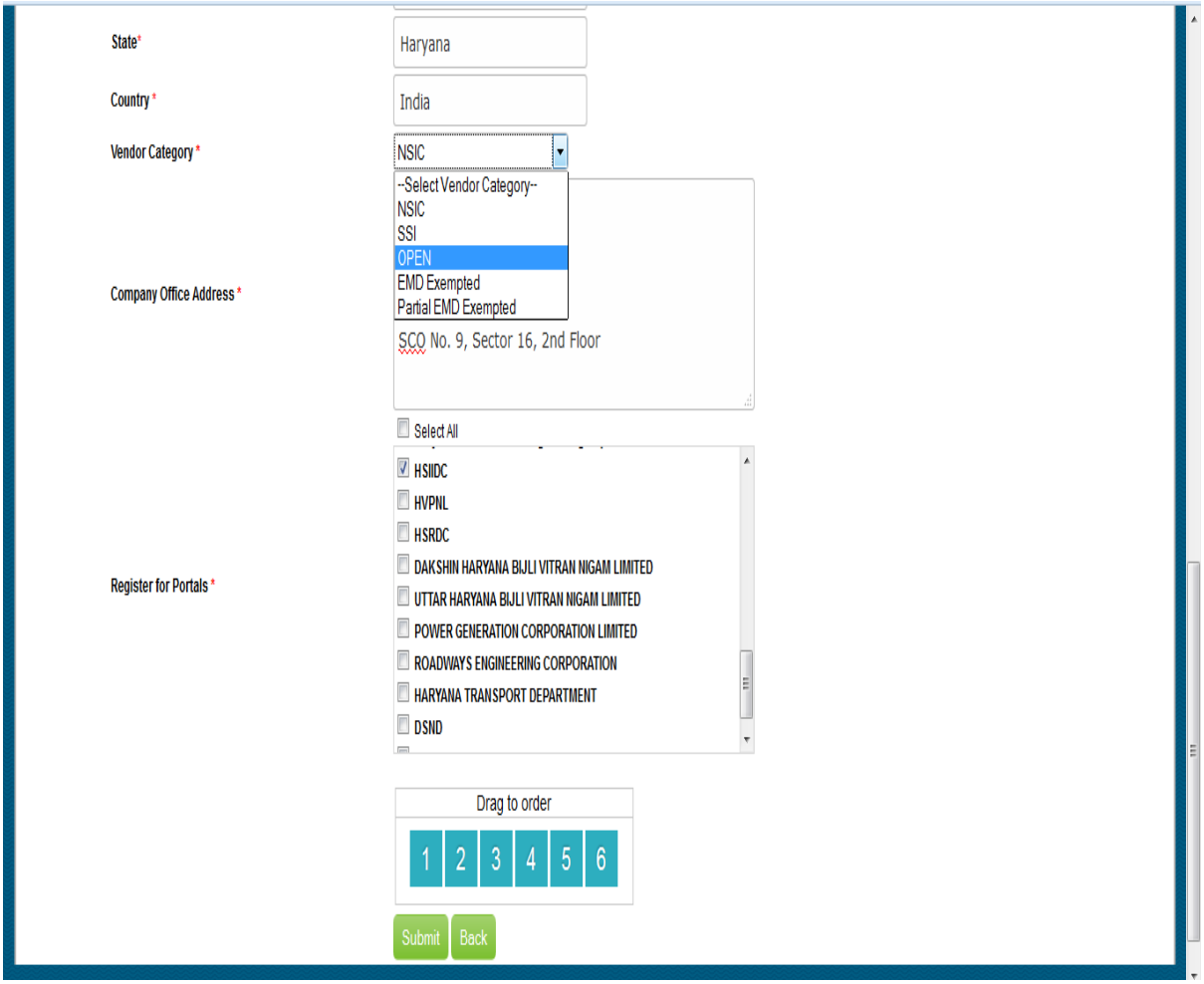
1. **Signup:** Bidder must required to create a login ID and password on the e-Procurement Portal by providing the basic information. Signup on the portal is free. Bidder has to create the login account for participating online into e- auction.

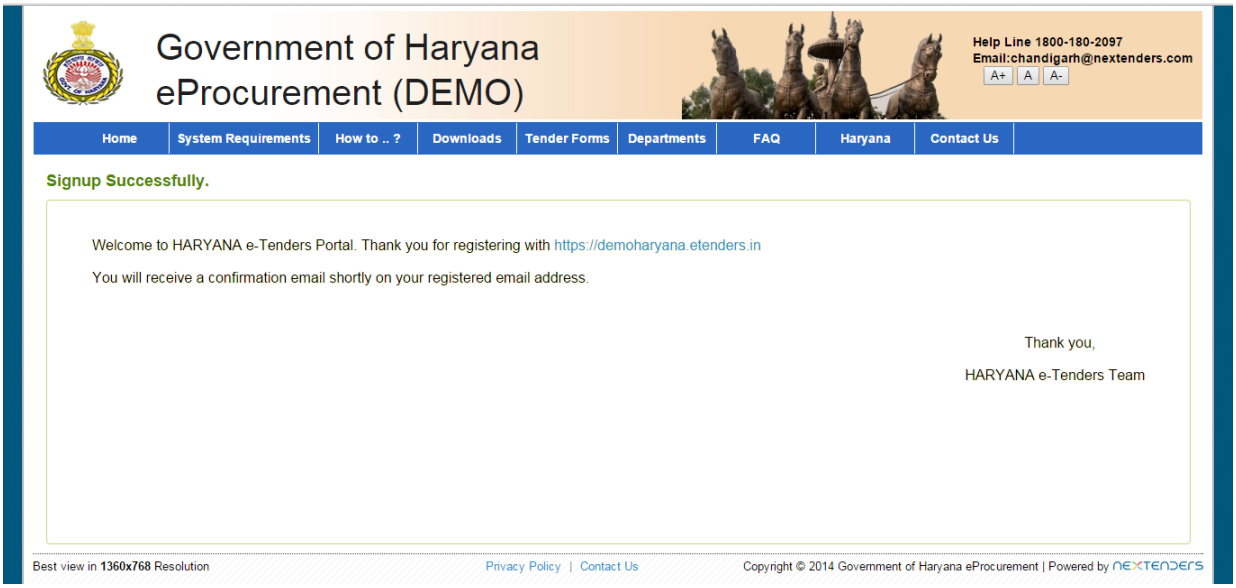
After filling up all the required details carefully, bidder has to click on submit button in order to complete the Sign-up process.

On completion of the Sign-up process, bidder will receive a registration activation mail on the registered email ID.




Contractor Registration Form
First Name *
Kanwarjeet
Last Name *
Singh
Company Name *
Nex
Username *
testbidder6
Password *
Confirm Password *
Security Question *
Cop
Security Answers *
Sheriff
Discipline *
Auction
Email *
testbidder6@gmail.com
Secondary Email
PAN *
CZDPS0707E
E.g. ABCFE1234A
Telephone *
01722582009
Fax
01722582008
Mobile
9592259876
City *
Panchkula

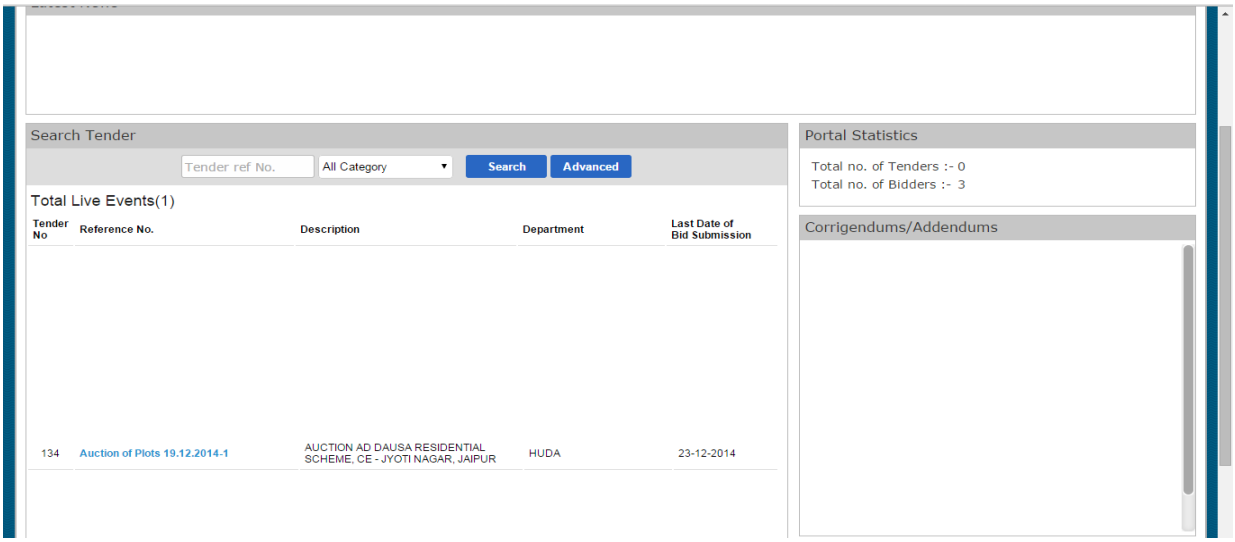

State*
Haryana
Country *
India
Vendor Category *
NSIC
--Select Vendor Category--
NSIC
SSI
OPEN
EMD Exempted
Partial EMD Exempted
Company Office Address *
SCO No. 9, Sector 16, 2nd Floor
Select All
Register for Portals *
HSIIDC
HVPNL
HSRDC
DAKSHIN HARYANA BIJLI VITRAN NIGAM LIMITED
UTTAR HARYANA BIJLI VITRAN NIGAM LIMITED
POWER GENERATION CORPORATION LIMITED
ROADWAYS ENGINEERING CORPORATION
HARYANA TRANSPORT DEPARTMENT
DSND
Drag to order
1
2
3
4
5
6
Submit
Back



Note: (a) In case of Individual the bidder must entre his/her name or mentione Individual against company Name.

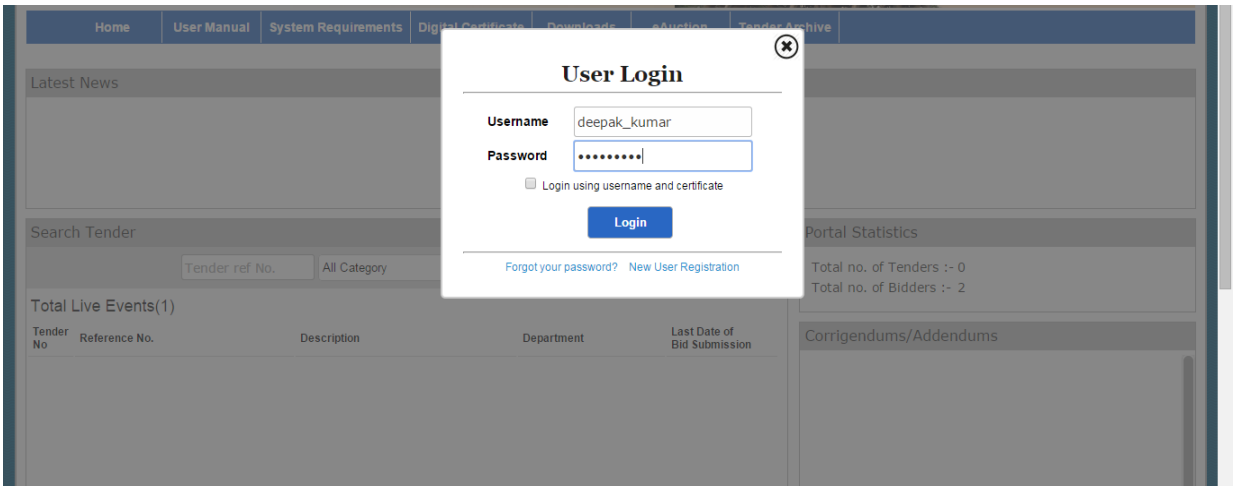
(b) For vendor Category select 'OPEN' from the drop-down.

2. **Search Auction**: Bidder can view the live auction events and download the related documents without login to the portal.



3. **Bidder Login:** Login to the eAuction portal for online participation on Auction event.Interested bidders have to enter their online registered login ID and password with the portal. If the bidder forgets his/her password, the same can be retrieved by clicking on the "forget your password" link at the website,

and thereby furnish their registered security question and answer to recover password at the e-Auction website. After receiving the correct security question and answer, bidder will receive auto-generated email from the system containing the password reset link.

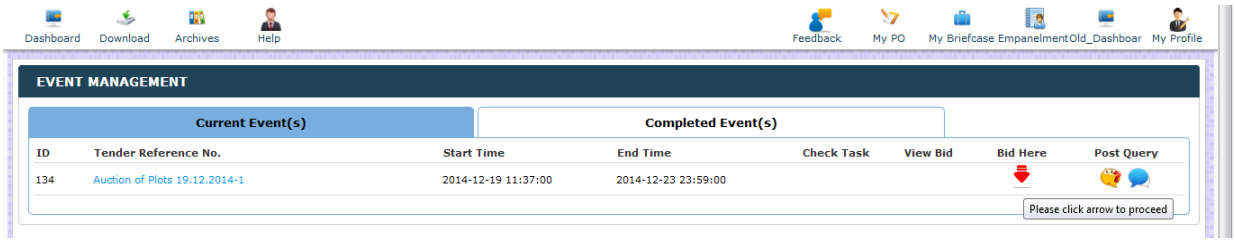


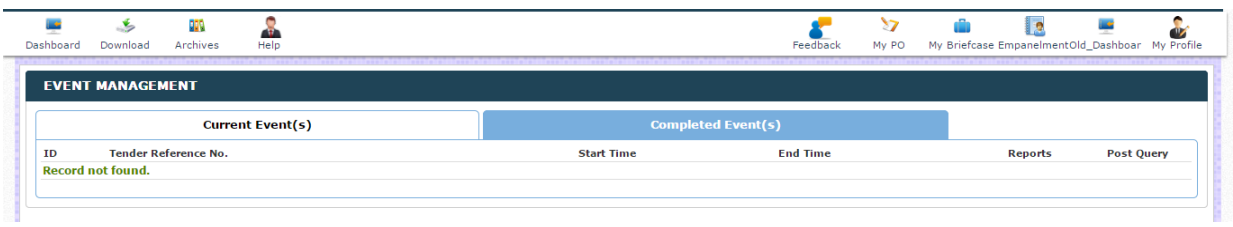
4. **Dashboard**: After successful login, bidder will be redirected to the dashboard. Dashboard is divided into 2 Sections.

a. **Current Events:** Current events will display the live auctions. Bidder can be able to participate in any of the live auction as per the scheduled date and time.

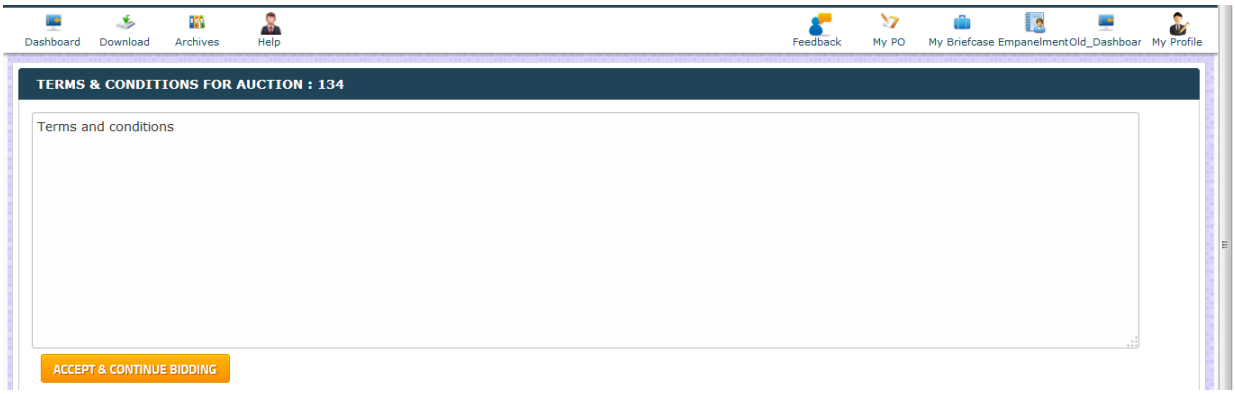
b. **Completed Events:** Once the auction will be concluded, it will shown in this section Current event tab. Bidder can check for the reports in this section after the auction will be concluded.

Bidder has to click on “Bid Here” link in order to bid on the auction he/she wish to participate.





5. **Acceptance of terms and conditions:** Bidder has to read carefully & accept the auction terms and conditions before bidding online on the e-Auction portal. And the bidder will be redirected to the e-Payment page.

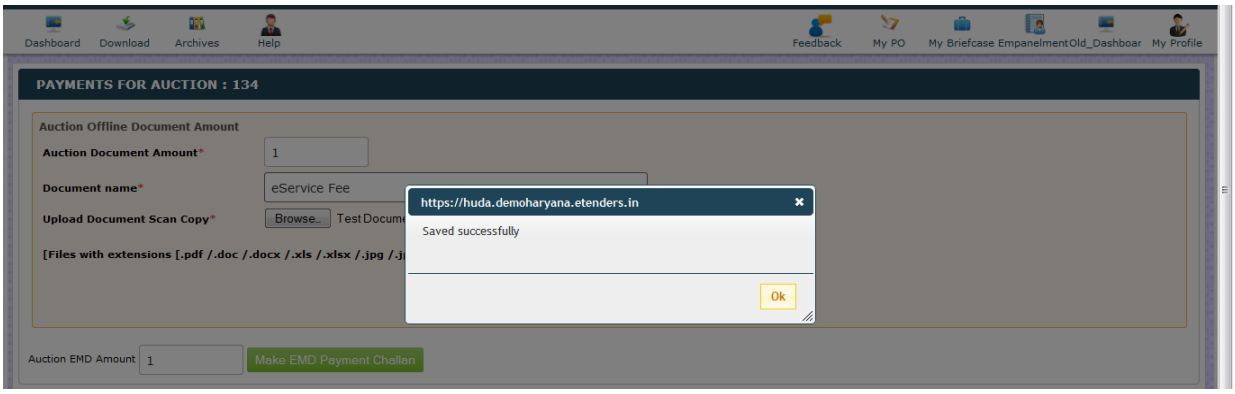


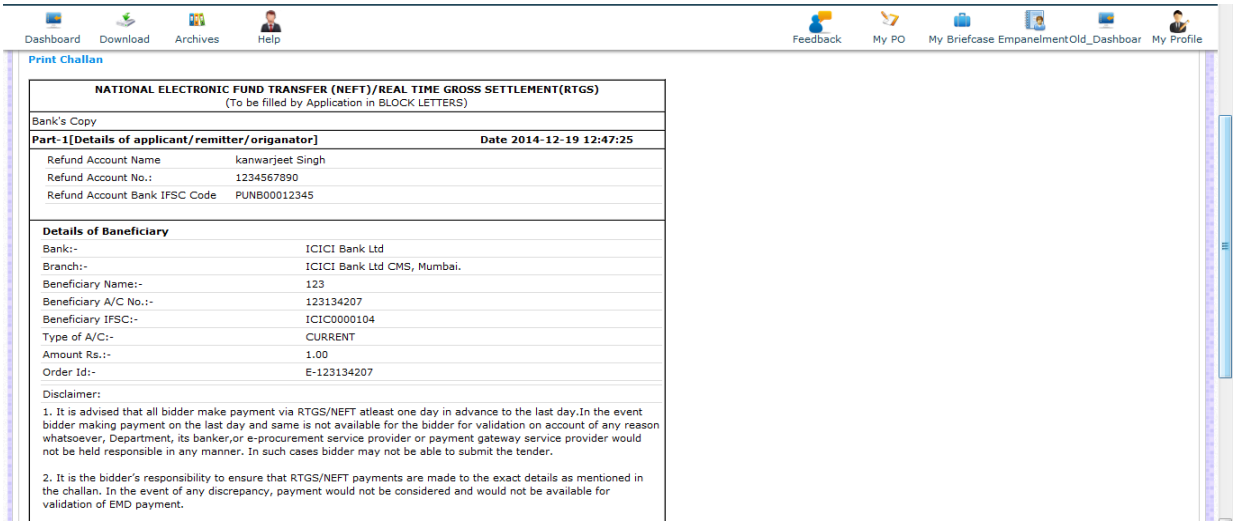
6. **Online payment for eService and EMD/ Registration fee:** Bidder is mandatorily required to pay eService fee of Rs. 1000/- using the online payment gateway through their Debit Card/Internet Banking.

For EMD/Registration fee payment bidders can have the option to make online payment of the amount through Debit Card/Internet Banking/RTGS/NEFT/OTC.

To make payment through RTGS/NEFT/OTC a pre-filled Challan shall be generated at the e-Auction portal for EMD/Registration fee payment. And remit the funds at least T+1 working day in advance to the closing date of e-Bidding.

So therefore all the intending bidders are require submitting of their EMD / Registration fee amount well in advance keeping in view the closing date & time of the e-Auction event / Online Registration.

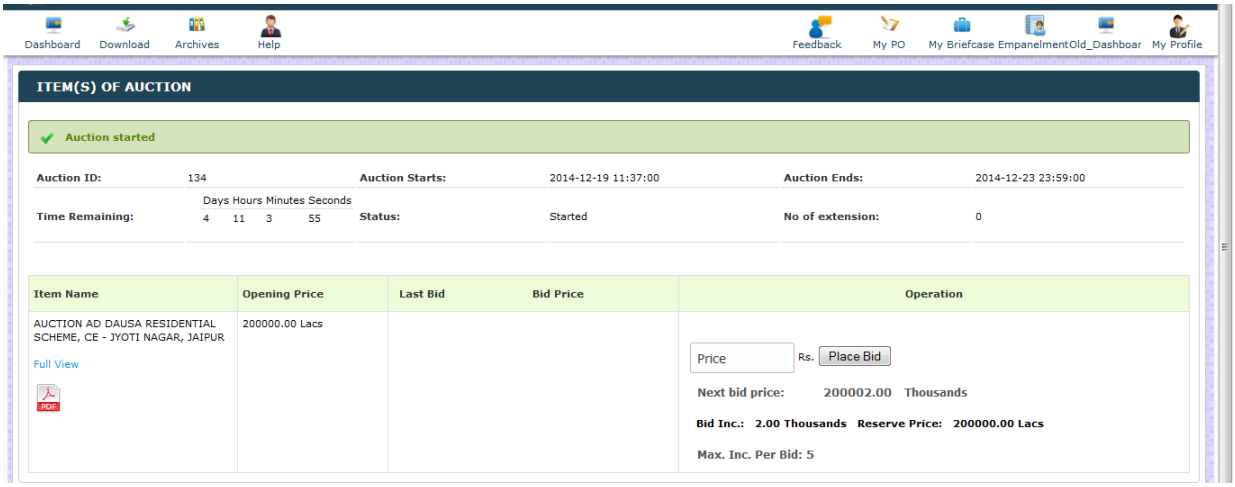




7. **Auction Bidding**: Once the e- challan generated by respective bidder is verified by the system, he/she can enter into the online auction hall by clicking on the button "Go for Auction Bid".



On the bidding page, bidder is required to bid on the auction. Bidder can check for the Auction Documents/attachments in the real time. Page can also have a view to see the time remaining in the auction bidding.



Part B

Closing

The auction remains live till the closing date and time as defined in the bid document. Bidders can see the closing date and time by accessing the auction document and even on the e-Auction portal. However, the time of e-Auction will automatically be extended if the bidder tries to bid in the last 5 minutes before the closing time of the auction for the next 5 minutes. However, the increment during extended period will be multiple of 100000 (one lakh) instead of 50,000 (fifty thousand).

E-Payment for Bid Security Amount by the H1 Bidder:

The highest bidder has to initiate online payment towards 'Initial Bid Security' under the stipulated time frame as referred in the event Document. The payment has to be made through RTGS/NEFT directly to the escrow account of the department.
Account Name/ title = GOH E- PROC EMD ESCROW Account A/C DSND - MINGEO
Account No. = 001305010048

IFSC = ICIC0000013
Note: - These account details are valid only for the deposit of "initial bid security" amount.

Note- *A training-cum-orientation program for the intending bidders will be held on* ***10th , 17th and 24th October 2015 at Panchkula office of M/s Nextenders (India) Pvt. Ltd. from 11.00 A.M. to 1.00 P.M.*** *Parties interested in attending the same are requested to contact/confirm participation to Sh. Kanwarjeet Singh Mobile 09592259876, Sh. Sat Dev Sharma 9872252144 Sh. Deepak Mobile – 9501176347 or the helpdesk on Toll Free No. 1800-180-2097 and 0172-2582008/2582009/2618292 or through E-mail: chandigarh@nextenders.com.*

Director General, Mines and Geology Department Haryana
30-Bays Building, Sector-17, Chandigarh.

Annexure-I

Registered

From

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

To

Sh. Kulvinder Singh S/o Sh. Trilochan Singh,
Prop. of M/s P. S. Buildtech, 34-Vishal Nagar,
Yamuna Nagar-135001.

Memo No. DMG/HY/Cont/Kanalsi Block/YNR B 5/2015/**10072**
Dated Chandigarh, the **30.11.2015**

Subject: **Acceptance of the highest bid/ in respect of Sand minor mineral mines of "Kanalsi Block/YNR B 5" having Tentative Area of 44.14 hectares in the district Yamuna Nagar, offered in e- auction held on 05- 06.11.2015 and issue of Letter of Intent (LoI) – regarding.**

You participated in the in the **e- auction** held on **05.11.2015 and 06.11.2015 on the State Government web portal https://haryanaeprocurement.gov.in after accepting the terms and conditions of the auction notice DMG/HY/e Auction/YNR/2015/8241 dated 30.09.2015 in order to obtain mining contracts of minor mineral mines/block of the district Yamuna Nagar.** You offered the highest bid of **Rs. 04,08,50,000/-** [Rs. Four Crore eight lakhs fifty thousand only] per annum, against the Reserve Price of **Rs. 04,08,00,000/-** per annum, for obtaining the Mining Contract of Minor Mineral block namely '**Kanalsi Block/YNR B 5'** for extraction of Sand having tentative area of **44.14** hectares. The details of the khasra numbers of the tentative area under above said Mining Block is attached as **Annexure 'A'**.

2. You are hereby informed that the State Government has accepted the highest bid of **Rs. 04,08,50,000/-** [Rs. Four Crore eight lakhs fifty thousand only] per annum offered by you in respect of the above said minor mineral block of **'Kanalsi Block/YNR B 5'** under the provisions of the Haryana Minor Mineral Concession, Stocking, Transportation of Minerals & Prevention of Illegal Mining Rules-2012 (State Rules). Accordingly, you have become the successful bidder in respect of **'Kanalsi Block/YNR B 5'** of the district Yamuna Nagar.

3. The State Government having accepted the aforementioned highest bid offered by you, the Department is pleased to issue this Letter of Intent (LoI) in your favour in respect of the Mining Block/area namely **'Kanalsi Block/YNR B 5'** subject to the following terms and conditions:

(i) The period of contract shall be **09 years** and the same shall commence with effect from the date of grant of environmental clearance by competent authority or on expiry of a period of 12 months from the date of this communication of acceptance of highest bid/ issuance of "**Letter of Intent**", whichever is earlier;

(ii) You may note that the detail of the area of the mining blocks is tentative and was notified "on as is where is basis" (**refer condition no. 4 of the notice**). In case of any inadvertent mistake, if any, the same would be rectified/ corrected before execution of the agreement (**refer condition no. 3 of the notice**).;

(iii) No request regarding reduction in bid amount on account of reduction in land/area of the Mining block, including due to change in description of khasra numbers/location etc. at any stage will be entertained on any ground including loss/reduction of area for mining on account of compliance of applicable laws/restrictions. Needless to state that this also includes the changes, if any, as per condition no. 3 of auction notice.

(iv) The amount of the highest successful bid i.e. **Rs. 04,08,50,000/-** [Rs. Four Crore eight lakhs fifty thousand only] per annum shall be the "Annual Contract Money" payable by you as the contractor in the manner prescribed in the contract agreement to be executed on form MC-1 appended to State Rules;

(v) The above said annual contract money shall be increased at the rate of 25% on completion of each block of three years. Accordingly, the year-wise amount of the annual contract money shall be as per details given below:

Sr. No.	Year of the Contract Period	Annual contract Money
1	First Year	Rs. 04,08,50,000/-
2	Second Year	Rs. 04,08,50,000/-
3	Third Year	Rs. 04,08,50,000/-
4	Fourth Year	Rs. 05,10,62,500/-
5	Fifth Year	Rs. 05,10,62,500/-
6	Sixth Year	Rs. 05,10,62,500/-
7	Seventh Year	Rs. 06,38,28,125/-
8	Eighth Year	Rs. 06,38,28,125/-
9	Ninth Year	Rs. 06,38,28,125/-

(vi) As per the terms and conditions of the grant, you are liable to deposit **Rs. 01,02,12,500/-** i.e. equal to 25% of the annual bid amount as "security deposit" out of which you have already deposited an amount of **Rs. 40,85,000/-** (Rs. Forty lakh eighty five thousand only) i.e. equal to 10% of the annual bid amount as 'initial bid security' after the conclusion of e-auction. The

balance amount of **Rs. 61,27,500/-** of the bid security i.e. 15% of the annual bid amount alongwith one month's advance contract money shall be deposited before commencement of the mining operations or before expiry of the period of 12 months, whichever is earlier;

(vii) You shall execute an Agreement Deed in Form MC-I appended to the Haryana Minor Mineral Concession, Stocking, Transportation of Mineral & Prevention of Illegal Mining Rules-2012 (the State Rules 2012) within a period of 90 days from the date of issuance of this communication/ grant of LoI;

(viii) It may be pointed out that as per existing applicable rates the contract agreement had to be executed on **Non Judicial Stamp papers worth Rs. 15,57,410/- (Rs. Fifteen lakh fifty seven thousand four hundred ten only).** However, you are aware that M/s Om Minerals, one of the LoI holders (who participated in the auctions held in December 2013) has filed a CWP No.7991 of 2014, before the Hon'ble Punjab & Haryana High Court. Further a few other similarly situated LoI holders have also filed separate CWP's before the Hon'ble Punjab and Haryana High Court challenging demand/ levy of Stamp Duty on execution of 'Contract Agreement'. The said matter is still pending for adjudication. Accordingly, the present auction was conducted subject to outcome of said cases. **Therefore, the charging of stamp duty for the execution of contract agreement shall be as per final outcome of the said CWP's.**

(ix) The Contract Agreement would also be required to be got Registered on payment of the applicable Registration fee;

(x) In case you fail to execute the Agreement Deed within the prescribed period of 90 days, this LoI shall be deemed to have been revoked and the amount of initial bid security deposited at the time of auction shall be forfeited. Further, the balance amount of 15% towards the bid security, amounting to **Rs. 61,27,500/-** being the 15% of the annual bid amount, shall be recovered as arrears of land revenue and, you, as the LoI holder/ defaulter, shall be debarred from participation in any future auctions for a period of 5 years;

(xi) You shall also furnish a solvent surety for a sum equal to the amount of the annual bid for execution of the Agreement. In case the surety offered by the contractor(s) during the subsistence of the contract is not found solvent, the contractor(s) shall offer another solvent surety and a supplementary deed shall be executed to this effect;

(xii) After execution of Agreement, either before commencement of the mining operation or before expiry of the period of 12 months from the date of issuance of this LoI, whichever is earlier, in case of failure to deposit the balance 15% amount towards security [as required under clause (v) above] the acceptance of bid/issuance of LoI/execution of agreement shall be deemed to have been revoked and 10% amount deposited towards as initial bid security at the time of auction shall stand forfeited. Further, un-paid 15% amount towards security shall be recovered as arrears of land revenue and you shall debarred from participation in any subsequent bids for a period of 5 years;

(xiii) You shall be liable to deposit the contract money in advance at monthly intervals as per provisions of Contract Agreement i.e. from the date of commencement of the contract Agreement;

(xiv) You shall also deposit/ pay an additional amount equal to 10% of the due contract money along with the monthly installments towards the **'Mines and Minerals Development, Restoration and Rehabilitation Fund'**.

(xv) You shall also be liable to pay advance income tax as per provisions of Section 206(c) of income tax act in addition to contract money, payable as per terms and conditions of contract agreement.

(xvi) On enhancement of the contract money with the expiry of every three years period, you shall deposit the balance amount of security so as to upscale the security amount equal to 25% of the revised annual contract money as applicable for one year with respect to the next block of three years. No interest, whatsoever, shall be payable on the security amount deposited under the prescribed security head of the government;

(xvii) You shall prepare a Mining Plan along with the Mine Closure Plan (Progressive & Final) as per chapter 10 of the State Rules for the "Mining Block" and shall not commence mining operations in any area except in accordance with such Mining Plan duly approved by an officer authorised by the Director, mines & Geology, in this behalf.

(xviii) Further, the actual mining will be allowed to be commenced only after prior Environmental Clearance is obtained by you as the LoI holder/mining contractor for the Mining Block from the Competent Authority as permitted by the competent Authority required under EIA notification dated 14/9/2006, as

amended from time to time by the MoE&F, GoI and guidelines/ circulars issued in this behalf;

(xix) The Mining contractor to whom mining rights have been granted through this contract would also be liable to pay the following to the landowners to undertake mining operations:

(a) Annual rent in respect of the land area blocked under the concession but not being operated, and

(b) Rent plus compensation in respect of the area used for actual mining operations.

(xx) The amount of annual rent and the compensation shall be settled mutually between the landowner and the mining contractor. In case of non-settlement of the rent and compensation, the same shall be decided by the District Collector concerned in accordance with the provisions contained in Chapter 9 of the "Haryana Minor Mineral Concession, Stocking, and Transportation of Minerals and Prevention of Illegal Mining Rules, 2012";

(xxi) The total mineral excavated and stacked by the concession holder within the area granted on mining contract shall not exceed two times of the average monthly production as per approved Mining Plan at any point of time;

(xxii) The Mining Contractor shall not stock any mineral outside the concession area granted on mining contract, without obtaining a valid license as per provisions contained in Chapter 14 of the State Rules;

(xxiii) The contractor shall not carry out any mining operations in any reserved/ protected forest or any area prohibited by any law in force in India, or prohibited by any authority without obtaining prior permission in writing from such authority or officer authorized in this behalf. In case of refusal of permission by such authority or officer authorized in this behalf, contractor(s) shall not be entitled to claim any relief in payment of contract money on this account;

(xxiv) Following are the general/ special conditions applicable for excavation of minor mineral(s) from river beds in order to ensure safety of river-beds, structures and the adjoining areas:

(a) No mining would be permissible in a river-bed up to a distance of five times of the span of a bridge structure on up-stream side and ten times

the span of such bridge structure on down-stream side, subject to a minimum of 250 meters on the up-stream side and 500 meters on the down-stream side;

(b) 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 authorised by him;

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

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

(e) No mining shall be permissible in an area up to a width of 500 meters from the active edges of embankments in case of river Yamuna, 250 meters in case of Tangri, Markanda and Ghaggar and 100 meters on either side of all other rivers/ rivulets. (This clause is applicable for mining outside river bed area);

(f) Any other condition(s), as may be required by the Irrigation Department of the state from time to time for river-bed mining in consultation with the Mines & Geology Department, may be made applicable to the mining operations in river-beds.

(xxv) A safety margin of two meters (2m) shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this level unless a specific permission is obtained from the competent authority in this behalf. Further, the depth of excavation of mineral shall not exceed nine meters (9m) at any point of time. (**This clause is applicable for mining outside river bed area**);

(xxvi) The contractor shall not undertake any mining operations in the area granted on mining contract without obtaining requisite permission from the competent authority as required for undertaking mining operations under relevant laws;

(xxvii) The contractor shall be under obligation to carry out mining in accordance with all other provisions as applicable under the Mines Act, 1952, Mines and Minerals (Development and Regulation) Act, 1957, Indian Explosives Act, 1884, Forest

Director General, Mines and Geology Department Haryana
30-Bays Building, Sector-17, Chandigarh.

(Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made thereunder, Wild Life (Protection) Act, 1972, Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981;

4. Accordingly, for the time being you are advised to submit the Draft Contract Agreement on Form MC-I (in Five copies) appended to the State Rules-2012, on **plain papers** along with other requisite documents including a solvent surety(s) for a sum equal to the amount of the annual bid for execution of the agreement, within a period of 90 days from the date of issue of this bid acceptance letter and the LoI. You should also furnish an affidavit to the effect that you will immediately deposit the requisite stamp duty as per out of the related Court cases as stated under para 3(viii) above.

Mining Officer,
for Director General Mines & Geology,
Haryana.

Endst.No. DMG/HY/Cont/Kanalsi Block/YNR B 5/2015/ Dated:

A copy is forwarded to the following for information and necessary action please:-

1. The Chairman, Haryana State Pollution Control Board, Panchkula.
2. The Deputy Commissioner, Yamuna Nagar.
3. The Mining Officer, Mines & Geology Department, Yamuna Nagar.

-sd-

Mining Officer,
for Director General Mines & Geology,
Haryana.

ANNEXURE R8/3

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MINING PLAN AND PROGRESSIVE MINE CLOSURE PLAN FOR BOULDER, GRAVAL & SAND MINE (MINOR MINERAL)

KANALSI BLOCK (YNR B-5)

Lease area : 44.14 ha, Lease Period- 9 years; Production –1.950 Million T/Annum)

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Department of Mines and Geology,
Haryana, Chandigarh
APPROVED
With Conditions
Vide letter No. DMG/HY/MP/Kanalsi block/YNR B-5/2015/3085-9
दिनांक / Dated 10.06.2016
State Mining Engineer

SUBMITTED TO MAY-2016

THE DIRECTOR GENERAL, MINES & GEOLOGY HARYANA

APPLICANT

Sh.Kulvinder Singh S/o Trilochan Singh Prop of M/s P.S.Buildtech, 34- Vishal Nagar,Yamunanagar Pin-135001

PREPARED BY

S.N. SHARMA
RQP/DDN/0135/2001-A
House No. 282, sector 11-D,
Faridabad (Haryana)

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2	Consent letter from applicant to prepare the Mining Plan
3	RQP Certificate



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2	Key plan
3	Surface Geological plan and section
4	Plan & Section showing the position of Mine Workings at the end of 1st year.
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9	Plan Showing the progressive mine closure plan
10	Conceptual Plan & Sections
11	Environmental Plan



INTRODUCTION

M/s P.S.Buildtech,34-Vishal Nagar, Yamuna Nagar was the highest bidder (4.085 Crores) for the Sand minor mineral mines of Kanalsi Block/YNR B-5 for which e-auction was held on 05-11-2015 and 06-11-2015. A Letter of Intent has been issued by the Director General, Mines & Geology Department, Haryana vide letter no DMG/Hy/Cont/ Kanalsi Block/YNR B-5 /2015/10072/dated 30-11-2015 for Mining of Sand (Minor Mineral) in revenue village Kanalsi , over an area of 44.14 hectares in District- Yamunanagar , Haryana for a period of 9 years

Name of Block	Nme of Village	Area of block in ha	Lease period
Kanalsi Block/YNR B-5	Kanalsi	44.14	9 years

The applicant is involved in the Construction & infrastructure development business for last many years. They can invest necessary funds for the scientific and systematic development of mines including land rejuvenation and progressive reclamation programme and other measures necessary to protect the quality of the environment and human health etc.

The objective of preparation of this Mining Plan and Progressive Mine Closure Plan is to fulfill the conditions stipulated by the Department of Mines & Geology, Haryana required under Haryana Minor Mineral Concession Rules, 2012. The conditions which are related to the mining plan are reproduced here below.

- The period of contract shall commence w.e.f the date of grant of environmental clearance by competent authority as required under EIA notification dated 14.09.2006 and as amended from time to time by the MOEF,G o I or on expiry of a period of 12 months from the date of acceptance of highest bid/issuance of "**Letter of Intent**",(L o I) whichever is earlier;



- Though due care had been taken in specifying the details of the areas of the mining blocks. However, in case of any inadvertent clerical mistake, the same shall be got rectified/corrected even after the auction but before execution of contract agreement;
- The Block areas are **Tentative** and are being notified on '**as is where is basis**' and all prospective bidders are expected and presumed to have surveyed the areas to make their own assessment for the potential of the areas for which bids are to be offered. The State government shall not be responsible for any kind of loss in land / area or any other loss to the bidders/contractors at any point of time (before or after grant of contract) on account of reduction of land/ area or otherwise. Further, the bidders are also expected to have gone through the terms and conditions of auction notice and also the applicable Acts and Rules for undertaking mining;
- No request regarding reduction in bid amount on account of reduction in land/area of the Mining Block, on any account including that of change in description of khasra numbers / location etc. at any stage will be entertained on any ground. This shall also include any loss/reduction of area for actual mining for want of compliance of applicable laws/restrictions for mining or part of the contracted area had already been operated in the past. Needless to state that this also includes the changes, if any, as per condition no. (3) and the prospective bidder shall give their bids taking account of all such eventualities;
- The contractor shall also deposit/pay an additional amount equal to 10% of the due contract money along with installments towards the **'Mines and Minerals Development, Restoration and Rehabilitation Fund'**;
- The mining contractor shall got prepare a "Mining Plan" along with the Mine Closure Plan (Progressive & Final) from the Recognized Qualified Person as per chapter 10 of the "Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012" for mining area granted on contract. The contractor shall not commence mining operations in any area except in accordance with such Mining Plan duly approved by an officer authorized by the Director, Mines & Geology, in this behalf. Further, the actual mining will be allowed to be commenced only after prior Environmental Clearance is obtained by the LoI holder/mining contractor for the Mining blocks area from Competent Authority as required under notification dated 14/9/2006 issued by the MoE&F, GoI or as amended from time to time.

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S.M.E.

- The total mineral excavated and stacked by the concession holder within the area granted on mining contract shall not exceed two times of the average monthly production as per approved Mining Plan at any point of time.
- The Mining contractor shall not stock any mineral outside the concession area granted on mining contract, without obtaining a valid mineral dealer license as per provisions contained in Chapter 14 of the "Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012".
- The contractor shall not carry out any mining operations in any reserved/protected forest or any area prohibited by any law in force in India, or prohibited by any authority without obtaining prior permission in writing from such authority or officer authorized in this behalf. In case of refusal of permission by such authority or officer authorized in this behalf, contractor(s) shall not be entitled to claim any relief in payment of contract money on this account.
- That no mining operation shall be allowed in the urbansizable zone of area notified by Town and Country Planning Department. Further, in case of the agriculture zone notified by Town and Country Planning Department mining shall be permissible only after obtaining prior permission from the competent authority.
- Following special conditions shall be applicable for excavation of minor mineral(s) from river beds in order to ensure safety of river-beds, structures and the adjoining areas:

(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 meter 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;

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(v) In case of areas permitted for excavation outside river/rivulets i.e. areas adjoining to rivers/rivulets, no mining shall be permissible in an area up to a width of 500 meters from the active edges of embankments in case of river Yamuna, 250 metres in case of Tangri, Yamuna and Ghaggar and 100 meters on either side of all other rivers/ rivulets;

(vi) Any other condition(s), as may be required by the Irrigation Department of the state from time to time for river-bed mining in consultation with the Mines & Geology Department, may be made applicable to the mining operations in river-beds.

- That no mining operation shall be allowed in the urbansizable zone of area notified by Town and Country Planning Department. Further, in case of the agriculture zone notified by Town and Country Planning Department mining shall be permissible only after obtaining prior permission from the competent authority.
- A safety margin of two meters (2m) shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this level unless a specific permission is obtained from the competent authority in this behalf.
- The contractor shall not undertake any mining operations in the area granted on mining contract without obtaining requisite permission from the competent authority as required for undertaking mining operations under relevant laws.
- The contractor shall be under obligation to carryout mining in accordance with all other provisions applicable as per Mines Act, 1952, Mines and Minerals (Development and Regulation) Act, 1957, Indian Explosive Act, 1884, Forest (Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made there under Wild Life (Protection) Act, 1972, Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.

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1.0. **GENERAL:**

a) **Name and address of the Lessee/applicant**:

Sh. Kulvinder Singh S/o Sh. Trilochan Singh,Prop. of

M/s P.S.Buildtech, 34-Vishal Nagar, Yamuna Nagar

b) **Status of the Applicant**;-The applicant is a Proprietary Co.

c) **Name, Address and registration number of the RQP preparing the mining plan**

The applicant has assigned the work of preparation of mining plan to S.N.Sharma

(Consent letter enclosed as Annexure -2 and copy of RQP certificate as Annexure-3)

Regd. No RQP/DDN/0135/2001/A

House No. 282 Sector 11-D Faridabad (Haryana)

Mobile no.09560848579

Email- sn_sharma1959@rediffmail.com



2.0 Details of the Mining Area

a) Details of the land covered in the 'Area' notified by Hr. Govt. on 30-9-15 are as under:-

Mining Contract of Kanalsi Block/YNR B-5 Sand unit (Minor Mineral) over an area of 44.14 ha is located in District – Yamunanagar , containing one mining block namely(i) Kanalsi Block/YNR B-5 River bed block ,the area of the mines falls in the River Bed.

Table -1: Village & Khasra wise details of proposed mining area

Name of Block	Nme of Village	Details of Khasra No/Kila Nos	Area of block in ha
Kanalsi/YNR B-5	Kanalsi	**41//16,** 24, 25 **42//16 to 19,** 20, 21,22 to25 **43//16,** 17 to 24, 25 **44//1,** 10, 11, 12, 19, 20, 21, 22 **45//1,** 2, 3 to 8, 9, 10 to11, 12, 13 to 18, 19, 20 to 21, 22, 23 to 24,25/1, 25/2 **46//1,** 2, 3, 4, 5, 6, 7, 8, 9 to 17,18, 19, 20, 21, 24, 25 **47//3,**4,5,6,7/1,7/2,8,9 min,11min,12 to 25 **48//16 min,** 24 min, 25 **52//4 min,** 5, 6, 7, 15 **53//1,** 2, 3,4/1, 4/2, 5, 7, 8 to 13,19	44.14

b) Name of Mineral

Sand (Minor Mineral)

c) Description report of the mining contract/ quarry license with plan (copy of sanction order/ lease deed/ license)

Based on the details published vide Haryana Government Gazette notification dated 30-09-2015 issued by DMG, Haryana and the Khasra map submitted by the applicant, survey of the area was carried out in the proposed area. The area falls in Kanalsi Block/YNR B-5 in Kanalsi revenue village. Workings will be restricted within the mining area/ khasra's allotted. Copy of Letter of Intent issued is enclosed as **Annexure – 1.**

d) Key plan of the area

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Key plan is enclosed as **Plate – 02**. Showing mining area and 5km surrounding areas.

e) **Location map of the mining area showing the details of the approach roads up to the mine (Location plan Shown on Plate no.1)**

Mining area is shown on the Key Plan. It forms a part of G. T. Sheet No's –53F/8

Topo sheet is enclosed as **Plate – 02.**

Co-ordinates of the lease area as under

Latitudes N 30° 08' 09'' to N 30° 08' 31''

Longitudes E 77° 24' 00'' to E 77° 24' 46''

Co-ordinates of important boundary pillars is as under

Pillar no	latitudes	longitudes
A	N 30° 08' 31''	E77° 24' 15''
B	N 30° 08' 31''	E77° 24' 42''
C	N 30° 08' 27''	E77° 24' 42.5"
D	N 30° 08' 24''	E77° 24' 46"
E	N 30° 08' 17''	E77° 24' 26"
F	N 30° 08' 17''	E77° 24' 26"
G	N 30° 08' 20''	E77° 24' 19"
H	N 30° 08' 13''	E77° 24' 15"
I	N 30° 08' 13''	E77° 24' 12.5"
J	N 30° 08' 11''	E77° 24' 12.5"
K	N 30° 08' 11''	E77° 24' 10"

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L	N 30° 08' 09''	E77° 24' 10"
M	N 30° 08' 09''	E77° 24' 7.5"
N	N 30° 08' 14''	E77° 24' 00"
O	N 30° 08' 16''	E77° 24' 00"
P	N 30° 08' 25''	E77° 24' 10"
Q	N 30° 08' 27''	E77° 24' 10"
R	N 30° 08' 27''	E77° 24' 12.5"
S	N 30° 08' 29''	E77° 24' 12.5"
T	N 30° 08' 29''	E77° 24' 15"

The area is approachable from various nearest towns as detailed below

Village Kanalsi is very well connected with Metalled road. Yamunanagar Railway Terminus is about 10 km from the mining area.

Delhi ISBT is about 240 Km and Yamunanagar is about 10 km SW from the mining area. State Headquarters Chandigarh is about 100 km in the North West of the mining area.

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f) Infrastructure facilities:

Nearest railway station	**Yamunanagar** Railway station
Police station	**Jagadhari,**
Post office	**All the nearby villages**
Medical facilities	**Yamunanagar**
Electricity	Electrical supply is available in all nearby villages.
Education facilities	Most of the nearby villages have secondary schools and for higher education institutes are available at **Chhachroli Jagadhri, Yamunanagar** and, Kurukshetra,
Mode of transportation of mineral	Sand, a minor mineral will be transported by trucks/other vehicles. Loaded trucks/vehicles will pass through Kuccha path/road made for plying of vehicles. Temporary road will provide access to the river bed and the movement of vehicles. As the mining area is spread over an area of 44.14 ha in River bed . Block has its outlet meeting the tar road on the nearby villages and from where the mineral is sent to various destinations. Similarly, mineral will be transported on the other side through approach roads which finally merge with tar roads for final destinations.
River/ canal/ port	Yamuna.

3) DETAILS OF EXISTING MINING PITS, THEIR DIMENSION AND LOCATIONS

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Sand is the critical component in construction activities. Presently there is no pit available in the proposed area. . Earlier Sand from this area and other nearby areas used to be transported from the road network ultimately to various destinations in NCR. Surface & geological plan & sections enclosed as **Plate – 03**

Present Land use Pattern :- (in hectares)

Table: Present Land use Pattern

Sl. No.	Type of Land Use	Total Value (in Hectares)
1	Quarry Area	0.0
2	Infrastructure (road)	0.00
3	River bed	44.14
4	Plantation	0.00
5	Habitation	0.00
6	Soil dump	0.00
7	OB dump	0.00
	Total	44.14
	Restricted area	**11.60**
	Available area for mining	**32.54**
	Total	**44.14**



3.1 Physiography, Drainage and Climate

Yamuna Nagar district of Haryana located in north-eastern part of Haryana State and lies between 29° 55': 30° 31' north latitudes and 77° 00': 77° 35' east longitudes. The district is bounded, in north by Himachal Pradesh, in the east by Uttar Pradesh, in west by Ambala district, in south by Karnal and Kurukshetra districts. Total geographical area of the district is 1768 sq.km and comprises 4% of total area of State. Yamuna Nagar district is divided into one sub-division and six-development blocks viz. Bilaspur, Chachrauli, Jagadhri, Mustafa bad, Radaur and Sadhaura. Yamuna Nagar is thickly populated district and density of population is 589 persons per Km2, which is higher than State average of 478 persons per Km2. The population of the district is 12, 14,162 as per 2011 census.

The district is mainly drained by the rivers Yamuna and its tributaries. Markanda is tributary of river Ghaggar and drains major part of the district. The high land between Markanda River and small rivulets of River Yamuna acts as basin boundary between west flowing rivers of Indus system and east flowing rivers of Ganga basin. River Yamuna drains eastern part of the district and acts as boundary between Haryana and Uttar Pradesh State.

Yamuna Nagar district is bestowed with rich water resources, both surface as well as ground water resources. The ground water is major sources of irrigation in the district. Nearly 40% of area is irrigated by canal water. Distributaries in the district are 21.45 Km long. Two major canals passing through the district are Western Yamuna Canal and augmentation canal. Length of unlined WJC is 63.64km whereas augmentation canal is 22.54 km long. Net irrigated area is 1130Km2 whereas, gross irrigated area 1860Km2. Percentage of gross area irrigated to total cropped area is 91.6%. Systematic hydro geological surveys in the district was carried out by Geological Survey of India during 1956-61.Re-Appraisal Hydro Geological Surveys in the district were carried out by Central Ground Water Board, during 1975-77,1981- 82 and 1988-89.detailed hydro geological and water balance studies were carried out under Ghaggar and

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Upper Yamuna Projects. Ground water exploration has been carried out in various phases and so far 5 exploratory wells, 15 slim holes and 15 piezometers have been constructed in the district.

Phygiography

The district is divided into five Physiographic units

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

a) **Siwaliks hills** - Siwalik hill ranges occupy the northern fringe of Yamuna Nagar 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.

b) **Dissected Rolling Plains (Kandi Belt)** - A dissected rolling plain in the northern parts of district is a transitional tract between Siwaliks hills and alluvial plains. It is about 25 km wide and elevation varies between 250 and 375m AMSL.

c) **Interfluvial plains** - This tract is part of higher ground between Ghaggar and Chautang and includes high mounds and valleys. In general, the slope is from northeast to southwest.

d) **Active and recent flood plains** - This plain is narrow tract along river Yamuna in the district.

e) **Relict wedge plain** - This is almost in alignment to the surface water divide between the westward flowing Ghaggar and eastward flowing Yamuna River.

Hydrogeology

The ground water exploration in the district reveals that clay group of formations dominates over the sand group in the district area. Ground water in the district occurs in the alluvium under water

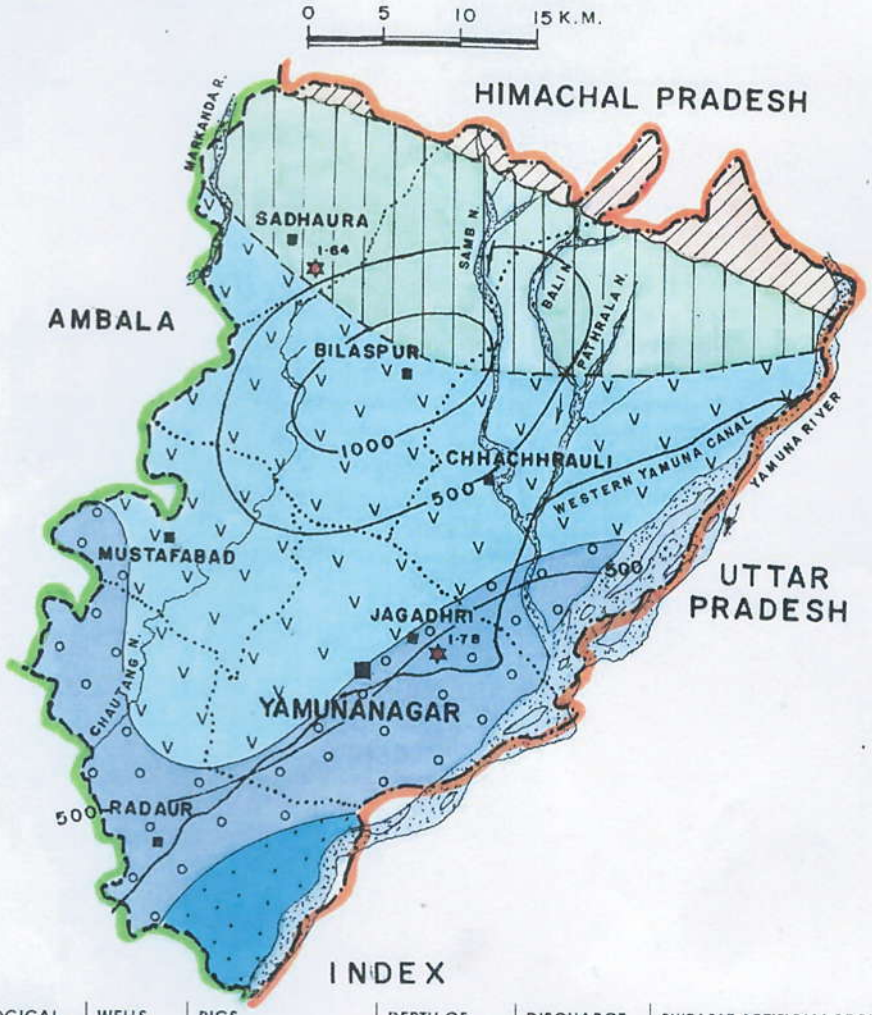
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table and semi-confined to confined conditions. These aquifers consist of sand, silt, gravels and kankar associated with clay and form highly potential aquifers. In alluvium, the permeable granular zones comprise fine to medium grained sand and occasionally coarse sand and gravel. Their lateral and as well as vertical extent is extensive. In Kandi belt, which has not been explored fully boulders cobbles and pebbles, constitutes the major aquifer horizon. Siwalik Hills occupy marginal areas in the northeastern parts of the district constitute a low potential zone.



HYDROGEOLOGY

YAMUNANAGAR DISTRICT, HARYANA



INDEX

GEOLOGICAL FORMATIONS	WELLS FEASIBLE	RIGS SUITABLE	DEPTH OF WELL (M)	DISCHARGE (LPM)	SUITABLE ARTIFICIAL RECHARGE STRUCTURE
SOFT ROCK AQUIFER	TUBE WELLS	REVERSE/ DIRECT ROTARY	30-270	>600	DITCH AND FURROWS RECHARGE TRENCH WITH INJECTION WELL
SOFT ROCK AQUIFER	TUBE WELLS	REVERSE/ DIRECT ROTARY	20-270	480-600	DITCH AND FURROWS RECHARGE TRENCH WITH INJECTION WELL
SOFT ROCK AQUIFER	TUBE WELLS	REVERSE/ DIRECT ROTARY	20-270	360-480	DITCH AND FURROWS RECHARGE TRENCH WITH INJECTION WELL
BOULDARY AQUIFER	DUG WELLS/ TUBE WELLS	MANUAL/ PERCUSSION/ DTH WITH ODEX	20-120	200-480	SPREADING TECHNIQUES, CONTOUR BUNDING, PERCOLATION TANKS

ELECTRICAL CONDUCTIVITY (MICRO-MHOS/CM AT 25°C) ~ 500

IRON > PERMISSIBLE LIMIT (1.0 PPM)

HILLY AREA

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P. K. Sharma
S.M.E.
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In Kandi areas, the shallow aquifers are isolated lenses embedded in clay beds whereas aquifers in alluvial areas occur on regional scale and have pinching and swelling disposition and are quite extensive in nature. These aquifers generally consists sands (fine to coarse grained) and gravels and are often intercepted by clay and kankar. These aquifers are under unconfined.

Under ground water exploration programme nine exploratory wells were drilled in the district. On average 3-12 of granular zones were deciphered in the depth range down to 450 m bgl. Exploratory wells drilled in depth range of 130 and 180 m bgl yield discharge in the range of 2700 to 4900 lpm for drawdown of 6.0 m to 12.0 m and Transmissivity of aquifers range between 1500 to 4900 m_2/day. The yield potentials of aquifer below 200.0m bgl are yet to be evaluated.

Depth to water level

The depth to water level during pre-monsoon period in the district ranges between 2.07m bgl at Choli and 15.32m bgl at Khizrabad. However, in major part of district water level ranges between 5.0m bgl and 10.0m bgl. The Depth to water level during pre-monsoon period in the district ranges between 1.57m bgl at Choli and 18.41m bgl at Bahadurpur. However, in major part of district water level ranges between 5.0m bgl and 15.0m bgl. Appraisal of water level data of May and November reveals that some parts of the district have experienced water level decline whereas in other parts rise in water level has been recorded. Maximum decline of – 0.43m has been observed in area around Khizrabad and maximum rise of 0.39m was recorded at Sabri village. During last ten years, majority of observation points in the district have shown declining trends ranging from 0.00013 m/yr to 0.389m/yr, however, area as not recorded any significant rise during last ten years.

The discharge of the shallow tubewells tapping unconfined aquifers is tube wells ranges from 100 lpm to 500 lpm with moderate Drawdown values. Near Manakpur, a phreatic aquifer extending down to 88.0m bgl has Transmissivity value of 2500m_2/day, lateral hydraulic conductivity of 31m /day, and specific yield of

CLIMATE

The climate of Yamunanagar district can be classified as subtropical monsoon, mild dry winter, hot summer and sub-humid which is mainly dry with very hot summer and cold winter except during monsoon season when moist air of oceanic origin penetrate into the district. The hot

P. K. Sharma
S.M.E.

weather season starts from mid March to last week of the June followed by the south west monsoon which lasts up to September. The transition period from September to November forms the post monsoon season. The winter season starts late in November and remains up to first week of March.

Rainfall: The normal annual rainfall of the district is 1076 mm, and is unevenly distributed over the area. The average rainy days are 44. The south west monsoon sets in from last week of June and withdraws in the end of September, contributing about 81% of normal annual rainfall. July and August are the wettest months. Rest19% rainfall is received during non-monsoon period in the wake of western disturbances and thunderstorms. Generally rainfall in the district increases from southwest to northeast .The mean maximum temperature is 40.8₀ C(May &June)and mean minimum is 6.8₀ C (January) of the district.

Normal Annual Rainfall: 1076 mm

Normal monsoon Rainfall: 879 mm

Temperature

Mean Maximum: 40.8°C(May & June)

Mean Minimum : 6.8 °C(January)

Normal Rainy days : 44

. (*Source: District Groundwater Brochure CGWB*).



3.2 Geology of the Area

3.2.1 Regional Geology

The north-eastern and central part of Haryana is predominantly characterized by sedimentary litho logy in the Sub-Himalayan zone comprising Subathus, Dagshais, Kasaulis and Siwaliks. A general Regional stratigraphic sequence in the area is given in Table.

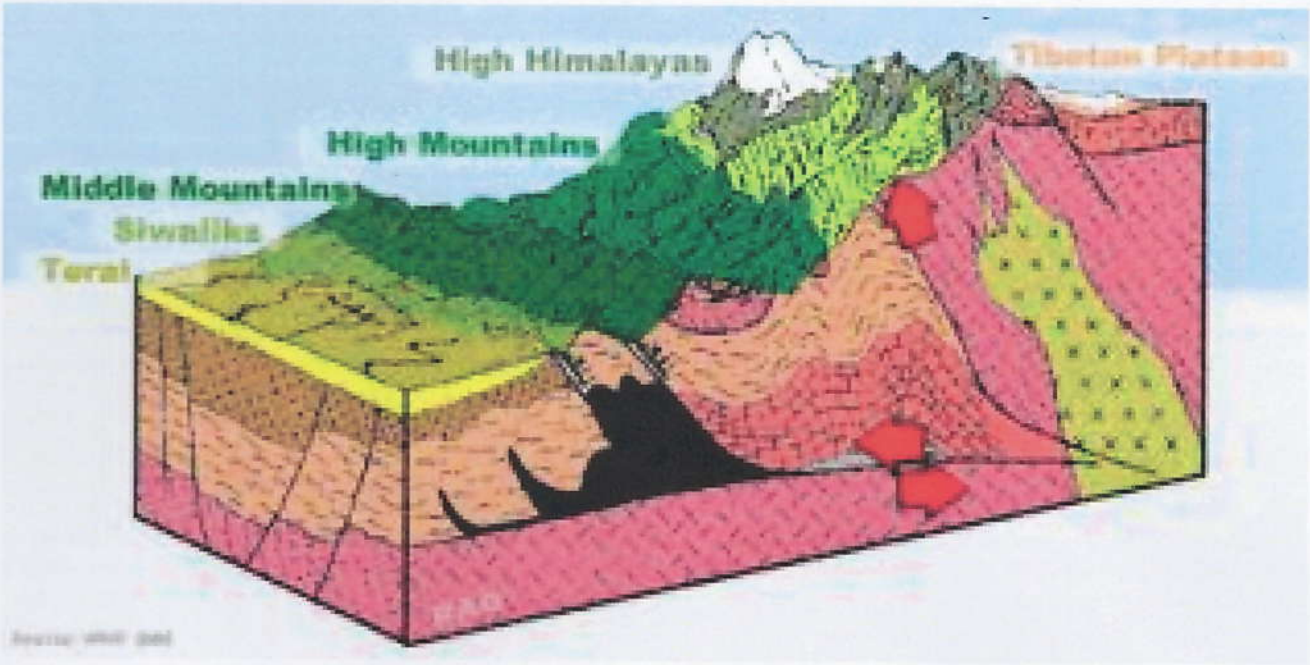
Table: Regional stratigraphic sequence

Age	Super group	group	Formation	litho logy
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	SIWALIK	Upper Siwalik	Boulder Conglomerates formation	Conglomerate, sandstone, silt, clay
Upper Pliocene			Pinjore Formation	Coarse grit,red sand stone and clay, conglomerate
			Tatrot Formation	Friable Sandstone and variegated clay
		Middle Siwalik	Dhokpathan Formation	Brown sandstone and orange clay
Middle Miocene			Nagri Formation	Hard grey sand stone, mudstoneand minor shale
		Lower Siwalik	Nahan Formation	Coarse grity ,clay and red sandstone often calcareous, brownish shale with lignite lenticles, greenish white Quartzite
Lower Miocene		Sirmur	Kausauli Formation	Grey and green stone,green shale and grey clay
			Dagsai Formation	Purple and green sand stone, deep red gritty,clay,white andstone with ferruginous concretions
Upper Eocene			Subathu formation	Sandstone with gritu clay. Impure fossiliferous limestone calcareous slate,greenish shale and dark brown quartzite
Pre-proterozoic			Tunda pathar	Thickly bedded ,sstromatolite limestone with carboniferous shale and quartzite

A schematic diagramme of Himalayas showing higher, middle and lower Himalayas including Shiwaliks is shown here below

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P. K. Sharma
S.M.E.
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3.2.2 LOCAL GEOLOGY

The litho units encountered in the river bed and surrounding areas belongs to the Shivalik super groups. The sediments are river borne and has deposited in the riverbed and the flood plains. The different formations of the area belong to Shivalik Super group and are a mixture of boulders, pebbles, sand, silt and clay. The following sequences have been observed in the area.

Soil/Alluvium

Sand

Gravel

Boulder

There is no clear demarcation between the litho units. They have been deposit in a mixed form. The Litho- units exposed in the flood plains belong to Shivalik Super- Group. The mineral Boulders, Gravel and sand have formed by weathering of rocks and then deposition on the flood plains of the rivers originated from the Shivaliks. These have been washed by rainwater during rainy season and deposited in flood plains and river beds in the form of boulders, gravels and sand of different sizes and shapes. These minerals are sorted by screening. The max depth of the minerals is not known.

Department of Mines & Geology, Haryana, Chandigarh
P. K. Sharma
S.M.E.
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Soil/ alluvium varying in thickness from 0.5 -1.50m (Av 1.0m) constitute the top horizons in the area suitable for agriculture. Yamuna River meanders through the area exposing the alluvium and soil at the banks. Boulder, gravel & sand is found in the river bed. Boulder, gravel &sand is deposited up to great depths. This bed is presently dry and water flows only during the rainy season The Sand exposed in the River bed of Yamuna and surrounding areas is the product of the deposition of the sediments brought and deposited in the flood plains of River Yamuna. These sediments are of recent geological formation. The litho-units exposed within the river and surrounding areas have formed as water borne sediments brought by flood water during rainy season every year and deposited in riverbed and flood plains. Geological map and section are enclosed as **Plate – 03)**

3.2.3 DESCRIPTION OF FORMATION

The description of Boulder, gravel & sand found in the lease area as minor mineral has been as under:

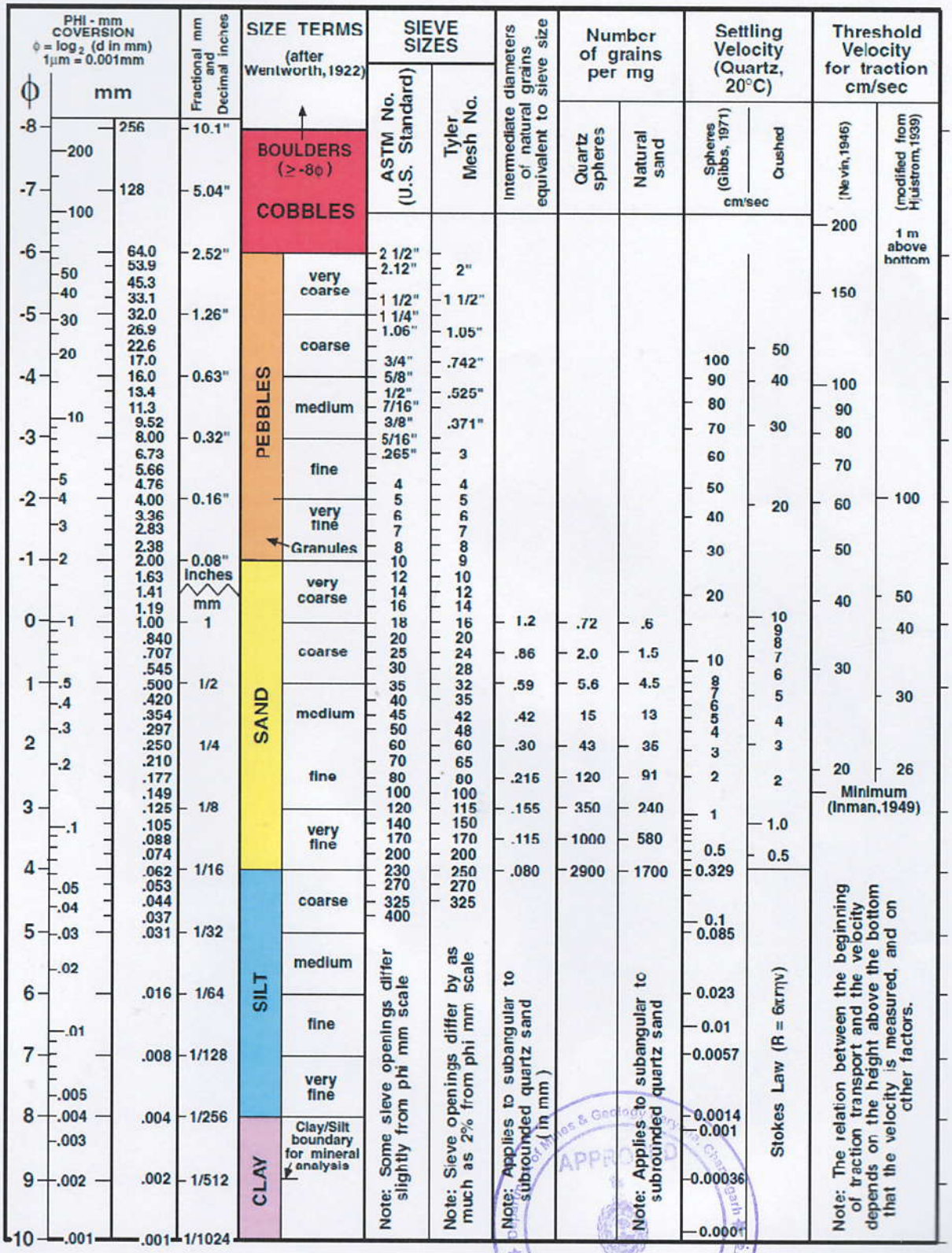
3.2.4 (Boulder, gravel & sand)

Sediments of various sizes and in mixed form are predominantly deposited in the flood plains of River Yamuna and its tributaries. There is no perfect classification between boulders, cobbles, pebbles and sand. They are deposited in a mixed state. The classification is done by grab mining and the sediments are passed through different sieves in the screening plants.

Sediments of various sizes and in mixed form are predominantly deposited in the flood plains/river bed and there is no perfect classification between sediments. These may be called as coarse sand, medium sand and fine sand. The term sand is used to denote an aggregate of rock grains greater than 1/16mm and less than 2 mm in diameter mineral.



Classification of Sediments (Wentworth -Grain Size-Chart)



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3.2.5 PHYSICAL & CHEMICAL CHARACTERISTICS OF MINERAL

Technically, the size of boulders varies from 2.52 inches to up to 10.1 inches & pebbles range from 0.08 inches to 2.52 inches. Sand is merely a size category. Sand is particulate matter that's larger than silt and smaller than gravel. Different specialists set different limits for sand: Engineers call sand anything between 0.074 and 2 millimeter, or between a U.S. standard #200 sieve and a #10 sieve.

Soil scientists classify grains between 0.05 and 2 mm as sand, or between sieves #270 and #10.

Sedimentologists put sand between 0.062 mm (1/16 mm) and 2 mm on the Wentworth scale, or 4 to –1 unit on the phi scale, or between sieves #230 and #10. In some other nations a metric definition is used instead, between 0.1 and 1 mm.

From a geological viewpoint, sand is anything small enough to be carried by the wind but big enough that it doesn't stay in the air, roughly 0.06 to 1.5 millimeters. It indicates a vigorous environment.

Composition and Shape of minerals

Most boulders, gravels and sand is made of quartz or its microcrystalline cousin chalcedony, because that common mineral is resistant to weathering. The farther from its source rock sand is, the closer it is to impure quartz. But Yamuna sands contain quartz grains, tiny bits of rock (lithics), or dark minerals like limestone and ferruginous concretions.

The size of the sediments is variable. The grains whether small or large are rounded in shape. Sand is grey, brown in color, coarse to fine grained. The present deposits are of good quality and can be used for building industries. There is no other use of this material.

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3.2.6 ORIGIN & CONTROL OF MINERALISATION(ANNUAL REPLENISHMENT OF MINERAL IN RIVER BED/flood plains area vis-à-vis SEDIMENTATION)

Sedimentation, in the geological sciences, is a process of deposition of a solid material from a state of suspension or solution in a fluid (usually air or water). Broadly defined it also includes deposits from glacial ice and those materials collected under the impetus of gravity alone, as in talus deposits, or accumulations of rock debris at the base of cliffs. The term is commonly used as a synonym for sedimentary petrology and sediment logy.

Sedimentation is generally considered by geologists in terms of the textures, structures, and fossil content of the deposits lay down in different geographic and geomorphic environments.

The factors which affects the "Computation of Sediment":

a) Geomorphology & Drainage Pattern : The following geomorphic units plays important role :

- Structural Plain
- Structural Hill
- Structural Ridge
- Denudation Ridge & Valley
- Plain & Plateau of Gangetic plain
- Highly Dissected pediment
- Un dissected pediment



b) Distribution of Basin Area River wise (Area in Sq. Km or Sq. Miles)

c) Drainage System/Pattern of the area (Drainage Density = ...Km/Sq. Km of Yamuna River

d) Rainfall & Climate : Year wise Rainfall data for previous 9 years of Yamuna Basin/River

e) As per Dandy & Bolton study "Sediment Yield" can be related to

i) Catchment Area and

ii) Mean Annual Run-off

Sand is an essential minor mineral used extensively across the country as a useful construction constituent and variety of other uses in sports, agriculture, glass making (a form of sand with high silica content) etc. It is common knowledge that minerals are non-renewable but this form of mineral naturally gets replenished from time to time in a given river system and is very much interrelated to the hydrological cycle in a river basin.

The Rivers originating from the Himalayas bring with them lots of aggregate materials whereas as they move downstream, only finer elements / minerals like sand are found in abundance. River Yamuna near Dakpathar barrage leaves Uttarakhand and enters Himachal Pradesh.

The YAMUNA RIVER is the biggest tributary of the river Ganga in North India. Its source in the Yamunotry glacier at an elevation of 6387 mtrs on South western sides of Banderpooch crests in the lower Himalayan ranges. The overall span of the Yamuna river is 1376 Kms (855 miles) with catchment area of 366223 square km (141,399 square mile). This encompasses 40.2 % of the whole Ganga valley, prior to joining Ganga at Triveni Sangam in Allahabad (UP)

Itinerary of Yamuna River:and its tributries

The river passes through many states such as Uttrakhand, UP, Haryana, going across to HP and then Delhi. With yearly discharge of around 10,000 cubic billion meters (cbm) and consumption of 4400 cbm (of which irrigation comprises 96%), the river represents above 70% of water provision of Delhi. Yamuna water are fairly good quality for its entire span from Yamunotri in Himalayan ranges to Wazirabad in Delhi, the length of which is around 375 Kms.

Itinerary of Drainage area of Yamuna:

The origin of Yamuna is situated in the Yamunotri glacier at an elevation of 6387 mtrs on SE sides of Banderpooch crests, which are located in the Mussoorie range of lower Himalayan range in

Department of Mines & Geology Haryana
P. K. Sharma
S.M.E.
खान एवं भूविज्ञान विभाग हरियाणा

Uttrakashi district of Uttrakhand, to the North of Haridwar. From this place Yāmuna runs to South around 200 Kms across the Shivalik mountain ranges and lower Himalayan ranges. A significant portion of its beginning of Drainage basin (with total area of 217.00 square km) is situated in HP and a major tributary sapping the upper drainage basin in the Tons, which is also biggest and most extensive tributary of the Yamuna. Other tributaries in the area are the Rishi Ganga, Giri, Hanuman Ganga, Kunta & Bata, which sap the upper drainage basin of the huge Yamuna river. Subsequently, the river moves down the terrains of Doon basin at Dak Pathar close to Dehradun, in this place water is redirected into a channel for the purpose of electricity generation. Once it goes across the sikh religious place of Ponta Sahib, the river arrives at Tajewala in the YAMUNANAGAR district of Haryana where a dam was constructed in 1873. This dam is the origin of the two major channels or water courses – Eastern Yamuna Canal and Western Yamuna Canal and both drain in UP & Haryana. The Western Yamuna Canal (WYC) traverses Karnal, Yamunanagar and Panipat prior to arriving at the Haiderpur water treatment plant, which provides a portion of municipal water provisions of Delhi. The Yamuna also forms natural boundary between the states of Uttrakhand & HP and also amid the states of UP and Haryana. Together with the Ganga to which it flows almost parallel once it meets the Indo-Gangetic plateau, the biggest Alluvial productive area in the World, it forms the Ganges-Yamuna Doab are stretched across 69,000 square Km which is 33% of the whole area.

Table of Drainage Basin area of River Yamuna (square KM/square mile) with % of Drainage Basin

1. HP 5799/2240 (1.6)
2. UP & Uttrakhand 74208/142 (21.50)
3. Rajasthan 102883/39739 (29.80%)
4. Haryana 21265/8214(6.5%)
5. Delhi 1485/574(0.4%)
6. MP 14023/5416 (40.6%)



Dandy & Boltan formula for calculation of Sediment Yield:

Dandy bolton formula is often used to check whether the sedimentation yield exceeds the replenishment rate but the whole question is whether there is adequate monitoring of the river basin, the answer is no as hydrological stations are sparsely spread. The formula uses catchment

area and mean annual runoff as key determinants to give a yield value. It does not differentiate in basin wide smaller streams and their characteristics. CWC distinguishes river basins as classified and non-classified, as per the latest hydrological data for unclassified River basins; there are 122 GDSW (Gauge, Discharge, Sediment & Water Quality) sites in 12 such basins, the number was 147 in 2005. This brings in context the whole issue of scientific mining, thereby indicating that the monitoring of sediment yield in rivers / streams within the river basins is essential to arrive at extraction rates and express and conduct environmental studies based on these basin wide characteristics which should become part of the 'Terms of Reference'.

Sediment Yield versus Drainage Area

Dandy and Bolton studied sedimentation data from about 1500 reservoirs, ponds, and sediment detention basins. In developing their formulas, they used data from about 800 of these reservoirs with drainage areas greater than or equal to 1 mi2. The smaller watersheds-those of drainage area less than 1 mi2-were excluded because of their large variability of sediments yield, reflecting the diverse effects of soils, local terrain, vegetation, land use, and agricultural practices.

For drainage areas between 1 and 30,000 mi2, Dandy and Bolton found that the annual sediment yield per unit area was inversely related to the 0.16 power of the drainage area:
In which S= sediment yield in tons per square mile per year; SR = Reference sediment yield Corresponding to a 1-mi2 drainage area, equal to 1645 tons per year; A = drainage area in square miles; and AR = reference drainage area (1 mi2)

Sediments Yield versus Mean Annual Runoff

Dandy and Bolton studied sedimentation data from 505 reservoirs having mean annual runoff data. Annual sediment yield per unit area was shown to increase sharply as mean annual runoff Q increased from 0 to 2 in. Thereafter, for mean annual runoff from 2 to 50 in. annual sediment yield per unit area decreased exponentially.

This led to the following equations.
For Q <2 in.:

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P. K. Sharma
S.M.E.
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For Q >2 in.:

In which QR = reference mean annual runoff QR = 2 in.

Dandy and Bolton combined Eqs. 15-10 and 15-11 into a set of equations to express sediment yield in terms of drainage area and mean annual runoff.

For Q <2 in.:

For Q >2 in.:

Sec: 15.2 Sediment Production.

For SR = 1645 tons/mi2/y, QR = 2 in., and AR = 1 mi2, Eq. 15-12 reduces to the followings:

For Q <2 in.: $S = 1280\ Q^{0.46}(1.43 - 0.26 \log A)$

For Q >2 in.: $S = 1965e^{-0.055Q}(1.43 - 0.26 \log A)$

Equations 5-12 and 5-13 are based on average values of grouped data; therefore, they should be used with caution. In Certain cases, local factors such as soils, geology, topography, land use, and vegetation may have greater influence on sediment yield than either mean annual runoff or drainage area. Nevertheless, these equations provide a first approximation to be of sediment yield for watershed planning purposes.

Calculation of Sediment Yield for boulder, gravel &Sand Mine of Kanalsi .

Total production proposed is 19,50,000 MT/year

- Area under consideration : 44.14 ha
- Drainage basin area of river Yamuna and is tributaries in Haryana : 8214 square miles
- Normal Annual Rainfall of Yamunanagar district (1978 to 2005) :1076mm or 42.36 inch

With above inputs, the calculation of the sediment yield by the Dandy and Bolton formula is illustrated below :

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S.M.E.
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Sample Set	S.No.	Q (in inches)	A (in square mile)	S
	1	3.5	150	1400.823
	2	27.4	8214	179.4756

$S = 1965\ e^{-0.055Q}[1.43 - 0.26 \log(A)]$

With above formula the value of S = 76.40 T/mile square/annum

Therefore the Total Sediment Yield for drainage basin of 8214 square mile will be = 8214 x 76.40= 6.27 lac T per annum.

Dandy & Boltan formula also says that actual sediments yield from individual drainage basins may vary 10-fold or even 100 fold from computed yields. Since itinerary of river Yamuna indicates that its basis comprises of sediment rocks with good average rainfall therefore there are fair chances of yield of sediments to be 50 fold of computed results hence Actual Sediment Yield will be : 627000 T x 50 fold = 3,13,50,000 T / Annum

The equations express the general relationships between sediment yield runoff and drainage area. They may provide a quick rough approximation of mean sediment yields on a regional basis for preliminary watershed planning. Because Dandy & Bolton have derived the equation form average values computed sediment yields normally would be low for highly erosive area and high for well stabilized drainage basins with high plant density. Factors which have direct bearing on sediments yield & limitations of Dandy & Bolton equation.

Sediment yield of a sediment basin has direct impact of local terrain, climate, vegetation, soils, agricultural practices & land use pattern of catchment area of the sediment basin aforesaid factors varies from basin to basin therefore, Dandy & Bolton has category stated that use of the equation to predict sediment yield for a specific location would be unwise because of the wide variability caused by local factors not considered in the equation development. Actual sediment yield form individual drainage basins may vary 10-fold or even 100-fold from computed yields.



3.2.7 Grade & Use of Boulder,Graval & Sand

Most Boulder, Graval & Sand is made of quartz or quartzite/its microcrystalline cousin chalcedony, because that common mineral is resistant to weathering. Boulder, Gravel & Sands contain quartz, feldspar grains, tiny bits of rock (lithics), or dark minerals like illminite and magnetite.

The size of the sediments is variable. The grains whether small or large are rounded in shape. Boulder, Graval & Sand is yellow brown in color, coarse to fine grained. The present deposits are of good quality and can be used for building industries. There is no other use of this material.

3.3 RESERVE

3.3.1 METHOD OF ESTIMATION OF RESERVE

PROVED RESERVES

- Survey was conducted in the proposed area outside river bed as per the area allocated by DMG, Haryana, a document provided by the authorities to the contractor. The Khasra plan was provided by the applicant. There are certain conditions/restrictions:
- Following special conditions those are applicable for excavation of minor mineral(s) from river beds in order to ensure safety of river-beds, structures and the adjoining areas are considered while calculating the reserves of this area:

(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 meter 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;

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(v) In case of areas permitted for excavation outside river/rivulets i.e. areas adjoining to rivers/rivulets, no mining shall be permissible in an area up to a width of 500 meters from the active edges of embankments in case of river Yamuna, 250 metres in case of Tangri, and Ghaggar river and 100 meters on either side of all other rivers/ rivulets;

(vi) Any other condition(s), as may be required by the Irrigation Department of the state from time to time for river-bed mining in consultation with the Mines & Geology, a safety margin of two meters (2m) shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this level unless a specific permission is obtained from the competent authority in this behalf.

vii) The contractor shall not undertake any mining operations in the area granted on mining contract without obtaining requisite permission from the competent authority as required for undertaking mining operations under relevant laws.

ix) A barrier of 7.5 m width will be left from the mining area boundary, .

-

Basics of Mineral Reserves Calculation – River Bed Area

- Mineral Reserves falling in the river bed area has been calculated taking the maximum permissible depth of 3 m from the river bed surface RL.
- The bulk density of Boulder, Graval & Sand is considered 2.0
- Volumetric method is adopted for calculating reserves of Boulder, Graval & Sand.
- The mineable reserves are calculated by deducting "Blocked Geological Reserves on account of river banks, lease boundary, railway line, highways, bridges, anicuts (where ever applicable) from total proved Geological Reserves".
- It is considered that river bed Boulder, Graval & Sand shall be replenished every year as evident from preceding paragraph (3.2.6) on " Annual Replenishment of Mineral in River Bed Area vis-à-vis Sedimentation"

UNFC classification – Codes of UNFC are followed for reserve calculation

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- UNFC is a three digit code based system, the economic viability axis representing the first digit, the feasibility axis the second digit and the geological axis the third digit. Each digit provided.
- Codes 1, 2 and 3 in decreasing order. The highest category of resources under UNFC system has code (111) and for lowest category the code is (334).
- Code (111): This code is provided for the economically mineable part of the measured mineral resources (proved category reserves).
- Code (121): This code is provided for the economically mineable part of the indicated mineral resources (probable category reserves).
- Code (211): The part of the measured mineral resources (proved category), which as per feasibility study has not found economically mineable. The reserves blocked in 7.5 meters buffer zone and 50 meters from permanent structure.
- Code (222): The part of the indicated mineral resources (probable category), which as per feasibility study has not found economically mineable. The reserves blocked in 7.5 meters buffer zone and 50 meters from permanent structure.
- Code (480): Tonnage, Grade and mineral contents can be estimated with low level of confidence and resources are also inferred from geological.

The reserves of Boulder,Graval & Sand calculated by volumetric method and are summarized here below: **Table: Geological Reserves**

Sr no.	Nature of land	Lease area In ha	Total proved Geological reserves MT=Area x depth x BD	Blocked area /restricted area	Blocked Geological Reserves in blocked area	Total Mineable reserves A-B=C	Planned production (Per Year)

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			(A)		(B)	-	
1	River bed	44.14	26,48,400 MT	11.60 ha	6,96,000 MT	19,52,400 MT	19,50,000 MT

A) GEOLOGICAL PROVED RESERVES AS PER UNFC CODE (111)

Total Reserves = 26,48,400 MT (The reserves are to be replenished on every rainy season)

B) BLOCKED RESERVES AS PER UNFC CODE (211 & 222) = 6, 96,000 MT

C) MINEABLE RESERVES = A-B = 19, 52,400 MT

D) TARGETED PRODUCTION

19, 50,000 MT per Year

E) Life of the mine

It is estimated that the entire mineral mined every year will be replenished . Therefore at the proposed rate of production the life of the mine is 9 years

4.0 DETAILS OF PRODUCTION & DISPATCHES OF FIVE YEARS

This is a new mining area allotted to the applicant. Future production programme has been planned as per the details given below:

Production Programme (Plate no.4) .

Mining Contract has been allotted for a period of 9 years only. Mining area consist of 44.14 ha area in Kanalsi Block/YNR B-5 village (Khasra) out of which about 11.60 hectares area is under restricted zone. About 32.54 hectare area is free from restriction and the mining is proposed in this area only.

Daily production proposed = 6500 MT /day

Production program me is 260 trips/ day @ 25 ton per trip .

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Working days have been taken as 300 days per annum.

Projected Production per Year = **300** x6500 = 19,50,000 Tons **(1.95 Million MT)**

Table: Five Years Proposed Production Details (MT/A)

	Production proposed		Area (ha)
Year	Trips/ day	MTPA	Needed per year
I	260	19,50,000	32.50
II	260	19,50,000	32.50
III	260	19,50,000	32.50
IV	260	19,50,000	32.50
V	260	19,50,000	32.50



5.0 PHYSICAL AND GEOLOGICAL CHARACTERISTICS OF THE DEPOSIT

Deposit is moderate to good quality Boulder, Gravel & Sand. It is widely used in construction, buildings, bridges and other infrastructure. It is free from clay and non sticky in nature.

6.0 DETAILS OF MINING MACHINERY DEPLOYED OR TO BE DEPLOYED AND THE DETAIL SPECIFICATIONS

This is a new mining contract. Following equipments are proposed to be deployed for the desired production.

Table: List of Machinery

S. No.	Name of machinery	Capacity	Nos.
1	EXCAVATOR	2.0 m^3	5
2	Tippers/ Trucks	25 tons	*90*
3	Water Tanker	4000 liters	*2*
4	Light vehicles /jeep	--	*1*
5	Maintenance Van		*1*

6.1 Fuel Consumption (Quantity of Diesel / Energy fuel Consumption per day)

S. No.	Machine	Details of Diesel requirements	Consumption of Diesel (in ltr.)
1.	Dumper	(Considering diesel consumption by the dumper is 3 km / ltr.) Total Diesel consumption for 90 Dumper =90 x50 = 4500 Ltr	4500
2.	EXCAVATOR	- Diesel consumption 15ltr / hr working of 16 hrs diesel consumption = 15 x16x5 =800 ltr	1200
3.	Water Tankers	Diesel consumption 10 ltr/Hour x6hrs x 2=120	120
6.	Light Vehicles	Diesel consumption 6 ltr/Hour x 10 hrs =60 ltr	60
7.	Maintenance Van	Diesel Consumption 10 ltr/hr x 10hrs =10 ltrs	100
		Total diesel requirements per day	5980

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7.0 METHOD OF MINING

Mining is proposed up to 3.0m in the river bed.

River bed mining is for extracting Boulder, Graval & Sand from Yamuna River bed. As per Haryana Minor Mineral Concession Rules, 2012 extraction is limited to 3.0 m depth only in river bed Mining area allotted is 44.14 ha in district – Yamunanagar . Mining activity will be carried out in allocated areas only, enclosed as **Annexure –I.**

Method of Working ---Simultaneous Mining & Reclamation outside of river bed

Light weight excavators/JCB will be deployed for extraction. Mineral will be removed in 3.0 m layer only forming one bench. This is as per the digging depth of the equipments and maximum permitted depth. Mineral will be loaded in trucks of 25 tons capacity. There will be no OB or waste generation as the Boulder, Graval & Sand is exposed in the river bed.

Bench will advance parallel to the banks of the river. Height of bench will be 3.0 m. Width of the bench will be around 20.0 m. Workings will be restricted within the mining area/ khasra as per the description report given by Mining Department. Mining activities will be carried out in a manner so that there is no obstruction to the movement of water flow, if any, during rainy season. The bench will be in the form of slices/ strips parallel to the banks of the river. Roads in the mining area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20. However, movement of trucks after mineral loading will be towards both sides through approach roads connecting to tar roads. Every block will have its own approach roads, well connected to main highways. No processing of mineral will be done.

Total production envisaged is 6500 MT per day i.e. 260 trips@25Mt/trip). Activities will be carried out as per the production schedule given earlier. The mining quarry will be working as self sustained units with all facilities like site office, rest shelter, first aid and

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drinking water etc. All these mines will be connected suitably with communication system.

7.1 Proposed year wise development for five years

Boulder, Graval & Sand mining contract has been granted for a period of 9 years only. No pre-production development is required except making excess road and removing of soil in advance and stack it t a designated spot which will be used for reclamation simultaneously. .

Ultimate limit will be 3.0 m below existing bed level as indicated in the working section.

7.2 Proposed rate of production when the mine is fully developed

Work will be carried out for 300 days in year. Year wise production during the plan period will be as follows:

Table: Proposed Production

Year	Total Targeted Production MT/annum
1	19,50,000
2	19,50,000
3	19,50,000
4	19,50,000
5	19,50,000

7.3 Mineable reserves and anticipated life of the mine

The total mineable reserves are calculated 19,52,400 MT whch are replenished every year.. At the proposed 19,50,000 MT/Year productions the life of the mine is calculated 9 years.

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7.4 Proposed method of mining

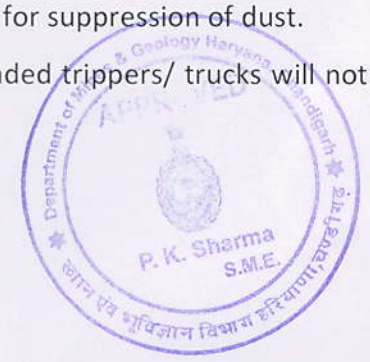
Mining activity will be carried out by open cast semi-mechanized method.

- No overburden/ waste material will be produced in river bed. No drilling/ blasting are required as the material is loose in nature.
- Light weight excavators will be used for loading of mineral in tippers.
- Proper benching of 3.0 m height will be maintained and width of the bench will be around 20 m. The benches shall be maintained in the form of slices/strips parallel to the banks of river.
- Mining activities will be carried out in a manner so that there is no obstruction to the movement of water flow, if any, during rainy season.
- Roads will be properly made and sprayed by water for suppression of dust.
- Roads in the mining area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20.
- Extraction activities will start in the blocks from the upstream side to downstream side. This will not obstruct the movement of water, if any, during monsoon period in the river course.
- In case during any period, the replenishment was found less than 3 m or depth of exaction, the mining during said period would restrict to depth which would not be more than 3 m of the original level of the river bed.

Total production envisaged is 6500 MT per day i.e. 260 trips@25Mt/trip). Activities will be carried out as per the production schedule given earlier. The mining quarry will be working as self sustained units with all facilities like site office, rest shelter, first aid and drinking water etc. All these mines will be connected suitably with communication system.

Roads will be properly made and sprayed by water for suppression of dust.

Roads in the mining area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20.



As per MMR 1961, following precautions shall be undertaken during operations of HEMM.

Shovel/ excavator: -

1. Excavators will be provided with efficient warning devices, front & rear lights and efficient brakes.
2. Excavator will be under the charge of a competent person authorized in writing by the manager designated as operator.
3. No person other than the operator or his helper if any will ride on the excavator or even enter the excavator's cabin.
4. No person will be permitted to ride in the bucket of a Shovel/ excavator.
5. No inflammable material will be stored in the excavator housing or cab.
6. Shovel/ excavator dippers will be lowered to the ground during greasing operation.
7. When a Shovel/ excavator is to be moved from one point to another its boom shall be kept in strict alignment with direction of travel while the bucket/ dipper shall be held m above the ground.
8. No Shovel/ excavator will be operated in the position where any part of the machines, suspended loads or lines are brought closer than 3 m to the exposed high voltage line.
9. Every movement of a Shovel/ excavator shall be preceded by warning signals.
10. When not in use, the Shovel/ excavator will be moved to and stood on stable ground, the bucket shall be kept resting on stable ground and will never be left hanging.
11. The Shovel/ excavator will be so spaced that there will be no danger of accident from flying & falling objects.
12. Safety appliances, booms will be examined thoroughly once in a year.

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13. Emergency switches, safety limit switches will be examined and tested once in four months.

14. All brakes will be tested for their operation worthiness once in a week.

15. The following signboards will be carried in and around the machine: -

    (i) "Warning— Do Not Enter The Working Range Of The Machine".

    (ii) "Lubricating Prohibited While the Machine in Running Condition".

Duties of Shovel/ excavator operator: -

1. At the commencement of every shift the operator will personally inspect and test the machine, paying special attention to the following details: -

    (i) The brakes and every warning device are in working order.

    (ii) Lights are in working order.

    (iii) The operator will neither take out the machine for work nor will he work the machine unless he is satisfied that it is mechanically shown and in efficient working order.

    (iv) The operator will maintained a record of every inspection made in a bond paged book, kept for the purpose and shall sign every entry made there in.

    (v) The operator will keep the cab window clean so as to ensure clear vision at all times.

    (vi) The operator will not operate the machine when persons are in such proximity as to be endangered.

    (vii) Before leaving the machine, the operator will lower the bucket to the ground.

    (viii) The operator will not leave his machine during the shift. Whenever, he finishes his work, he will hand over the machine to his relief or lock the excavators cab.

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(ix) The operator will not allow any unauthorized person to ride on the machine.

Dumper: -

1. Every dumper will be provided with efficient brakes.
2. Efficient audible warning devices will be provided with the dumpers.
3. The dumper, if required to work after daylight hours, efficient headlights and taillights will be used.
4. Every dumper will be under the charge of a competent person, authorized in writing by the manager.
5. No person, other than the driver or his helper, if any, will ride on a dumper.
6. No person will be permitted to ride in the running board of a dumper.
7. The loaded dumpers will not be reversed on gradients.
8. Sufficient stop blocks will be provided at every tipping point and these will be used on every occasion when material is dumped.
9. Standard traffic rules shall be adopted and followed during movement of all dumpers. They shall be prominently displayed at relevant places in the opencast workings and haulm roads.
10. When not in use, every dumper will be moved to and stood on proper parking places.
11. No person will be permitted to work on a chassis of a dumper, with the body in rest position, until after the dumper body has been securely blocked in position.
12. The mechanical wised mechanism will not be depended upon to whole the body of a dumper in a rest position.
13. No unauthorized person will be permitted to enter or remain in any turning points.
14. While inflating tyres, suitable protective cages shall be used.

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15. Tyres will never be inflated by sitting either in the front or on the top of the same.

16. While the vehicle is being loaded / unloaded on gradient, the same will be secured stationary by the parking brake, and other means suitably designed stopper block, which could be placed below the tyres.

17. At least once in every two weeks the brakes of every dumper will be tested as below: -

(a) Service Brake test: - The brake will be tested on a specified gradient and speed when the vehicle is fully loaded. The vehicle should stop within the specified distance when the brake is applied.

(b) Parking brake test: - The parking brake shall be capable to hold the vehicle when it is fully loaded and placed at the maximum gradient. Maximum gradient of the roadway which is permitted only for a period of at least 10 minutes.

(c) A record of such test will be maintained in a bound paged book and will be signed by the competent person carrying out the test. These records will be countered signed by the engineer and manager.

(d) All vehicles shall be tested and examined once at least in every 6 months.

(e) A notice shall be displayed outside every vehicle that **"No Unauthorized Travelling Allowed".**

(f)

Duties of dumper operators: -

1. At the commencement of every shift, the operator shall personally inspect and test the machine, paying special attention to the following details: -

(i) Tyre pressure, brakes, horn and the Lights are in working order.

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(ii) The driver will neither take out the machine for work nor will he work the machine unless he is satisfied that it is mechanically shown and in efficient working order.

(iii) The driver will maintained a record of every inspection made in a bound paged book, kept for the purpose and shall sign every entry made there in.

(iv) The driver will keep the cab window clean so to ensure clear vision at all times.

(v) Driver will ensure that the gear is in neutral position before stopping the engine. He will park the vehicle: -

(a) In reverse gear, on level roads and down gradients.

(b) In low gear, on up gradients.

(vi) The driver will negotiate downhill gradients in low gear, so that minimum of braking is required.

(vii) The driver will not drive too fast, avoid distractions and drive defensively.

(viii) Before crossing a road / railway line he will reduce his speed looking both directions along the road or railway line and will proceed across the road or line only if it is safe to do so.

(ix) The driver will not operate the dumper in reverse unless he has a clear view of the area behind the vehicle.

(x) The driver will see that : -

(a) The vehicle is not overloaded.

(b) The material is not loaded in a dumper so as to project horizontally beyond the sides of its body.

(xi) The driver will not allow any unauthorized person to ride on the vehicle.

(xii) When there is a poor visibility, the speed of a vehicle will be restricted in a manner that the braking distance is maintained shorter the distance of visibility.

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(xiii) The driver will not leave his machine during the shift. When he finishes his work, he will hand over the machine to his reliever or lock the excavators cab.

7.5 Conceptual Mining Plan

(i) **River Bed**: Mine area will be worked in blocks for ease of operation. However, as the digging depth will be restricted to 3.0 m only in river bed and material will still be available below. This will be further replenished during rainy season. Blocks will be worked systematically as the width is limited while length is much more.

(ii) Sequence of working has been shown on **Plate no –4.** As the mining contract period is only 9 years, some of the area will be left un-worked at the end of contract period.

(iii) Final Slope Angle To Be Adopted

Thickness of the bench is limited to 3.0 m only and width will be more than the height of the bench.. Bank side natural slope will not be disturbed. This will prevent collapse of bank and erosion. During plan period workings will be carried out in the designated khasras only & workings will ensure safety, remove congestion of vehicles and will have better control and management.

(iv) Ultimate Capacity Of Dumps

There will be no burden removal / generation during the plan period. Therefore no site is designated for dumps.

a) Land use Pattern of Mining Area at Various Stages

Land use pattern will be as follows:

Table: PRESENT LAND USE PLANING

Sr.No.	Particulars	Present Land Use (ha)
1	Restricted Safety Zone/7.5m mining area boundry,	11.60
2	Infrastructure (Office,temp. Shelters etc.	0.00

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3	Area available for mining	32.54
		44.14

Table: LAND USE PLANING AT THE END OF lease period

Sr.No.	Particulars	AT THE END OF 5th YEAR (ha)
1	Safety Zone7.5m mining area boundry, /restricted area	11.60
2	Infrastructure (Office,temp. Shelters etc.	0.020*
3	Reclaimed area	32.54
6	Unworked	0.0
7	Plantation*	4.00*
	Total	44.14

*Plantation in 4.0 ha land will be done under social forestry on restricted area/ lease boundary and land available from Panchayat by the end of mine life

* Plantation & infrastructure In restricted area only

7.6 Blasting

Boulder, Graval & Sand extraction will not require any drilling, blasting activities. The mineral excavated will be directly loaded in to dumping trucks and would be transported directly to the consumer/screening plants.



7.7 (i) Mine Drainage

The River Yamuna flows from N to S which originates from the Himalayas provides the major drainage in the mining area. The general slope of the land surface is From N to S and elevation of the mining area varies from 269 mRL in the north end side of the mining area to 268 mRL in south end side of the mining area.

There is flow of water in the river bed in a narrow area in post monsoon period. Area is having 1067 mm rainfall in a year. During rainy season, catchment water flows in the river. During dry period the Boulder, Graval & Sand is excavated which gets replenished during rainy period. No mining activities will be carried out during rainy season when there is water flowing in the working area. There will be no intersection of water table as working will be carried out upto 3.0 m depth only from surface of river bed while the water level is 5 -10 m below the surface of river bed.

- **MINE DRAINAGE**
- Drainage Around And Within Mine:

The mining area will become a depression, which warrants accumulation of water during rainy season. The pit will become a depression and will help in faster recharge of water in the aquifer

Drainage Around And Within Mine:

The mining area will become a depression, which warrants accumulation of water during rainy season. The pit will become a depression and will help in faster recharge of water in the aquifer

- **DEWATERING:**

Since the depth of mining proposed is only 3.0 meters in the river bed, the same being above the water table of the area, there will be no chance of encountering the ground water table during the mining operations. No dewatering of the ground water is proposed.

7.8 Water Requirement

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The requirement of water for the project will be as under

Sr.no	Activity	Requirment in KLD	Source
1	Dust suppression	15.0	Hired Tankers
2	Drinking	2.0	Hired Tankers
3	Green belt	3.00	Hired Tankers
	Total	20.00	

7.9 SITE SERVICE: -

. **Manager's Office:**

One competent Manager and one Assistant Manager will be required to supervise the mining operations. An office for Manager(5 x 3 meters) shall be provided. An additional room for other supervisory staff is also proposed at each mine.

. **Canteen -cum-rest shelter:**

In order to provide the rest shelter for the workers working in the mine and also to provide tea etc. the arrangement shall be made to install a rest shelter-cum-canteen at each quarry and shall be utilized by the workers. The rest shelter will be for having rest during the lunch hours by the workers/ labor. The size of rest shelter shall be about 10 x 3 meter to accommodate the workers.

First Aid Room:

To provide the first aid for any sort of injuries encountered during the mining operation, one small first aid room shall be provided at each sub block. First aid kit and sufficient stock of material/medicines needed for first aid shall be provided as per requirement. As

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the Mining Engineer/Manager and Mining Mates are qualified first aides, they can provide first aid to the labor on the spot.

Crèche:

No woman employment is proposed in mine operation. However, in case of women workers are employed for other ancillary works like minor road repair, plantation etc, arrangement for a small crèche shall be made as per the requirement.

Electricity Supply:

Electric connection shall be taken for office and security purpose from the near bye sub-station of Haryana Electricity Board.

Water Supply:

The water supply for drinking purpose proposed will be made available by hired tanker.



8.0 YEAR WISE ANNUAL PROGRAMME OF MINING FOR NEXT 5 YEARS

Boulder, Gravel & Sand mineral is targeted for 6500 tons per day i.e. 1.95 million tons per annum (maximum). Production programme is given below:

Table: Production Programme

Year	Targeted Production (in MMTA)	Overburden handling M^3 Per year
1	*1.95*	*Nil*
2	*1.95*	*Nil*
3	*1.95*	*Nil*
4	*1.95*	*Nil*
5	*1.95*	*Nil*



9.0 DETAILS OF EMPLOYMENT

Total estimate Man power would be about 69 persons as per the details given below:

Table: Employment Details

S. No.	Category	Numbers
1	Manager 1st class	1
2	Assistant Manager	2
3	Skilled personnel	5
4	Semi-skilled personnel	90
5	Unskilled	20
Total		**118**



ENVIRONMENT MANAGEMENT PLAN

10.0 MEASURES TAKEN AND TO BE TAKEN FOR LAND RESTORATION, RECLAMATION AND PLANTATION IN/ OR NEARBY MININGAREA

- Envisaged mining operation will be carried out in the River bed only. There will be no mining activities when there is flow of water in the working zones. During rainy season, the activities will be stopped, if there is flow in the mine.
- Besides resource extraction, following activities will be kept in view:
  a) Protection and restoration of ecological system
  b) Prevent damages to the soil erosion in the nearby areas by making soil bund on the lease boundary
  c) Protect riverine configuration such as bank erosion, change of water course gradient, flow regime etc.
  d) Prevent contamination of ground water

Safeguard Measures

While carrying out mining activity following measures will be taken:

- Mining activities will be carried out only in dry bed. No in stream mining will be practiced.
- Identification of river stretches for mining will be completed.
- There will be no mining near the banks and same would be restricted with central $3/4^{th}$ of the river bed. This is to protect the bank erosion and river migration.
- Mineral Boulder, Gravel & Sand from river will be restricted to a maximum depth of 3.0 m from the existing bed level. This is for safety and sustainability.
- As the mining area is quite large and long in length, systematic extraction will be carried out to prevent seasonal scouring and enhanced erosion.
- Extraction will be carried out in a manner that there is no obstruction to flow of water, if any, during rainy season.

Mining on the concave side of the river channel would be avoided to prevent bank erosion. Similarly meandering segment of river will be selected to prevent natural eroding banks and to promote mining on natural building (aggrading) meanders component

Reclamation of Mined out Area (plate no.5)

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There is no generation of OB/ waste material in case of river bed mining. No backfilling has been proposed in the excavated zone in river bed. River bed will be replenished by sediments during rainy season.

Greenbelt

In order to restore the environment and ecological balance in the area affected by mining, a forestation is considered to be an effective measure. Afforestation is a major thrust area in pollution control of mining. Afforestation is suitable for detecting, recognizing and reducing air pollution effects. Tree functions as sinks of air pollutants, besides their bio-aesthetical values, owing to its large surface area. The green belt supplements Oxygen to the atmosphere and combat air pollution effectively and aesthetic beauty and landscape of the area improves. It also checks soil erosion and make eco-system and climate more conducive.

Following factors will be considered while selecting species for plantation:-

i) Fast growing plant species shall be preferred.
ii) The plant will be of deep rooting system.
iii) The plant will be perennially green to improve aesthetic beauty of the area.
iv) The plant species will be adoptable to the local climatic conditions.
v) Native plant species will be planted.

Forestation programme shall be carried out basically, along the mine boundaries and roads as permitted by land owners. The mining area is devoid of any vegetation, will not cause any harm to riparian vegetation cover. It is proposed to have plantation on both sides of the roads as greenbelt to provide cover against dust dissemination. Plantation will also be carried out as social forestry programme in villages, school and the areas allocated by the Panchayat/ State authorities.

Native plants like Neem, shisham, , Mango and other local species will be planted. A suitable combination of trees that can grow fast and also have good leaf cover shall be adopted to develop the greenbelt. It is proposed to plant 3,000 no's of native species

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along with some fruit bearing and medicinal trees during the plan period.

Table: Greenbelt Programme

Year	Saplings to be planted	Survival 80 %	Species	Place of Plantation
I	1000	800	Neem, , Mango, Shisham, Sirish, Babool, Gulmohar	Along the roads, in schools and public building and other social forestry programme.
II	1000	800		
III	1000	800		
IV	1000	800		
V	1000	800		
Total	**5,000**	**4000**		



11.0 MEASURES TAKEN AND TO BE TAKEN FOR PROTECTION OF ENVIRONMENT IN AND AROUND MINING AREA

- Mining activities will be confined to 3.0 m depth .
- All link roads from the mining area to the tar road will be properly sprayed with water for dust suppression.
- Greenbelt and plantation on road side will help in dust suppression and will also reduce noise level.
- Plantation will improve ecology and aesthetic beauty of the area
- Measures will be taken to prevent the workings from extending in safety zones, cutting the banks and exceeding 3.0 m depth limit from the river bed surface.



12.0 MEASURES TAKEN AND TO BE TAKEN FOR DUMPING OVERBURDEN, STACKING OF TOP SOIL AND UTILIZATION OF TOP SOIL

There is no top soil in the river bed mining. If any soil is required to be removed the same will be used to strengthen the river banks.



13.0 MEASURES TAKEN AND TO BE TAKEN FOR THE CONTROL OF WATER, NOISE AND AIR POLLUTION

Air Pollution:

Emission of gases and dust takes place due to movement of vehicles. Spraying of water and plantation along the road side prevents the spread of dust. Plantation also acts as barrier for restricting pollution. Impact on air environment has been assessed taking in to consideration the proposed production and increase emissions. The sources of air pollution are given below:

- Operation of mining machinery/ loading operations
- Transportation of mineral
- Wind erosion from barren area and river bed
- Emission of gases and dust due to movement of vehicles

MEASURES FOR DUST SUPPRESSION & CONTROL OF AIR POLLUTION:

Control of Air Pollution Due To Dust, Exhaust Emissions or Fumes During Mining or Processing Operations For Minor Mineral & Related Activities and Containing the Same Within Permissible Limits Specified Under : -

1. Plantation road side as it will prevent the spreading of dust.
2. Water spraying will be done twice in a day over the haul road & roads leading to adjoining state roads.
3. Dust respirators will be provided to the operators of the heavy earth moving machineries.
4. Preventive maintenance shall be carried out of equipment.
5. At every work place where, the air borne dust generated, to be sampled and the concentration of the respirable dust will be determined regularly. If any measurement at any workplace and at source, the concentration in excess of 50% or 75% of the available concentration of permissible limit then

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measurements shall be carried on, at intervals not exceeding 3 months or 1 month respectively.

6. Silencers will be fitted to the dumpers.

The following table indicates the concentration of Ambient Air as per the CPCB guidelines:

National Ambient Air Quality Standards

S. No.	Pollutants	Time weighted Average	Concentration of Ambient Air	
			Industrial, Residential, Rural and Other Areas	Ecologically Sensitive Area (notified by central Government)
1.	2.	3.	4.	5.
1	Sulphur Dioxide (SO^2), µg/m^3	Annual*	50	20
		24 hours**	80	80
2	Nitrogen Dioxide (NO_x), µg/m^3	Annual*	40	30
		24 hours**	80	80
3	Particulate Matter (Size less than 10 ìm) or PM_{10}, µg/m^3	Annual*	60	60
		24 hours**	100	100
4	Particulate Matter (Size less than 2.5 ìm) or $PM_{2.5}$, µg/m^3	Annual*	40	40
		24 hours**	60	60
5	Ozone (O_3), µg/m^3	8 hours**	100	100
		1 hours**	180	180
6	Lead (Pb), µg/m^3	Annual*	0.50	0.50
		24 hours**	1.0	1.0
7	Carbon Monoxide (CO), mg/ m^3	8 hours**	02	02
		1 hours**	04	04
8	Ammonia (NH_3), µg/m^3	Annual*	100	100
		24 hours**	400	400
9	Benzene (C_6H_6), µg/m^3	Annual*	05	05
10	Benzo(O) Pyerene Particulate Phae only ng/ m^3	Annual*	01	01
11	Arsenic (As), ng/ m^3	Annual*	06	06
12	Nickel (Ni), ng/ m^3	Annual*	20	20

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

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** 24 hourly or 8 hourly or 1 hourly monitored values, as applicable, shall be compiled with 98% of the time in a year. 2% of the time, they may exceed the limits but not on to two consecutive days of monitoring.

(Source: CPCB notification Dated 18th November 2009)

Air pollutants released during production can be checked by:

- Dust suppression system/ water spraying would be adopted at mine working and loading points
- Excavation operations to be suspended during very strong wind conditions
- Afforestation will be carried out for control of dust
- Plantation with wide canopy trees along approach road will help in dust suppression
- Persons to be provided with dust mask and other personal protective equipments, particularly during summer months and dust storm periods

Transportation

- Regular water spraying on haulage roads during mineral transportation by water sprinklers,
- Avoid over loading of tippers & consequent spillage on the roads,
- Mineral carrying trucks will be effectively covered by tarpaulin to avoid escape of fines to atmosphere,
- Air quality shall be regularly monitored both in the core zone and the buffer zone.

Controlling of NOx level

The source of NOx is due to vehicular emission. This can be controlled by proper maintenance and servicing of vehicles. Only P.U.C. certificated vehicles will be permitted

Noise Pollution

There is no drilling and blasting for mineral extraction. Noise pollution due to transportation will not cause any problem to the inhabitants of this area because there is no human settlement in close proximity to the link roads in mining area.Effective

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steps will be taken to keep the noise level well below the DGMS prescribed limit of 85 dBA.

Noise control is achieved by the following:

- Proper care and maintenance of the equipments will be carried out.
- Personal protective equipments will be provided to the workers.

14.0 DEMOGRAPHIC DETAILS OF THE STUDY AREA

Total number of villages in which mining area falls is 1. Main occupation is agriculture. The details of these and other nearby village and their population are given below:-

Table: Demographic Details

Name of village	THH	Tot Pop	Tot Male	Tot female
Darwa (78)	108	661	354	307
Mujahidwala (75)	27	158	84	74
Belgarh (73)	43	282	211	71
Beli Bhud (63)	2	8	8	0
Doiwala (69)	61	261	184	77
Bhud Majra (70)	92	541	279	262
Balla Majra (71)	140	839	565	274
Deodhar (72)	466	3011	1538	1473
Begampur (80)	303	1792	944	848
Bhilpura (200)	152	975	545	430
Shahjahanpur (201)	66	439	236	203
Yakubpur (197)	216	1337	696	641
Hangoli (459)	106	634	347	287
Namdarpur (455)	108	524	261	263
Mali Majra (454)	95	515	263	252
Maghar Pura (446)	64	399	217	182
Sultanpur (445)	171	1058	556	502
Bhagwanpur (447)	175	1014	527	487
Fatehpur (448)	248	1449	744	705
Saran (449)	643	3863	2015	1848
Dadupur Chhawni (106)	193	1036	548	488
Fatehgarh (107)	365	2136	1127	1009
Shahzadpur (109)	96	544	287	257
Kanalsi (104)	213	1317	683	634

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15.0 DETAILS OF HEALTH CHECKUP AND INSURANCE OF ALL THE EMPLOYED PERSONS (FOR EXISTING MINING AREA)

All workers will be subjected to medical examination as per Mines Rule 1955 both at times of appointment and at least once in five years. Medical camps will be organized for this activity. Insurance of all employees as per the rules will be carried out.

15.1 Corporate Social Responsibility

As a corporate responsibility following measures along with budget provision is proposed for improving the conditions of persons in and around the project area:

The Yamuna agar district of Haryana State is relatively less developed in respect of employment and facilities. Thus, it can be seen that the proposed project offers good potential for the local people for employment directly and indirectly. The Project Affected Persons, if any, of the lease area will be provided with compensation or job or indirect employment such as business, contract works etc. With the starting of mining operation, employment/business opportunity will increase and welfare amenities such as free medical facilities, conveyance, school, free education, drinking water supply etc will be available for the area.

The details of benefits to the people in the adjoining villages are discussed here under:

a) Employment

From the study of socio economic environment at the study area it is quite evident that the area is not quite developed as far as job opportunities and living standard of the population is concerned. Apart from cultivation, agriculture, etc mining, industries and ancillary activities play an important source of livelihood in this as well as adjoining districts.

With the start of mining operations, various employment opportunities will be generated. Several persons will be benefited with mining works, employment through contractor, running of jeep and buses, canteens, different kind of shops and transport related business avenues.

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The Project Affected Persons, if any, will be provided with either compensation or direct employment or indirect employment. They would be mostly recruited in unskilled, semi skilled categories etc. This will improve the economic condition of the local people. The employment of local people in primary and secondary sectors of project shall upgrade the prosperity of the region.

(b) Educational facilities

Industrial on-job training will be provided to the interested local people and the trained people will be absorbed in jobs as per the requirement of the project. Proponent will also provide full cooperation and monitory assistance for adult education programme. Other activities proposed are :

1. Targeted programmes for primary education for specially girl child
2. Augmentation of infrastructure and equipments, furniture, blackboard, toilets etc in schools
3. Scholarships to meritorious students
4. Adult education & awareness about saving & investment plans.
5. Partnerships in state sponsored education programmes
6. School wall boundary maintenance
7. Existing govt. school strengthening by boundary wall construction, construction of toilets, roof repair, drinking water taps, etc.

Capacity building activities such as following will be undertaken:

1. Scholarship for ITI training outside for 10 persons
2. Sponsorship of land losers / wards for full term courses
3. Short term courses for skill up gradation
4. Vocational training (dairy, poultry, bee keeping, sericulture)
5. Specific Programmes for Ladies (stitching, embroidery, tailoring etc)

(c) Medical facilities

Project shall provide aid to improve the existing medical facilities in the villages and also improve awareness and provide sufficient training in hygiene, sanitation and proper diet. Some of the activities that can be carried out are as follows:

1. Mobile Clinic with testing and diagnostic facilities
2. Health Camps for Family Planning, HIV/AIDS and other communicable diseases.
3. Addressing local health related issues through audio visuals and group meetings

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4. Subsidized treatment in hospital with which tie-up will be there
5. Specific Programmes for hygiene and sanitation
6. Helping aids to each category of physically challenged as per requirement
7. Eye camps to address the issue of cataracts specially

(d) Infrastructure facilities

Infrastructure facilities like road, Post & Telegraph, Telephone, Banks etc are basics for each and every area. These facilities are already well developed in the surrounding areas. The lessee will take various steps for upliftment of the basic amenities of the area by providing drinking water, communication facilities, etc. Construction of roads, drainage, community halls, school buildings, health centers, street lighting, equipments to educational institutions, public utilities, sanitation facilities, etc in nearby area will be undertaken.

As a corporate responsibility following measures along with budget provision is proposed for improving the conditions of persons in and around the project area:

Sr No	Description	1st Year	2nd Year	3rd Year	4th Year	5th Year
1	Health check up camps	1.50	1.5	1.75	1.75	1.75
2	Insurance cover of workers	2.0	2.00	2.00	2.50	3.00
3	Assistance to local schools, scholarship to students	1.50	1.00	1.75	2.00	2.00
4	Sanitations and drinking water facilitites	1.75	1.75	1.75	1.75	1.75
5	Vocational training to persons for income generation	0.75	0.75	0.75	0.75	0.75
6	Assistance to self help groups	2.00	2.50	2.50	3.00	3.00
Total		**9.5**	**9.5**	**10.5**	**11.75**	**12.25**



15.2 Fund Provision for Environmental Management

It is proposed to create an Environment Management Fund. The contractor shall deposit/pay an amount equal to 10% of the due contract money along with installments towards the **'Mines and Minerals Development, Restoration and Rehabilitation fund.**

15.3 Fund Provision for EMP Measures: following provisions are proposed to be taken for improving, control and monitoring of environment protection measures

Sr. No.	Particulars	Amount (in lacs)
1	Pollution monitoring – Air, Water, Noise	3.0
2	Pollution monitoring – Water sprinkling	5.0
3	Wire fencing at plantation sites	0.6
4	Plantation including maintinance	1.50
5	Rainwater harvesting	5.0
6	Haul road and other roads repair and maintinance	3.0
7	Pre-moonsoon and post monsoon survey for sedimentation in the river bed	2.0
	Total	20.1



PART –II

PROGRESSIVE MINE CLOSURE PLAN

1.0 Introduction

Name & address of the Mining Contractor

M/s P.S.Buildtech,34-Vishal Nagar, Yamuna Nagar

(B) LOCATION OF THE MINING AREA

Mining Contract of Sand (Minor Mineral) over an area of 44.14 ha is located in District – Yamunanagar ; Village-Kanalsi Block/YNR B-5 unit.

(C) EXTENT OF THE MINING AREA

44.14 ha in Kanalsi village South Block/YNR B-5 as explained at 2.0 in the main mining plan

(D) PRESENT LAND USE PATTERN and At the end of lease period

Table: PRESENT LAND USE PLANING

Sl. No.	Type of Land Use	Total Value (in Hectares)
1	Quarry Area	0.0
2	Infrastructure (road)	0.00
3	River bed	44.14
4	Plantation	0.00
5	Habitation	0.00
6	Soil dump	0.00
7	OB dump	0.00
	Total	44.14

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	Restricted area	**11.60**
	Available area for mining	**32.54**
	Total	**44.14**

Table: LAND USE PLANING AT THE END OF lease period

Sr.No.	Particulars	AT THE END OF 5th YEAR (ha)
1	Safety Zone7.5m mining area boundary,	11.60
2	Infrastructure (Office,temp. Shelters etc.	0.20*
3	Reclaimed area	32.54
6	Unworked	0.00
7	Plantation*	4.00*
	Total	44.14

*Plantation in 4.0 ha land will be done under social forestry on land available from Panchayat by the end of mine life

* Plantation & infrastructure In restricted area only

(E) **METHOD OF MINING**:

Mining activity will be carried out by open cast semi-mechanized method.

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Light weight excavators/JCB will be deployed for extraction. Mineral will be removed in 3.0 m layer only forming one bench. This is as per the digging depth of the equipments and maximum permitted depth. Mineral will be loaded in trucks of 25 tons capacity. There will be no OB or waste generation as the Boulder, Gravel & Sand is exposed in the river bed.

Bench will advance parallel to the banks of the river. Height of bench will be 3.0 m. Width of the bench will be around 20.0 m. Workings will be restricted within the mining area/ khasra as per the description report given by Mining Department. Mining activities will be carried out in a manner so that there is no obstruction to the movement of water flow, if any, during rainy season. The bench will be in the form of slices/ strips parallel to the banks of the river. Roads in the mining area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20. However, movement of trucks after mineral loading will be towards both sides through approach roads connecting to tar roads. Every block will have its own approach roads, well connected to main highways. No processing of mineral will be done.

Total production envisaged is 6500 MT per day i.e. 260 trips @25Mt/trip). Activities will be carried out as per the production schedule given earlier. The mining quarry will be working as self sustained units with all facilities like site office, rest shelter, first aid and drinking water etc. All these mines will be connected suitably with communication system.

Roads will be properly made and sprayed by water for suppression of dust.

Roads in the mining area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20.

(F) MINERAL PROCESSING OPERATION:

No mineral processing is envisaged for Boulder, Gravel & Sand (minor mineral) produced during the mining activity.

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1.1 Reasons for closure:

The progressive mine closure plan has been prepared in compliance of Haryana Minor Mineral Concession Rules 2012 under MMCR 1986. No immediate closure is planned as sufficient reserves are available to carry on the activities. There is market potential in domestic demands.

1.2 Statutory Obligations:

The mining contractor is bound to submit the Progressive mine closure plan either with Mining plan or Scheme of Mining.

Mining contractor is bound to follow the terms and conditions as will be stipulated in the mining contract.

In addition to it the rules pertaining to the Protection of Environment i.e Environment Act. Environment Rules and other associated rules for the protection of environment will have to be followed.

During the course of mining the rules stipulated in Mines Act, Mines rules Metalliferous Mines Regulation 1961 and HMMCR, 2012 will be followed.

All other rules pertaining to the mining existing at that time will be followed during the course of mining activities.

1.3 Closure plan preparations

Name, address and registration number of the recognized persons who prepared the progressive closure plan and name and address of the executing agency who is involved in the preparation of progressive mine closure plan.

S.N.S Sharma

Regd. No RQP/DDN/0135/2001/A **(Annexure-III)**

Lessee will himself implement the closure plan; no outside agency will be involved.

2.0 MINE DESCRIPTION

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2.1 General Geology and Local Geology

2.1.1 Regional Geology

The north-eastern 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 Table. Tertiary sequence of Haryana

Age	Super group	group	Formation	litho logy
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
			Tatrot Formation	Friable Sandstone and variegated clay
		Middle Siwalik	Dhokpathan Formation	Brown sandstone and orange clay
Middle Miocene			Nagri Formation	Hard grey sand stone, mudstoneand minor shale
		Lower Siwalik	Nahan Formation	Coarse grity ,clay and red sandstone often calcareous, brownish shale with lignite lenticles, greenish white Quartzite
Lower Miocene		Sirmur	Kausauli Formation	Grey and green stone,green shale and grey clay
			Dagsai Formation	Purple and green sand stone, deep red gritty,clay,white andstone with ferruginous concretions
Upper Eocene			Subathu formation	Sandstone with gritu clay. Impure fossiliferous limestone calcareous slate,greenish shale and dark brown quartzite

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Pre-proterozoic			Tunda pathar	Thickly bedded ,sstromatolite limestone with carboniferous shale and quartzite

2.1.2 LOCAL GEOLOGY

The litho units encountered in the riverbed and surrounding areas belongs to the Shivalik super groups. The sediments are river borne and has deposited in the riverbed and the flood plains. The different formations of the area belong to Shivalik Super group and are a mixture of boulders, pebbles, sand, silt and clay. The following sequences have been observed in the area.

Soil/Alluvium

Sand

Gravel

Boulder

There is no clear demarcation between the litho units. They have been deposit in a mixed form. The Litho- units exposed around the riverbed belong to Shivalik Super- Group. The mineral Boulders, Gravel and sand have formed by weathering of rocks and then deposition on the flood plains of the rivers originated from the Shivaliks. These have been washed by rainwater during rainy season and deposited in river bed in the form of boulders, gravels and sand of different sizes and shapes. These minerals are sorted by screening. The max depth of the minerals is not known.

Soil/ alluvium varying in thickness from 2-4m constitute the top horizons in the flood plain area suitable for agriculture. Yamuna River meanders through the area exposing the alluvium and soil at the banks. Boulder, gravel & sand is found in the river bed. Boulder, gravel &sand is deposited up to great depths. This bed is presently dry and water flows only during the rainy season The Sand exposed in the River bed of Yamuna and surrounding areas is the product of the deposition of the sediments brought and deposited in the flood plains of River Yamuna. These sediments are of recent geological formation. The litho-units exposed within the river and surrounding areas have formed as water borne sediments brought by flood water

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during rainy season every year and deposited in riverbed. Geological map and section are enclosed as **Plate – 03)**

2.2 Reserves

The reserves of Sand calculated by volumetric method and are summarized here below:

Sr no.	Nature of land	Lease area In ha	Total proved Geological reserves MT=Area x depth x BD (A)	Blocked area /restricted area	Blocked Geological Reserves in blocked area (B)	Total Mineable reserves A-B=C	Planned production (Per Year)
1	River Bed	44.14	26,48,400 MT	11.60 ha	6,96,000 MT	19,52,400 MT	19,50,000 MT

A) GEOLOGICAL PROVED RESERVES AS PER UNFC CODE (111)

Total Reserves = 26,48,400 MT

B) BLOCKED RESERVES AS PER UNFC CODE (211 & 222) = 6,96,000 MT

C) MINEABLE RESERVES = A-B = 19,52,400 MT

D) TARGETED PRODUCTION

19,50,000 MT per Year

E) Life of the mine

At the proposed rate of production the life of the mine is 9 years

2.3 Mining Method

Mining method to be followed is described in chapter of mining at 7.0 in mining plan.

2.4 Mineral Beneficiation

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No mineral beneficiation is envisaged.



3.0 Review of implementation of mining plan including five years progressive closure plan up to the final closure plan

Mining Plan and Progressive mine closure plan are being submitted for the first time. It will be reviewed after five years and review of implementation will be given with next mining scheme.

4.0 CLOSURE PLAN

4.1 Mined - out land

About 32.54 hectare area is available for mining. Land use at various stages is given in the table below:

Table: PRESENT LAND USE PLANING

Sr.No.	Particulars	Present Land Use (ha)
1	Restricted Safety Zone/7.5m mining area boundry,	11.60
2	Infrastructure (Office,temp. Shelters etc.	0.00
3	Area available for mining	32.54
		44.14

Table: LAND USE PLANING AT THE END OF lease period

Sr.No.	Particulars	AT THE END OF 5th YEAR (ha)
1	Safety Zone/7.5m mining area boundry,	11.60
2	Infrastructure (Office, temp. Shelters etc.	0.20*
3	Reclaimed area	32.54
6	Unworked	0.00
7	Plantation*	4.00*
	Total	44.14

*Plantation in 4.0 ha land will be done under social forestry on land available from Panchayat by the end of mine life

* Plantation & infrastructure In restricted area only



4.2 Water quality management

The area constitutes almost alluvial plain without any conspicuous topographical features and forms a part of the vast Indo-Gangetic plain. The elevation of the area above mean sea level is about 270m aMSL. The general slope of the area is southwards. Area is having 1076 mm rainfall in a year. During rainy season, catchment water flows in the river.

There will be no intersection of water table as working will be carried out upto 3.0 m depth only from surface.

4.3 Air Quality Management:

The proposed mining method is not likely to produce much of dust and fugitive emissions to cause damage to ambient air quality of the area. Workers will be provided with personnel protective equipment like face mask, ear plug/ muffs.

For air pollution management at the progressive mine closure of mine, green belt will be developed to prevent and control air pollution.

4.4 Waste Management:

As stated in mining method, there will be no waste of any kind. Therefore no waste management s required.

4.5 Top Soil Management

There will be no top soil in the river bed. Therefore no top soil handling is needed.

4.6 Tailing dam management

There is no proposal of beneficiation of mineral. No tailing dam is envisaged.

4.7 Infrastructure:

The infrastructure facilities like site office, first –aid station, rest shelter/ store, drinking water etc. will be established temporarily. At the time of closure there will be no problem to remove the same from the lease area..

4.8 Disposal of mining machinery:

Machinery is proposed on hire basis. Hence no decommissioning of mining machinery is proposed.

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4.9 Safety & Security:

Safety measures will be implemented to prevent access to excavation area by un-authorized persons as per Mine Act 1952, MMR 1961.

i. Safety measures will be implemented as per Mine Act 1952, MMR 1961, Mines Rules 1955.
ii. Provisions of MMR1961 shall be followed strictly and all roads shall be 10 m wide and have a gradient of not more than 1 in 20.
iii. Excavation will be not more than 3 m in river bed ..
iv. Width of bench will be kept around 20.0 m for ease of operations and provide sufficient room for the movement of equipments.
v. Protective equipment like dust masks, ear plugs/ muffs and other equipments shall be provided for use by the work persons.
vi. Notices giving warning to prevent inadvertent entry of persons shall be displayed at all conspicuous places and in particular near mine entries.
vii. Danger signs shall be displayed near the excavations.
viii. Security guards will be posted.
ix. In the event of temporary closer, approaches will be fenced off and notice displayed.

4.10 Disaster Management and Risk Assessment:

This should deal with action plan for high risk accidents like landslides, subsidence, flood, inundation in underground mines, fire, seismic activities, tailing dam failures etc. and emergency plan proposed for quick evacuation, ameliorative measures to be taken etc. The capability of lessee to meet such eventualities and the assistance to be required from the local authorities should be described.

- The shallow depth of activities outside the river bed mining will not involve any high risk accident due to side falls/collapse.
- There will be no mining whenever there is flow of water.
- The complete mining operation will be carried out under the Management and control of experienced and qualified Mines Manager having Certificate of Competency to manage the mines granted by DGMS.

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- All the provisions of Mines Act 1952, MMR 1961 and Mines Rules 1955, HMMR, 2012 and other laws applicable to mine will strictly be complied with.
- During heavy rainfall the mining activities will be closed.
- All persons in supervisory capacity will be provided with proper communication facilities.

  Competent persons will be provided FIRST AID kits which they will always carry.

4.11 Care and Maintenance during Temporary Discontinuance:

In case of any temporary discontinuance due to court order or due to statutory requirement or any other unforeseen circumstance following measures shall be taken for care, maintenance and monitoring of conditions.

- Notice of temporary discontinuance of work in mine shall be given to the DGMS as per the MMR 1961.
- All the mining machinery shall be shifted to a safe place.
- Entrance to the mine or part of the mine, to be discontinued shall be fenced off. Fencing shall be as per the circular 11/1959 from DGMS.
- Security Guards shall be posted for the safety and to prevent any unauthorized entry to the area.
- Carry out regular maintenance of the facilities/area detailed below in such a way as would have been done as if the mines were operation:

  Mine roads and approach roads,

  Fencing on approach roads,

  Checking and maintenance of machines and equipment,

  Drinking water arrangements,

  Mine office, first aid stations etc.

- Competent persons shall inspect the area regularly.
- Air, water and other environmental monitoring shall be carried out as per CPCB and IBM Guideline.
- Care and upkeep of plantation shall be carried out on regular basis.

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- Status of the working and status monitoring for re-opening of the mines shall be discussed daily.

In case of discontinuance due to any natural calamities/abnormal conditions, mining operation will be restarted as early as possible after completing rescue work, restoring safety and security, repairs of roads etc.



5.0 ECONOMIC REPERCUSSION OF CLOSURE OF MINE AND MANPOWER RETRENCHMENTS

Mining contract area will be granted for a period of 9 years only. As per the production programme envisaged, at the end of contract period, still sufficient un-worked area would be left available for continuing production activities further. Hence, no closure is planned. There will be no affect on the man power as the persons belong to nearby villages and will have an option either to be available for employment for the next contract or do the agriculture in their fields.



6.0 TIME SCHEDULING FOR ABANDONMENT

The mining area has enormous potential for continuance of operations even after the expiry of the awarded period. The details of time schedule of all abandonment will be given at the time of final closer plan. Mining activities are confined 3.0m. depth, relatively shallow depth of workings which will be reclaimed every year during rainy season.



7.0 ABANDONMENT COST

As at present mining is not going to be closed so abandonment cost could not be assessed. However based on the progressive mine closure activities during the plan period, cost is assessed as given below:

Abandonment Cost

ACTIVITY	YEAR					Rate	Amount (in Lakhs)
	First	Second	Third	Fourth	Fifth		
Plantation (in no.)	1000	1000	1000	1000	1000	@ 30 Rs per sapling+50 Rs maintenance cost	4.00
Plantation cost in Rs	80000	80000	80000	80000	80000		
Wire fencing (meter)	600	600	600	600	600	@ of 125 Rs per meter	3.75
Wire fencing cost	75000	75000	75000	75000	75000		
						Total	7.75



8.0 FINANCIAL ASSURANCE

Total 32.54 ha area will be put in use up to the end of 5th Year. Details of area put to use as given below (As per circular No.4/2006 issued by CCOM, Nagpur following table has been considered for calculation for financial assurance).

Calculation for Financial Assurance

S. No.	Item	Area put on use at start of plan (Ha) (A)	Requirement at the end of plan period (Ha)	Total area put to use (Ha) (B)	Area considered as fully reclaimed & rehabilitation (Ha) (C)	Net area considered for calculation (Ha) D = (B-C)
1.	Area to be excavated	0.0	32.54	32.54	0.0	32.54
2.	Storage for topsoil	0.0	0.0	0.0	0.0	0.0
3.	Overburden/ dumps	0.0	0.0	0.0	0.0	0.0
4.	Mineral storage	0.0	0.0	0.0	0.0	0.0
5.	Infrastructure *(Workshop, Adm. Building & Road)	0.00	0.20	0.20	0.20	0.0
6.	Green belt*	0.0	4.00	4.0	4.0	0.0
7	Tailing pond	0.0	0.0	0.0	0.0	0.0
8.	Effluent treatment plan	0.0	0.0	0.0	0.0	0.0
9.	Mineral separation plant	0.0	0.0	0.0	0.0	0.0
10.	Township area	0.0	0.0	0.0	0.0	0.0
11.	Others to specify	0.0	0.0	0.0	0.0	0.0
Total		**0.0**	**36.74**	**36.74**	**4.2**	**32.54**

Total 32.54 ha area will be put in use. Against this mined out area the total financial assurance (@15000/- per ha comes out to Rs 4,88,100/-which is part of the 'Mines and Minerals Development, Restoration and Rehabilitation fund.

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9.0 CERTIFICATE

It is enclosed with the report.

10.0 PLAN AND SECTION

Plan and section are prepared and enclosed with the mining plan.

Department of Mines & Geology Haryana, Chandigarh
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S.N. SHARMA
RECOGNISED QUALIFIED PERSON (RQP)
INDIAN BUREAU OF MINES (IBM)
RQP No. RQP/DDN/135/2001/A
VALID UPTO : 29TH MARCH 2021

Certificate

I, S.N.Sharma, duly Recognized Qualified Person to prepare Mining Plan under Rule 22 C of the Mineral Concession Rules, 1960 (Revised 1987) has prepared the Mining Plan & Progressive Mine Closure Plan of Sand (Minor Mineral) mine over an area of 44.14 hectares in Kanalsi Block/YNR B-5 of M/s P.S.Buildtech,34-Vishal Nagar, Yamuna Nagar. The various data and write up enclosed have been complied and verified by us. The working plan and all other details given in the plan have been prepared under my guidance and duly verified by me. The Mining Plan and Progressive Mine Closure Plan complies all statutory Rules, Regulations, orders made by the Central or State Government, statutory organizations etc. have been taken into consideration and wherever any specific permission is required the lessee will approach the concerned authorities

APPROVED
P. K. Sharma
S.M.E.
भूविज्ञान विभाग हरियाणा

S.N. SHARMA
RECOGNISED QUALIFIED PERSON (RQP)
INDIAN BUREAU OF MINES (IBM)
RQP No. RQP/DDN/135/2001/A
VALID UPTO : 29TH MARCH 2021

S.N. Sharma
RQP/DDN/0135/2001-A.

Renewed नवीनीकृत up to 29/3/2021

28/3/11

क्षेत्रीय खान नियंत्रक
Regional Controller of Mines
भारतीय खान ब्यूरो
Indian Bureau of Mines

खनन योजना तैयार करने हेतु
योग्य व्यक्ति के रूप में
मान्यता का प्रमाणपत्र

(खनिज रियायत नियमावली 1960 के नियम 22(सी) के अंतर्गत)

श्री एस. एन. शर्मा

वल्द श्री के. सी. शर्मा

निवासी 8/321 न 2181, सेक्टर-16, फरीदाबाद, हरियाणा

द्वारा अपनी योग्यताओं और अनुभव का संतोषप्रद प्रमाण प्रस्तुत करने के फलस्वरूप खनिज रियायत नियमावली, 1960 के नियम 22(सी) के अंतर्गत उन्हें एतद्द्वारा खनन योजना तैयार करने हेतु योग्य व्यक्ति के रूप में मान्यता प्रदान की जाती है ।

उनका पंजीयन क्रमांक REP/DDN/135/2001/A है ।

यह मान्यता दिनांक 29.03.2011 को समाप्त

होने वाली दो वर्षों की अवधि के लिए वैध है ।

स्थान : देहरादून

दिनांक : 30.03.2001

क्षेत्रीय खान नियंत्रक
भारतीय खान ब्यूरो
क्षेत्रीय खान नियंत्रक
Regional Controller of Mines
भारतीय खान ब्यूरो
Indian Bureau of Mines

Department of Mines & Geology Haryana, Chandigarh
APPROVED
P. K. Sharma
S.M.E.
खान एवं भूविज्ञान विभाग हरियाणा, चण्डीगढ़

Director General, Mines and Geology Department Haryana
30-Bays Building, Sector-17, Chandigarh.

Registered

From

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

To

Sh. Kulvinder Singh S/o Sh. Trilochan Singh,
Prop. of M/s P. S. Buildtech, 34-Vishal Nagar,
Yamuna Nagar-135001.

Memo No. DMG/HY/Cont/Kanalsi Block/YNR B 5/2015/**10072**
Dated Chandigarh, the **30.11.2015**

Subject: **Acceptance of the highest bid/ in respect of Sand minor mineral mines of "Kanalsi Block/YNR B 5" having Tentative Area of 44.14 hectares in the district Yamuna Nagar, offered in e- auction held on 05- 06.11.2015 and issue of Letter of Intent (LoI) – regarding.**

You participated in the in the **e- auction** held on **05.11.2015 and 06.11.2015 on the State Government web portal** https://haryanaeprocurement.gov.in **after accepting the terms and conditions of the auction notice DMG/HY/e Auction/YNR/2015/8241 dated 30.09.2015 in order to obtain mining contracts of minor mineral mines/block of the district Yamuna Nagar.** You offered the highest bid of **Rs. 04,08,50,000/-** [Rs. Four Crore eight lakhs fifty thousand only] per annum, against the Reserve Price of **Rs. 04,08,00,000/-** per annum, for obtaining the Mining Contract of Minor Mineral block namely **'Kanalsi Block/YNR B 5'** for extraction of Sand having tentative area of **44.14** hectares. The details of the khasra numbers of the tentative area under above said Mining Block is attached as **Annexure 'A'**.

2. You are hereby informed that the State Government has accepted the highest bid of **Rs. 04,08,50,000/-** [Rs. Four Crore eight lakhs fifty thousand only] per annum offered by you in respect of the above said minor mineral block of **'Kanalsi Block/YNR B 5'** under the provisions of the Haryana Minor Mineral Concession, Stocking, Transportation of Minerals & Prevention of Illegal Mining Rules-2012 (State Rules). Accordingly, you have become the successful bidder in respect of **'Kanalsi Block/YNR B 5'** of the district Yamuna Nagar.

3. The State Government having accepted the aforementioned highest bid offered by you, the Department is pleased to issue this Letter of Intent (LoI) in your favour in respect of the Mining Block/area namely **'Kanalsi Block/YNR B 5'** subject to the following terms and conditions:

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(i) The period of contract shall be **09 years** and the same shall commence with effect from the date of grant of environmental clearance by competent authority or on expiry of a period of 12 months from the date of this communication of acceptance of highest bid/ issuance of "**Letter of Intent**", whichever is earlier;

(ii) You may note that the detail of the area of the mining blocks is tentative and was notified "on as is where is basis" (**refer condition no. 4 of the notice**). In case of any inadvertent mistake, if any, the same would be rectified/ corrected before execution of the agreement (**refer condition no. 3 of the notice**).;

(iii) No request regarding reduction in bid amount on account of reduction in land/area of the Mining block, including due to change in description of khasra numbers/location etc. at any stage will be entertained on any ground including loss/reduction of area for mining on account of compliance of applicable laws/restrictions. Needless to state that this also includes the changes, if any, as per condition no. 3 of auction notice.

(iv) The amount of the highest successful bid i.e. **Rs. 04,08,50,000/-** [Rs. Four Crore eight lakhs fifty thousand only] per annum shall be the "Annual Contract Money" payable by you as the contractor in the manner prescribed in the contract agreement to be executed on form MC-1 appended to State Rules;

(v) The above said annual contract money shall be increased at the rate of 25% on completion of each block of three years. Accordingly, the year-wise amount of the annual contract money shall be as per details given below:

Sr. No.	Year of the Contract Period	Annual contract Money
1	First Year	Rs. 04,08,50,000/-
2	Second Year	Rs. 04,08,50,000/-
3	Third Year	Rs. 04,08,50,000/-
4	Fourth Year	Rs. 05,10,62,500/-
5	Fifth Year	Rs. 05,10,62,500/-
6	Sixth Year	Rs. 05,10,62,500/-
7	Seventh Year	Rs. 06,38,28,125/-
8	Eighth Year	Rs. 06,38,28,125/-
9	Ninth Year	Rs. 06,38,28,125/-

(vi) As per the terms and conditions of the grant, you are liable to deposit **Rs. 01,02,12,500/-** i.e. equal to 25% of the annual bid amount as "security deposit" out of which you have already deposited an amount of **Rs. 40,85,000/-** (Rs. Forty lakh eighty five thousand only) i.e. equal to 10% of the annual bid amount as 'initial bid security' after the conclusion of e-auction. The

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balance amount of **Rs. 61,27,500/-** of the bid security i.e. 15% of the annual bid amount alongwith one month's advance contract money shall be deposited before commencement of the mining operations or before expiry of the period of 12 months, whichever is earlier;

(vii) You shall execute an Agreement Deed in Form MC-I appended to the Haryana Minor Mineral Concession, Stocking, Transportation of Mineral & Prevention of Illegal Mining Rules-2012 (the State Rules 2012) within a period of 90 days from the date of issuance of this communication/ grant of LoI;

(viii) It may be pointed out that as per existing applicable rates the contract agreement had to be executed on **Non Judicial Stamp papers worth Rs. 15,57,410/- (Rs. Fifteen lakh fifty seven thousand four hundred ten only)**. However, you are aware that M/s Om Minerals, one of the LoI holders (who participated in the auctions held in December 2013) has filed a CWP No.7991 of 2014, before the Hon'ble Punjab & Haryana High Court. Further a few other similarly situated LoI holders have also filed separate CWP's before the Hon'ble Punjab and Haryana High Court challenging demand/ levy of Stamp Duty on execution of 'Contract Agreement'. The said matter is still pending for adjudication. Accordingly, the present auction was conducted subject to outcome of said cases. **Therefore, the charging of stamp duty for the execution of contract agreement shall be as per final outcome of the said CWP's.**

(ix) The Contract Agreement would also be required to be got Registered on payment of the applicable Registration fee;

(x) In case you fail to execute the Agreement Deed within the prescribed period of 90 days, this LoI shall be deemed to have been revoked and the amount of initial bid security deposited at the time of auction shall be forfeited. Further, the balance amount of 15% towards the bid security, amounting to **Rs. 61,27,500/-** being the 15% of the annual bid amount, shall be recovered as arrears of land revenue and, you, as the LoI holder/ defaulter, shall be debarred from participation in any future auctions for a period of 5 years;

(xi) You shall also furnish a solvent surety for a sum equal to the amount of the annual bid for execution of the Agreement. In case the surety offered by the contractor(s) during the subsistence of the contract is not found solvent, the contractor(s) shall offer another solvent surety and a supplementary deed shall be executed to this effect;

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(xii) After execution of Agreement, either before commencement of the mining operation or before expiry of the period of 12 months from the date of issuance of this LoI, whichever is earlier, in case of failure to deposit the balance 15% amount towards security [as required under clause (v) above] the acceptance of bid/issuance of LoI/execution of agreement shall be deemed to have been revoked and 10% amount deposited towards as initial bid security at the time of auction shall stand forfeited. Further, un-paid 15% amount towards security shall be recovered as arrears of land revenue and you shall debarred from participation in any subsequent bids for a period of 5 years;

(xiii) You shall be liable to deposit the contract money in advance at monthly intervals as per provisions of Contract Agreement i.e. from the date of commencement of the contract Agreement;

(xiv) You shall also deposit/ pay an additional amount equal to 10% of the due contract money along with the monthly installments towards the **'Mines and Minerals Development, Restoration and Rehabilitation Fund'**.

(xv) You shall also be liable to pay advance income tax as per provisions of Section 206(c) of income tax act in addition to contract money, payable as per terms and conditions of contract agreement.

(xvi) On enhancement of the contract money with the expiry of every three years period, you shall deposit the balance amount of security so as to upscale the security amount equal to 25% of the revised annual contract money as applicable for one year with respect to the next block of three years. No interest, whatsoever, shall be payable on the security amount deposited under the prescribed security head of the government;

(xvii) You shall prepare a Mining Plan along with the Mine Closure Plan (Progressive & Final) as per chapter 10 of the State Rules for the "Mining Block" and shall not commence mining operations in any area except in accordance with such Mining Plan duly approved by an officer authorised by the Director, mines & Geology, in this behalf.

(xviii) Further, the actual mining will be allowed to be commenced only after prior Environmental Clearance is obtained by you as the LoI holder/mining contractor for the Mining Block from the Competent Authority as permitted by the competent Authority required under EIA notification dated 14/9/2006, as

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amended from time to time by the MoE&F, GoI and guidelines/ circulars issued in this behalf;

(xix) The Mining contractor to whom mining rights have been granted through this contract would also be liable to pay the following to the landowners to undertake mining operations:

(a) Annual rent in respect of the land area blocked under the concession but not being operated, and

(b) Rent plus compensation in respect of the area used for actual mining operations.

(xx) The amount of annual rent and the compensation shall be settled mutually between the landowner and the mining contractor. In case of non-settlement of the rent and compensation, the same shall be decided by the District Collector concerned in accordance with the provisions contained in Chapter 9 of the "Haryana Minor Mineral Concession, Stocking, and Transportation of Minerals and Prevention of Illegal Mining Rules, 2012";

(xxi) The total mineral excavated and stacked by the concession holder within the area granted on mining contract shall not exceed two times of the average monthly production as per approved Mining Plan at any point of time;

(xxii) The Mining Contractor shall not stock any mineral outside the concession area granted on mining contract, without obtaining a valid license as per provisions contained in Chapter 14 of the State Rules;

(xxiii) The contractor shall not carry out any mining operations in any reserved/ protected forest or any area prohibited by any law in force in India, or prohibited by any authority without obtaining prior permission in writing from such authority or officer authorized in this behalf. In case of refusal of permission by such authority or officer authorized in this behalf, contractor(s) shall not be entitled to claim any relief in payment of contract money on this account;

(xxiv) Following are the general/ special conditions applicable for excavation of minor mineral(s) from river beds in order to ensure safety of river-beds, structures and the adjoining areas:

(a) No mining would be permissible in a river-bed up to a distance of five times of the span of a bridge structure on up-stream side and ten times

the span of such bridge structure on down-stream side, subject to a minimum of 250 meters on the up-stream side and 500 meters on the down-stream side;

(b) 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 authorised by him;

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

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

(e) No mining shall be permissible in an area up to a width of 500 meters from the active edges of embankments in case of river Yamuna, 250 meters in case of Tangri, Markanda and Ghaggar and 100 meters on either side of all other rivers/ rivulets. (This clause is applicable for mining outside river bed area);

(f) Any other condition(s), as may be required by the Irrigation Department of the state from time to time for river-bed mining in consultation with the Mines & Geology Department, may be made applicable to the mining operations in river-beds.

(xxv) A safety margin of two meters (2m) shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this level unless a specific permission is obtained from the competent authority in this behalf. Further, the depth of excavation of mineral shall not exceed nine meters (9m) at any point of time. (**This clause is applicable for mining outside river bed area**);

(xxvi) The contractor shall not undertake any mining operations in the area granted on mining contract without obtaining requisite permission from the competent authority as required for undertaking mining operations under relevant laws;

(xxvii) The contractor shall be under obligation to carry out mining in accordance with all other provisions as applicable under the Mines Act, 1952, Mines and Minerals (Development and Regulation) Act, 1957, Indian Explosives Act, 1884, Forest

P.K. Sharma
S.M.E.

Director General, Mines and Geology Department Haryana
30-Bays Building, Sector-17, Chandigarh.

(Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made thereunder, Wild Life (Protection) Act, 1972, Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981;

4. Accordingly, for the time being you are advised to submit the Draft Contract Agreement on Form MC-I (in Five copies) appended to the State Rules-2012, on **plain papers** along with other requisite documents including a solvent surety(s) for a sum equal to the amount of the annual bid for execution of the agreement, within a period of 90 days from the date of issue of this bid acceptance letter and the LoI. You should also furnish an affidavit to the effect that you will immediately deposit the requisite stamp duty as per out of the related Court cases as stated under para 3(viii) above.

Mining Officer,
for Director General Mines & Geology,
Haryana.

Endst.No. DMG/HY/Cont/Kanalsi Block/YNR B 5/2015/ Dated:

A copy is forwarded to the following for information and necessary action please:-

1. The Chairman, Haryana State Pollution Control Board, Panchkula.
2. The Deputy Commissioner, Yamuna Nagar.
3. The Mining Officer, Mines & Geology Department, Yamuna Nagar.

-sd-

Mining Officer,
for Director General Mines & Geology,
Haryana.

(Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made thereunder, Wild Life (Protection) Act, 1972, Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981;

4. Accordingly, for the time being you are advised to submit the Draft Contract Agreement on Form MC-I (in Five copies) appended to the State Rules-2012, on **plain papers** along with other requisite documents including a solvent surety(s) for a sum equal to the amount of the annual bid for execution of the agreement, within a period of 90 days from the date of issue of this bid acceptance letter and the LoI. You should also furnish an affidavit to the effect that you will immediately deposit the requisite stamp duty as per out of the related Court cases as stated under para 3(viii) above.

Mining Officer,
for Director General Mines & Geology,
Haryana.

Endst.No. DMG/HY/Cont/Kanalsi Block/YNR B 5/2015/ Dated:

A copy is forwarded to the following for information and necessary action please:-

1. The Chairman, Haryana State Pollution Control Board, Panchkula.
2. The Deputy Commissioner, Yamuna Nagar.
3. The Mining Officer, Mines & Geology Department, Yamuna Nagar.

-sd-

Mining Officer,
for Director General Mines & Geology,
Haryana.

Department of Mines & Geology Haryana, Chandigarh
APPROVED
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भूविज्ञान विभाग हरियाणा

M/S. P.S. BUILDTECH

24 Vishal Nagar, Ramona Tehsil [illegible]
Phone: [illegible]

CONSENT LETTER FROM APPLICANT (ANNEXURE-I)

The Mining Plan & Progressive Mine Closure Plan in respect of Boulder, Gravel and Sand Minor Mineral Mines of "Kanahi Block/VNR II 5" having area of 46.14 Ha. in District Yamuna Nagar by M/s P. S. Buildtech has been prepared by S.N. Sharma bearing "Recognized Qualified Person" registration no. RQP/DDN/0135/2001-A.

We request "The Director Mines and Geology, Haryana" to make further correspondence regarding modification of the Mining Plan with the said RQP on the following address:

Mr. S.N. Sharma
RQP/DDN/0135/2001-A.
First Floor, 282 sector 11 D, DLF,
Faridabad -121006 (Haryana)
Mobile: 09560848579
E-mail: snsharma@jbbtechnocrat.com

We also authorize Mr. S.N. Sharma to make correspondence with your office.

I hereby undertake that the Mining Plan in respect of the above area prepared by RQP be deemed to have been made with my knowledge and consent and shall be acceptable to me and binding on me in all respects.

Place:

Date:

Signature of the Applicant

Renewed /नवीनीकृत up to 29/3/2021

28/3/11
क्षेत्रीय खान नियंत्रक
Regional Controller of Mines
भारतीय खान ब्यूरो
Indian Bureau of Mines

खनन योजना तैयार करने हेतु योग्य व्यक्ति के रूप में मान्यता का प्रमाणपत्र

(खनिज रियायत नियमावली 1960 के नियम 22(सी) के अंतर्गत)

श्री एस. एन. शर्मा

वल्द श्री के. सी. शर्मा

निवासी हाउस नं 2181, सेक्टर-16, फरीदाबाद, हरियाणा

द्वारा अपनी योग्यताओं और अनुभव का संतोषप्रद प्रमाण प्रस्तुत करने के फलस्वरूप खनिज रियायत नियमावली, 1960 के नियम 22(सी) के अंतर्गत उन्हें एतद्द्वारा खनन योजना तैयार करने हेतु योग्य व्यक्ति के रूप में मान्यता प्रदान की जाती है ।

उनका पंजीयन क्रमांक RQP/DDN/135/2001/A है ।

यह मान्यता दिनांक 29.03.2011 को समाप्त होने वाली दो वर्षों की अवधि के लिए वैध है ।

PROVED
P. K. Sharma
S.M.E.

स्थान : देहरादून

दिनांक : 30.03.2001

क्षेत्रीय खान नियंत्रक
भारतीय खान ब्यूरो
क्षेत्रीय खान नियंत्रक
Regional Controller of Mines
भारतीय खान ब्यूरो
Indian Bureau of Mines

ANNEXURE R8/3 856

TimeLine Details

Proposal received date at each stage of flow.

Proposal No.* : SIA/HR/MIN/16141/2015

Project Name* : Mining of "Sand (Minor Mineral)" at Kanalsi Block/YNR B 5 by M/s P.S. Buildtech, Yamuna Nagar,

Project Sector* : Non-Coal Mining

Date of submission* : 17 Jun 2016

Submitted by Proponent	Query for Shortcoming(if any) by SEIAA	Resubmission of Proposal by Proponent	Accepted by SEIAA and forwarded to SEAC	Query for Shortcoming(if any) by SEAC	Resubmission of Proposal by Proponent	Accepted by SEAC	Forwarded to SEIAA for EC	EC Letter Uploaded On/EC Granted
17/06/2016	17/06/2016	17/06/2016	23/06/2016	N/A	N/A	12/07/2016	29/08/2017	15/09/2016

Print page

ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN

FOR

MINING OF SAND/BALU (RIVER BED MINING AT YAMUNA RIVER)

AT

KANALSI BLOCK YNR B-5
VILLAGE- KANALSI, TEHSIL- JAGADHRI,
DISTRICT- YAMUNA NAGAR, HARYANA
MINE LEASE AREA- 44.14 HA
MINE LEASE PERIOD- 9 YEARS
PRODUCTION CAPACITY–19.50 LAKH TONS PER ANNUM

STUDY PERIOD: DECEMBER, 2015- FEBRUARY 2016

MONITORING DONE BY VARDAN ENVIROLAB; NABL ACCREDITATION No. T-2629

CATEGORY "B1" 1(A), DUE TO MINE LEASE AREA IS EXCEEDING 25 HA AND LESS THAN 50 HA .]



APPLICANT

SH. KULVINDER SINGH S/O SH. TRILICHAN SINGH

PROPERITOR M/S P.S.BUILDTECH

34-VISHAL NAGAR, YAMUNA NAGAR-135001, HARYANA

ENVIRONMENT CONSULTANT

VARDAN ENVIRONET

(QCI/NABET ACCREDITED NO. NABET/EIA/1316/IA001)

D-142, SECTOR 57 GURGAON (HARYANA)

E-Mail: vardanenviro165@gmail.com

Contact: 0124-4291036, 09899651342

Document No. 2015_VM_10101_Fianl EIA

(June 2016)

REVIEW AND REVISION HISTORY

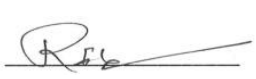
History of revisions of the present report:

Table I: History of the Revisions

S.No.	Rev.	Date	Modifications	Remarks
1.	Rev.00 Draft	05.03.2016	Draft EIA /EMP Report	Report has been prepared by Team Vardan and all the comments of reviewers have been incorporated in Draft EIA/EMP Report.
2.	Rev.00 Final	11.06.2016	Final EIA /EMP Report	Report has been prepared by Team Vardan and all the comments of reviewers have been incorporated in Final EIA/EMP report.

Document No.

Table II: Record of Review

Rev.	Date	Description	Review-1	Review-2	Approval
Rev.00	05.03.2016	Draft EIA /EMP Report	Dr. Ashok K. Rathoure	Mr. S.K. Sharma	Mr. R.S. Yadav
-	-	-			

Document No. - 2015_VM_10101

Rev.	Date	Description	Review-1	Review-2	Approval
Rev.00	11.06.2016	Final EIA /EMP Report	Dr. Ashok K. Rathoure	Mr. S.K. Sharma	Mr. R.S. Yadav
-	-	-			

This Report has been prepared by **Vardan EnviroNet** on behalf of and for the use of Sh. Kulvinder Singh Prop. M/s P.S.Buildtech with due consideration and skill as per our general terms and conditions of business and terms of agreement with the Sh. Kulvinder Singh Prop. M/s P.S.Buildtech.

DISCLAIMER

Vardan EnviroNet has taken all reasonable precautions in the preparation of this report as per its auditable quality plan. Vardan EnviroNet also believes that the facts presented in the report are accurate as on the date it was written. However, it is impossible to dismiss absolutely, the possibility of errors or omissions. Vardan EnviroNet therefore specifically disclaims any liability resulting from the use or application of the information contained in this report. The information is not intended to serve as legal advice related to the individual situation.

DECLARATION BY CONSULTANT

NABET Annexure – VII

Declaration by Experts contributing to the EIA of "Kanalsi Block/YNR B-5" by Kulvinder Singh Prop. M/s P.S. Buildtech.

I, hereby, certify that I was a part of the EIA team in the following capacity that developed the above EIA.

EIA Coordinator: Mr. S.K. Sharma



Signature

Date: 10.06.2016

D-142, Sector-57, Sushant Lok-III, Golf Course Extension Road,

Gurgaon (Haryana)

Contact: 9899651342

Email: vardanenviro165@gmail.com

Team Member: Mr. Kaunan Siddiqui



Signature

Date: 10.06.2016

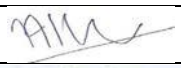
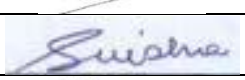
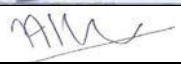
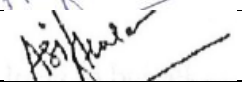
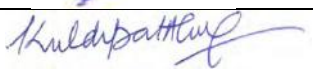
D-142, Sector-57, Sushant Lok-III, Golf Course Extension Road,
Gurgaon (Haryana)

Contact: 09953147268

Email: vardanenviro165@gmail.com

Functional Area Experts (FAEs):

S.No.	FAs	Name of Expert/s	Involvement (period)	Signature
1.	AP	Mr. S.K.Sharma	Dec.2015-Jun. 2016	
2.	SHW	Mr. S.K.Sharma	Dec.2015-Jun. 2016	

3.	WP	Dr. Ashok Kumar	Dec.2015-Jun. 2016	
4.	SE	Mrs. Shilpa Mishra	Dec.2015-Feb. 2016	
5.	EB	Dr. Ashok Kumar	Dec.2015-Jun. 2016	
6.	HG	Mr. R.S Yadav	Dec.2015-Jun. 2016	
7.	GEO	Mr.R.S Yadav	Dec.2015-Jun. 2016	
8.	AQ	Mr. Asif Hussain	Dec.2015-Feb. 2016	
9.	NV	Mr. Asif Hussain	Dec.2015-Feb. 2016	
10.	LU	Mr. Joshua Anand	Dec.2015-Feb. 2016	
11.	RH	Mr. Kuldipak Ahuja	Dec.2015-Feb. 2016	
12.	SC	Mr. S.K. Sharma	Dec.2015-Jun. 2016	

TM and FAA are included in chapter 12 as Team for EIA preparation.

Declaration by the Head of the accredited consultant organization/ authorized person

I, R.S. Yadav, hereby, confirm that the above mentioned experts prepared the EIA for sand mine project of Kulvinder Singh Prop. **M/s P.S. Buildtech.** I, hereby, certify that I was a part of the EIA team in the following capacity that developed the above EIA.

I also confirm that I shall be fully accountable for any mis-leading information mentioned in this statement.

Name: **R.S.Yadav**



Signature

Designation: **Managing Director**

Name of the EIA Consultant Organization: **M/s Vardan Environet**, QCI/NABET Accredited Environment Consultancy.

NABET Certificate No. & Issue Date: NABET/EIA/1316/IA001 valid upto 08.11.2016.

COMPLIANCE TO TOR CONDITIONS

Point wise compliance of ToR points issued by Ministry of Environment, Forests & Climate Change, Impact Assessment Division, Government of India, New Delhi vide letter no J-11015/4/2016-IA.II (M) dated 08-02-2016 for the project Sand Mining (minor mineral) of Kanalsi Block/ YNR B-5 Tehsil-Jagadhri, District- Yamuna Nagar, Haryana (Mine Lease Area 44.14 Ha.) Capacity 19.50 Lakhs TPA by Sh. Kulvinder Singh Prop. M/s P.S.Buildtech, 34-Vishal Nagar, YamunaNagar-135001, Haryana. Now, MoEF&CC has transferred this case to SEAC/SEIAA Haryana under Cat. B.

ToR	Description	Reply	Citation
1	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 came into force w.r.t. the highest production achieved prior to 1994.	This is a fresh Mining Lease area auctioned by Govt. of Haryana and LoI was issued vide letter **DMG/HY/Cont/Kanalsi Block/NYR B-5 /2015/10072** dated **30/11/2015** attached as **Annexure I,** no production is started yet.	**Annexure-I.**
2	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.	The copy of letter of intent (LOI) of mining lease issued by Director of Mines & Geology Department, Chandigarh, Haryana, vide letter no **DMG/HY/Cont/ Kanalsi Block /NYR B 5 /2015/10072 dated 30/11/2015** was issued in favor of Sh. **Kulvinder Singh** Prop. M/s P.S. Buildtech, and has applied for Environmental Clearance, is enclosed as **Annexure-I.**	**Annexure-I.**
3	All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.	Contents in all documents are synchronizing with one another in terms of mine lease area, production levels, waste generation, its management and mining technology. Both the Draft mining plan and ML area in the name of **Sh. Kulvinder Singh Prop. M/s P.S. Buildtech**. who is the lessee of this project. Copy of LoI and the Approval Letter of Mining Plan is enclosed as **Annexure I** and **II** respectively.	**Annexure-I.** **Annexure-II.**

<table>
<tr>
<td>4</td>
<td>All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).</td>
<td>All corners of the coordinates of ML area are superimposed on topo-sheet of survey of India Toposheet (OSM) No. H43L8, H43L12
Coordinates of the mine lease area
<table>
<tr><th>Pillar No</th><th>Latitudes</th><th>Longitudes</th></tr>
<tr><td>A</td><td>N 30° 08’ 31’’</td><td>E77° 24’ 15’’</td></tr>
<tr><td>B</td><td>N 30° 08’ 31’’</td><td>E77° 24’ 42’’</td></tr>
<tr><td>C</td><td>N 30° 08’ 27’”</td><td>E77° 24’ 42.5”</td></tr>
<tr><td>D</td><td>N 30° 08’ 24’’</td><td>E77° 24’ 46”</td></tr>
<tr><td>E</td><td>N 30° 08’ 17’’</td><td>E77° 24’ 26”</td></tr>
<tr><td>F</td><td>N 30° 08’ 17’’</td><td>E77° 24’ 26”</td></tr>
<tr><td>G</td><td>N 30° 08’ 20’’</td><td>E77° 24’ 19”</td></tr>
<tr><td>H</td><td>N 30° 08’ 13’’</td><td>E77° 24’ 15”</td></tr>
<tr><td>I</td><td>N 30° 08’ 13’’</td><td>E77° 24’ 12.5”</td></tr>
<tr><td>J</td><td>N 30° 08’ 11’’</td><td>E77° 24’ 12.5”</td></tr>
<tr><td>K</td><td>N 30° 08’ 11’”</td><td>E77° 24’ 10”</td></tr>
<tr><td>L</td><td>N 30° 08’ 09’’</td><td>E77° 24’ 10”</td></tr>
<tr><td>M</td><td>N 30° 08’ 09’’</td><td>E77° 24’ 7.5”</td></tr>
<tr><td>N</td><td>N 30° 08’ 14’’</td><td>E77° 24’ 00”</td></tr>
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<tr><td>Q</td><td>N 30° 08’ 25’’</td><td>E77° 24’ 10”</td></tr>
<tr><td>R</td><td>N 30° 08’ 27’’</td><td>E77° 24’ 10”</td></tr>
<tr><td>S</td><td>N 30° 08’ 27’’</td><td>E77° 24’ 12.5”</td></tr>
<tr><td>T</td><td>N 30° 08’ 29’’</td><td>E77° 24’ 12.5”</td></tr>
</table>
Land use and High resolution Imagery FCC maps are prepared with use a RS–GIS technique and also incorporate in Chapter-4.</td>
<td>Chapter-1, Figure 1.1 at Page 4

Chapter-4, Figure 4.1 and 4.2 at Page 31</td>
</tr>
</table>

5	Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.	All maps are provided superimposed on topo-sheet of survey of India in 1:50,000 scale. Geological and Mineral Map of Haryana is given in **Chapter-2.**	**Chapter-1, Figure 1.1 at Page 4.** **Chapter-2, Figure 2.7 and Page 14.**
6	Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.	The Mines and Geology department of Haryana Government has auctioned this sand unit in the dry riverbed. Land riverbed land Gair mumkin nadi/nalah and as per terms and conditions of LoI the lease holder will settle compensation with Gair mumkin nadi/nalah owner before starting the mining operation. Mineral rights in both kind of land vest with the Haryana State Government. There is no need of land diversion in this case.	**Annexure-I.**
7	It should be clearly stated whether the proponent company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA report with description of the prescribed operating process/ procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large may also be detailed in the EIA report.	Yes, The company has formulated Environmental policy which is approved by **Sh. Kulvinder Singh Prop. M/s P.S.Buildtech.** The operating process or the implementation of policy will be as follows: ▪ Compliance with all applicable environmental laws and regular maintenance of their records. ▪ Acquaintance of all employees and contractors with their environmental responsibilities. ▪ Focus on continuous improvement. ▪ Continuous review of environmental achievements. ▪ Internal audits and non-conformances report. The Policy contains the hierarchical system of the company to deal with the environmental issues and for ensuring the compliance with EC conditions. All the non compliances/violations of environmental laws will as per QMS The details are incorporated in **EIA/EMP report.** .	**Chapter-6, Item 6.1 at Page 85.** **Annexure XIII**

8	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.	Mines safety for workers working at the site has been taken care of. Safety measures related to risks during mining activity, natural disasters, etc has been proposed. The details are incorporated the EIA/EMP Report. This is an inside riverbed mining. There will be no underground mining; hence subsidence study is not required. **Slope Study** As working will be done in the river bed to maximum depth of 3.0 m only, thus slope study is not required. **Blasting Study** This is a Sand (minor mineral) mining project, no blasting is proposed.	**Chapter 7, Item 7.3 at Page 100.**
9	The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc should be for the life of the mine/ lease period.	Study area comprises of 10 Km radius around the mine lease boundary. Map showing 10 Km radius of the ML area has been furnished in the EIA report and 10 Km radius of mine lease. All the data contained in the EIA/EMP Report are for lease period of mine. There is no generation of Overburden/ waste material in case of river bed mining. Lease period is **9 years.**	**Chapter-1, Figure 1.1 and Page 4**

<table>
<tr>
<td>10</td>
<td>Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and
Post-operational phases and submitted. Impact, if any, of change of land use should be given.</td>
<td>Land Use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, National park, migratory routes of fauna, water bodies, human settlements and other ecological features has been incorporated.
<table>
<tr><th>Land Use</th><th>Area (Hectares)</th><th>% Area</th></tr>
<tr><td>Water Body</td><td>1092.78</td><td>3.17</td></tr>
<tr><td>Grassland</td><td>18501.90</td><td>53.68</td></tr>
<tr><td>Dense Forest</td><td>4813.83</td><td>13.97</td></tr>
<tr><td>Agricultural Land</td><td>3007.24</td><td>8.73</td></tr>
<tr><td>Fallow Land</td><td>1945.35</td><td>5.64</td></tr>
<tr><td>Sand/River Bank</td><td>1203.30</td><td>3.49</td></tr>
<tr><td>Settlement</td><td>2183.64</td><td>6.34</td></tr>
<tr><td>Open Scrub</td><td>1718.77</td><td>4.99</td></tr>
<tr><td>Total Area</td><td>34466.81</td><td>100</td></tr>
</table>
Land use plan of the mine lease area showing the preoperational, operational and post operational phases is incorporated in the EIA/EMP Report.</td>
<td>Chapter-4, Table 4.1, Figure 4.1 at Page 30 and 31

Chapter-2, Table-2.12 at Page 24</td>
</tr>
<tr>
<td>11</td>
<td>Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.</td>
<td>River Bed: There is no generation of Overburden / waste material in case of river bed mining.
There is no human settlement and Gair Mumkin Nadi/Nallah. Hence R&R is not applicable on this project.</td>
<td>Chapter-2 , Item No. 2.12 at Page No. 24</td>
</tr>
</table>

12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.	The Mining Lease area does not involve any forest land. The land of the Mining riverbed of Yamuna and this area is free from any reservation of forest department Haryana Government. Letter from DFO, Yamuna Nagar via letter No. 3816 on dated 24.12.2015 is attached as **Annexure IV.**	**Annexure-IV**
13	Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.	The land of the Mining lease area is Government land on the river bed of Yamuna and this area is free from any reservation of forest department Haryana Government. Letter from DFO, Yamuna Nagar via letter 3816 on dated 24.12.2015 is attached as **Annexure IV.**	**Annexure-IV**
14	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.	Not Applicable, There is no involvement of forest land in the project area. Letter from DFO, Yamuna Nagar via letter 3816 on dated 24.12.2015 is attached as **Annexure IV.**	**Annexure-IV**

15	The vegetation in the RF/ PF areas in the study area, with necessary details, should be given.	Project area not falling under forest reserve. So, no approval is required. Only, Reserve and Protected Forest present within the 10 Km of the project area which are as follows: (i) Bir Tapu Reserved Forest 1.9 Km, Towards S (ii) Sungh Protected Forest 5 Km, Towards W (iii) Baila chaur Protected Forest 8 Km, Towards N (iv) Urjani Protected Forest 8.2 Km, Towards N (v) Mujahidwala Protected Forest 9.1 Km, Towards NE There is no National Park, Wild Life Sanctuary Biosphere Reserve within 10 km of project site. Letter from DFO, Yamuna Nagar via letter 3816 on dated 24.12.2015 is attached as **Annexure IV.**	**Annexure IV**
16	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.	EB Study has been carried out by the Ecology and Biodiversity Expert (NABET/QCI Approved) in and around the lease area to study the wild life of the area. 1 species of Schedule I and 2 species of Schedule II species were recorded. The conservation plan has been prepared along with budgetary provision of **Rs. 9.10** Lakhs to conserve wildlife. The proper mitigation measures have been proposed to mitigate negative impacts.	**Chapter 7, Table 7.4 and 7.5 at Page 117-118** **Chapter 5, Item 5.4 to Item 5.14 at Page 71 to 83**

17	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/ Elephant Reserves/ (existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing committee of National Board of Wild Life and copy furnished.	No National Parks, Sanctuaries, Biosphere Reserves Wildlife Corridors, Tiger/ Elephant Reserves/ Critically Polluted areas/ Aravali are falling within 10 Km of the study area. The location map has been prepared on SOI Toposheet is shown figure 1.1.	**Chapter-1, Figure 1.1 at Page 4**
18	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.	A detailed biological study (10 Km radius) was conducted by Ecology and Biodiversity Expert and the details are incorporated in **Chapter 4** of the EIA/EMP Report. And a budget of **Rs. 9.10 Lakhs** earmarked for wildlife conservation Details are incorporated in the EIA/EMP Report. Authenticated List of Flora and Fauna was obtained from District Forest Officer and is enclosed as **Annexure XI** with the EIA/EMP Report. 1 species of Schedule I and 2 species of Schedule II species were recorded within 10 Km distance from the boundary of project site hence conservation plan has been prepared.	**Chapter 4, Item -4.10 at Page 48.** **Chapter 7, Table 7.4 and 7.5 at Page 117** **Annexure XI**

19	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.	The project site is neither falling in proximity to area declared as Critically Polluted. The proposed mining area of Sand (minor mineral) is located on the river bed and inside river bed of Yamuna River. The valid and lawful LoI of this project site has been granted to the lease holder by the Mining Department of Haryana Government as enclosed in **Annexure-I**. Letter from DFO, Yamuna Nagar via letter 3816 on dated 24.12.2015 is attached as **Annexure IV** stating that the mine lease area is neither falling under Aravali Plantation nor in forest under section 4 and 5 PLPA 1900 as per record of Forest Department, Govt. of Harynana.	**Annexure-I** **Annexure-IV**
20	Similarly, for coastal projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t. CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).	Not Applicable, since the project site does not comes under coastal area.	**Chapter-1, Table 1.2 at Page 2**

21	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/ National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village located in the mine lease area will be shifted or not. The issues relating to shifting of Village including their R&R and socio-economic aspects should be discussed in the report.	There is no Project Affected Person (PAP) by mining activities. Hence, there is no need of R and R Plan. However, as per the point xiv of LoI the lease holder will deposite 10% of the annual contract money *i.e* **40.85 Lakh** approx. to the **Mines and Minerals Development, Restoration and Rehabilitation Fund**. This amount will be spent by lease holder for the protection of environment in the nearby surrounding area. The officers of the State Government Haryana will strictly monitor the compliance of lease holder in this regard.	**Chapter-1 , Table No. 1.2 at Page No. 2**
22	One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season); December-February (winter season)] primary baseline data on ambient air	Baseline data of study area within 10 Km radius of the project site was collected during winter season, 2015 (1st December 2015 to 29th February, 2016) as per ToR.	**Chapter 4. Page 32-48**

	quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant Downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM_{10}, particularly for free silica, should be given.	PM 10 – **54.70µg/m^3 and 82.70 µg/m^3** PM 2.5 – **27.80 µg/m^3 and 48.20 µg/m^3** SO_2 – **7.50 µg/m^3 and 17.80 µg/m^3** NOx – **13.7 µg/m^3 and 30.2 µg/m^3** **Ground Water:** pH varies from to **7.32 to 8.06**. TDS - **137.00 to 491.00 mg/L** Total Hardness -**112.10 to 440.00 mg/L** Fluoride varies from **0.07 to 0.24 mg/L** Chloride varies from **1.97 to 25.62 mg/L** EC varies from **0.234 to 0.820 mS/cm** **Surface Water:** pH varies from to **7.46 to 8.15** TDS - **125 to 207 mg/L.** Total Hardness - **128 to 216 mg/L.** EC varies from **0.216 to 0.360 mS /cm** Fluoride varies from **0.06 to 0.08 mg/L** Chloride varies from **1.97 to 3.94 mg/L** COD varies from **9.10 to 12.0 mg/L** BOD varies from **4.00 to 4.80 mg/L** **Soil Quality:** pH –**7.23 to 8.01**, Texture – Silty to Sandy Organic Matter – **0.60% to 0.79 %** Nitrogen- **226.32kg/hec to 296.36 kg/hec** Phosphorus-**40.28 kg/hec to 65.4 kg/hec** Potassium-**90.12 kg/hec to 112.17 kg/hec** **Noise level:** During Day Time –**51.5 Leq dB and 56.8 Leq dB** During Night Time –**42.1 Leq dB and 47.3 Leq dB**.	**Chapter 4, Page 32-48** **Annexure-VI** **Annexure-VII** **Annexure-VIII** **Annexure-IX**
		Site specific meteorology data was collected and incorporated in EIA/EMP Report.	**Chapter 4, Table 4.3 at Page 33**

		The location of Air Monitoring stations was selected to represent the whole mine lease area (10 Km radius). One Location is also selected in 500 m of dominant downwind direction. Details incorporated in **Chapter 4** of the EIA/EMP Report.	**Chapter 4, Table 4.5 at Page 34 and Figure 4.4 at page 36**
		Mineralogical composition of PM10 particularly for Free silica is incorporated in the EIA/EMP Report. The range of Free Silica in PM_{10} was found to be 2.10% to 3.20%.	**Chapter 4, Table 4.8 Page 35**
23	Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing predominant wind direction may also be indicated on the map.	Air quality modeling was carried out and impact of Air quality has been incorporated in the EIA/EMP report. Max predicted GLC was **3.56** µg/m^3 and cumulative GL of PM_{10} was to be **82.721** µg/m^3. The predominant wind direction recorded during study period was from WWN to ESE Direction as per Wind rose diagram	**Chapter 5 at Page-70** **Chapter 4, Figure 4.3 at Page 34**
24	The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.	Water requirement in this project site is 40 KLD. Water will be taken from existing water sources from nearby villages or tanker supplier. The details are incorporated in **Chapter-2.** **Total Water Requirement= 40.00 KLD** Dust Suppression = 20 KLD Plantation = 14 KLD Domestic Purpose = 6 KLD	**Chapter 2 Figure 2.14 at Page 25**
25	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.	Not Applicable Water will be taken from near villages through tankers.	-

26	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	The project do not consume any process water except for drinking, dust suppression and plantation. Plantation is proposed, which will increase the water holding capacity and help in recharging of ground water. Rainwater harvesting is proposed for the present project.	**Chapter 10, Table- 10.1 and 10.2, Page -134 and 135.**
27	Impact of the project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.	**Surface Water** No permanent infrastructure will be developed which may obstruct the river flow, the proposed sand (minor mineral) mining will not be done in rainy days hence there will not be any adverse impact on the surface water. **Ground Water** The ground water quality will not be changed because mining activity will not intersect the ground water table as it is restricted to 3m depth in river bed. Impact of the project on the water quality and its mitigation measures has been incorporated in **Chapter-5** of EIA/EMP report.	**Chapter 5, Item no. 5.5 Figure 5.4 at Page 72 and Page 73**
28	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.	The maximum working depth of mining will be 3 m bgl in river bed where the groundwater table exists at an average depth of 5-10 m bgl. So mining depth will not intersect the ground water table. Hence permission is not required from CGWA. Systematic diagram of mining depth also incorporated in **Chapter-5**. Water will be sourced from the hired tankers; hence permission from CGWA is not applicable.	**Chapter 5, Item no. 5.5 Figure 5.4 at Page 72**

<table>
<tr><td>29</td><td>Details of any stream, seasonal or otherwise, passing through the lease area and modification /diversion proposed, if any, and the impact of the same on the hydrology should be brought out.</td><td>There is no stream modification/ diversion.
It is opencast mining of sand (minor mineral) located on the river bed and mining is permitted only up to depth of 3 meter; hence there will be no stream diversion/ modifications.</td><td>-</td></tr>
<tr><td>30</td><td>Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.</td><td>Maximum Working Depth : 3m bgl
Ground water Table: 5-10 m bgl
Site elevation: 267 to 276 m amsl.
Schematic diagram of mining depth also incorporated in Chapter-5.</td><td>Chapter 2, Table 2.4 and Page 15
Chapter 5, Item no. 5.5 Figure 5.4 at Page 72</td></tr>
<tr><td>31</td><td>A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. Phase-wise plan of plantation and compensatory Afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.</td><td>A suitable combination of trees that can grow fast and also have good leaf cover shall be adopted to develop the greenbelt. It is proposed to plant 1000 number of native species along with some fruit bearing and medicinal trees during the plan period. Progressive Green belt Development Plan have been incorporated in the EIA/EMP report. Schedule of Plantation for the Five Years.
<table>
<tr><th>Year</th><th>Saplings</th><th>Survival 80%</th><th>Species</th><th>Place</th></tr>
<tr><td>I</td><td>1000</td><td>800</td><td rowspan="6">Neem, Mango, Shisham, Sirish, Gulmohar etc.</td><td rowspan="6">Along the roads, in schools and public building and other social forestry programme.</td></tr>
<tr><td>II</td><td>1000</td><td>800</td></tr>
<tr><td>III</td><td>1000</td><td>800</td></tr>
<tr><td>IV</td><td>1000</td><td>800</td></tr>
<tr><td>V</td><td>1000</td><td>800</td></tr>
<tr><td>Total</td><td>5,000</td><td>4000</td></tr>
</table>
Source: Mine Plan</td><td>Chapter 10, Table- 10.1 and 10.2, Page -134</td></tr>
</table>

32	Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.	Impact on local transport infrastructure due to the project has been assessed. There will not be much impact on local transport. **201 PCU/hr** will be increased in current traffic Scenario. Traffic density from the proposed mining activity has been incorporated in the EIA/EMP report and traffic study detailed enclosed as **Annexure-X.**	**Chapter 4, Figure 4.13 Page 45** **Annexure X**
33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.	Adequate infrastructure and other facilities will be provided to mine worker. Information about onsite shelter and facilities for workers has been incorporated.	**Chapter 2 at Page 25**
34	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.	Conceptual post mining Land use is incorporated in the EIA/EMP Report. The land use of the lease area will remain same as the proposed activity is extraction of deposited Sand (minor mineral) from river bed which will get replenished during succeeding monsoon season. In inside Riverbed, top soil will be removed in advance of the actual mining and will be stacked in a temporary stack yard and will be used for reclamation simultaneously. The amount of sediment regenerated every year derived hypothetically by Dandy-Bolton's equation will be **20,02,823 Tons/Annum** for the proposed lease area. Hence, there will be more than 100% replenishment in the riverbed area of the lease.	**Chapter 2, Table 2.12 and Page 24** **Chapter-7, Item No. -7.9 Page -119**

35	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area May be detailed.	The impact on OHS of employee and proper mitigation along with budgetary provision incorporated**.** Person protective measures, pre-placement medical examination and periodical medical examination schedules, management plan have been furnished in the EIA report.	**Chapter 10, Item 10.8 and Page-137** **Chapter-7,Table 7.3, Page 106**
36	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Public health implication like respiratory disorder, noise induced problems are major issues which will be addressed properly. Study has been performed which includes to gain an understanding of the source, identification of exposure pathway and determination of likely receptor. The impact will not be concentrated and confined to particular zone. Periodic health camps will be undertaken under ESR activities in the villages. **Rs 15.0 Lakhs** will be spent on Health check up camps, Surveillance programme for the Public, Sanitation and drinking water facilities. The budgetary allocations of for public health implication are incorporated in the EIA/EMP Report.	**Chapter 7, Table 7.8 Page. 126** **Chapter 10, Item 10.8 and Page-137**
37	Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	Socio economic measures for the local people have been proposed under the component of the Environmental Social Responsibility along with the budgetary allocation have been incorporated in the EIA report. Proposed project will provide the employment opportunity to the local community hence project will have positive impact on the surrounding local community. An amount of **Rs. 12.25 Lakhs** per year is allocated for ESR activities. Detailed break up is incorporated in the EIA/EMP Report.	**Chapter 7, Table 7.9, Page. 122**

38	Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.	Details of environment management plan are incorporated in **Chapter 10** of the EIA/EMP Report. Details of occupational health impacts along with proposed mitigation measures are incorporated in **Chapter 5** of EIA/EMP Report.	**Chapter-10, Table 10.4 at Page 140** Chapter 10, Item 10.8 and Page-137
39	Public hearing points raised and commitment of the project proponent on the same along with time bound action plan to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.	The description of Public Hearing will be incorporated in the final EIA/EMP Report of the Project**.** The action plan with budget has been prepared accordingly and incorporated in **chapter-7**	-
40	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.	There is no court case against this project, however there is a court case in the matter of M/s Om minerals v/s State of Haryana and others [CWP No. 7991 of 2014], wherein the petitioner had challenged the demand/levy of stamp duty on execution of (Contract Agreement). The State Government (Dept. of Mines and Geology) has issued LoI subject to the outcome of this case. The above mentioned case is still pending before Hon'ble Punjab and Haryana High Court for adjudication. **The Project Proponent has not filed any court case against any department neither he is a party in this case.**	-
41	The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.	**Head** / **Cost** Capital cost — Rs. 5.00 Crores EMP — Rs. 20.10 Lakhs per annum ESR — Rs. 12.25 Lakhs per annum OH&S — Rs. 15.00 Lakhs per annum Wildlife Conservation — Rs. 9.10 Lakhs per annum	**Chapter 9, Table No. 9.2** **Chapter -10, Table No. 10.4**
42	A Disaster Management Plan shall be prepared and included in the EIA/EMP report.	The Disaster Management Plan has been prepared and incorporated in **EIA/EMP report**.	**Chapter 7 at Page 101**

43	Benefits of the project if the project is implemented should be spelt out. The benefits of the project shall clearly indicate environmental, social, economic, employment potential etc.	Physical, social and ecological benefits of the proposed sand mining project has been prepared and incorporated in the of EIA/EMP report.	**Chapter 8 at Page. 127-128**
44.	Besides the above, the below mentioned general points are also to be followed:		
a)	All documents to be properly referenced with index and continuous page numbering.		Compiled
b)	Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.		Indicated
c)	Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All original analysis/testing reports should be available during appraisal of the project.		Enclosed
d)	Where the documents provided are in language other than English, an English translation should be provided.		Provided
e)	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall be filled and submitted.		Enclosed
f)	While preparing the EIA report, the instructions for the proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.		Followed
g)	Changes, if any made in the basic scope and project parameters (as submitted in Form-1 and the PFR for securing TOR) should be brought to the attention of MoEF&CC with reasons for such changes and the permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.		No Modifications done
h)	A per the circular No.-J-11011/618/2010-IA.II (I) dated 30.05.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.		Included
i)	The EIA report also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.		Included

CHAPTER-1
INTRODUCTION

1.0 PRELUDE

EIA is different from other decision-making tools like environment audit, which is conducted on existing projects, while the EIA is applied to new projects and the expansion of existing projects. EIA uses the techniques of science, economics, sociology, geology etc while assessing the project because it is dealing with events, which have not yet occurred, may not occur, but whose chances of occurrence may be strong in future. There are various other tools like energy analysis, cost-benefit analysis, environment management systems and risk analysis. EIA is by far the most suitable tool for any proposed project. It is also one of the most popular decision-making tools and has been integrated in the regulatory system of many countries. We have collected baseline data for one season *i.e.* Winter Season 1st December 2015 to 29th February 2016 for the preparation of EIA report on the basis of standard ToR was issued on dated **8th Feb. 2016** by MOEF&CC vide F. No. **J-11015/4/2016-IA.II (M)**. The lessee has submitted Draft EIA report dated 08.03.2016 to HSPCB Haryana for conducting public hearing. Accordingly, Haryana State Pollution Control Board (HSPCB) has conducted public hearing dated 23th May, 2016 at 2.00 PM and the action plan has been prepared on the basis of issues raised during public hearing is incorporated in Chapter-7.

1.1 DETAILS OF MINING ACTIVITY, LOI AND CONSULTANT

In the auction held on **5/11/2015** and **06/11/2015** on the state government web portal http:haryanaeprocurement.gov.in Sh. Kulvinder Singh Prop. of M/s P.S. Buildtech, 34-Vishal Nagar, Yamuna Nagar-135001, Haryana has offered highest bid of **Rs. 4,08,50,000/-** as against the reserve price of **Rs. 4,08,00,000/-** per annum for obtaining the mining contract of minor minerals mines namely "**Kanalsi Block /YNR B 5**'' Sand Unit" over an area of **44.14 Ha.** falling in village-Kanalsi, District Yamuna Nagar (Haryana).

Letter of Intent: The letter of intent (LoI) has been issued by the Director of Mines and Geology department, Haryana vide Memo no. **DMG/HY/Cont/ Kanalsi Block /YNR B-5 /2015/10072** dated **30/11/2015** in favor of Sh. Kulvinder Singh Prop. M/s P.S.Buildtech for mining of sand (Copy of LOI has been enclosed as **Annexure I**).

Lease Period: 9 Years

Mine Plan and Progressive Mine Closure Plan: Mining Plan & Progressive Mine Closure Plan of proposed mining lease area was approved by the Director General of Mines and Geology Department, Haryana vide letter No. **DMG/HY/MP/ Kanalsi Block/YNR B-5/2015/3095 dated 10.06.2016.** It is prepared by RQP Sh. S.N Sharma, (RQP No. RQP/DDN/0135/2001/A) (Copy of Approved letter of Mining Plan & Progressive Mine Closure Plan has attached as **Annexure-II**).

Environment Consultant: On dated 30/11/2015, the lessee has hired a consultant **M/s. Vardan Environet** D-142, Sec-57, Sushant Lok-III, Gurgaon, Haryana (QCI/NABET Accreditation No: NABET/EIA/1316/IA001) for preparation of Environment Impact Assessment Report for obtaining Environment Clearance from MoEF&CC.

Category "B1": As per **EIA notification 14th Sept. 2006**, the proposed project was falls under Category A due to general condition for state boundary at 1.0 Km in east. In this context, Form-I and Pre-Feasibility Report has been submitted to Ministry of Environment & Forests, New Delhi dated **05/12/2015** online and on **07/12/2015** in hard copy for approval of "Terms of Reference" (ToR). The ToR presentation was held on 20th Jan. 2016 and EAC members are requested to accept baseline data collection from 1st Dec. 2015 onwards for which request letter was submitted dated **7th Dec. 2015**. Subsequently the ToR was issued on dated **8th Feb. 2016** by MOEF&CC vide F. No. **J-11015/4/2016-IA.II (M)** (enclosed as **Annexure-III b**) and MOEF&CC directed the study period from baseline data collection from December, 2015 onwards.

As per amendments in **EIA Notification dated 15th Jan. 2016**, the general condition is not applicable of river bed mining, hence proposed project falls under Cat. B-1 having mine lease area (44.14 ha) less than 50 ha. Now, we are submitting our EIA/EMP report to SEAC/SEIAA under **Category B-1** as per new amendments in EIA notification.

1.2 IDENTIFICATION OF PROJECT AND PROJECT PROPONENT

1.2.1 Identification of Project Proponent

Applicant: Sh. Kulvinder Singh
M/s P.S.Buildtech 34- Vishal Nagar, Yamuna Nagar-135001, Haryana

Table1.1 Brief Description of the Project Proponent

Name and Address	Partners Name and Address	Age
Sh. Kulvinder Singh M/s P.S.Buildtech 34- Vishal Nagar, Yamuna Nagar-135001, Haryana	Sh. Kulvinder Singh	39

Mr. **Kulvinder Singh**, aged 39 years having wide experience in various domains such as trading, construction, mining etc. he is dynamic and proactive in his business. His team is working towards excellence and quality in the services.

1.2.2 Identification of the Project

Name of the Project: Sand (minor mineral) Mine- "**Kanalsi Block/ YNR B 5" Mine Lease Area –44.14 Ha** contains one mining block comprising the inside river bed Kanalsi Block/ YNR B-5.
Location of the Project: Block- Kanalsi, Tehsil- Jagadhri, District Yamuna Nagar (Haryana).

1.3 BRIEF DESCRIPTION OF NATURE, SIZE, LOCATION OF THE PROJECT

Table1.2 Brief Description of the Project

<table>
<tr><td>S. No.</td><td>Particulars</td><td colspan="4">Details</td></tr>
<tr><td>A.</td><td>Nature and Size of the Project</td><td colspan="4">Mining of Sand (Minor Mineral) Kanalsi Block/ YNR B-5, Sh. Kulvinder Singh Prop. of M/s P.S.Buildtech,Yamuna Nagar. (ML Area –44.14 Ha.) for production 19.50 Lakhs TPA.</td></tr>
<tr><td>B.</td><td colspan="5">Location</td></tr>
<tr><td>Name of Unit</td><td>Name of Block</td><td colspan="3">Khasra Number</td><td>Area of block in ha</td></tr>
<tr><td>Kanalsi Block/ YNR B-5</td><td>Kanalsi</td><td colspan="3">41//16, 24, 25
42//16 to 19, 20, 21,22 to25
43//16, 17 to 24, 25
44//1, 10, 11, 12, 19, 20, 21, 22
45//1, 2, 3 to 8, 9, 10 to11, 12, 13 to 18, 19, 20 to 21, 22 23 to 24, 25/1, 25/2
46//1, 2, 3, 4, 5, 6, 7, 8, 9 to 17,18, 19, 20, 21, 24, 25
47//3,4,5,6,7/1,7/2,8,9 min,11min,12 to 25
48//16 min, 24 min, 25
52//4 min, 5, 6, 7, 15
53//1, 2, 3,4/1, 4/2, 5, 7, 8 to 13,19</td><td>44.14</td></tr>
<tr><td colspan="4">Total</td><td>44.14</td></tr>
<tr><td></td><td>District</td><td colspan="4">Yamuna Nagar</td></tr>
<tr><td></td><td>State</td><td colspan="4">Haryana</td></tr>
<tr><td>Coordinates</td><td>Kanalsi Block/ YNR B-5</td><td colspan="4"><table><tr><th>Pillar No</th><th>Latitudes</th><th>Longitudes</th></tr><tr><td>A</td><td>N 30° 08’ 31’’</td><td>E77° 24’ 15’’</td></tr><tr><td>B</td><td>N 30° 08’ 31’’</td><td>E77° 24’ 42’’</td></tr><tr><td>C</td><td>N 30° 08’ 27’”</td><td>E77° 24’ 42.5”</td></tr><tr><td>D</td><td>N 30° 08’ 24’’</td><td>E77° 24’ 46”</td></tr><tr><td>E</td><td>N 30° 08’ 17’’</td><td>E77° 24’ 26”</td></tr><tr><td>F</td><td>N 30° 08’ 17’’</td><td>E77° 24’ 26”</td></tr><tr><td>F</td><td>N 30° 08’ 20’’</td><td>E77° 24’ 19”</td></tr><tr><td>H</td><td>N 30° 08’ 13’’</td><td>E77° 24’ 15”</td></tr><tr><td>I</td><td>N 30° 08’ 13’’</td><td>E77° 24’ 12.5”</td></tr></table></td></tr>
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			J	N 30° 08’ 11’’	E77° 24’ 12.5”
			K	N 30° 08’ 11’”	E77° 24’ 10”
			L	N 30° 08’ 09’’	E77° 24’ 10”
			M	N 30° 08’ 09’’	E77° 24’ 7.5”
			N	N 30° 08’ 14’’	E77° 24’ 00”
			O	N 30° 08’ 16’’	E77° 24’ 00”
			P	N 30° 08’ 25’’	E77° 24’ 10”
			Q	N 30° 08’ 27’’	E77° 24’ 10”
			R	N 30° 08’ 27’’	E77° 24’ 12.5”
			S	N 30° 08’ 29’’	E77° 24’ 12.5”
			T	N 30° 08’ 29’’	E77° 24’ 15”
C.	**Lease Area Details**				
	Lease Area	44.14 Ha			
	Type of Land	Govt. Land (Gaur Mumkin, Nadi, Nala.)			
	Topography	Undulating (Inside Riverbed)			
	Site Elevation Range	Ranges from 267 m amsl to 276 m amsl			
D.	**Cost Details**				
	Cost of the project	Rs. 5.00 Crores			
	Cost for EMP	Rs. 20.10 Lakhs per annum			
	Cost of ESR	Rs. 12.25 Lakhs per annum			
	Cost of OH&S	Rs. 15.00 Lakhs per annum			
	Cost of Conservation	Rs. 9.10 Lakhs per annum			
	Mines and Minerals Development, Restoration and Rehabilitation Fund	Annual contract money is Rs.4,08,50,000 and 10% of annual contract money *i.e.* Rs. 40,85,000 per annum as per LoI clause (xiv), will deposited to the Mines and Minerals Development, Restoration and Rehabilitation Fund.			
E.	**Details of Environmental Setting**				
	Ecological Sensitive Areas (National Park, Wild Life Sanctuary, Biosphere Reserve, Reserve/ Protected Forest etc.) within 10 Km radius.	There is no Ecological Sensitive Areas (National Park, Wild Life Sanctuary, Biosphere Reserve, Reserve/ Protected Forest etc.) within 10 Km radius of study area. However Protected Forest Area falling in 10 km lease area is as under (i) Bir Tapu Reserved Forest 1.9 Km, towards S (ii) Sungh Protected Forest 5 Km, towards W (iii) Baila chaur Protected Forest 8 Km, towards N (iv) Urjani Protected Forest 8.2 Km, towards N (v) Mujahidwala Protected Forest 9.1 Km, towards NE			
	Archaeological Important Place	None within 10 Km radius of the project			
	Nearest Town	Yamuna Nagar-8 Km in NW direction			
	Nearest major city with 200000 population	Jagadhri-10.56 Km in NW direction			
	Nearest Railway Station	Jagadhri Railway Station-11.13 Km in SW direction			
	Nearest National Highway	NH -73 (8.30 Km SW), SH-1 (12 Km, NW), SH- 6(8, S)			
	Nearest Airport	Chandigarh Airport-83.49 Km in NW direction			
	Seismic Zone	Zone IV			

(Source: Site visit /Baseline Data and Pre-feasibility Report)

All corner-coordinates of ML area are superimposed on Toposheet (OSM) of survey of India and same has been furnished here in the **Figure 1.1**.

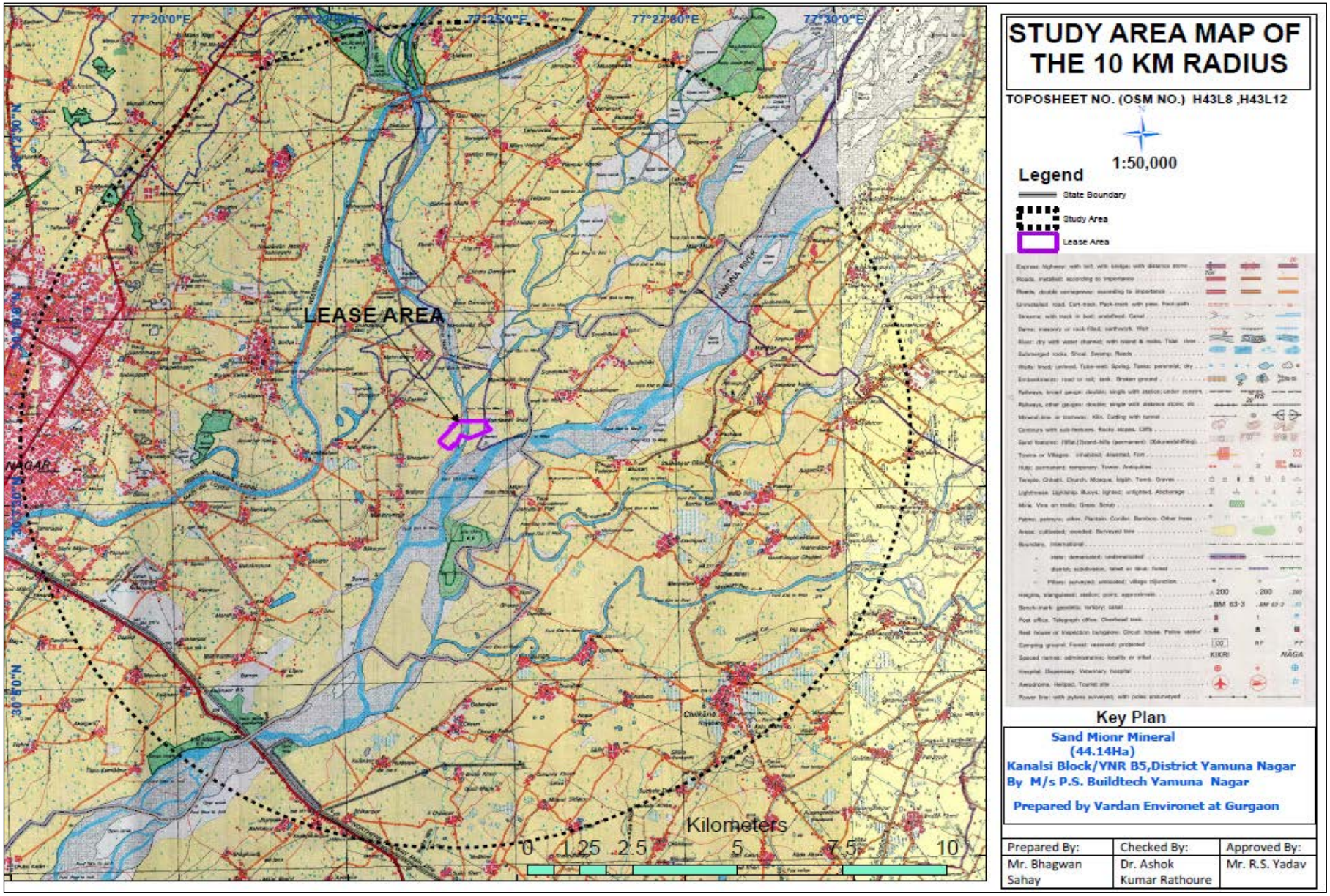


Figure 1.1: Key Plan showing the Environmental Settings of the Study area on Toposheet (OSM) of survey of India (1:50000)

1.3.1 Location and Accessibility

The mining contract area 44.14 ha and is inside riverbed falling in Kanalsi Block/ YNR B-5 Yamuna Nagar, Haryana. The inside riverbed block is under government Land. The contract area lies on 12.80 Km southwest direction towards Yamuna Nagar town. The site is approachable from NH-73, 8.30 Km in South-West direction and SH-1, 12 Km South-West.

1.3.2 Basic Amenities

- **Police Station:** The nearest police station is Police Station, Jagadhri -9.15 Km in West Direction from Mining Site.
- **Post Office:** The nearest post office is Kanalsi Post office – 6.21 Km in W direction from the mining site.
- **Medical Facilities:** The nearest hospital is Chhabra Hospital, Kharwan – 7.48 Km in NW direction from the mining site.
- **Availability of water**: Water for drinking purpose is brought from nearby village. The water of hand pump and well located nearby area has potable and drinkable quality, the villagers and habitants and labors have been using this water since long period. Water required for dust suppression will also supplied from the well by Water tanker brought on hire basis.
- **Electricity:** Electrical supply is available in all nearby villages.
- **Educational Facilities**: The nearest school *i.e.* Sacred heart Convent Senior Secondary School, Jagadhri 8.9 Km in NW direction from the mining site.
- **Mode of transportation of Mineral:** From the contract area, an unmetalled road joins a metalled road which further joins the NH -73 (8.30 Km, SW). Mineral will be transported by trucks. Loaded trucks will travel on approach roads (Kuccha road) made for plying of trucks, these approach roads which finally merge with tar roads for final destinations.
- **River/ Canal:** Yamuna River.

1.4 SCOPE OF STUDY

The scope of the study includes a detailed characterization of the environment in an area of 10 Km. radius of the Mine Lease Area for various environmental parameters like Air, Water, Soil and Noise, Ecological and Socio-economic aspects.

1.4.1 Preparation of EIA

The EIA includes the following details:

1) Study of the reports like Geological report, Pre-Feasibility report (PFR) or mining plan made available by the client.
2) Present Environmental Setting
3) Identification, prediction and evaluation of Anticipated Environmental Impact due to the proposed mine and related facilities.

The environmental impacts would be anticipated in core and buffer zone on:

- Topography and drainage,
- Climate,
- Water quality (Surface/Ground),
- Hydro-geological Regime,
- Air quality,
- Noise Levels,
- Soil Quality,
- Flora and Fauna,
- Traffic density survey,
- Land-Use,
- Socio-Economic Conditions,
- Habitat,
- Health, culture, human environment including public health, occupational health and safety,
- Sensitive Places/Historical Monuments.

This EIA Report is prepared in accordance with has been divided into twelve chapters (in addition to Executive Summary) as briefed hereunder:

Chapter 1 – Introduction
The chapter provides description of project background, site and surroundings, objectives, scope and organization of the study and format of this report.
Chapter 2 – Project Description
This chapter provides information on project and capacity; need for the project; location; size or magnitude of operation; technology and process description; maps showing project layout, component of projects etc.
Chapter 3 – Description of the Environment
This chapter deals with the methodology and findings of field studies undertaken with respect to ambient air, meteorology, water, soils, noise levels, ecology to define the various existing environmental status in the area of the project. This also deals with the infrastructural development as a part of project and sources of pollution from the proposed mining project.
Chapter 4 – Anticipated Environmental Impacts and Mitigation Measures
In this chapter, the potential impacts of the proposed mining and allied activities, which could cause significant environmental concerns, are identified and discussed. This discussion will form the basis for environmental management activities.
Chapter 5 – Analysis of Alternatives (Technology and Site)
This chapter will include a comparison of alternatives in this chapter to determine the best method of achieving the project objectives with minimum environmental impacts or indicates the most environmentally friendly and cost effective options, if any.
Chapter 6 – Environmental Monitoring Program
This chapter will include ascertaining the environmental impacts; state of pollution within the mine lease and in its vicinity; planning for predictive or corrective actions in respect of pollution to keep it within permissible limits.
Chapter 7 – Additional Studies
This chapter will include outcomes of public consultation, risk assessment, social impact assessment, R&R action plan, biodiversity conservation plan, watershed management etc.
Chapter 8 – Project Benefits
This chapter deals with improvements in the physical infrastructure, social infrastructure, employment potential and other tangible benefits due to proposed project activity.
Chapter 9 – Environmental Cost Benefit Analysis
This chapter includes environmental value enhancement (biodiversity, crop productivity, eco tourism etc.)
Chapter 10 – Environmental Management Plan
This chapter will include the description of administrative aspects of ensuring that the mitigation measures suggested are implemented and their effectiveness is monitored, after approval of the EIA.
Chapter 11 – Summary
This will constitute the summary of EIA Report.
Chapter 12 – Disclosure of Consultant
This will includes the names of the consultants engaged in preparation of EIA and nature of consultancy rendered.

1.5 LAWS APPLICABLE TO THIS PROJECT

The Acts, Notifications, Rules and Amendments applicable for setting up a new mining industry or its expansion of an existing mine and for operation of a mine include the following:
The Environment (Protection) Act and Rules, 1986;

- The Environmental Impact Assessment (EIA) Notification, 1994 and amendments- for Environmental Clearance – including the Environmental Public Hearing a mandatory for the 30 categories of industries; • Forest (Conservation) Act, 1980;
- The Air (Prevention and Control of Pollution) Act, Rules and Amendment, 1981, 1982, 1983, 1987;
- The Factories Act and Amendment, 1948, 1987;
- The Water (Prevention and Control of Pollution) Act and Rules, 1974, 1975;
- The Water (Prevention and Control of Pollution) Cess Act and Rules, 1977, 1978, 1991;
- The Public Liability Insurance Act, 1991;
- The Environmental Standards Notification, 1993, 1996;

- The Environmental Audit Notification, 1992;
- Hazardous Waste Management and Handling Rules, 1989 and amendment rules 2000;
- The Manufacture, Storage and Import of the Hazardous Chemical Rules, 1989 and amendment rules 2000; and
- The National Environment Tribunal Act, 1995.

Note:

1. Some environment, health and safety related aspects are also covered under the Indian Factories Act, 1948.
2. MoEF has stipulated general discharge standards for water effluents and general emission standards for air emissions. These standards limit the concentration and volumes of the effluents and emissions released to the atmosphere. These standards could be made more stringent by the SPCBs based on the environmental sensitivity of a specific location.
3. The project proponents are required to take Consents (for both air and water) and No Objection Certificates (NOCs) from the relevant SPCBs before initiating any activity.

In addition to the above, CPCB has also specified National Ambient Air Quality Standards (NAAQS) for residential, commercial, industrial and sensitive zones for the country as a whole.

CHAPTER-2
PROJECT DESCRIPTION

2.0 GENERAL

This chapter gives broad description of the project, location, type of ore deposit (s), quality of reserve, Mining Methodology, various site utilities and infrastructure, etc. The downstream use of mineral for value addition and its importance is also described.

2.1 TYPE OF THE PROJECT

The project is proposed for the excavation of sand from inside riverbed field. It is an opencast semi-mechanized mining project to excavate Sand in its existing form.

2.2 NEED FOR THE PROJECT

River channels and their flood plains are important sources of construction grade aggregate materials like sand. The durability of river-borne coarser clastics and their sorting by fluvial action make them best suitable raw materials/ingredients for building constructions. The market demand of river sand is high throughout the country for construction of infrastructure projects. The project lies inside river bed of Yamuna and also on the palaeochannels (derived from palaeo or old, and channel) of the river. The sediment in the form of river bed material *i.e.* sand has deposited in the last many years as a process of sedimentation in the palaeochannels. Sand bars have been formed at various places hindering the flow of water and excess deposition had changed the shape of the river bed. Because of this, during monsoon season, the water may rise above the high flood level causing heavy and devastating floods. Such disasters may damage large tracts of land lying on both the banks of the river especially the agricultural lands. Apart from this the project will also serve the following:

- Generate various employment opportunities especially to the local people hosting the mining project
- Economic development of the state by contributing to state exchequer.

2.3 DESCRIPTION OF MINE LEASE AREA

The proposed activity of Sand mining at "Kanalsi Block/ YNR B 5" in the area of 44.14 ha. Inside riverbed in Tehsil - Jagadhri and District - Yamuna Nagar, Haryana. The lease area falls in Survey of India Toposheet (OSM) No. **H43L8, H43L12.**

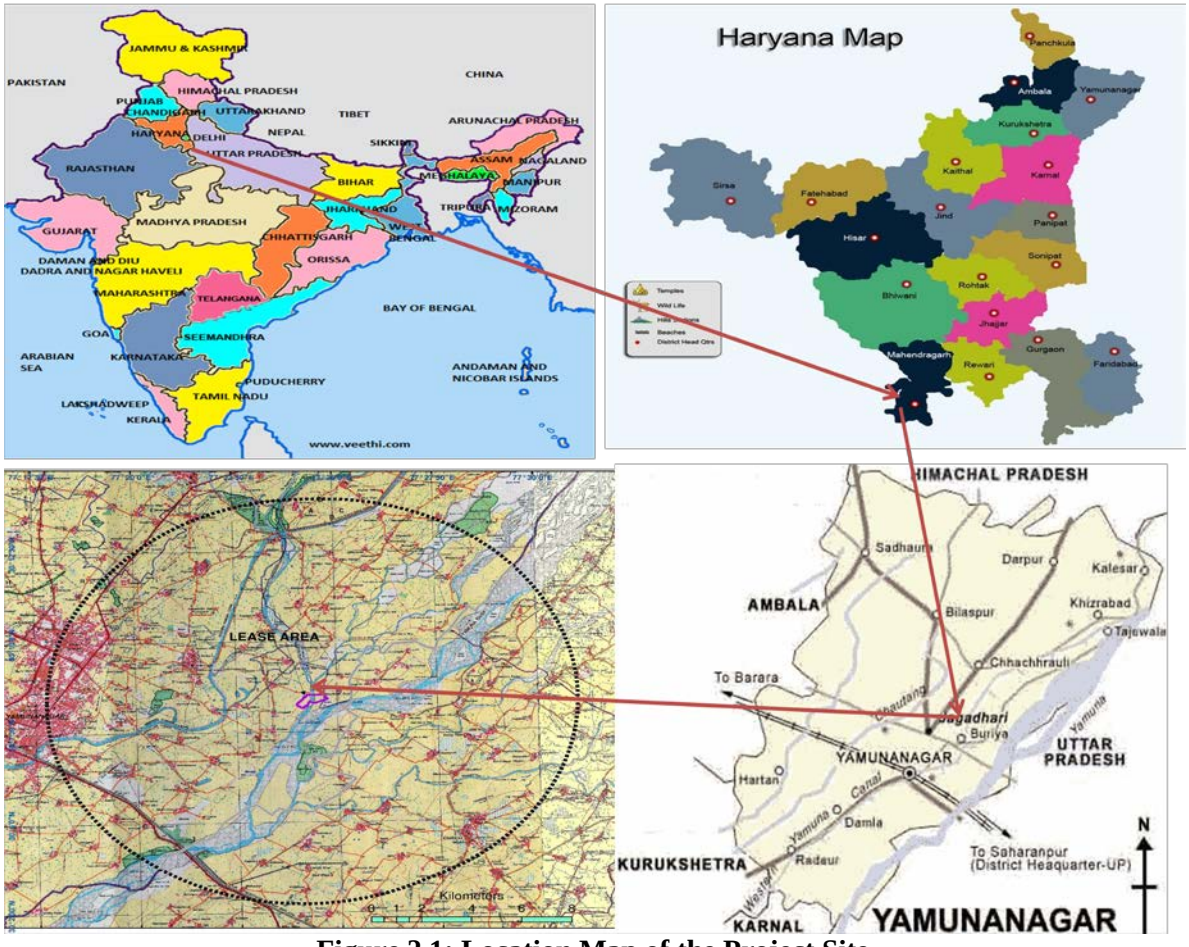


Figure 2.1: Location Map of the Project Site

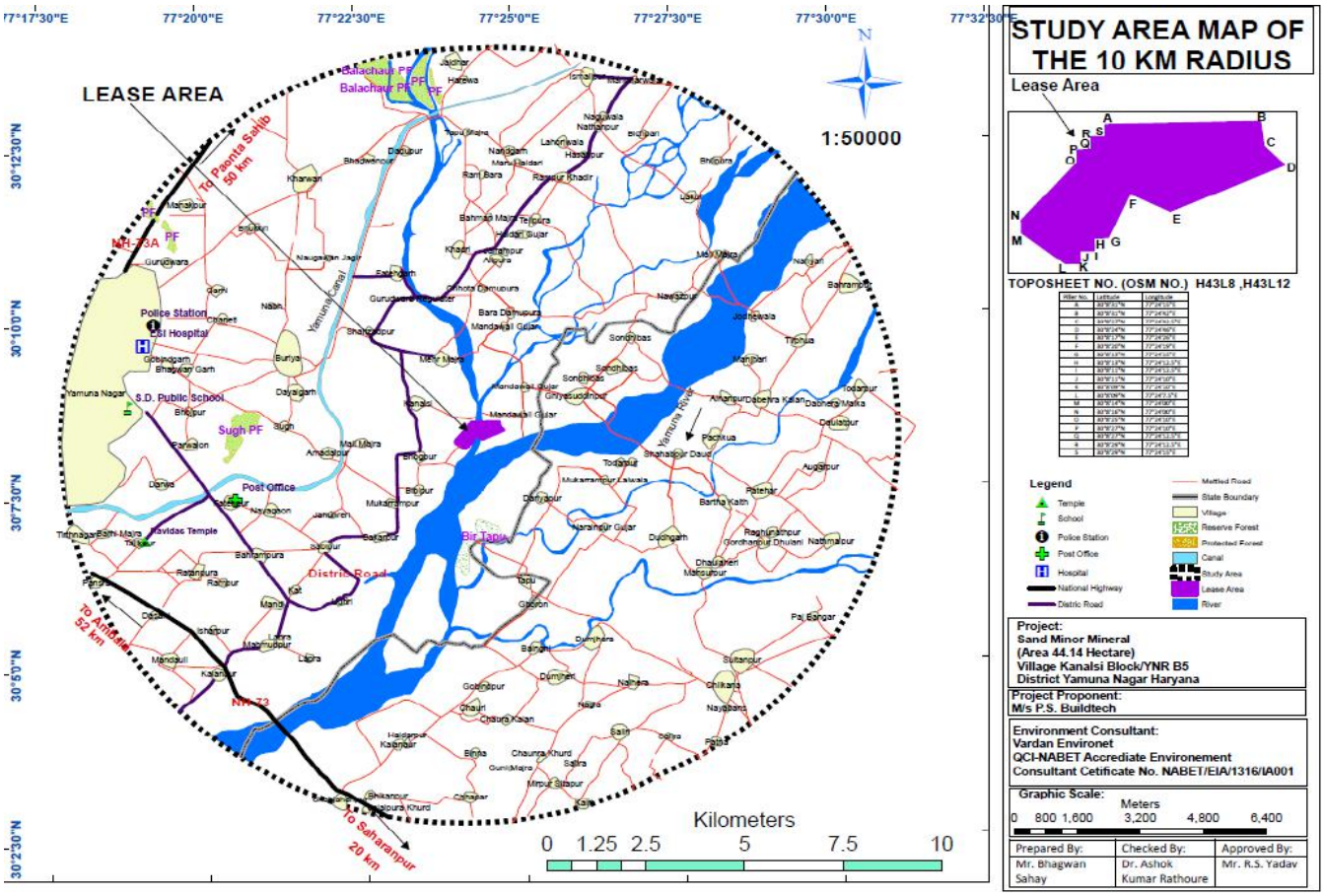


Figure 2.2: Digitized Map of the study area (10 Km radius)

2.3.1 Site history

Kanalsi is a Village in Jagadhri Tehsil in Yamunanagar District of Haryana State, India. It belongs to Ambala Division . It is located 15 KM towards South from District head quarters Yamuna Nagar 10 KM from Radaur. Yamuna Nagar has the river Yamuna running through the district, and forming the eastern boundary with the neighbouring Saharanpur district. This boundary is also a state boundary, as Saharanpur is in the state of Uttar Pradesh. The district also separates the Yamuna system from the Satluj river system. Towards its northern edge is a sub-mountainous region, which has more forest cover and lots of streams; it is the area where the river Yamuna flows out of the hills and into the plains. The northern boundary is also an interstate boundary with the state of Himachal Pradesh to the north. Sirmour in Himachal is the district to its north with the towns of Nahan and Paonta Sahib close to the boundary with Yamuna nagar. The mine lease area exhibits plain to undulated topography. The elevation of mine site ranges 267- 276 m amsl. Large part of the district lies under the Shiwalik foothills. Sugarcane, wheat and rice are its main crops. It is an important industrial town having metal, utensil and plywood industries

2.3.2 Proposed project Near By Project Site

S.No.	Name of Proposed Mining	Direction	Distance
1.	Mining of Sand at Yamuna River, Lapra Block/YNR B-11 (ML Area- 23.05 Ha.)	S	6.0 Km
2.	Mining of Sand at Yamuna River, Nandgarh North Block/YNR B-16 (ML Area- 44.62 Ha.)	N	7.0 Km
3.	Mining of Sand at Yamuna River, Jaidhar Block/YNR B-34 (ML Area- 25.60 Ha..)	NW	9.3 Km



Figure 2.3(a): Google Image (Short View) of the Project Site

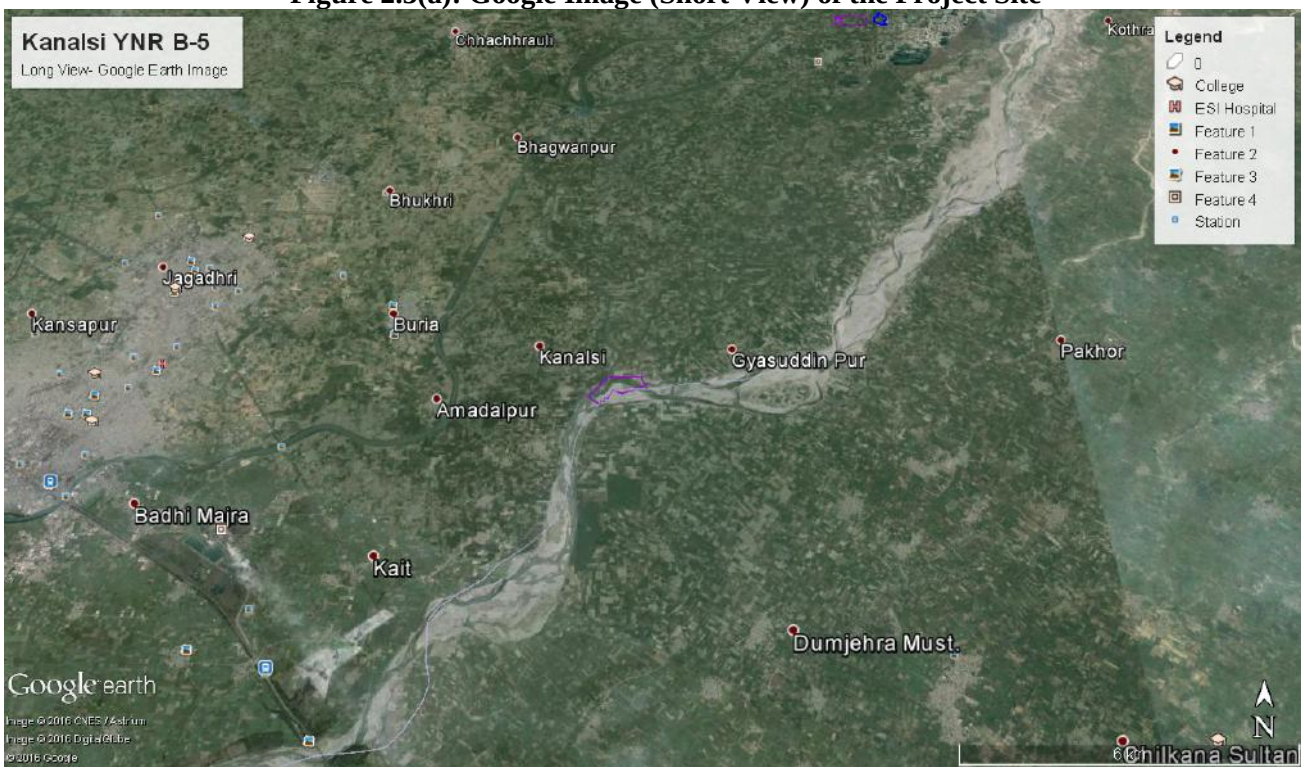


Figure 2.3(b): Google Image (Long View) of the Project Site

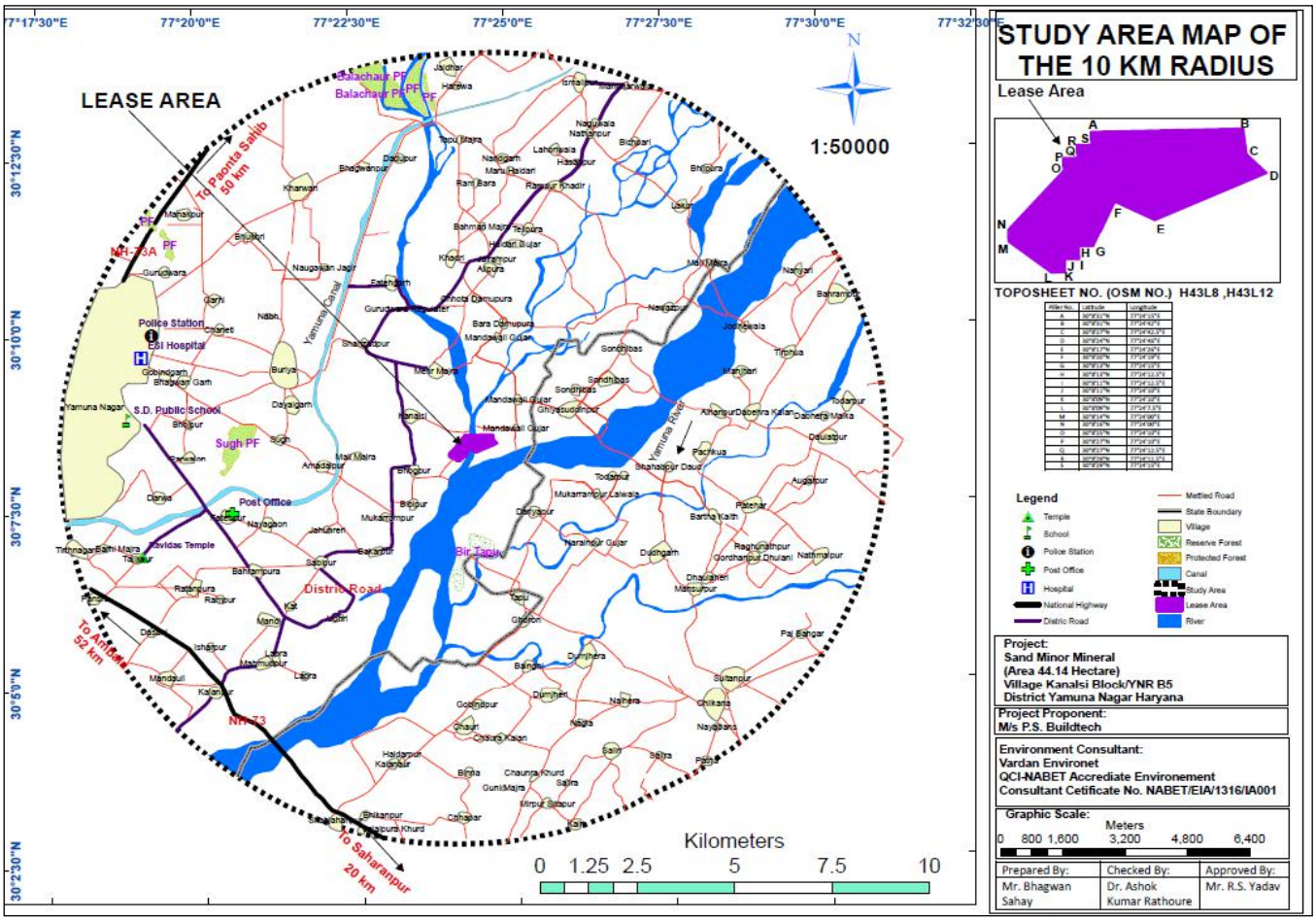


Figure 2.4: Vicinity Map other proposed Mining within 10 Km Radius

2.3.3 Location of Lease Hold Area

The lease hold area of 44.14 ha lies inside the Riverbed of Yamuna River. The general location and project site layout is already given in figure 2.1. The site photographs are shown in figure 2.5 of Yamuna river.



Figure 2.5. Site Photograph

2.4 MINING AREA

The proponent has been granted an area of 44.14 Ha. in Government Land (Gaur Mumkin, Nadi, Nala.) on contract as per LoI. The mining department has taken prior clarification from the Forest department before putting it into the auction. Hence this area is free from the forest. However, the NOC issued by the Forest Department of Yamuna Nagar vide letter No. 3816 dated-24.12.2015 is attached as **Annexure IV**.

Table 2.1 Details of Mining

S. No.	Particulars	Details
1.	**Method of Mining**	Open semi mechanized
2.	**Geological Reserves**	26,48,400 Metric Tons
3.	**Mineable Reserves**	19,52,400 Metric Tons
4.	**Proposed Production**	19.50 Lakhs TPA
5.	**Elevation Range of the Mine Site**	267 to 276 m amsl.
6.	**Bench Height**	3 m in riverbed
7.	**Bench Width (Average)**	Width of the bench around 20 m
8.	**Bench Slope**	45^0

2.4.1 Topography of the Area

The topography of the district is flat terrain and the elevation ranges from 267 to 276 m amsl. The general slope is from northeast towards south.

2.4.2 Geology

2.4.2.1 Regional Geology

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 Table.

Table 2.2: 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	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
			Tatrot Formation	Friable Sandstone and variegated clay
		Middle Siwalik	Dhokpathan Formation	Brown sandstone and orange clay
Middle Miocene			Nagri Formation	Hard grey sand stone, mudstoneand minor shale
		Lower Siwalik	Nahan Formation	Coarse grity ,clay and red sandstone often calcareous, brownish shale with lignite lenticles, greenish white Quartzite
Lower Miocene		Sirmur	Kausauli Formation	Grey and green stone,green shale and grey clay
			Dagsai Formation	Purple and green sand stone, deep red gritty,clay,white andstone with ferruginous concretions

Upper Eocene			Subathu formation	Sandstone with gritu clay. Impure fossiliferous limestone calcareous slate,greenish shale and dark brown quartzite
Pre-proterozoic			Tunda pathar	Thickly bedded ,sstromatolite limestone with carboniferous shale and quartzite

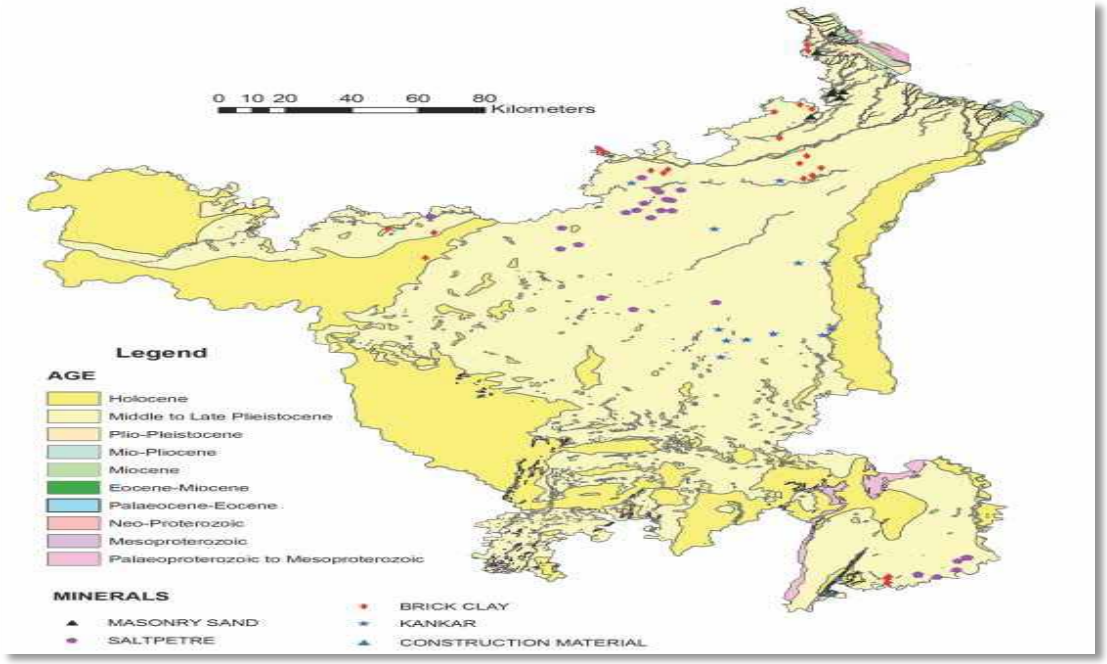


Figure 2.6: Geomorphology of Haryana (Source: GSI)

2.4.2.2 Local Geology

The litho units encountered in the proposed area and surrounding areas belongs to the Shivalik super groups. The sediments are river borne and has deposited in the riverbed and the flood plains. The different formations of the area belong to Shivalik Super group and are a mixture of boulders, pebbles, sand, silt and clay. The following sequences have been observed in the area.

- Soil/Alluvium,
- Sand,
- Gravel,
- Boulder.

There is no clear demarcation between the litho units. They have been deposit in a mixed form. The Litho-units exposed around the riverbed belong to Shivalik Super- Group. The mineral Boulders, Gravel and sand have formed by weathering of rocks and then deposition on the flood plains of the rivers originated from the Shivaliks. These have been washed by rainwater during rainy season and deposited in flood plains and river beds in the form of boulders, gravels and sand of different sizes and shapes. These minerals are sorted by screening. The max depth of the minerals is not known. Soil/ alluvium varying in thickness from 0.5 -1.50m constitute the top horizons in the area suitable for agriculture. Yamuna River meanders through the area exposing the alluvium and soil at the banks. Boulder, gravel & sand is found in the river bed. Boulder, gravel &sand is deposited up to great depths. This bed is presently dry and water flows only during the rainy season. The max depth of the minerals is not known. Soil/ alluvium varying in thickness from 0.5 -1.50m constitute the top horizons in the area suitable for agriculture. Yamuna River meanders through the area exposing the alluvium and soil at the banks. Boulder, gravel & sand is found in the river bed. Boulder, gravel &sand is deposited up to great depths. The max depth of the minerals is not known. Soil/ alluvium varying in thickness from 0.5 -1.50m constitute the top horizons in the area suitable for agriculture. Yamuna River meanders through the area exposing the alluvium and soil at the banks. The max depth of the minerals is not known. Soil/ alluvium varying in thickness from 0.5 -1.50m

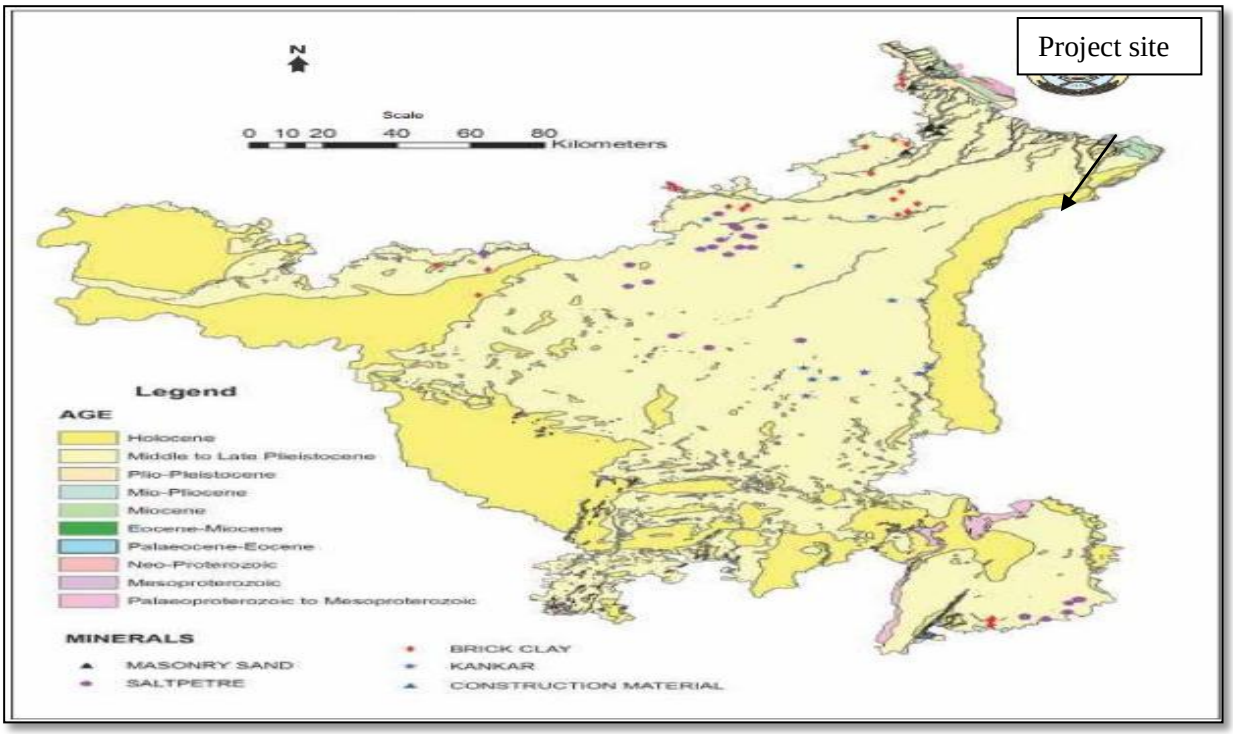


Figure 2.7: Geological and Mineral Map of Haryana *(Source: GSI)*

constitute the top horizons in the area suitable for agriculture. Yamuna River meanders through the area exposing the alluvium and soil at the banks. Boulder, gravel & sand is found in the river bed. Boulder, gravel &sand is deposited up to great depths. This bed is presently dry and water flows only during the rainy season The Sand exposed in the River bed of Yamuna and surrounding areas is the product of the deposition of the sediments brought and deposited in the flood plains of River Yamuna. These sediments are of recent geological formation. The litho-units exposed within the river and surrounding areas have formed as water borne sediments brought by flood water during rainy season every year and deposited in riverbed and flood plains. *(Source: Approved Mine Plan of Kanalsi Block/YNR5)*

2.4.3 Sediment Composition

Sedimentation, in the geological sciences, is a process of deposition of a solid material from a state of suspension or solution in a fluid (usually air or water). Broadly defined it also includes deposits from glacial ice and those materials collected under the impetus of gravity alone, as in talus deposits, or accumulations of rock debris at the base of cliffs. The term is commonly used as a synonym for sedimentary petrology and sediment logy. Sedimentation is generally considered by geologists in terms of the textures, structures, and fossil content of the deposits lay down in different geographic and geomorphic environments.

2.4.4 Physiography

The district is divided into five Physiographic units

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

a) **Siwaliks hills:** Siwalik hill ranges occupy the northern fringe of Yamuna Nagar 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.

b)**Dissected Rolling Plains (Kandi Belt)**: A dissected rolling plain in the northern parts of district is a transitional tract between Siwaliks hills and alluvial plains. It is about 25 km wide and elevation varies between 250 and 375m amsl.

c) Interfluvial plains: This tract is part of higher ground between Ghaggar and Chautang and includes high mounds and valleys. In general, the slope is from northeast to southwest.

d) **Active and recent flood plains:** This plain is narrow tract along river Yamuna in the district.

e) **Relict wedge plain:** This is almost in alignment to the surface water divide between the westward flowing Ghaggar and eastward flowing Yamuna River.

2.4.5 Drainage

The drainage pattern study area of Yamuna River is directed from North to South and its originates from the Yamunotri glacier near Bandar Punch in the Mussourie range of the lower Himalayas in the district Uttarkashi (Uttrakhand) and confluence with river Ganga at Allahabad (Uttar Pradesh). Yamuna Nagar district is bestowed with rich water resources, both surface as well as ground water resources. The ground water is major sources of irrigation in the district. Nearly 40% of area is irrigated by canal water. Distributaries in the district are 21.45 Km long. Two major canals passing through the district are Western Yamuna Canal and augmentation canal. Length of unlined WJC is 63.64 Km whereas augmentation canal is 22.54 Km long. Net irrigated area is 1130 Km^2 whereas, gross irrigated area 1860 Km^2. Total catchment area of Yamuna River in Haryana is 21265 Sq.Km. and % contribution is 6.5%. Drainage patter of study area is shown in **Figure-4.3.**

Table 2.3: Catchment of River Yamuna

Name of state	Total catchment area in Yamuna (Sq.Km.)	%age contribution
U.P. (including Uttrakhand)	74208	21.5
Himachal Pradesh	5799	1.6
Haryana	21265	6.5
Rajasthan	102883	29.8
Madhya Pradesh	14028	40.6
Delhi	1485	0.4

Source: CPCB, 2006

Table 2.4: Details of Mining Site Elevation

Lowest Elevation (m amsl)	Highest Elevation (m amsl)	Working Depth (m)	Ground Water Table
267	276	3 m bgl	05-10 m bgl

Source: Google Earth

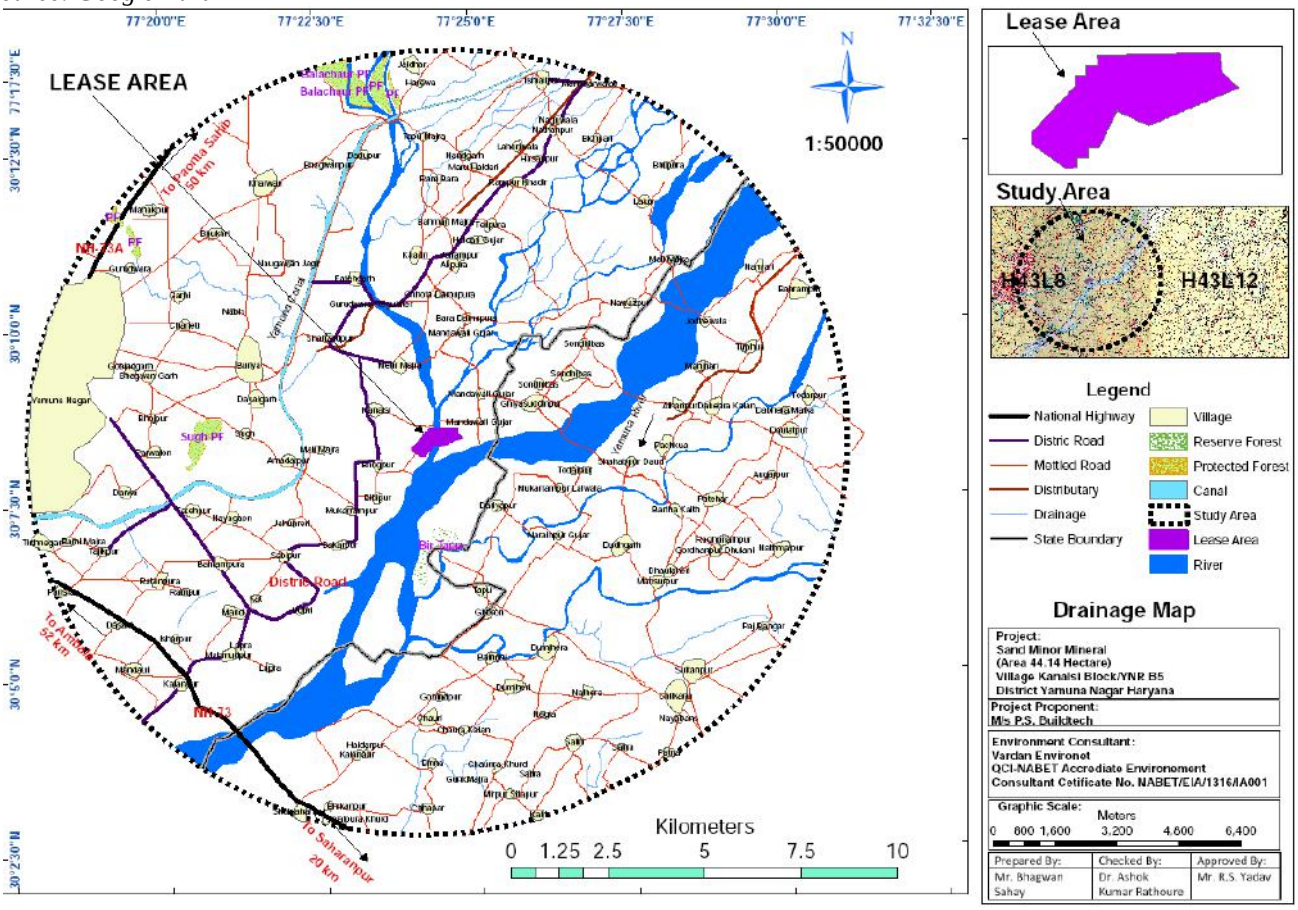


Figure 2.8: Drainage Map (Source: GSI)

2.4.6 Hydrology

The ground water exploration in the district reveals that clay group of formations dominates over the sand group in the district area. Ground water in the district occurs in the alluvium under water table and semi-confined to confined conditions. These aquifers consist of sand, silt, gravels and kankar associated with clay and form highly potential aquifers. In alluvium, the permeable granular zones comprise fine to medium grained sand and occasionally coarse sand and gravel. Their lateral and as well as vertical extent is extensive. In Kandi belt, which has not been explored fully boulders cobbles and pebbles, constitutes the major aquifer horizon. Siwalik Hills occupy marginal areas in the northeastern parts of the district constitute a low potential zone. In Kandi areas, the shallow aquifers are isolated lenses embedded in clay beds whereas aquifers in alluvial areas occur on regional scale and have pinching and swelling disposition and are quite extensive in nature. These aquifers generally consists sands (fine to coarse grained) and gravels and are often intercepted by clay and kankar. These aquifers are under unconfined. Under ground water exploration programme nine exploratory wells were drilled in the district. On average 3-12 of granular zones were deciphered in the depth range down to 450 m bgl. Exploratory wells drilled in depth range of 130 and 180 m bgl yield discharge in the range of 2700 to 4900 lpm for drawdown of 6.0 m to 12.0 m and Transmissivity of aquifers range between 1500 to 4900 m^2/day. The yield potentials of aquifer below 200.0m bgl are yet to be evaluated.

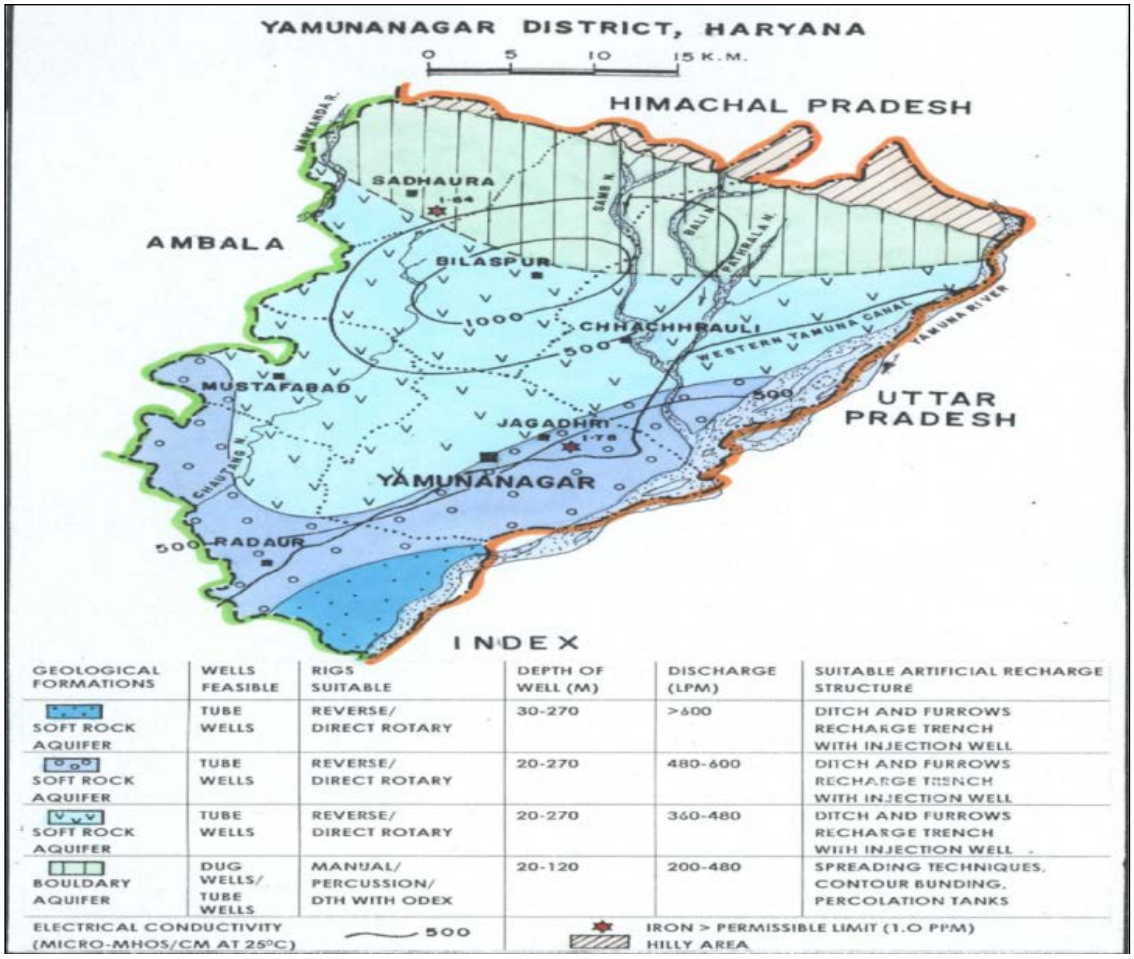


Figure 2.9: Hydrological Map of Haryana (Source: Mine Plan)

2.4.7 Climate

The climate of Yamuna Nagar district can be classified as subtropical monsoon, mild and dry winter, hot summer and sub-humid which is mainly dry with hot summer and cold winter except during monsoon season when moist air of oceanic origin penetrates into the district. There are four seasons in a year. The hot weather season starts from mid March to last week of the June followed by the southwest monsoon which lasts up to September. The transition period from September to November forms the post monsoon season. The winter season starts late in November and remains up to first week of March.

(***Source***: *http://cgwb.gov.in/District_Profile/Haryana/Yamuna%20Nagar.pdf*)

2.4.8 Rainfall

The normal annual rainfall of the district is 1107 mm, which is unevenly distributed over the area in 43 days. The south west monsoon sets in from last week of June and withdraws in end of September, contributed about 81% of annual rainfall. July and August are the wettest months. Rest 19% rainfall is received during non-monsoon period in the wake of western disturbances and thunderstorms.
(Source: http://cgwb.gov.in/District_Profile/Haryana/Yamuna%20Nagar.pdf)

2.5 SEISMICITY OF THE AREA

Many parts of the Indian subcontinent have historically high Seismicity. Seven catastrophic earthquakes of magnitude greater than 8 (Richter scale) have occurred in the western, northern and eastern parts of India and adjacent countries in the past 100 years. By contrast, peninsular India is relatively less seismic, suffered only infrequent earthquakes of moderate type. The main seismogenic belts are associated with the collision plate boundary between the Indian and Eurasian plates. The project site falls under seismic **zone IV** which is a high damage risk zone (**MSK VIII**). The IS code assigns zone factor of **0.24** for **zone IV**.. As the map of Intensity (**Figure 2.10**) clearly depicts that the seismic intensity of Yamuna Nagar is **VII-VIII MSK** unit. **Figure 2.11** shows the likelihood of injuries and deaths, respectively, in Haryana State. The loss estimation outcome based on the census data of Haryana State, projected deaths and injuries calculated by researcher are tabulated below.

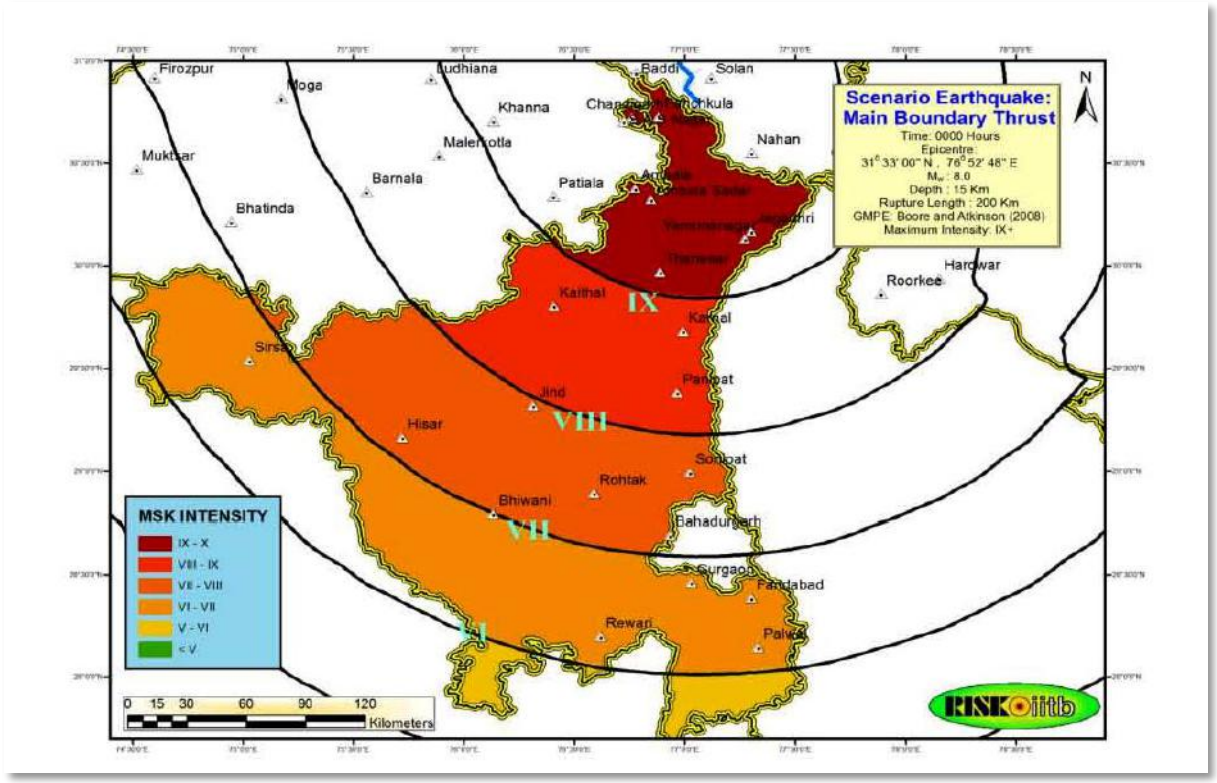
Table 2.5: Loss Estimation at State Level

State	Population (Census, 2011)	Injuries	Deaths
Haryana	2,53,53,081	15,04,200	3,23,400

Table 2.6: Loss Estimation at District Level

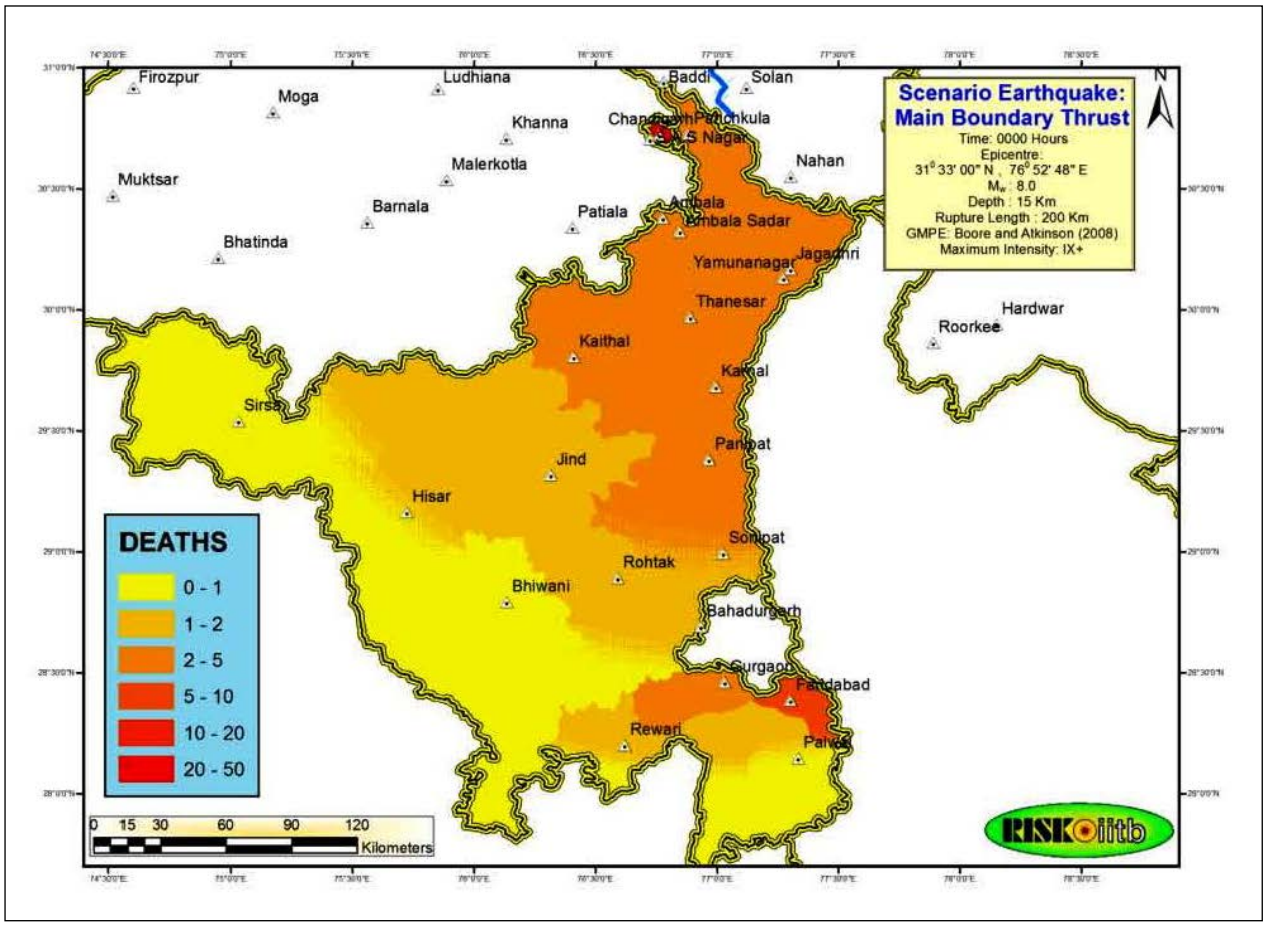
S.No.	District	Population (Census, 2011)	Injuries	Injuries (%)	Deaths	Deaths (%)
1.	Panchkula	5,58,890	51,900	9.2	11,400,	2.0
2.	Ambala	11,36,784	121,700	10.7	26,200	2.3
3.	YamunaNagar	12,14,162	114,000	9.3	25,500	2.1
4.	Kurukshetra	9,64,231	85,200	8.8	19,500	2.0
5.	Kaithal	10,72,861	93700	8.7	20400	1.9
6.	Karnal	15,06,323	125700	8.3	28400	1.8
7.	Panipat	12,02,811	85100	7.0	19200	1.5
8.	Sonipat	14,80,080	86700	5.8	19800	1.3
9.	Jind	13,32,042	91600	6.8	21200	1.5
10.	Hisar	17,42,815	88500	5.0	20100	1.1
11.	Bhiwani	16,29,109	71100	4.3	15000	0.9
12.	Rohtak	10,58,683	55500	5.2	12700	1.1
13.	Jhajjar	9,56,907	46200	4.8	9700	1.0

Source: NDMA, Government of India, 2014.



Source: *NIDM, Haryana, 2014*

Figure 2.10: Map of Intensity of Injured in Haryana



Source: NIDM, Haryana, 2014

Figure 2.11: Map of Likelihood of Deaths in Haryana

2.5.1 Largest Instrumented Earthquake in Haryana

The instrumental earthquakes in this region are listed in Table given below. General locations are provided for historical events for which generalized epicentral co-ordinates are available. Some events which were significant for other reasons are also included.

Table 2.7: Major Earthquake in Haryana

S. No.	Date	Time	Latitude	Longitude	Depth (Km)	Magnitude	Region
2006							
1.	February, 15	1:37:47.5 HRS (UTC)	29.1° N	76.6 ° E	05.0	3.2	Sonipat, Haryana
2.	March, 31	11:25:39.3 HRS (UTC)	28.7° N	76.8° E	22.0	3.4	Jhajjar, Haryana
3.	April, 07	18:56:38.0 HRS (UTC)	29.0° N	77.0° E	11.5	3.0	Sonipat, Haryana
4.	May, 01	5:13:47.9 HRS (UTC)	29.0° N	76.7° E	10.0	3.6	Rohtak, Haryana
5.	May, 07	16:1:0.5 HRS (UTC)	28.7° N	76.6° E	20.2	4.1	Jhajjar, Haryana
6.	December, 09	18:52:03.7 HRS (UTC)	29.0° N	76.7° E	06	2.8	Rohtak , Haryana
2007							
7.	April, 03	15:35:10.3 HRS (UTC)	29.0° N	76.6° E	8.8	2.8	Rohtak , Haryana
8.	May, 14	7:22:47.4 HRS (UTC)	29.0° N	76.6° E	5.0	3.2	Rohtak , Haryana
9.	November, 20	17:11:5.6 HRS (UTC)	28.0° N	76.6° E	1.2	3.3	Rajasthan- Haryana Border Region
2008							
10.	February, 27	11:13:55.2 HRS (UTC)	28.9° N	76.6° E	15.0	2.8	Rohtak , Haryana
11.	November, 1	22:34:49 HRS (UTC)	28.9° N	76.8° E	10	2.7	Rohtak , Haryana
12.	October, 19	07:56:48 HRS (UTC)	29.1° N	76.9° E	7	3.2	Sonipat, Haryana
2009							
13.	May, 10	11:02:47.0 HRS (UTC)	30.3° N	76.9° E	11	3.5	Ambala, Haryana
2010							
14.	February, 24	19:20:52 HRS (UTC)	28.6° N	76.9° E	17	2.5	Rohtak , Haryana
15.	March, 03	11:48:18.0 HRS (UTC)	28.8° N	77.0° E	15	2.3	Delhi- Haryana Border Region
16.	October, 12	10:27:25 HRS (UTC)	28.2° N	76.0° E	6	3.5	Rajasthan- Haryana Border Region
17.	September, 07	17:58:18 HRS (UTC)	28.6° N	77.0° E	8	4.2	Delhi- Haryana Border Region
18.	November, 24	19:09:22 HRS (UTC)	28.8° N	77.0° E	10	2.5	Delhi- Haryana Border Region
2011							
19.	March, 05	07:41:03 HRS (UTC)	28.7° N	76.7° E	10	4.9	Haryana- Delhi Border Region

Source: *http://www.imd.gov.in/section/seismo/dynamic/welcome.htm*

2.5.2 Conclusion

As per outcome of the data collected from IMD, Haryana, only two earthquakes observed during 10 years. First in 7th April, 2006 the magnitude of this earthquake was 3.0 and second was in 19th October 2008 the magnitude of this earthquake was 3.2. These two was observed as low intensity earthquake hence there will be no major impact on the environment due to proposed activity.

2.6 FLOODS

Floods have been a recurrent phenomenon in Haryana from time immemorial. Many part of the state of Haryana are prone to flooding. The devastating floods hit Haryana many times. In 1977, 1978, 1980, 1983, 1988, 1993

and 1995, 1996 floods occurred in Haryana. Floods have been causing extensive damage not only to standing crops but also loss of lives and cattle. The floods in Haryana can occur because of some natural reasons such as its physiographic situation which makes a depressional saucer shape zone around the Delhi-Rohtak-Hisar-Sirsa axis and it has a poor natural drainage system and sometimes the heavy precipitation becomes a major contributing factor in causing flood as such in case of Rohtak flood, 1995. The state receives an average rainfall of about 650 mm. In flood manual of Haryana, there are 102 vulnerable points in Haryana which need special attention during monsoon.

2.6.1 History of Flood in Yamuna Nagar

Situation of Yamuna Nagar District is such that the northern part of the district falls in the foothills of Shiwalik ranges while remaining part lies on the hill-slopes and plains. A number of Streams and rivulets flow through this district and these cause damage to crops in the monsoon season in many ways. River Yamuna Passes along the eastern boundary of this district dividing it from district Saharanpur of U.P. State. The important rivers, streams and rivulets passing through this district are somb, Pathrala, Chautang, Sadhura Nadi part of the Markanda River etc. Whenever there are heavy rains, large areas of the district are affected by heavy discharge from Hathani Kund Barrage in the catchment areas of Himachal Pradesh. On the basis of information available, heavy rains/ floods affected the district badly in the years 1978, 1988, 1989, 1990, 1995, 1998, 2008, 2010, 2011 and 2013. Khadar area of this district along river Yamuna was affected by high floods. It has been experienced that people of this area have always taken the floods in their stride and they hardly faced any difficulty before 1978. It was in this year that villages like Kalesar, Mandewala, Mamdubas, Kaniawala, Bhilpura, Lakarmai Partappur, Nawajpur, Mandoli Gaggar, Kanalsi, Bhogpur, Bibipur Lapra, Karera, Model Town, Kamalpur Tapu, Bagwali, Jathlana, Lal Chappra, Sandhala, Gumthala, Pobari etc. were cut off due to over flow of water in river Yamuna as its discharge exceeded 8 lacs cusecs. The discharge in river Yamuna reaches to 8.63 lacs cusecs in the year 2013 Khadar area in this district is affected whenever there is more than 2.00 Lac cusecs of water in river Yamuna. The situation becomes alarming when it increases beyond 2.5 Lac cusecs. After the year 1965, bund swere constructed and protection works completed hence there was no such village which could be termed as dangerously exposed, but during the floods of 1978, 1988 and 1998, 2005 and 2008 villages namely Bhilpura, Kaniawala, Sandhala, Sandhali, Jathlana, Ghoron Pipli, Tapu Majri, Lakkar Mai Partappur, Mali Majra, Nawajpur, Mandouli, Ghaggar Kanyawala, Odri, Lapra, Tapu Kamalpur, Gumthala etc. were affected. There are still some vulnerable villages which required special attention/vigilance for the sake of safety.

Table 2.8: Major Floods affected Villages in Yamuna Nagar, Haryana

S.No.	Chhachhrauli Tehsil	Jagadhri Tehsil	Bilaspur Tehsil
1.	Kalesar	Gadhaula	Ranjitpur
2.	Mandewala	Rajpura	Jaitpur
3.	Lakkar Mai Partappur	Kanalsi	Bihta
4.	Nawajpur	Bhogpur	Mujafat
5.	Mandouli Gaggar	Bibipur	Bhamnauli
6.	Urjani	Odri	Chintpur
7.	Baroli Majra	Lapra	Khanuwala
8.	Kot Sarkari	Jathlana	Lalhari
9.	Kot Basawa Singh	Sandhala	
10.	Naggal Patti	Sandhali	
11.	Muzafat Kalan and Muzafat Khurd	Gumthala	
12.	Khanuwala	Naharpur	
13.	Chintpur	Ghoro Pipli	
14.	Khizri	Tapu Majri	

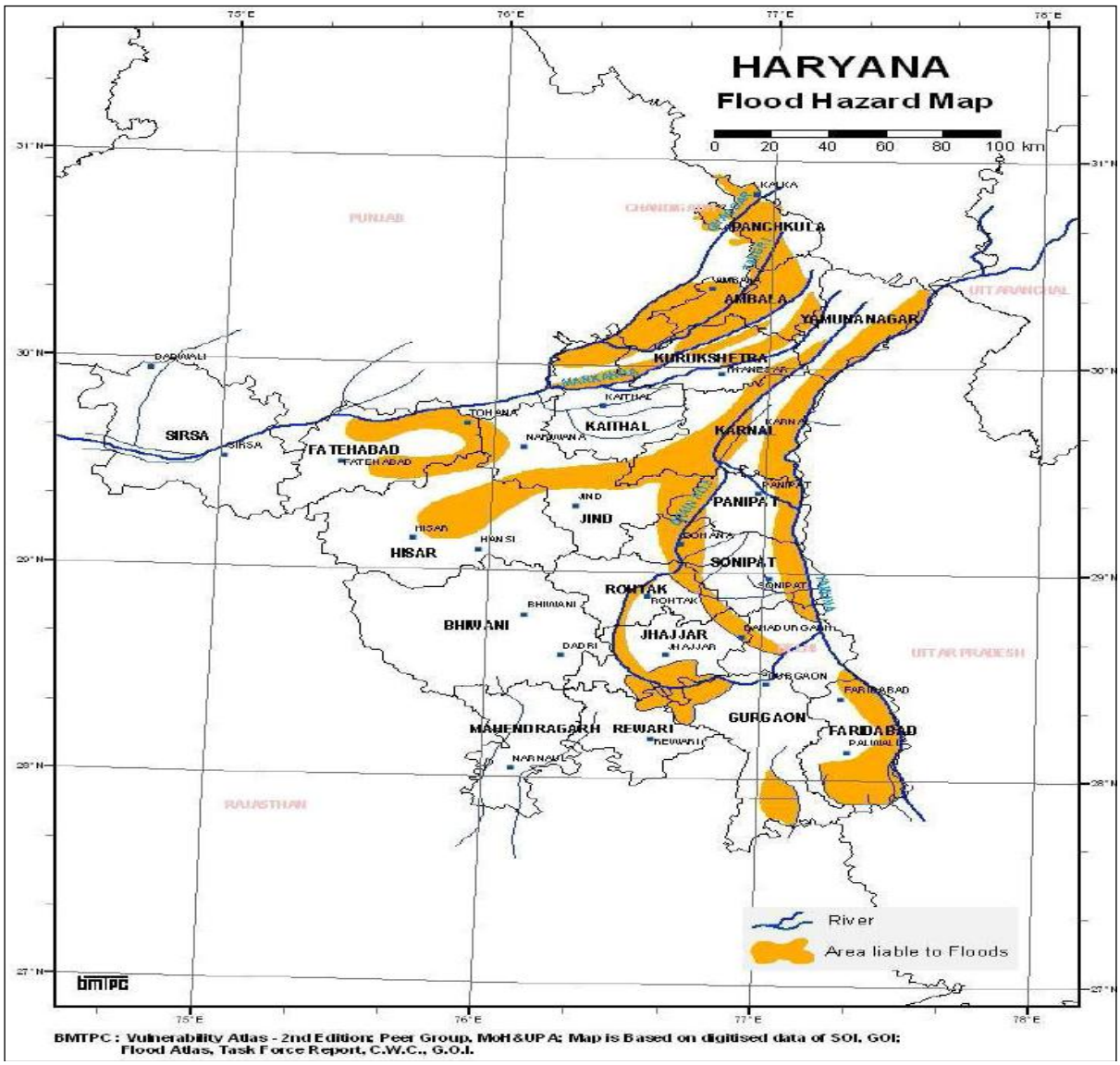


Figure 2.12: Flood Hazard Map of Haryana

2.7 EXPLORATION AND RESERVES

2.7.1 Proved Reserves

Survey was conducted in the proposed lease area. The Khasra plan was provided by the applicant.

Basics of Mineral Reserves Calculation– River Bed Area

- Mineral Reserves falling in the river bed area has been calculated taking the maximum permissible depth of 3 m from the river bed surface RL.
- The bulk density of Sand is considered 2.0.
- Volumetric method is adopted for calculating reserves of Sand.
- The mineable reserves are calculated by deducting "Blocked Geological Reserves on account of river banks, lease boundary, railway line, highways, bridges, anicuts (where ever applicable) from total proved Geological Reserves".
- It is considered that river bed Sand shall be replenished 100% every year as evident from preceding paragraph (3.2.6) on Annual Replenishment of Mineral in River Bed Area vis-à-vis Sedimentation" in mining plan.

2.7.2 Reserve Estimation

For estimating the reserve of sand the following parameters are considered:

- The reserves are calculated on the basis of established width, thickness and strike length/influence of the mineralized formation in the area.
- The entire reserves of Sand up to the depth of 3.0 m are calculated for government land (inside river bed area).
- The Sand reserves are calculated up to 3.0m below ground level.

- The bulk density of Sand is considered 2.0.

2.7.3 Geological Reserves: The reserves of Sand calculated by volumetric method and are summarized here below:

Table 2.9: Geological Reserves Estimation

Nature of land	Lease area In ha	Total proved Geological reserves MT= Area x depth x BD (A)	Blocked area of 50m strip after each km, 25% blocked in river banks,/lease boundary etc= hectares	Blocked Geological Reserves in blocked area (B)	Total Mineable reserves A-B=C	Minable Reserve (Per Year)
River bed	44.14	26,48,400 Tons	11.60 ha	6,96,000 MT	19,52,400 MT	19,50,000 MT

2.7.4 Mineable Reserves:

A) Proved Reserves as Per **UNFC Code** (111)
Total Reserves = 26,48,400 Tons

B) Blocked Reserves as Per **UNFC Code** (211 and 222) = 6,96,000 MT

C) Mineable Reserves = **A-B** = 19,52,400 MT

2.7.5 Targeted Production: - 19,50,000 TPA
Production per day- 6500 Tons/day

Table 2.10: Five Years Proposed Production Details (Tons/annum)

	Production From River bed		Area (ha) Needed per year
Year	Trips/day	MTPA	
I	260	19,50,000	32.50
II	260	19,50,000	32.50
III	260	19,50,000	32.50
IV	260	19,50,000	32.50
V	260	19,50,000	32.50

2.7.6 Life of Mine

The period of contract for mining will be for 9 years commencing with effect from the date of grant of Environmental Clearance or an expiry of a period of 12 months from issuance of LOI.

2.8 MINING METHOLOGY

2.8.1 Proposed method of mining

Mining activity will be carried out by open cast semi-mechanized method.

- No overburden/ waste material will be produced in river bed. No drilling/ blasting are required as the material is loose in nature.
- Light weight excavators will be used for loading of mineral in tippers.
- Proper benching of 3.0 m height will be maintained and width of the bench will be around 20 m. The benches shall be maintained in the form of slices/strips parallel to the banks of river.
- Mining activities will be carried out in a manner so that there is no obstruction to the movement of water flow, if any, during rainy season.
- Roads will be properly made and sprayed by water for suppression of dust.
- Roads in the mining area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20.
- Extraction activities will start in the blocks from the upstream side to downstream side. This will not obstruct the movement of water, if any, during monsoon period in the river course.
- In case during any period, the replenishment was found less than 3 m or depth of exaction, the mining during said period would restrict to depth which would not be more than 3 m of the original level of the river bed.

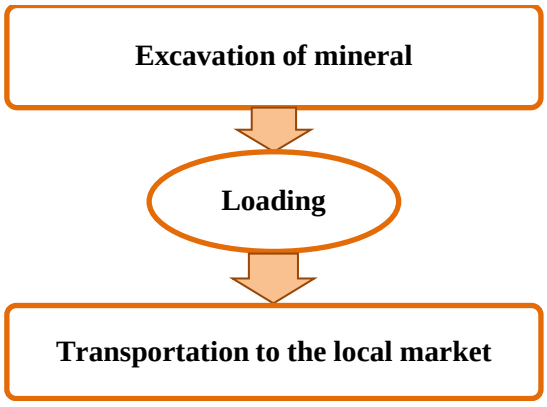


Figure 2.13 Process Flow Chart of Mining of Sand

2.8.2 Year Wise Production detail with Benches Height

Year Wise Production detail with Benches Height (Kanalsi Block/ YNR B-5, Yamuna Nagar) the working will start from 276 m amsl and over an area of 32.54 ha. out of total mineable area of 44.14 ha. The depth of working will be 3m. The land use of the lease area will remain same as the proposed activity is extraction of deposited Sand (minor mineral) from river bed which will get replenished during succeeding monsoon season.

2.8.3 Reclamation of Mined out Area

Measures taken and to be taken for land restoration, reclamation and plantation in/ or nearby mining area

- Envisaged mining operation will be carried out in the River bed only. The excavation in the river bed areas are proposed to be undertaken only during the period the same remains dry. There will be no mining activities when there is flow of water in the working zones. During rainy season, the activities will be stopped, if there is flow in the river.
- Besides resource extraction, following activities will be kept in view:
  a) Protection and restoration of ecological system
  b) Prevent damages to the river regime
  c) Protect riverine configuration such as bank erosion, change of water course gradient, flow regime etc.
  d) Prevent contamination of ground water.

Safeguard Measures:

While carrying out mining activity following measures will be taken:

- Mining activities will be carried out only in dry bed. No in stream mining will be practiced.
- Identification of river stretches for mining will be completed.
- There will be no mining near the banks and same would be restricted with central 3/4th of the river bed. This is to protect the bank erosion and river migration.
- Mineral Sand from river will be restricted to a maximum depth of 3.0 m from the existing bed level. This is for safety and sustainability.
- As the mining area is quite large and long in length, systematic extraction will be carried out to prevent seasonal scouring and enhanced erosion.
- Extraction will be carried out in a manner that there is no obstruction to flow of water, if any, during rainy season.
- Mining on the concave side of the river channel would be avoided to prevent bank erosion. Similarly meandering segment of river will be selected to prevent natural eroding banks and to promote mining on natural building (aggrading) meanders component
- Reclamation of Mined out Area (plate no.5) of miming plan.

2.9 EXTENT OF MECHANIZATION

This is a new mining contract. Following equipments are proposed to be deployed for the desired production.

Table 2.11: List of Machineries

S. No.	Name of machinery	Capacity	Nos.
1.	Excavator	2.0 m3	5
2.	Tippers/ Trucks	25 tons	90
3.	Water Tanker	5000 Liters	2

4.	Light vehicles /jeep	--	1
5.	Maintenance Van		1

2.10 TRANSPORTATION

Mineral river sand will be transported by hired trucks. Light weight excavators/JCB will be deployed for extraction. Mineral will be loaded in trucks of 25 tons capacity. Movement of trucks after mineral loading will be through approach roads connecting to tar roads.

2.11 MINE DRAINAGE

(i) Mine Drainage in river bed mining: The River Yamuna flow from N to S which originates from the Himalayas provides the major drainage in the mining area. The general slope of the land surface is From NE to S and elevation of the mining area varies from 269 m amsl in the north end side of the mining area to 268 m amsl in south end side of the mining area. There is flow of water in the river bed in a narrow area in post monsoon period. Area is having 1067 mm rainfall in a year. During rainy season, catchment water flows in the river. During dry period the Sand is excavated which gets replenished during rainy period. No mining activities will be carried out during rainy season when there is water flowing in the working area. There will be no intersection of water table as working will be carried out upto 3.0 m depth only from surface of river bed while the water level is 5 -10 m below the surface of river bed.

(ii) Drainage Around and Within Mine: The mining area will become a depression, which warrants accumulation of water during rainy season. The pit will become a depression and will help in faster recharge of water in the aquifer

(iii) Dewatering: Since the depth of mining proposed is only 3.0 meters in the river bed, the same being above the water table of the area, there will be no chance of encountering the ground water table during the mining operations. No dewatering of the ground water is proposed.

2.12 WASTE MANAGEMENT

There is no generation of waste during sand mining in this mining project. No overburden production in the sand mining project will be observed

2.13 USE OF MINERAL

- Minor Mineral is mainly consumed in construction work in construction work in infrastructure, housing, road projects and other development projects.
- Virtually there is no construction or infrastructure building work possible without this minor mineral, hence the same can be assumed as back bone of the infrastructural growth of India.

2.14 LAND USE PATTERN OF MINING AREA AT VARIOUS STAGES

Table 2.12: Land Use Pattern at Various Stages

S. No.	Particulars		Present Land use (Ha)	At the End of Mining (Ha)
1.	Safety Zone	Bridge and Anicuts, roads, 7.5 m mining area Boundry, 50 m barrier at each Km.	11.60	11.60
2.	Infrastructure (Office, Temporary Shelters etc.)		00.00	0.20*
3.	Area available for mining		32.54	--
4.	Reclaimed area		--	32.54
Total			**44.14**	**44.14**

2.15 UTILITIES AND SITE FACILITIES

2.15.1 Water Requirement

Total water requirement for the mining project is **40 KLD.**

S. No	Head	Water (KLD)
1.	Dust suppression	20.0
2.	Domestic purpose	6.0
3.	Plantation	14.0
Total		**40.0**

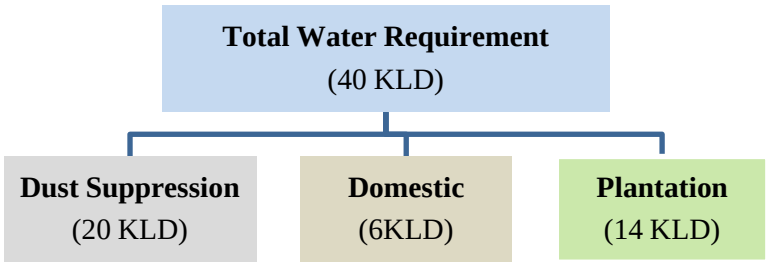


Figure 2.14 Water Balance

Note: Water requirement is fulfilled through Hired Tankers. Therefore there is no need of clearance from the competent authority as there will be no ground water withdrawal by the project proponent.

2.15.2 Man Power

Requirement of Technical and other supervisory staff will be as follows for the proposed systematic and scientific mining:

Table 2.13: Employment Details

S. No.	Category	Numbers
1.	Manager 1st class	1
2.	Assistant Managers	2
4.	Skilled personnel	4
5.	Semi-skilled personnel	50
6.	Unskilled	8
Total		**65**

2.15.3 Power

Electricity connection shall be taken for office and security purpose from the nearby substation of Haryana Electricity Board, However no power is required for excavation of minerals.

2.15.4 SITE SERVICE

i. **Manager's Office:** One competent Manager and one Assistant Managers will be required to supervise the mining operations. An office for Manager 5 x 3 meters shall be provided at the central location of quarry. An additional room for other supervisory staff is also proposed at each mine.
ii. **Canteen -cum-rest shelter**: In order to provide the rest shelter for the workers working in the mine and also to provide tea etc. the arrangement shall be made to install a rest shelter-cum-canteen at each quarry and shall be utilized by the workers. The rest shelter will be for having rest during the lunch hours by the workers/ labor. The size of rest shelter shall be about 10 x 3 meter to accommodate the workers.
iii. **First Aid Room**: To provide the first aid for any sort of injuries encountered during the mining operation, one small first aid room shall be provided at each sub block. First aid kit and sufficient stock of material/medicines needed for first aid shall be provided as per requirement. As the Mining Engineer/Manager and Mining Mates are qualified first aides, they can provide first aid to the labor on the spot.
iv. **Crèche:** No woman employment is proposed in mine operation. However, in case of women workers are employed for other ancillary works like minor road repair, plantation etc, arrangement for a small crèche shall be made as per the requirement.
v. **Electricity Supply**: Electric connection shall be taken for office and security purpose from the near bye sub-station of Haryana Electricity Board.
vi. **Water Supply**: The water supply for drinking purpose proposed will be made available by R.O. System.

2.16 Aspect and Impact Analysis

The aspects and probable impacts (short term, midterm and long term) for proposed stone mining activity at Village-Kanalsi, Tehsil-Jagadhri and District-Yamuna Nagar, Haryana has been presented in table 2.13.

Table 2.14 Aspect and Impact Analysis

S. No.	Activity	Aspect	Impact			Legal Regulation
			Short Term	Mid Term	Long Term	
1.	Loading and Unloading	a. Dust generation	✓	X	X	The Mines Act 1952
		b. Noise	✓	X	X	Mineral Concession Rules, 1960 5454 Minor Mineral Concessio (Amendment) Rules 2012
2.	Transportation of Mineral (Stone)	a. Dust generation	✓	X	✓	The Air (Prevention and Control of Pollution) Act 1981. Haryana Minerals (Prevention of Illegal-Mining, Transportation and Storage) (Amendment) Rules 2012
		b. Noise	✓	X	X	
		c. Gaseous Emission	✓	X	✓	
		d. Accidents	✓	✓	✓	Haryana Minor Mineral Concession amendment Rules 2012
3.	Water Transportation	a. Dust generation	✓	X	X	The Water (Prevention and Control of Pollution) Act 1974
		b. Noise	✓	X	X	The Air (Prevention and Control of Pollution) Act 1981
4.	Disposal of Waste Water	a. Ground Water Contamination	✓	X	X	The Water (Prevention and Control of Pollution) Act 1974 EIA Notification, 2006 under EPA Act Separate Corpus Fund(2% of annual contract)
		b.Surface Water Contamination	✓	X	X	
		c.Soil Quality	✓	✓	✓	
5.	Recruitment	Social	X	✓	✓	Haryana Minor Mineral Concession Rules 2012 The Mines and Mineral (Development and Regulation) Act 1957

From aspect and impact analysis, it is concluded that this stone mining project has short term, midterm as well as long term impacts. Different activities like drilling, blasting, explosive use, loading and unloading, transportation, disposal of waste has both short term and long term impacts. This project has long term positive impact on social aspects. Accordingly, the receptor will be studied and mitigation measures will be discussed in chapter 5.

2.17 SUMMARY

The proposed project is for Mining of Sand (Minor Mineral) and open-cast semi mechanized method inside riverbed over an area of **44.14 Ha.** by **Sh. Kulvinder Singh Prop. M/s P.S. Buildtech** at Kanalsi, Tehsil – Jagadhri and Distt- Yamuna Nagar, Haryana with proposed production capacity of **19.50 Lakhs TPA** of Sand (Minor Mineral). The climate of the district is characterized by the dryness of the air with an intensely hot summer and a cold winter. The normal annual rainfall of the district is 1076 mm, and is unevenly distributed over the area. The average rainy days are 44. The project site falls under seismic zone IV which is a high damage risk zone (MSK VIII). Many part of the state of Haryana are prone to flooding. The total geological reserve is **26,48,400 Tons** and total mineable reserve is **19,52,400 Tons**. Mine lease area will be worked in block and the digging depth will be restricted to 3 m inside riverbed. The excavated minerals will be replenished 100% every year in the riverbed. Mineral Sand will be transported by trucks. The deposit is moderate to good quality sand. It is widely used in construction, buildings, bridges and other infrastructure. It is free from clay and non sticky in nature. Total water requirement for the project is **40 KLD**. Total man power requirement for the project is **65.** The site facilities like canteen, rest-shelter, first aid facility, water and electricity supply etc. will be provided as per requirement. There is no litigation pending against this project.

CHAPTER- 3
ANALYSIS OF ALTERNATIVES (TECHNOLOGY & SITE)

3.0 INTRODUCTION

Consideration of alternatives to a project proposal is a requirement of EIA process. During the scoping process, alternatives to a proposal can be considered or refined, either directly or by reference to the key issues identified. A comparison of alternatives help to determine the best method of achieving the project objectives with minimum environmental impacts or indicates the most environmentally friendly and cost effective options.

3.1 ALTERNATIVE FOR MINE LEASE

Sand (minor mineral) deposits are site specific. It is present in inside riverbed (44.14 Ha). The mining of the material will be done by opencast semi-mechanized method inside riverbed. The mining will be done as per laid down procedures Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012. No over burden from inside riverbed block will be produced. Therefore, no alternate site is suggested as the mineral is site specific.

3.2 ALTERNATIVE FOR TECHNOLOGY AND OTHER PARAMETERS

Some alternatives considered during EIA study are discussed below:

Table 3.1: Alternative for Technology and other Parameters

S. No.	Particular	Alternative Option 1	Alternative Option 2	Remarks
1.	Technology	Opencast semi mechanized and mechanized mining	Opencast mechanized mining	Opencast Semi mechanized in inside riverbed block is preferred **Benefits:** • No electric power requirement • Minimal noise will be generated • Minimal air pollution will be generated.
2.	Employment	Local employment	Outsource employment	Local employment is preferred. **Benefits:** • Provides employment to local people along with financial benefits • No residential building/housing is required.
3.	Labourer transportation	Public transport	Private transport	Local labours will be deployed so they will either reach mine site by bicycle or by foot. **Benefits:** • Cost of transportation of men will be negligible.
4.	Material transportation	Public transport	Private transport	Material will be transported through trucks/trolleys on the contract basis **Benefits:** • It will give indirect employment.
5.	Water requirement	Tanker supplier	Ground water/surface water supply	Tanker supply will be preferred. **Benefits:** • No change in the surface water or ground water quality.
6.	Road	Haul road	Metallic road	Haul road will be considered for linking mine site from metallic road for transportation purpose. Minimum distance will be measured

				along with less number of trees for considering optimum haul road roots. **Benefits**: • Less distance, less fuel used, minimum or negligible no. of trees will be cut in best opted haul road root.

3.3 SUMMARY

We have analyzed all the option for alternatives of the proposed mine site. This project is and specific project and existing land use of mine lease classified as Gair Mumkin Nadi Nallah Government Land (Inside River bed) which will continue to be so even after the current mining project is over, hence no alternate site is suggested for this project.

CHAPTER-4
DESCRIPTION OF THE ENVIRONMENT

4.0 GENERAL

The main objectives of describing the environment, which may be potentially affected, are (i) to assess present environmental quality and the environmental impacts and (ii) to identify environmentally significant factors that could preclude Mine development. This chapter discuss about the present scenario of the study area with reference to the prominent environmental attributes. The study area covers 10 Km radius of the mine lease area. Baseline data has been collected out during the **Winter season 1st December to 29th February 2015 by M/s. Vardan Envirolab, Gurgaon {NABL Accredited Lab, Certificate No. T-2629 and MoEF&CC Recognized Laboratory vide S.O. 1783 dated 30th June 2015 (Certificate enclosed as Annexure V(a)**
} in accordance with the Guidelines for EIA issued by the Ministry of Environment Forests and Climate Change, Govt. of India and CPCB, New Delhi. The impact identification always commences with the collection of baseline data such as Ambient Air Quality, Micro-Meteorology, Ground and Surface Water Quality, Noise levels, Soil Quality, Land use pattern, Biological Environment and Socio-economic aspects, Solid and Hazardous waste, Risk Assessment, Geology and Hydrology within the study zone of 10 Km. radius. Long term meteorological data recorded at the nearest IMD station, Karnal was also collected. Micrometeorological data at site was recorded using automatic weather station. Apart from these, secondary data have been collected from Census Handbook, Revenue Records, Statistical Department, Soil Survey and Land use Organization, District Industries Centre, Forest Department, Central Ground Water Authority, etc. The generation of primary data as well as collection of secondary data and information from the site and surroundings was carried out during winter season.

The EIA study is being done for the Mine Lease (core zone) and area within 10 Km distance from mine lease boundary (buffer zone), both of which together comprise the study area. The following data, through field survey and other sources, has been collected by M/s Vardan Environet, for preparing the EIA/EMP for the proposed mining area with related facilities.

- Physical environment (Air, Water, Soil and Noise) baseline data.
- Relevant meteorological data, for previous decades from Indian Meteorological Department (IMD) and primary data.
- Land use pattern within core zone and buffer zone (10 Km distance around the core zone) based on Survey of India Toposheet map, ground truth and satellite image.
- Identification of water bodies, hills, roads etc. within 10 Km radius.
- Eco-sensitive places, sanctuaries, biosphere reserves within 10 Km radius.
- Religious places / historical monuments and tourist places within 10 Km radius.
- Details of fauna and flora within a distance of 10 Km from the project site and information about forests, if any.
- Demography and Socio-economic based on last available Census data for entire study area.
- Major industries within 10 Km radius.
- Study of present environmental protection and mitigation measures in nearby operating similar projects, if any.

4.1 LAND ENVIRONMENT

Area statistics of land use classes has been generated within 10 Km radius of mine lease area (Core zone and Buffer zone) and given in **Table 4.1**.

4.1.1 Data Used

Indian Remote Sensing satellite IRS-P6, LISS III, multi-spectral digital data has been used for the preparation of land use/ land cover map of present study. Survey of India reference map on 1:50,000 scales have been used for the preparation of base map and geometric correction of satellite data. Ground truth has been carried out to validate the interpretation accuracy and reliability of remotely sensed data, by enabling verification of the interpreted details and by supplementing with the information, which cannot be obtained directly on satellite imagery.

4.1.2 Methodology

The methodology used for the study consists of following components.

(i) Base Map Preparation

Base map was prepared using Survey of India reference map on 1:80,000 scale. Interpreted thematic details were transferred on the base map. Besides, other supporting data like project reports and statistical data published by various Government departments have also been used.

(ii) Ground Truth Data Collection

Ground data on geo-environmental components of the study area was collected for verification of information about the different features on the study areas, which are responsible for the occurrence of specific spectral reflectance behavioral patterns. During the ground truth detailed information on agricultural practices, wastelands, mining, industrial area etc. were collected along with other land features.

(iii) Interpretation of Remote Sensing Data

A hybrid technique has been used *i.e.* visual interpretation and digital processing for identification of different land use /land cover classes based on the image characteristics like tone, size, shape, pattern, texture, location and association etc. An image interpretation key was developed based on such image characteristics, which enables interpretation of satellite images for land use/land cover features. Further, the land use / land cover and other baseline layers was put in GIS database for integration, analysis, statistics generation and final out in the form of land use land cover map.

4.1.3 Observation of Land Use Study

In the present study, both digital image processing and using visual interpretation technique were used to generate output of Land use / Land cover map of study area on 1: 50,000 scale (as shown in Figure 4.1). A standard False Colour Composite (FCC) image has also been generated on the same scale (Figure 4.2). Land use Pattern of the Study Area (10 Km distance from the mine site). The study area comprise Water Body 3.17% (1092.78Ha.), Grassland 53.68% (18501.90 Ha.), Dense Forest 13.97% (4813.83Ha.), Agricultural Land 8.73% (3007.24 Ha.), Fallow Land 5.64% (1945.35 Ha.), Sand/River Bank 3.49% (1203.30Ha.), Settlement 6.34% (2183.64 Ha.), Open Scrub 4.99% (1718.77Ha.).

Table 4.1 Land Use Pattern of the Study Area

Landuse	Area (Hectares)	% Area
Water Body	1092.78	3.17
Grassland	18501.90	53.68
Dense Forest	4813.83	13.97
Agricultural Land	3007.24	8.73
Fallow Land	1945.35	5.64
Sand/River Bank	1203.30	3.49
Settlement	2183.64	6.34
Open Scrub	1718.77	4.99
Total Area	**34466.81**	**100**

(***Source: Land use map)***

4.1.4 Topography

The mine lease area exhibits plain to undulated topography. The maximum elevation of the plain is 297 m RL. Large part of the district lies under the Shiwalik foothills. Sugarcane, wheat and rice are its main crops. It is an important industrial town having metal, utensil and plywood industries.

4.1.5 Drainage

The drainage pattern of the study area is discussed in **Chapter-2.**

4.2 SEISMICITY OF THE AREA

The details of the seismicity of the area have been already discussed in Chapter 2 of this EIA report. As per outcome of the data collected from IMD, Haryana, only two earthquake observed during 10 years. First in 7th April, 2006 the magnitude of this earthquake was 3.0 and second was in 19th October 2008 the magnitude of this earthquake was 3.2. These two was observed as low intensity earthquake hence there will be no major impact on the environment due to proposed activity.

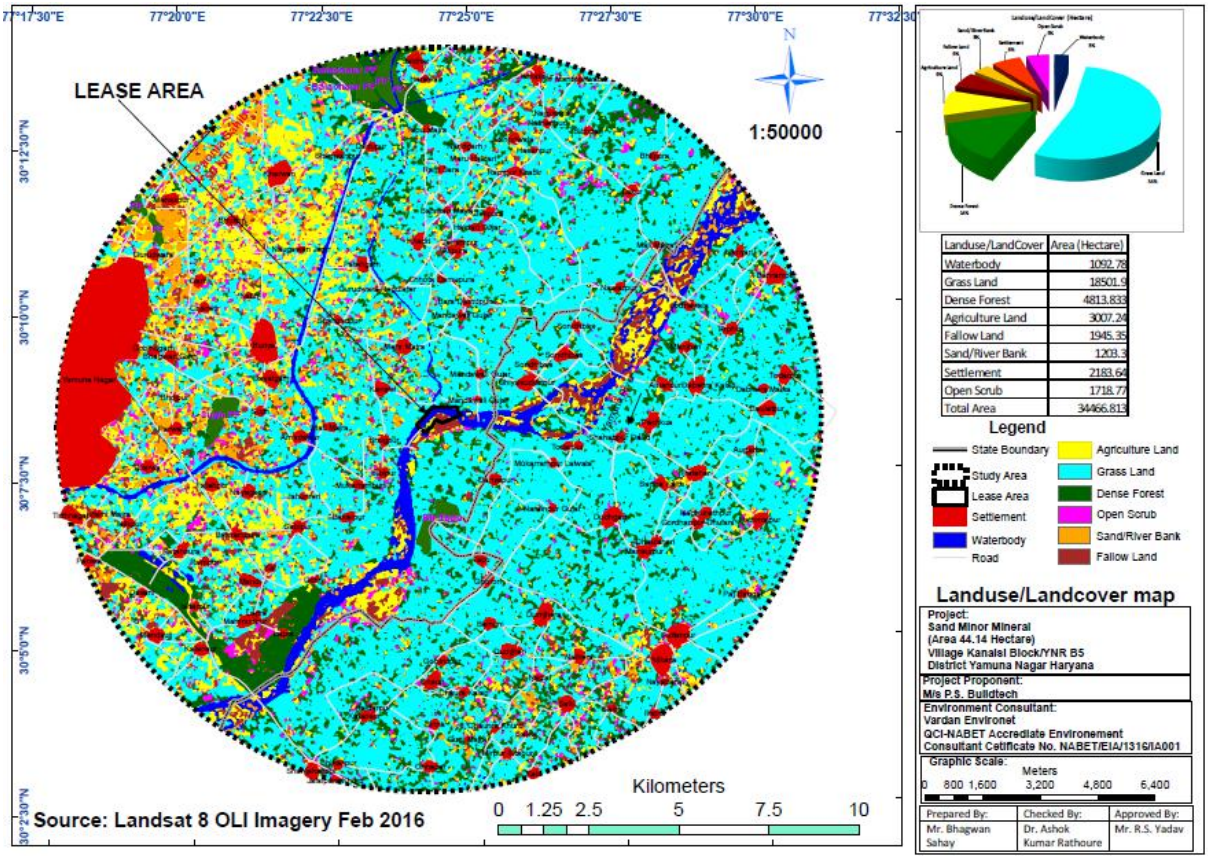


Figure 4.1: Land Use Pattern of the Study Area (10 km Radius from the Mine Site)

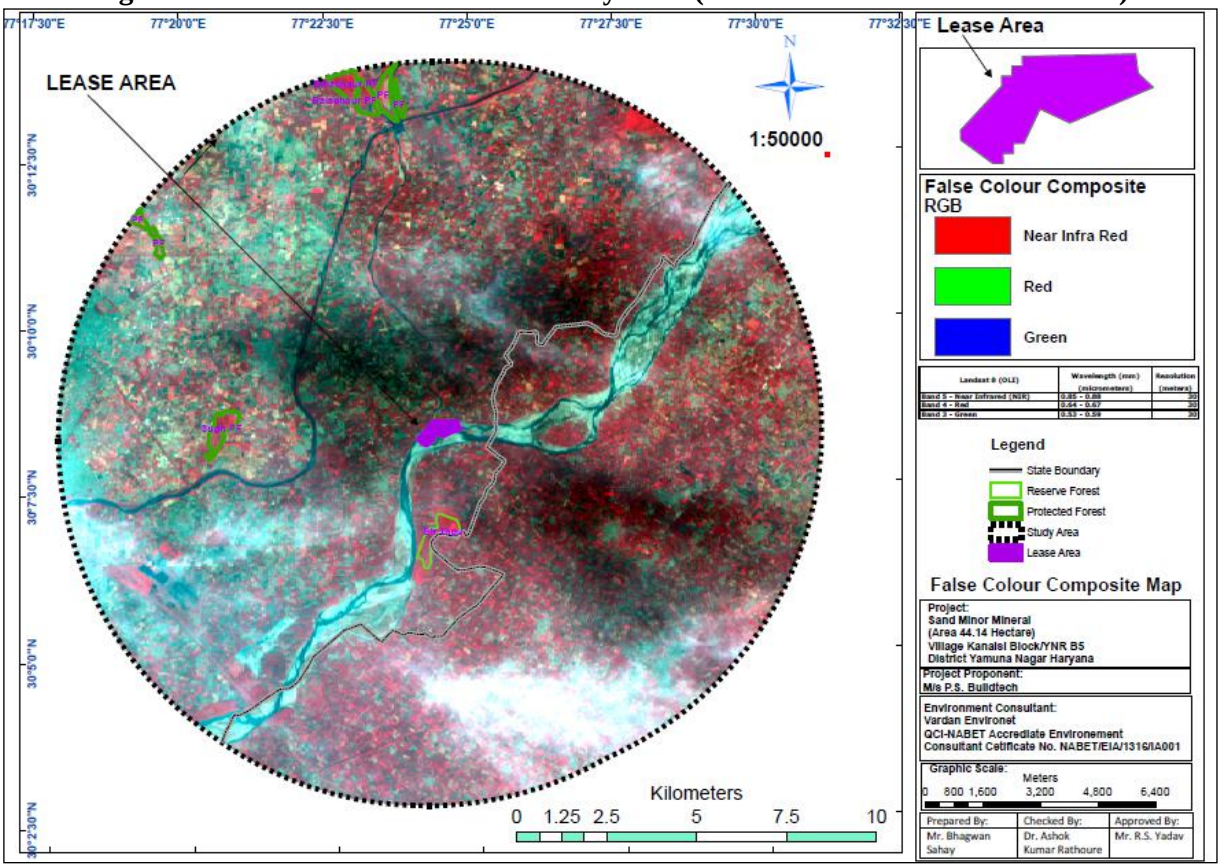


Figure 4.2: FCC Map of the Study Area (10 km Radius from the Mine Site)

4.3 FLOODS

The flood in the area has been discussed in details in the Chapter 2 of this EIA report. Floods have been a recurrent phenomenon in Haryana from time immemorial. Many part of the state of Haryana are prone to flooding. In flood manual of Haryana, there are 102 vulnerable points in Haryana which need

special attention during monsoon. Flood hazard map of India and Haryana already given in figure 2.7 respectively in chapter 2.

4.4 METEOROLOGY

Meteorology plays a vital role in affecting the dispersion of pollutants, once discharged into the atmosphere. Since meteorological factors show wide fluctuations with time, meaningful interpretation can be drawn only from long-term reliable data. Such source of data is the India Meteorological Department (IMD), which maintains a network of meteorological stations at several important locations. The nearest IMD station to the study area is located at Karnal. The Meteorological parameters obtained from this station are temperature, humidity, rainfall, wind speed, and wind direction etc. A micro meteorological station was installed at site to record micrometeorological parameters on hourly basis during study period to understand the wind pattern, temperature variation, relative humidity variation etc.

4.4.1 Climate of the Area

The climate of Yamuna Nagar district can be classified as subtropical monsoon, mild and dry winter, hot summer and sub-humid which is mainly dry with hot summer and cold winter except during monsoon season when moist air of oceanic origin penetrates into the district. There are four seasons in a year. The hot weather season starts from mid March to last week of the June followed by the southwest monsoon which lasts up to September. The transition period from September to November forms the post monsoon season. The winter season starts late in November and remains up to first week of March.

4.4.2 Rainfall of the Area

The normal annual rainfall of the district, based on the record for the period 2009-2013 is **686.1-1367.7 mm**. About 88.5% of the annual rainfall is recorded during the southwest monsoon from June-September. August is the wettest month of the year with 1566.9 mm rainfall during this period.

Table 4.2 Monthly Average Rainfalls for Year 2009-2013 (mm)

Months/Year	2009	2010	2011	2012	2013
January	3.5	7	2.8	9.0	76.0
February	20.5	27	19.5	0	142.4
March	4.0	0	14.2	2.0	9.9
April	20	0	4.9	12.1	1.4
May	0	8.3	55.4	0.3	17.7
June	7	25.4	303.5	4.7	330.6
July	159	459.4	225.9	179.3	121.2
August	220	357.1	228.5	347	414.3
September	308	437.1	65.9	122	98.3
October	6	11	0	0	15.7
November	0	6.7	0	0	7.8
December	0	28.7	1.6	9.7	23.9
Total Rainfall	**748**	**1367.7**	**922.2**	**686.1**	**1259.2**

(***Source***: *http://imd.gov.in/section/hydro/distrainfall/webrain/haryana/yamunanagar.txt*)

As we can see that the average annual rainfall of the district from the year 2009-2013 shows a variable pattern and will make a curved graph with decreasing and increasing heights.

4.4.3 Meteorological Status at the Project Site

Meteorological station was set-up at site to record surface meteorological parameter during study period; Winter Season.

Climatology during study period

- Temperature : 5°C to 31°C
- Relative humidity : 20% to 96%
- Wind speed : 0- 12.2 Km/hr

Table 4.3: Meteorological Condition of the Study Area

Month	Temperature °C		Relative Humidity %		Wind Speed (Km/Hr)	
	Max	Min	Max	Min	Max	Min
Dec. 2015	31.0	5.0	96	27	12.2	0
Jan. 2016	26.5	5.0	95	32	16.1	0
Feb. 2016	28.0	6.0	94	20	18.0	0

4.4.4 Relative Humidity

The humidity is highest in July, August and September. The annual mean relative humidity of 30 years is furnished in **Table 4.4** and depicted in **Figure 4.3**.

Table 4.4: Monthly Average Relative Humidity (%)

Months	Max	Min
January	75	48
February	70	44
March	61	34
April	44	25
May	42	27
June	55	38
July	75	64
August	80	69
September	71	56
October	61	40
November	63	41
December	72	47
Average	**64**	**44**

(Source: Climatological Table – 1961 to 1990, IMD, GoI, New Delhi)

4.4.5 Wind Speed /Wind Rose Diagram

Wind speed and wind direction data recorded during the study period is useful in identifying the influence of meteorology on the air quality of the area. Based on the collected meteorological data, relative percentage frequencies of different wind directions are calculated and plotted as wind roses of Sixteen directions *viz*., N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW and NNW for twenty four hour duration respectively. Maximum and minimum temperatures including percentage relative humidity were recorded simultaneously. The average wind speed recorded was 4.47 m/s. wind rose diagram from the monitored data shows that the predominant wind direction during the study period was mainly from WWN to ESE. The meteorological condition of the study area has been tabulated in **Table 4.3**. The Wind rose diagram has been shown in **Figure 4.3**.

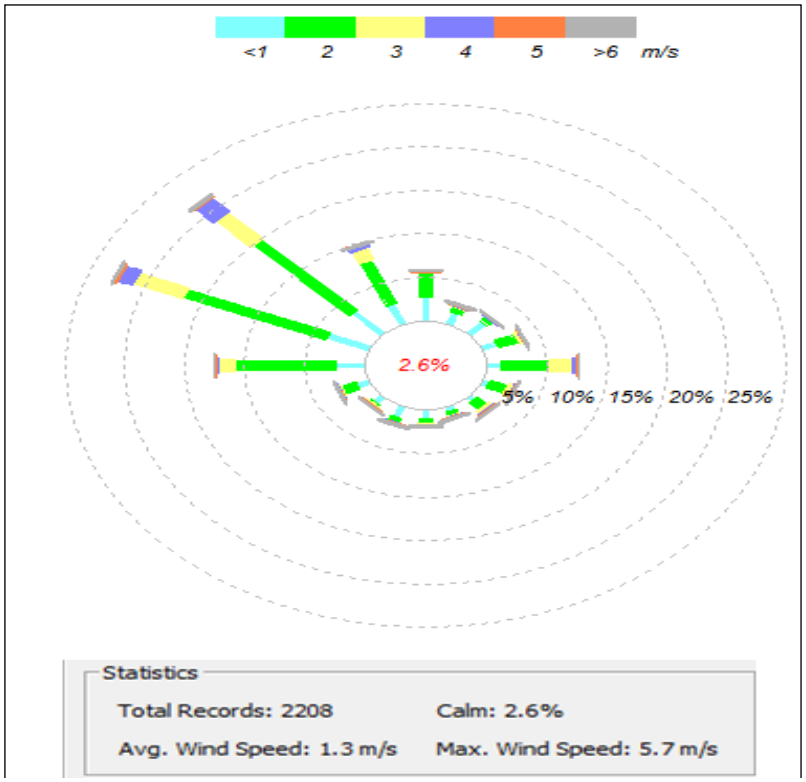


Figure 4.3: Wind Rose Diagram of Study Area

4.5 AMBIENT AIR QUALITY

The ambient air quality with respect to the study area of 10 km radius around the lease area forms the baseline information. The various sources of air pollution in the region are dust rising from unpaved roads, domestic fuel burning, vehicular traffic, agricultural activities, other industries, etc. The prime

objective of baseline air quality monitoring is to assess existing air quality of the area. This will also be useful in assessing the conformity to standards of the ambient air quality during the operations.

4.5.1 Selection of Sampling Station

The baseline status of the ambient air quality has been assessed through scientifically designed Ambient Air Quality Network. The design of monitoring network in the air quality surveillance program has been based on the following considerations:

a) Meteorological conditions (wind direction and wind speed)
b) Representative of likely affected area
c) Representative of regional background air quality for obtaining baseline status
d) Topography of the study area
e) Accessibility and availability of the infrastructure
f) Representative of sensitive receptor.

Keeping in view above mentioned points, 6 nos. of Ambient Air Quality Monitoring Stations were established with in the study area. The sampling locations and their distances are shown in **Table 4.5** and in **Figure 4.4**. It can be observed from the wind rose diagram, that the predominant wind direction during the study period was from West. Villages/locations have been selected in downwind direction as well as in the upwind direction for AAQ monitoring from the proposed activity site.

Table 4.5 Ambient Air Quality Monitoring Sampling Stations

Stations	Sampling Locations	Coordinates		Aerial Distance (Km) and Direction From Mine Site	Sampling Location Criteria
		Latitude	Longitude		
A1	Near Mine Site	30°08’38.7’’N	077°24’16.6’’E	Near Mine site	Mine Site, downwind
A2	Village -Kanalsi	30°08’31.0’’N	077°24’19.8’’E	1.35 Km NW	Upwind
A3	Village- Sultanpur	30°05’28.7’’N	077°28’57.8’’E	9.58 Km SE	Downwind Direction

A4	Village- Mail Majra	30°11'34.7''N	077°28'41.0''E	7.72 Km NE	Crosswind
A5	Village- Sugh	30°08'55.8''N	077°21'47.3''E	4.73 Km W	Crosswind
A6	Village - Tapu Majra	30°12'38.7''N	077°24'62.4''E	7.65 Km N	Upwind direction

(Source: SOI Toposheet and Field Visit)

4.5.2 Baseline Data

Ambient air monitoring at 06 locations was carried out on during 1st December 2015 to 29th February 2016 (winter) in the study area to assess the ambient air quality at the source. Major air pollutants *viz.* Particulate Matter (PM_{10}), Sulphur Dioxide (SO_2), Nitrogen Dioxide (NO_2), representing the basic air quality in the region were identified for Ambient Air Quality Monitoring (AAQM). The ambient air quality results are given in **Table 4.7** for each location.

4.5.2.1 Sampling and Analytical Techniques and Instruments Used for Sampling

The various instruments used and technique adopted for sampling is given in table below

Table 4.6: Testing Procedure Used for Determining Various Air Quality Parameters

Parameters	Testing Procedure
PM_{10}	Gravimetric Method by using Repairable particulate matter sampler "Repairable Dust Sampler" (RDS)
$PM_{2.5}$	Cyclonic Method by using Fine particulate sampler.
NO_2	Absorption in diluted NaOH and then estimated calorimetrically with sulphanilamide and N (I-Nepthyle) Ethylene diamine Dihydrochloride and Hydrogen Peroxide (IS: 5182 1975, Part-VI).
SO_2	Absorption in Sodium Tetra Chloromercurate followed by Colorimetric estimation using P-Rosaniline hydrochloride and Formaldehyde (IS: 5182 Part – II, 2001).
Free Silica	Colorimetric method by Spectrophotometer

Table 4.7: Ambient Air Quality Monitoring Results in µg/m^3

Station	PM_{10}		$PM_{2.5}$		NO_2		SO_2	
	Min	Max	Min	Max	Min	Max	Min	Max
Core Zone								
A1	59.20	78.10	31.10	48.20	16.20	25.70	9.10	17.10
Buffer Zone								
A2	64.60	80.10	30.60	47.80	13.70	23.40	8.10	12.60
A3	54.70	79.30	30.20	45.10	16.20	26.10	7.50	14.10
A4	62.30	73.60	27.80	45.80	13.70	30.20	7.90	14.10
A5	58.10	82.70	28.70	48.00	17.50	27.80	8.30	15.00
A6	58.70	75.90	29.40	40.10	17.80	25.20	10.10	17.80

Table 4.8: Mineralogical composition of free Silica in PM_{10}*

Station	Free Silica (% in PM_{10})	PM_{10} (µg/m^3)	Ca (µg/m^3)	Mg (µg/m^3)	Ni (ng/m^3)	Pb (µg/m^3)
Core Zone						
A1	3.20	65.20	1.55	0.47	<0.5	0.06
Buffer Zone						
A2	3.02	69.20	1.42	0.54	<0.5	0.12
A3	2.98	67.20	1.10	0.83	<0.5	0.07
A4	2.77	69.50	1.09	0.76	<0.5	0.06
A5	2.48	65.50	1.03	0.50	<0.5	0.09
A6	2.10	67.40	1.00	0.34	<0.5	0.07

Source: AAQ Monitoring Results, 1st December 2015 to 29th February 2016

*****Mineralogical composition of free Silica in PM_{10} has been analyzed once in a season for each monitoring location.

4.5.3 Interpretation

Ambient Air Quality Monitoring reveals that the minimum and maximum concentrations of PM_{10} for all the 6 AAQM stations were found to be **54.70µg/m^3 and 82.70 µg/m^3** respectively, minimum and maximum concentrations of $PM_{2.5}$ for all the 6 AAQM stations were found to be **27.80 µg/m^3 and 48.20 µg/m^3** respectively. The range of Free Silica in PM_{10} was found to be **2.10% to 3.20%**. The minimum and maximum concentrations of SO_2 were found to **7.50 µg/m^3 and 17.80 µg/m^3** respectively. The minimum and maximum concentrations of NO_2 were found to be **13.7 µg/m^3 and 30.2 µg/m^3** respectively. The prescribed CPCB limit of SO_2 and NO_2 is 80 µg/m^3 for residential and rural areas has never surpassed at any monitoring station. Detailed Air Monitoring Analysis report is attached as **Annexure-VI.** The standards of Ambient Air Quality in India are available online at http://cpcb.nic.in/National_Ambient_Air_Quality_Standards.php

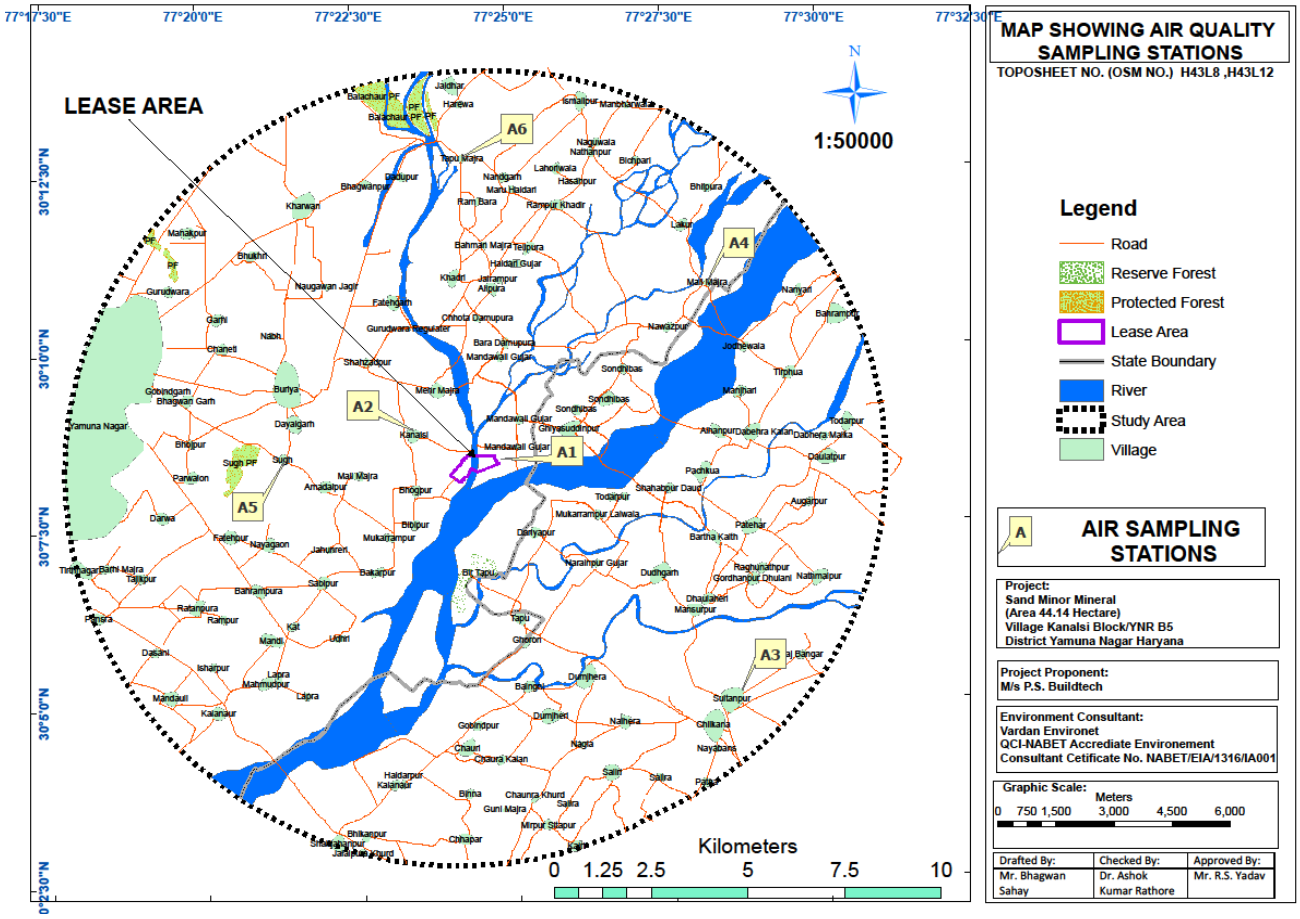


Figure 4.4: Key plan of Air Monitoring Stations



Figure 4.5: PM_{10} Concentration in µg/m^3

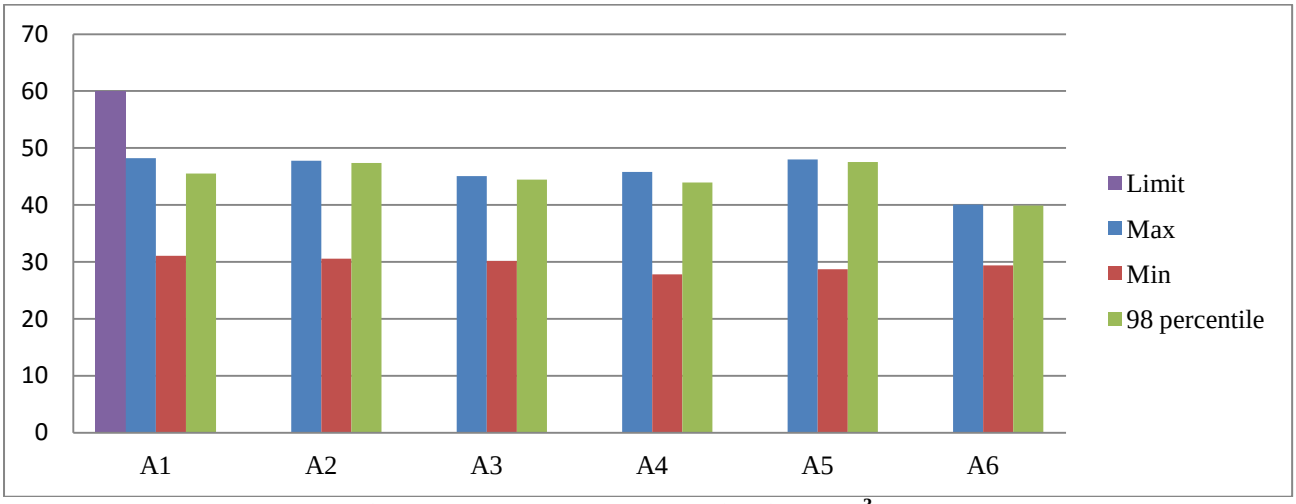


Figure 4.6: $PM_{2.5}$ Concentration in µg/m^3

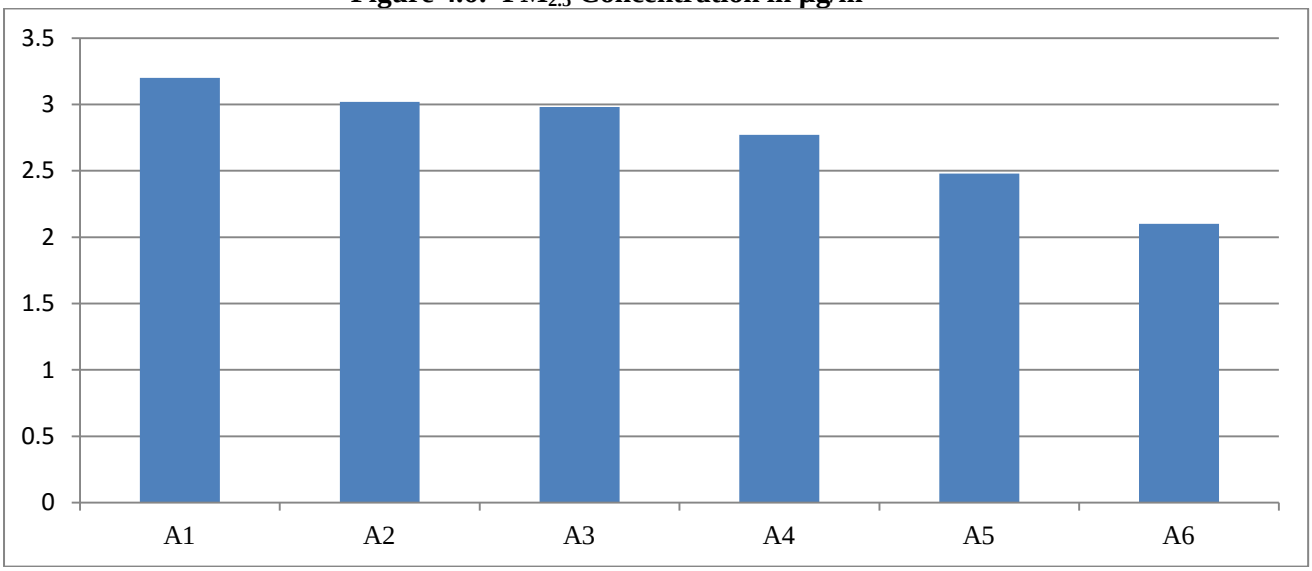


Figure 4.7: Range of Free Silica in PM_{10}

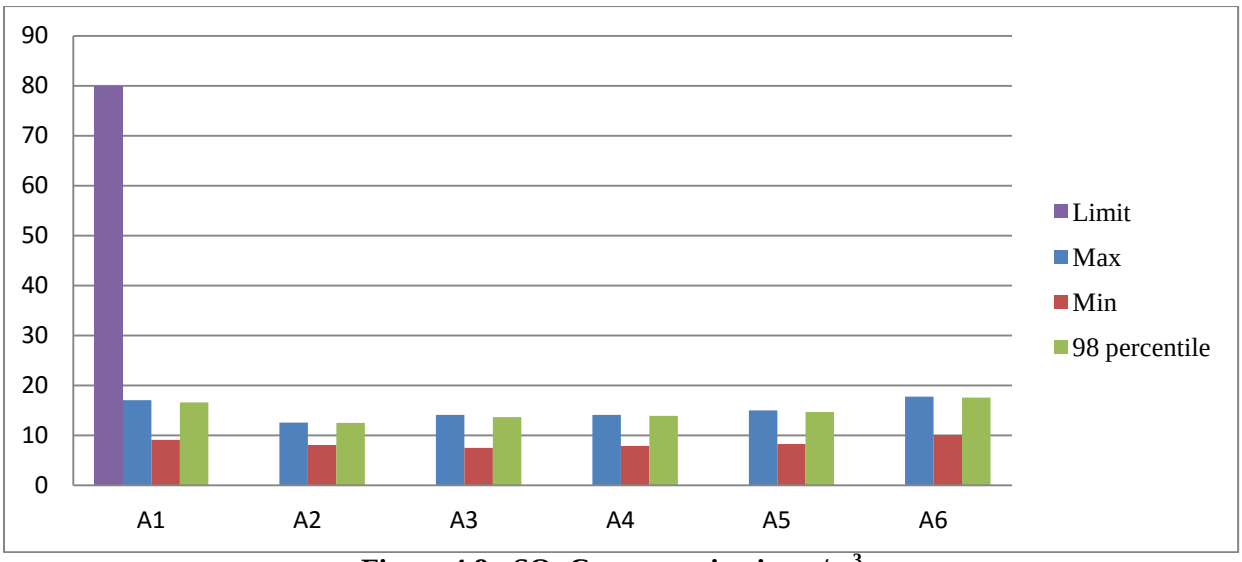


Figure 4.8: SO_2 Concentration in µg/m^3

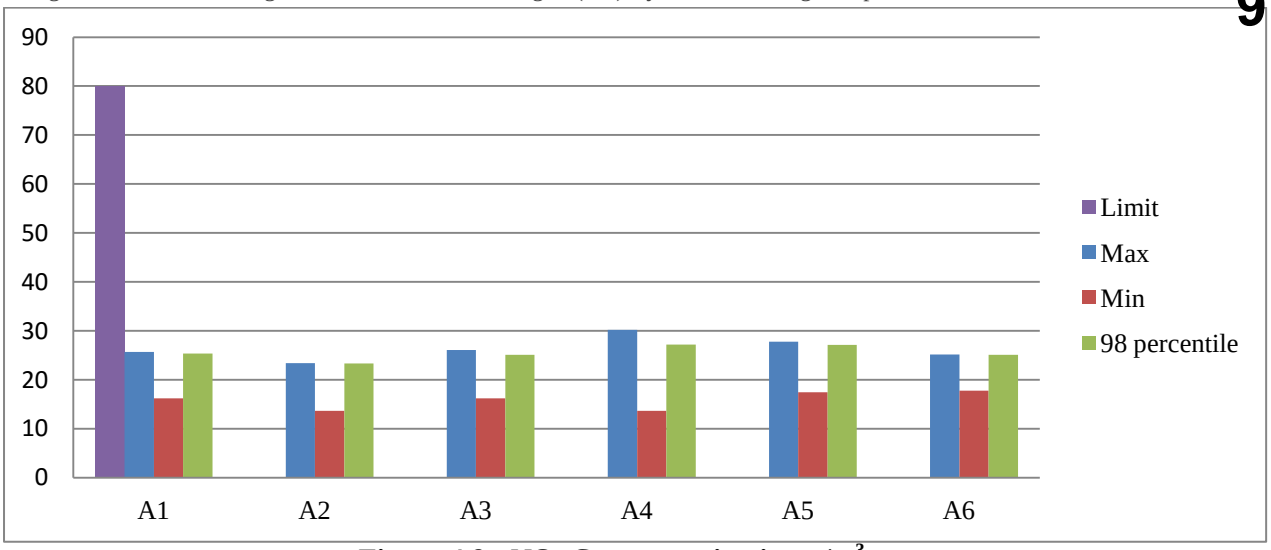


Figure 4.9: NO_2 Concentration in µg/m^3

4.6 WATER ENVIRONMENT

4.6.1 Methodology Adopted for Selection of Sampling Station

The sampling was done both for surface water and underground water. The samples were taken from the identified monitoring locations within the 10 Km radius of the study area. Total of **9** samples were taken (**6** for ground water and **3** for surface water). The water quality sampling locations are described in **Table 4.9 (a) and 4.9 (b)** and shown in **Figure 4.10.**

Table 4.9 (a): Ground Water Sampling Stations

Station	Sampling Location	Coordinates		Aerial Distance (Km) and Direction	Source
		Latt.	Long.		
GW1	Village- Near Mine Site	30°08’26.7’’N	077°24’42.4’’E	Near Mine Site	Tube well
GW2	Village- Kanalsi	30°08’37.9’’N	077°24’62.8’’E	1.35 Km NW	Tube well
GW3	Village- Sultanpur	30°05’19.9’’N	077°23’22.8’’E	9.58 Km SE	Tube well
GW4	Village- Mail Majra	30°11’19.9’’N	077°28’32.8’’E	7.72 Km NE	Tube well
GW5	Village- Sugh	30°08’49.9’’N	077°21’33.4’’E	4.73 Km W	Tube well

Source: SOI Toposheet and Field Visit

Table 4.9 (b): Surface Water Sampling Stations

Station	Sampling Location	COORDINATES		Aerial Distance (Km)	Sampling Criteria
		Latitude	Longitude		
SW1	Village -Near Mine Site	30°08’68.7’’N	077°24’56.0’’E	-	Yamuna River
SW2	Village- Mail Majra	30°11’35.8’’N	077°28’17.3’’E	7.72 Km NE	Upstream
SW3	Village -Udhri	30°06’48.7’’N	077°22’42.4’’E	6 Km SW	Downstream
SW4	Village- Tapu Majra (Canal Water)	30°12’46.7’’N	077°24’72.4’’E	7.65 Km N	Village Canal

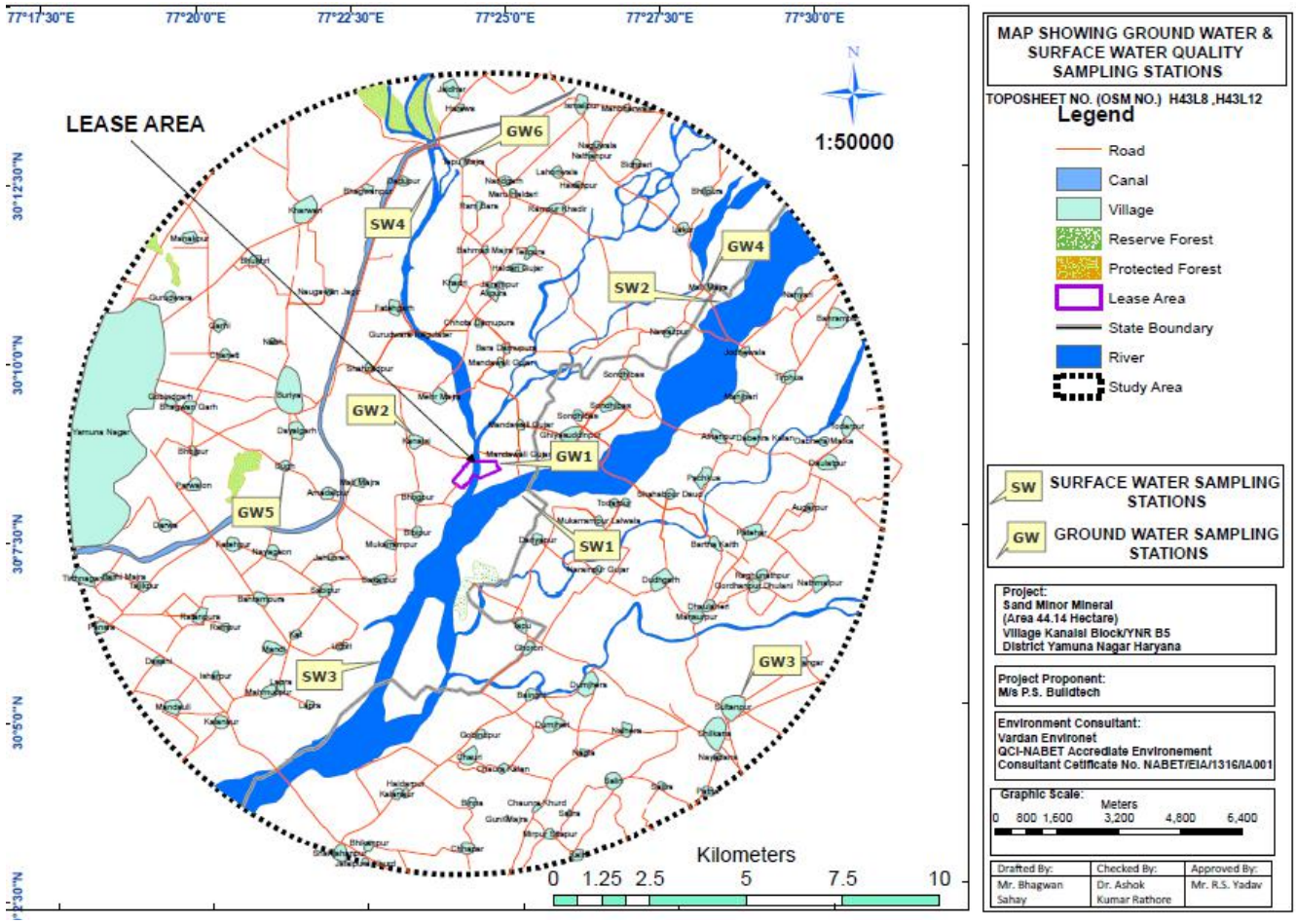


Figure 4.10: Key Plan of Water Sampling Stations

Table 4.10: Physico-chemical and microbiological Analysis of Ground Water

S. No.	Parameter	GW1	GW2	GW3	GW4	GW5	GW6
Physical Parameter							
1.	**pH (at 25 ^{0}C)**	8.06	8.05	7.53	7.37	7.32	7.84
2.	**Colour (Hazen Unit)**	< 5	< 5	< 5	< 5	< 5	< 5
3.	**Turbidity (NTU)**	< 1	< 1	< 1	< 1	< 1	< 1
4.	**Odour**	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5.	**Taste**	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Chemical Parameter							
6.	**Total Hardness as $CaCO_3$ (mg/L)**	128.00	136.00	112.10	348.00	440.00	148.00
7.	**Calcium as Ca (mg/L)**	35.2	41.6	22.40	118.40	116.8	40.00
8.	**Alkalinity as $CaCO_3$(mg/L)**	92.46	88.44	124.62	273.36	434.16	100.5
9.	**Chloride as Cl (mg/L)**	4.01	1.97	7.88	9.85	25.62	2.50
10.	**Cyanide as CN (mg/L)**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
11.	**Magnesium as Mg (mg/L)**	9.76	7.82	13.66	12.78	36.10	11.72
12.	**Total Dissolved Solids (mg/L)**	138.00	137.00	162.00	349.00	491.00	148.00
13.	**Sulphate as SO_4**	26.10	21.69	29.70	36.39	43.38	25.00

	(mg/L)						
14.	**Fluoride as F (mg/L)**	0.14	0.08	0.15	0.15	0.24	0.07
15.	**Nitrate as NO_3 (mg/L)**	0.28	0.23	0.10	3.9	6.10	0.11
16.	**Iron as Fe (mg/L)**	0.31	< 0.01	0.21	0.26	0.29	0.09
17.	**Aluminium as Al (mg/L)**	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
18.	**Boron (mg/L)**	0.18	0.12	0.42	0.51	0.79	0.31
19.	**Chromium as Cr (mg/L)**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
20.	**Conductivity (mS/cm)**	0.239	0.234	0.277	0.584	0.820	0.249
21.	**Phenolic Compounds (mg/L)**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
22.	**Mineral Oil (mg/L)**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
23.	**Anionic Detergents as MBA (mg/L)**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
24.	**Zinc as Zn (mg/L)**	0.42	0.16	0.29	0.31	0.40	0.26
25.	**Copper as Cu (mg/L)**	0.13	0.10	0.08	0.12	0.13	0.08
26.	**Manganese as Mn (mg/L)**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
27.	**Cadmium as Cd (mg/L)**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
28.	**Lead as Pb (mg/L)**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
29.	**Selenium as Se (mg/L)**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
30.	**Arsenic as As (mg/L)**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
31.	**Mercury as Hg (mg/L)**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Microbiological Parameter							
32.	**Total Coliform (MPN/100 mL)**	<2/100mL	<2/100mL	<2/100mL	<2/100mL	<2/100ml	<2/100ml
33.	***E. coli* (CFU/100mL)**	Absent	Absent	Absent	Absent	Absent	Absent

(Source: Vardan EnviroLab)

Note: There are more than 60 parameters as per IS 10500:2012, here 33 parameters have been analyzed as per discussed by team. IS 10500:2012.

Table 4.11: Physico-chemical Analysis of Surface Water

S. No.	Parameter	SW1	SW2	SW3	SW4	Tolerance limits for inland surface water class A as per IS:2296 - 1982
Physical Parameter						
1.	**pH (at 25 ^{0}C)**	8.12	8.09	7.46	8.15	6.5 to 8.5
2.	**Colour (Hazen)**	< 5	< 5	< 5	< 5	10
3.	**Turbidity (NTU)**	< 1	< 1	< 1	< 1	-
4.	**Odour**	Agreeable	Agreeable	Agreeable	Agreeable	Unobjectionable
Chemical Parameter						
5.	**Total Hardness as $CaCO_3$ (mg/L)**	216.00	164.00	200.10	128.00	300

6.	**Calcium as Ca (mg/L)**	64.00	52.80	54.20	46.4	200
7.	**Alkalinity as $CaCO_3$ (mg/L)**	164.48	104.52	126.20	76.38	-
8.	**Chloride as Cl (mg/L)**	3.94	3.26	1.97	3.90	250
9.	**Residual free Chlorine (mg/L)**	< 0.20	< 0.20	< 0.20	< 0.20	-
10.	**Cyanide as CN (mg/L)**	< 0.02	< 0.02	< 0.02	< 0.02	0.05
11.	**Magnesium as Mg (mg/L)**	13.69	7.84	15.76	2.97	100
12.	**Total Dissolved Solids (mg/L)**	207.00	153.00	167.00	125.00	500
13.	**Total Suspended Solids (mg/L)**	7.00	6.80	6.00	5.00	-
14.	**Dissolved Oxygen (mg/L)**	6.2	5.7	6.0	6.2	6.0
15.	**Sulphate as SO_4 (mg/L)**	29.92	31.61	28.10	25.10	400
16.	**Fluoride as F (mg/L)**	0.08	0.06	0.06	0.07	-
17.	**BOD (3 Days at 27 ^{0}C) (mg/L)**	4.10	4.00	5.10	4.80	-
18.	**COD (mg/L)**	10.50	9.60	12.00	9.10	-
19.	**Conductivity (mS/cm)**	0.360	0.259	0.281	0.216	-
20.	**Nitrate as NO_3 (mg/L)**	0.35	0.21	0.26	0.31	20
21.	**Iron as Fe (mg/L)**	0.21	0.13	0.16	0.11	0.3
22.	**Aluminium as Al (mg/L)**	< 0.03	< 0.03	< 0.03	< 0.03	-
23.	**Boron (mg/L)**	0.08	0.12	0.09	0.07	-
24.	**Hexa Chromium as Cr^{+6} (mg/L)**	< 0.01	< 0.01	< 0.01	< 0.01	0.05
25.	**Phenolic Compounds (mg/L)**	< 0.001	< 0.001	< 0.001	< 0.001	0.002
26.	**Mineral Oil (mg/L)**	< 0.01	< 0.01	< 0.01	< 0.01	0.01
27.	**Anionic Detergents as MBAS (mg/L)**	< 0.02	< 0.02	< 0.02	< 0.02	0.02
28.	**Zinc as Zn (mg/L)**	0.32	0.38	0.38	0.27	15
29.	**Copper as Cu (mg/L)**	0.10	0.17	0.16	< 0.02	105
30.	**Manganese as Mn (mg/L)**	< 0.10	< 0.10	< 0.10	< 0.10	0.5
31.	**Cadmium as Cd (mg/L)**	< 0.001	< 0.001	< 0.001	< 0.001	0.01

(Source: Vardan EnviroLab)

Note: There are more than 60 parameters as per IS 10500:2012, here 31parameter has been analyzed as per discussed by team. IS 10500:2012

4.6.2 Interpretation

Analysis results of ground water reveal the following;

- pH varies from to **7.32 to 8.06.**
- **EC** varies from **0.234 to 0.820 mS/cm**
- Total Hardness varies from **112.10 to 440.00 mg/L.**
- Total Dissolved Solids varies from **137.00 to 491.00 mg/L.**
- **Fluoride** varies from **0.07 to 0.24 mg/L**
- **Chloride** varies from **1.97 to 25.62 mg/L**

Analysis results of surface water reveal the following;

- pH varies from to **7.46 to 8.15.**
- Total Hardness varies from **128 to 216 mg/L.**
- Total Dissolved Solids varies from **125 to 207 mg/L.**
- **EC** varies from **0.216 to 0.360 mS /cm**
- **Fluoride** varies from **0.06 to 0.08 mg/L**
- **Chloride** varies from **1.97 to 3.94 mg/L**
- **COD** varies from **9.10 to 12.0 mg/L**
- **BOD** varies from **4.00 to 4.80 mg/L**

A review of the above chemical analysis reveals that there is some variation in chemical composition of water tapped from different sources but the ground water from all sources remains suitable for drinking purposes as all the constituents are within the limits prescribed for drinking water standards promulgated by Indian Standards (IS: 10500). Fluoride concentration in all the samples ranged from **0.06 to 0.08 mg/L** in surface water and **0.07 to 0.24 mg/L**in ground water in the study area of the mine site. Chloride is important in detecting the contamination of ground water. Its concentration increase rates of corrosion of metals in the distribution system. The permissible limit of chloride in drinking water is 250 ppm. The chloride concentration in water samples from all the locations ranged from **1.97 to 3.94 mg/L** in surface water and **1.97 to 25.62 mg/L** in ground water. Specific conductivity is a measure of total dissolved solids present in water and it ranges from **125.00 to 207.00 mg/L** in surface water **137.00 to 491.00 mg/L** in ground water. Water Quality data and CPCB standard for water quality parameters is attached as **Annexure VII** and Indian standard Drinking water Specification, IS 10500:2012 for water quality is available online at http://cgwb.gov.in/Documents/WQ-standards.pdf **.**

4.7 SOIL ENVIRONMENT

The soil is generally alluvial in nature which prone to water logging. Also nature of recently alluvial calcareous has been observed. Assessment of soil quality is an important aspect with reference to tree plantations, percolation of water, ground water impact etc. The information on soils has been collected from various secondary sources and also through primary soil sampling analysis of which is described in this section.

4.7.1 Methodology adopted for Selection of Sampling Station

Random soil samples were collected up to depth of 15 cm and homogenized samples were then sent to the laboratory for analysis. The physical and chemical characteristics of the soil of the study area have been assessed by analyzing various parameters as per the methods described in "Soil Chemical Analysis" (Jackson, 1967). The soil quality of the study area has been assessed by collecting samples from **4** different locations. Details of soil sampling locations are presented in **Table 4.12** and shown in **Figure 4.11.**

Table 4.12: Soil Monitoring Station Details

Stations	Sampling Location	Coordinates		Aerial Distance (KM) and Direction From Mine Site	Sampling Criteria
		Latitude	Longitude		
S1	Near Mine Site	30°08'28.776''N	077°24'48.201''E	Mine Site	Non-agricultural
S2	Kanalsi	30°08'31.0''N	077°24'19.8''E	1.35 Km NW	Agriculture
S3	Village- Sultanpur	30°05'28.7''N	077°28'57.8''E	9.58 Km SE	Agriculture
S4	Village- Mail Majra	30°11'34.7''N	077°28'41.0''E	7.72 Km NE	Agriculture

(Source: SOI Toposheet and Field Visit)

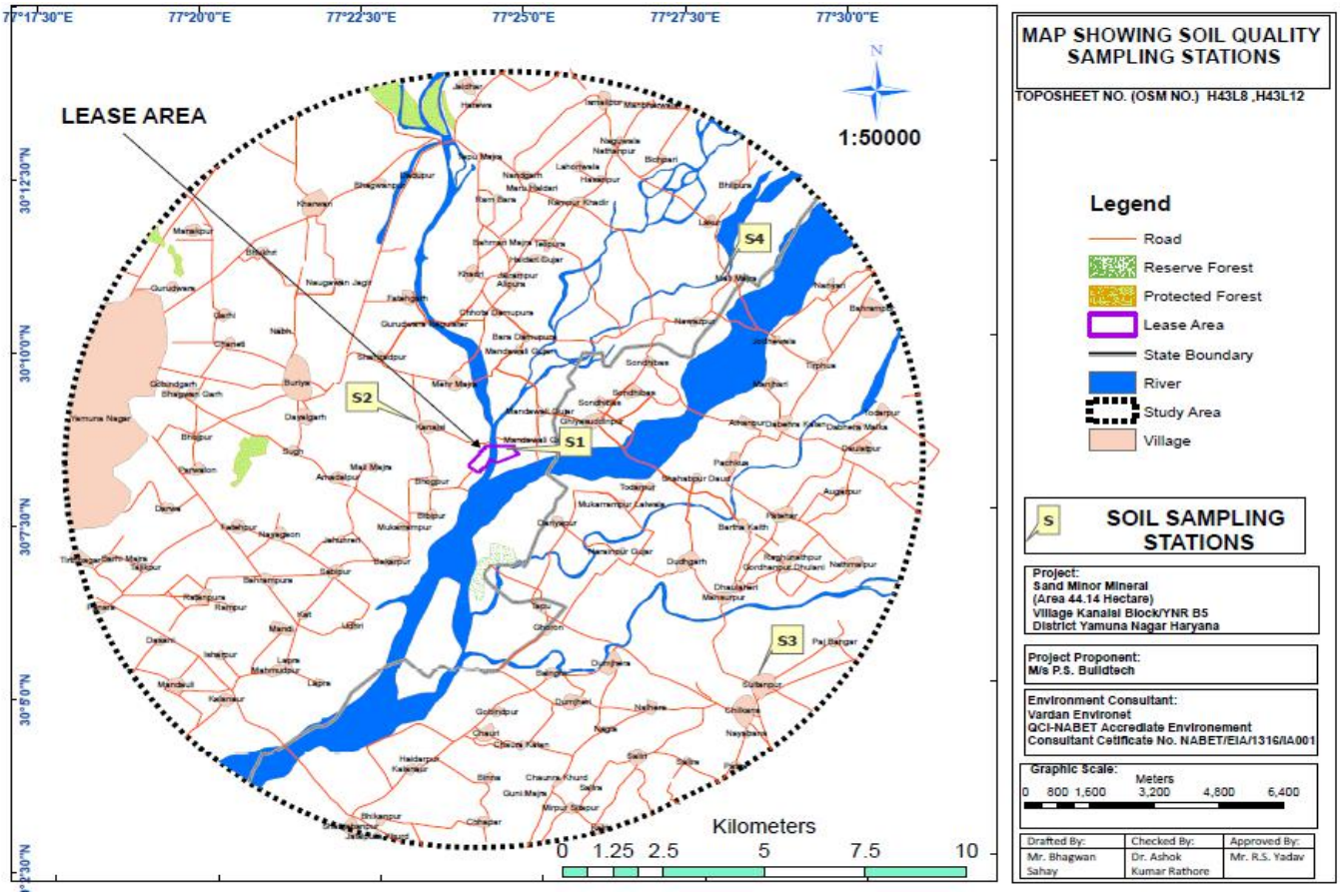


Figure 4.11: Key Plan of Soil Sampling Stations

Table 4.13: Physicochemical Characteristics of Soil

(Source; Vardan EnviroLab)

S. No.	Parameter	S1	S2	S3	S4
1.	pH (at 25 ^{0}C)	7.97	7.23	8.01	7.98
2.	Conductivity (mS/cm)	0.316	0.224	0.256	0.210
3.	Soil Texture	Sandy	Silty Loam	Silty Loam	Silty Loam
4.	Color	Brownish	Yellowish Brown	Yellowish Brown	Yellowish Brown
5.	Water holding capacity (%)	22.40	27.7	27.9	26.7
6.	Bulk density (gm/cc)	1.43	1.36	1.45	1.42
7.	Chloride as Cl (mg/100gm)	32.56	28.36	29.63	39.65
8.	Calcium as Ca (mg/100gm)	25.46	23.45	23.79	28.76
9.	Sodium as Na (mg/100gm)	26.37	29.65	21.30	26.32
10.	Potassium as K (kg/hec.)	90.12	112.17	104.20	96.25
11.	Organic Matter (%)	0.60	0.72	0.71	0.79
12.	Magnesium as Mg (mg/100gm)	18.63	12.65	12.36	19.65
13.	Available Nitrogen as N (kg./hec.)	226.32	263.25	296.36	289.36
14.	Available Phosphorus (kg./hec.)	40.28	53.10	65.4	44.9
15.	Zinc as Zn (mg/100gm)	4.21	3.96	4.03	3.61
16.	Manganese as Mn (mg/100gm)	2.21	1.98	2.03	2.28
17.	Chromium as Cr (mg/100gm)	0.76	0.85	0.90	0.74
18.	Lead as Pb (mg/100gm)	0.63	0.48	0.61	0.53
19.	Cadmium as Cd (mg/100gm)	0.81	0.59	0.79	0.87
20.	Copper as Cu (mg/100gm)	2.92	3.01	2.96	3.27

4.7.2 Interpretation of soil analysis

The analysis results show that soil is basic in nature as pH value ranges from **7.23 to 8.01** with organic matter **0.60% to 0.79 %.** The concentration of Nitrogen (N) ranges from **226.32 kg/hec to 296.36 kg/hec**. Concentration of Phosphorus (P) ranges from **40.28 kg/hec to 65.4 kg/hec.** and concentration of Potassium (K) was found to be in range from **90.12 kg/hec to 112.17 kg/hec.** has been found to be in good amount in the soil samples. All plants need nitrogen, phosphorus and potassium to grow. Nitrogen is largely responsible for the growth of leaves on the plant. Phosphorus is largely responsible for root growth and flower and fruit development. Potassium is a nutrient that helps the overall functions of the plant performs correctly. The NPK (Compound fertilizer containing N, P_2O_5 and K_2O) ratio is 4.5:1:1.7. The consumption of fertilizers is as important a factor as their production. There should be appropriate balance in the consumption of different fertilizer nutrients. The appropriate NPK ratio under Indian soil conditions is stated to be 4:2:1 (National Academy of Agricultural Sciences, 2009).Soil texture is **Sandy to Silty Loam**. Soil Quality data attached as **Annexure-VIII.**

4.8 NOISE ENVIRONMENT

Noise in general is sound, which is composed of many frequency components of various loudness distributed over the audible frequency range. Various noise scales have been introduced to describe, in a single number, the response of an average human being to a complex sound made up various frequencies at different loudness levels. The most common and heavily favored of those scales is the A weighted decibel (dBA). This is more suitable for audible range of 20 to 20,000 Hertz. The scale has been designed to weigh various components of noise according to the response of a human ear. The main objective of the noise level monitoring is to assess the background noise levels in different zones *viz.*, industrial, commercial, residential and silence zones within the study area. Noise levels were measured in residential areas, bus stands and other settlements located within 10 Km radius around the site.

4.8.1 Noise Analysis within the Study Area

The noise analysis within the study area was recorded using 4012 Maxtech sound level meter. The instrument was calibrated with a Standard Acoustic calibrator before using in the field. The measurements were carried out continuously for the 24-hour period to obtain hourly equivalent sound pressure level, 1 hour Leq. From these values, day and night time as well as 24-hour Leq values were also calculated. The Leq value is the equivalent continuous sound level, which is equivalent to the same sound energy as the fluctuating sound measured in the same period.

4.8.2 Methodology adopted for Selection of Sampling Station

Noise levels are more annoying in the night time particularly in the residential areas. The environmental impact of noise can have several effects varying from annoyance to hearing loss depending on loudness of noise levels. The monitoring for noise levels were done in **4** locations keeping considering the population and traffic of the area. The locations are depicted in **Figure 4.14** and levels recorded stated in **Table 4.13.**

Table 4.14: Noise Monitoring Sampling Stations

Station	Sampling Locations	Coordinates		Aerial Distance (Km) and Direction from Mine Site	Sampling Location Criteria
		Latitude	Longitude		
N1	Near -Mine Site	30°08’28.776’’N	077°24’48.201’’E	Mine site	Mine Site, downwind
N2	Village - Nandgarh	30°12’26.042’’N	077°24’0.383’’E	7.28 Km N	Upwind
N3	Village-Yamunanagar	30°10’46.772’’N	077°19’12.665’’E	8.85 Km W	Crosswind
N4	Village- Lapra	30°9’29.384’’N	077°20’46.76’’E	7.74 Km SW	Downward direction

Table 4.15: Noise Levels in Study Area

Location Code	Average Day Time Noise Level Leq. dB(A)	Average Night Time Noise Level Leq. dB(A)
	Day Time (6:00 a.m. to 10:00 p.m.)	Night Time (10:01 p.m. to 5:59 a.m.)
N1	56.8	47.3
N2	51.5	43.1
N3	52.1	42.3

N4	53.1	42.1

4.8.3 Interpretation of noise monitoring

Ambient noise levels were measured at 4 locations around the proposed project site. Minimum and Maximum noise levels recorded during the day time were from **51.5 Leq dB and 56.8 Leq dB** respectively and minimum and maximum level of noise during night time were **42.1 Leq dB and 47.3 Leq dB** respectively. Thus noise levels at all locations were observed to be within the prescribed limits. Noise Quality data attached as **Annexure IX** and Ambient Air Quality Standards in respect of Noise are available online at http://cpcb.nic.in/divisionsofheadoffice/pci2/noise_rules_2000.pdf. From the above study and discussions it can be concluded that noise levels in the study area are well within the prescribed limits as prescribed by the CPCB and State Pollution Control Board.

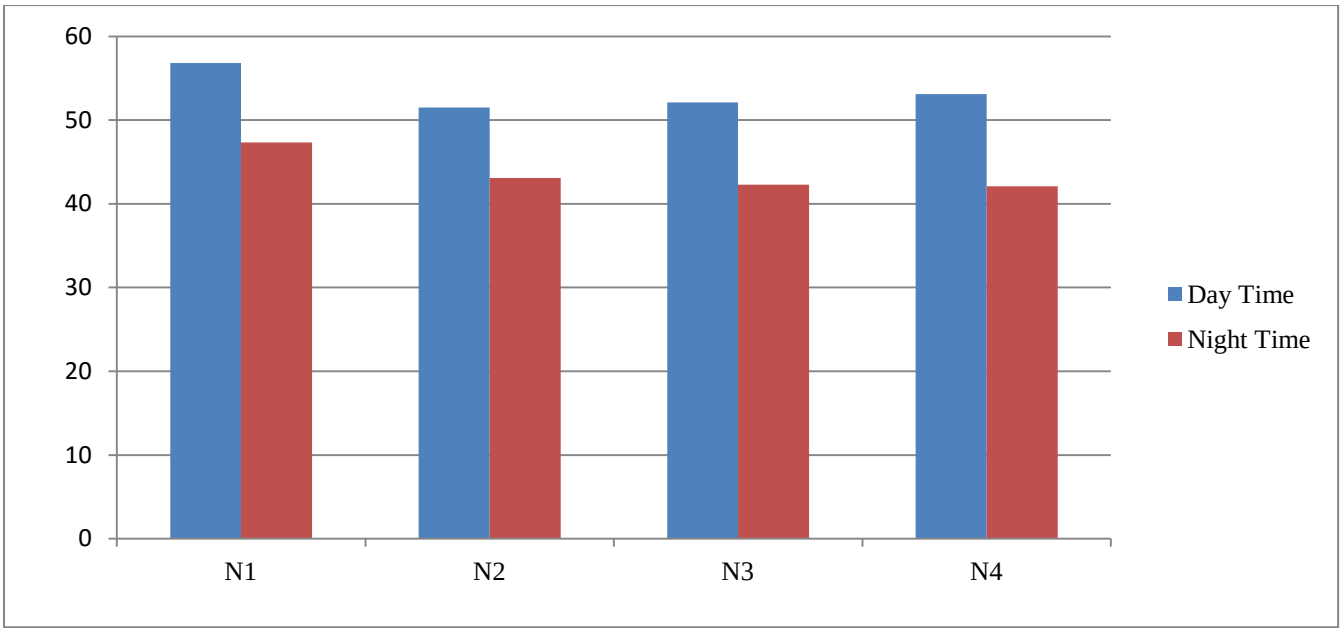


Figure 4.12: Noise Monitoring Result

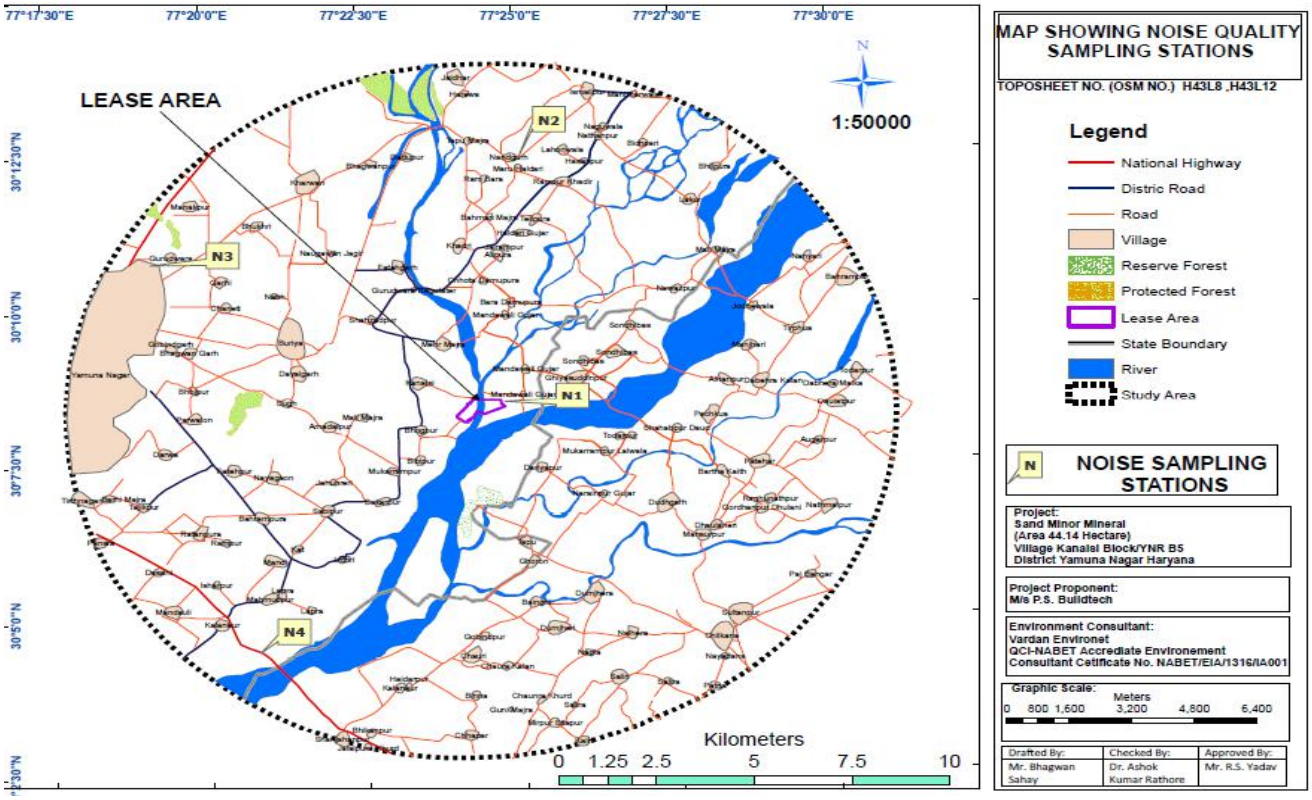


Figure 4.13: Key plan of Noise Monitoring Stations

4.9 TRAFFIC STUDY

Traffic study measurements were performed at National Highway-73, National Highway-73A and District road to assess impact on local transport infrastructure due to this mining project. Traffic study measurements were performed at three locations of these highways is marked on the map in **Figure 4.14**. The traffic study has been conducted on 7th, 8th and 9th December 2015. The detailed traffic study is enclosed as **Annexure-X.**

Table 4.16: Roads and Highways in the Study Area

Name of National/State Highway	Direction		Dispatched Ratio in Percentage
	Up	Down	
NH-73	Ambala	Saharanpur	35%
NH-73A	Paonta Sahib	Yamuna Nagar	30%
District Road	Manbharwala	Kalanaur	35%
Total Mineral transported through National and State Highways			**100 %**

Traffic data collected continuously for 24 hours by visual observation and counting of vehicles under three categories, *viz.*, heavy motor vehicles, light motor vehicles and two/three wheelers. As traffic densities on the roads are high, two skilled persons were deployed simultaneously at each station during each shift- one person on each of the two directions for counting the traffic. At the end of each hour, fresh counting and recording was undertaken. Total numbers of vehicles per hour under the three categories were determined.

Table 4.17: No. of Vehicles per Day

S. No.	Vehicles Distribution	Number of Vehicles Distribution/Day			(PCU)	Total Number of Vehicle in PCU			Total Number of Vehicle PCU/Hour		
		NH-73	NH-73 A	MDR		NH-73	NH-73 A	MDR	NH-73	NH-73 A	MDR
1.	Cars	3184	3165	729	**1**	3184	3165	729	132	131	30
2.	Buses	876	845	587	**3**	2628	2535	1761	109	105	73
3.	Trucks	1388	1359	511	**3**	4164	4077	1533	173	169	63
4.	Two wheelers	1356	1329	548	**0.5**	678	664	274	28	27	11
5.	Three wheelers	674	687	1165	**0.75**	505	515	873	21	21	36
Total		7478	7385	3540		**11159**	**10956**	**5170**	**463**	**453**	**213**

Table 4.18: Existing Traffic Scenario and LOS

Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS
NH-73	463	3000	0.15	**A**
NH-73 A	453	3000	0.15	**A**
MDR	213	900	0.23	**B**

V/C	LOS	Performance
0.0-0.2	A	Excellent
0.2-0.4	B	Very Good
0.4-0.6	C	Good/ Average/ Fair
0.6-0.8	D	Poor
0.8-1.0	E	Very Poor

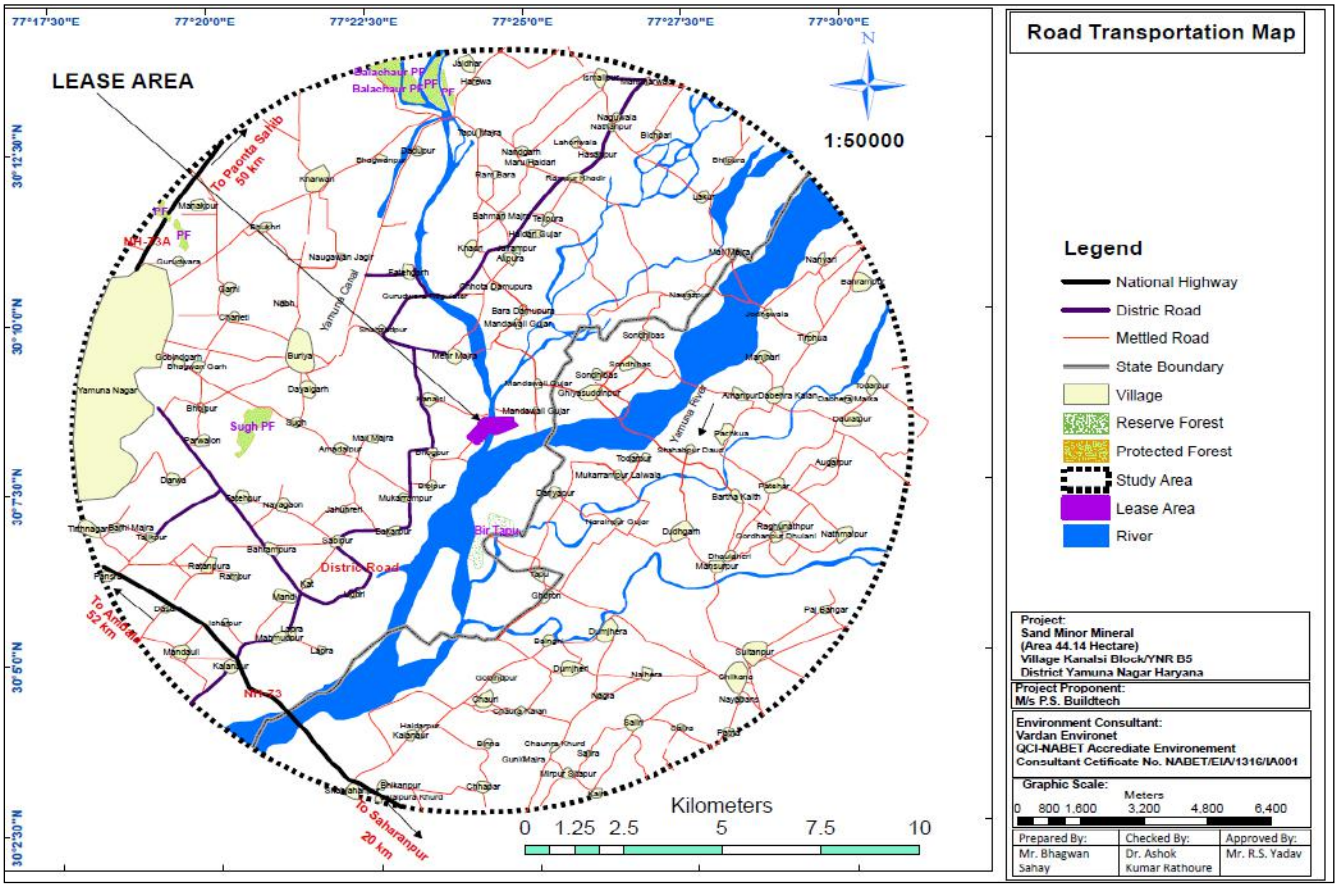


Figure 4.14: Showing the Typically Haul Road which is Connected to Highways for Transportation of Sand

During Mine Operation

Total Capacity of mine	: 19,50,000 TPA
No. of working days	: 300
Extraction and Transportation of mineral	: 6500 MT/day
Working hours per day	: 8 hour
Truck Capacity	: 25 Tonnes
Frequency of trucks/tankers deployed/day (90 no. x 3 trips/day x 2(up/dwn)	: 540
Frequency of trucks deployed/hr	: 67
Increase in PCU/hr	: 201

Table 4.19: Modified Traffic Scenario and LOS

Road	Increased PCU's- State/National Highway	V	C	Modified V/C Ratio	LOS
NH-73	201x 35%= 70.35	463+ 71=534	3000	0.178	**A**
NH-73 A	201 x 30%= 60.30	453+ 61=514	3000	0.171	**A**
MDS	201x 35%= 70.35	213+71=284	900	0.315	**B**

4.9.1Conclusion: Not much impact on local transport as only 90 Nos. of dumpers/day (90 no. x 3 trips/day x 2 (up/down) = 540) will be required for transport of mineral from mine. The LOS value from the proposed mining will be same as earlier values. So the additional load on the carrying capacity of the concern roads is not likely to have any significant adverse affect.



Figure 4.15: Photographs of Ambient Air, Ambient Noise, Water and Soil Sampling

4.10 BASELINE STATUS FOR FLORA AND FAUNA

4.10.1 Introduction

The ecology is the scientific analysis and study of interactions among organisms and their environment. It is an interdisciplinary field that includes biology and Earth science. The biodiversity and conservation discipline explores natural landscapes, species and ecosystems and acquires theories and practical methods in preserving environments and organisms. Biodiversity refers not only to endangered species but also to every organism, including microbes and fungi. Biodiversity and conservation programmes increase awareness and understanding of how human life depends on preserving animal species and natural ecosystems. Biodiversity and conservation is connected to similar disciplines like environmental science, natural resources management and animal sciences.

4.10.2 Baseline Study Area and Period

The baseline study was conducted for the evaluation of the floral and faunal biodiversity of the terrestrial and aquatic environment of the study area (10 Km radius from the lease mine area-) and it comprises of 43 villages in Yamunanagar District (Haryana) and 31 Villages in Saharanpur District (Uttar Pradesh) due to interstate boundary.

Field study period: The ecological survey has been conducted for one season. The ground truthing has been conducted on 14th, 15th and 16th December, 2015.

Survey sites: Kanalsi Project site.

Core zone: At the project site along 1 Km periphery.

Buffer zone: Around the project site in 10 Km radius.

4.10.3 Methodology for Terrestrial Ecology

The primary objective of survey was to describe the floral and faunal communities within the study area. The sampling plots for floral inventory were selected randomly in the suitable habitats (Anderson, 1867; Jain and Rao, 1983; Dixit, 1984; Wilson and Reeder, 2005; Kumar, 2013; Kumar *et al.*, 2013).

The methodology adopted for faunal survey involve random survey, opportunistic observations, diurnal bird observation, active search for reptiles, faunal habitat assessment, active search for scats and foot prints, animal call, and review of previous studies. The aim was to set baselines in order to monitor and identify trends after the commissioning of the mining activity. Emphasis has been placed on presence of endemic species, threatened species if any present in the study area. The qualitative study has been carried out only.

Desktop literature review was conducted to indentify the representative spectrum of threatened species, population and ecological communities listed by IUCN, WCMC, ZSI, BSI and Indian Wild life Protection Act, 1972 (Bentham and Hooker, 1862-1883; Hunter, 1879; Dixit, 1984; Ghosh *et al.*, 2004; Lushington, 1915; Wilson and Reeder, 1993; BirdLife International, 2000; BirdLife International, 2004a, b; Wilson and Reeder, 2005; BirdLife International, 2010; Kumar and Srivastava, 2012; Kumar, 2013; Kumar *et al.*, 2013; Kumar and Aggarwal, 2013a,b). The status of individual species was assessed using the revised IUCN/SSC category system (WCMC, 1988; IUCN, 1994; WCMC, 2000; IUCN, 2001, 2003, 2008, 2010). The villages covered for baseline study are given in the table 4.20 and mode of data collection in table 4.20

Table 4.20. List of Villages for Baseline study

S.No.	Name of Village	S.No.	Name of Village
Yamunanagar (HR)			
1.	Ramgarh Alias Gulabgarh	**39.**	Marrupur
2.	Haripur Kambo	**40.**	Khajuri
3.	Khandwa	**41.**	Kartarpur
4.	Sukhpura	**42.**	Alahar
5.	Aurangabad	**43.**	Barheri
6.	Karera Khurd	**Saharanpur (UP)**	
7.	Hariawas	**1.**	Husainpur
8.	Todarpur	**2.**	Ghaghond Must.
9.	Panjupur	**3.**	Ismailpur
10.	Shadipur	**4.**	Chabri
11.	Nagal	**5.**	Qutubpur Must
12.	Naharpur	**6.**	Wajidpur
13.	Tapu Kamalpur	**7.**	Dhikka Kalan
14.	Sabhapur	**8.**	Tabra Must.
15.	Khurdi	**9.**	Mandhaur Must.
16.	Akalgarh	**10.**	Kazi Bans
17.	Tigra	**11.**	Tabar Must
18.	Tigri	**12.**	Tabar Aht
19.	Lakhi Bans	**13.**	Nasrulla Garh Must.
20.	Barsan	**14.**	Mugal Mazra
21.	Mohri	**15.**	Kasampur
22.	Jaipur	**16.**	Malha Mazra
23.	Kandrauli	**17.**	Narayanpur
24.	Mandhar	**18.**	Latifpur
25.	Sandhali	**19.**	Sahaba Mazra
26.	Sandhala	**20.**	Meharpur
27.	Gumthala Rao	**21.**	Saroorpur Taga
28.	Rao	**22.**	Shahpur Taga
29.	Nagli	**23.**	Nakur(Dehat)
30.	Majri Dayalgarh	**24.**	Ladde Bans
31.	Karhera	**25.**	Gokalpur
32.	Lal Chhapar	**26.**	Rasoolpur
33.	Jathlana	**27.**	Hasanpur
34.	Pobari	**28.**	Juddi

35.	Bagwali	**29.**	Hasanpur
36.	Unheri	**30.**	Salhapur
37.	Madho Bas	**31.**	Abarakpur
38.	Rajheri		-

Table 4.21. Mode of data collection and parameters considered during the Survey

#	Aspect	Data	Mode of Data collection	Parameters monitored	Remarks
1.	Terrestrial Ecology	Primary data collection	By field survey	Floral and Faunal diversity	Random survey, opportunistic observations, diurnal bird observation, active search for reptiles, faunal habitat assessment, active search for scats and foot prints, animal call
2.		Secondary data collection	From authentic sources like Forests department of Haryana and available published literatures from ZSI, BSI etc.	Floral and Faunal diversity and study of vegetation, forest type, importance etc.	Bentham and Hooker, 1862-1883; Hunter, 1879; Dixit, 1984; Ghosh *et al.*, 2004; Lushington, 1915; Wilson and Reeder, 1993; BirdLife International, 2000; BirdLife International, 2004a, b; Wilson and Reeder, 2005; BirdLife International, 2010; Kumar and Srivastava, 2012; Kumar, 2013; Kumar *et al.*, 2013; Kumar and Aggarwal, 2013a,b). The status of individual species was assessed using the revised IUCN/SSC category system (WCMC, 1988; IUCN, 1994; WCMC, 2000; IUCN, 2001, 2003, 2008, 2010.
3.	Aquatic Ecology	Primary data	By field survey	Floral and Faunal diversity	**For Plankton Study-** Lackey's drops method and light microscope **For other aquatic-** Random survey, opportunistic observations
4.		Secondary data collection	From authentic sources like Forests department of Haryana.	Floral and Faunal diversity and study of vegetation, forest type, importance etc.	Desktop literature review to indentify the representative spectrum of threatened species, population and ecological communities.

4.10.4 Methodology for Inland Water Sampling

The samples for qualitative and quantitative analysis of planktons were collected from the sub surface layer at knee depth. Water samples were filtered through plankton net of 20µ mesh size (APHA, 1971). The filtered samples were concentrated by using the centrifuge. By using Lackey's drops method and light microscope (Lackey, 1938), the qualitative analysis was carried out for phytoplankton and zooplankton. The standard flora and other literature were followed for the qualitative evaluation of Plankton (Welch, 1948; Vollenweider, 1969; Edmondson, 1974).

4.10.5 Terrestrial Floral and Faunal Components of the Study Area

The area of for the present biological baseline study falls under 43 villages in Yamunanagar District (Haryana) and 31 Villages in Saharanpur District (Uttar Pradesh).

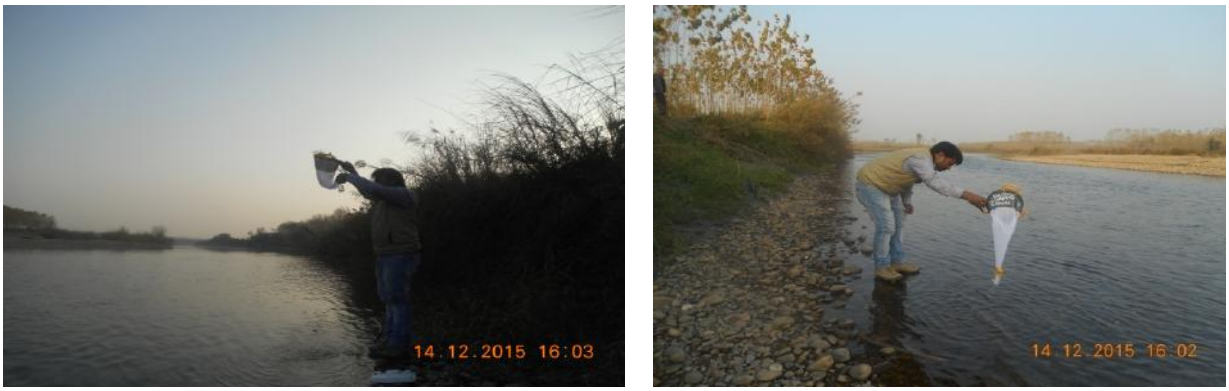


Figure 4.16. Aquatic Habitat of the Study area



Figure 4.17. Terrestrial Habitat of the Study area

Most of villages in the study area (Yamunanagar and Saharanpur) are engaged in agriculture practice and people are depending on the same, major crops are wheat and sugar cane (winter), while in summer paddy is the major crops. Major source of irrigation water is Western Jamuna Canal and its subsidiary canals. Villages are scattered in between the large patches of agriculture lands. The tree cover in the study area is scanty restricted only in the habituated areas of the village and few along the boundary of the agricultural fields and road sides. It was observed that some of the villages in the study area are with talabs (pond) used in rain water harvesting. The study area is also characterized by many water logged regions occupied by hydrophytes. Some people are engaged in poultry farming while many people are engaged in domestic animal for milk production like Buffalo and cows.



Figure 4.18 Agriculture Land of Study area



Figure 4.19. Non agriculture Land of Study area







Figure 4.20. Scenario of Scrub Area and Non agriculture Land

4.10.6 Floral Diversity of the study area

The objective this floral inventory of the study area, is to provide necessary information on floristic structure in the study area for formulating effective management and conservation measures. The climatic, edaphic and biotic variations with their complex interrelationship and composition of species, which are adapted to these variations, have resulted in different vegetation cover, characteristic of each region (Ohasi, 1975). The tree species, herbs, shrubs, climbers and major crops, were documented during this base line study (Jain, 1968; 1991). The tree species observed in the study area is enlisted in the table below. The shrubs observed in the study are documented in the Table below. Herbs and climbers in the study area are represented in Table below.

Riparian vegetation: Riparian vegetation is found along the river side. In stagnant water growth of hydrophytes likes *Hydrolea zeylanica, Ipomoea carnea, Ludwigia adscendens, Marsilea minuta, Sagittaria sagittifolia, Spilanthes paniculata, Typha latifolia,* etc. can be commonly observed.

4.10.6.1 Trees: The dominant trees in the study area are *Azadirachta indica* (Neem), *Mangifera indica* (Aam), *Acacia nilotica, Butea monosperma, Terminalia arjuna, Bombax ceiba* (Semal), *Delonix regia* (Gaulmor), *Prosopis cineraria, Lantana camara,* sal, small sindoor, khair, shisham, sain, jhingan, chhal (*Anogeissus latifolia*) along with many varieties of medicinal plants. Total 44 tree species were observed. During survey herbs and shrubs observed in and around the lease area are listed in table 4.22-4.24.

Table 4.22 Trees in the Study area

S. No.	Scientific name	Family	Common name
1.	*Acacia nilotica*	Fabaceae	Babul
2.	*Acalypha ceylon*	Euphorbiaceae	Fire Dragon
3.	*Adenanthera pavonina*	Fabaceae	Barbados Pride
4.	*Aegle marmelos*	Rutaceae	Bel
5.	*Azadirachta indica*	Meliaceae	Neem Tree
6.	*Bambusa arundinacea*	Poaceae	Giant Thorny Bamboo
7.	*Bambusa polymorpha*	Poaceae	Bamboo
8.	*Bombax ceiba*	Malvaceae	Cotton Tree
9.	*Broussonetia papyrifera*	Moeaceae	Paper Mulberry
10.	*Butea frondosa*	Fabaceae	Bastard Teak
11.	*Butea monosperma*	Fabaceae	Flame of the Forest
12.	*Carissa karandas*	Apocynaceae	Christ's Thorn
13.	*Cassia fistula*	Fabaceae	Golden Shower Tree
14.	*Cedrela toona*	Meliaceae	Indian Mahogany
15.	*Dalbergia sissoo*	Fabaceae	Sisam
16.	*Delinia pentagyna*	Dilleniaceae	Fox-Tail Palm
17.	*Delonix regia*	Fabaceae	Flamboyant
18.	*Eucalyptus camaldulensis*	Myrtaceae	Gum Tree
19.	*Ficus bengalensis*	Moeaceae	Indian Fig
20.	*Ficus religiosa*	Moraceae	Sacred Fig
21.	*Ficus retusa*	Moraceae	Cuban Laurel
22.	*Jacaranda mimosifolia*	Bignoniaceae	Nil Mohar
23.	*Jatropha curcas*	Euphorbiaceae	Biodiesel Plant
24.	*Koelreuteria paniculata*	Sapindaceae	Varnish Tree

25.	*Mangifera indica*	Anacardiacea	Mango
26.	*Melia azedarach*	Meliaceae	China Berry
27.	*Milletia pinnata*	Fabaceae	Indian Beech Tree
28.	*Mimusops elengi*	Sapotaceae	Bullet wood Tree
29.	*Murraya koenigii*	Rutaceae	Curry Plant
30.	*Polyalthia longifolia*	Annonaceae	False Ashoka
31.	*Populus ciliata*	Salicaceae	Poplar
32.	*Psidium guajava*	Myrtaceae	Common Guava
33.	*Pterospermum acerifolium*	Malvaceae	Bayur Tree
34.	*Saraca indica*	Fabaceae	Ashoka
35.	*Strychnos nux - vomica*	Loganiaceae	Strychnine Tree
36.	*Syzigium cumini*	Myrtaceae	Jambolan Plum
37.	*Tectona grandis*	Lamiaceae	Sal
38.	*Terminalia arjuna*	Combretaceae	Arjun
39.	*Terminalia bellirica*	Combretaceae	Bastard Myrobalan
40.	*Thevetia peruviana*	Apocynaceae	Punjab Fig/ Anjiri
41.	*Tridex procumbens*	Compositae	Coat Button
42.	*Typha angustata*	Typhaceae	Cat Tail
43.	*Ziziphus muritiana*	Rhamnaceae	Indian Plum
44.	*Ziziphus jujuba*	Rhamnaceae	Jujube

4.10.6.2 Shrubs: Shrubs encountered during the present survey are given in the Table below. The dominant shrub community in this area was represented by Kaner (*Thevetia peruviana)*, *Prosopis juliflora* (Bilayati babool), *Calotropis procera, C. gigantea* (Akoda), *Ipomoea fistulosa* and *Abutilon indicum*, etc. The shrubs observed in the study area are given in the table below.

Table 4.23. Lists of Shrubs in the Study Area

S.No.	Family and Scientific name	Vernacular name
1	**Apocynaceae**	
1/1	*Oxypetalum acerosum*	-
2/2	*Thevetia peruviana* Merr.	Pili Kaner
2	**Asclepiadaceae**	
3/1	*Calotropis gigantea* (L.) R. Br	Akoda
4/2	*Calotropis procera* (Ait.) R.Br	Akoda
3	**Balanitaceae**	
5/1	*Balanites aegyptiaca* (L.) Del.	-
4	**Bignoniaceae**	
6/1	*Tecoma stans* (L.) H.B. and K.	-
5	**Cactaceae**	
7/1	*Cereus peruvianus*	Cactus
5	**Caesalpiniaceae**	
8/1	*Cassia auriculata* L	-
6	**Capparaceae**	
9/1	*Capparis decidua* (Forsk.) Edgew	Kerda
7	**Compositae**	
10/1	*Xanthium strumarium* L.	Gokhru
8	**Convolvulaceae**	
11/1	*Ipomoea fistulosa* Mart.ex Choisy	Besharm
9	**Euphorbiaceae**	
12/1	*Euphorbia neriifolia L.*	Thor
13/2	*Jatropha curcas L.*	Ratanjot
14/3	*Ricinus communis L.*	Arand
10	**Lythraceae**	
15/1	*Decodon verticillatus*	Water willow
11	**Malvaceae**	
16/1	*Abelomoschus manihot (L.) Medic.*	Jagali bhindi
17/2	*Abutilon indicum (L.) Sw.*	Khapat

18/3	*Hibiscus rosasinensis*	Gurhal
12	**Musaceae**	
19/1	*Musa paradisiaca L.*	Kela
13	**Mimosaceae**	
20/1	*Prosopis juliflora* DC	Bilayati babool
14	**Nyctaginaceae**	
21/1	*Bougainvillea spectabilis* Willd.	Bougainvelia
15	**Papilionaceae**	
22/1	*Sesbania sesban* (L.) Merr.	Sesban
16	**Rhamnaceae**	
23/1	*Zizyphus nummularia* (Burm.f.) W. and.	Jharbera
17	**Solanaceae**	
24/1	*Datura metel* L	Datura
25/2	*Solanum incanum* L	Junglee baigan

4.10.6.3 Herbs: The herbaceous cover observed in this region is given in the table below. The most of the undergrowth was dried up, except near water logged regions and along the periphery of the village ponds. Total 33 species belongs to 18 family were recorded from the study area.

Table 4.24List of Herbaceous species observed in the study area

S.No.	Family and Scientific name	Vernacular name
1	**Acanthaceae**	
1/1	*Hygrophila auriculata (Schum.)*	Kokilaksha
2	**Asteraceae**	
2/1	*Blumea sps.*	-
3/2	*Eclipta prostrata* (L.) L.	Bhangro
4/3	*Echinops echinatus* Roxb	Shulia
5/4	*Tridax procumbens L*	Pardesi bhangra
3	**Boraginaceae**	
6/1	*Trichodesma indicum l.*	Undha fuli
4	**Chenopodiaceae**	
7/1	*Suaeda nudiflora (*willd) Moq.	Moras
8/2	*S. fruticosa L.*	-
5	**Cyperaceae**	
9/1	*Cyperus bulbosus* Vahl.	-
10/2	*Cyperus difformis* L.	-
11/3	*Cyperus stoloniferus* Retz.	-
12/4	*Cyperus rotundus* L.	-
6	**Lamiaceae (Labiatae)**	
13/1	*Ocimum basilicum* L.	Damaro
14/2	*Ocimum sanctum* L.	Tuli
7	**Liliaceae**	
15/1	*Aloe barbadensis* Mill.	Kunvarpato
8	**Nymphaeaceae**	
16/1	*Nymphaea pubescens* Willd	Kamal
17/2	*Nymphaea stellata*	-
9	**Nyctaginaceae**	
18/1	*Boerhavia diffusa* L.	-
19/2	*Boerhavia chinensis* Druce	-
10	**Papaveraceae**	
20/1	*Argemone mexicana* L.	Darudi
11	**Papilionaceae**	-
21/1	Cortalaria medicaginea Lam	Ran methi
22/2	*Indigofera oblongifolia* Forks.	-
12	**Poaceae (Gramineae)**	
23/1	*Phragmites karaka* Steud	-

24/2	*Aleuropus lagopoides* Trin	-
25/3	*Cynodon dactylon* Pers.	-
26/4	*Pennisetum typhoides (Burm.)*	Bajri
13	**Poligonaceae**	
27/1	*Poligonum sp.*	-
14	**Pontederiaceae**	
28/1	*Eichhornia crassipes* (Mart.)	Jalkumbhi
15	**Potamogetonaceae**	
29/1	*Potomogeton* sp**.**	-
16	**Solanaceae**	
30/1	*Solanum surattense Burm.*	Bhoringini
31/2	*Datura metel*	Dhatura
17	**Typhaceae**	
32/1	*Typha angustata* Bory and Chaub	-
18	**Zygophyllaceae**	
33/1	*Tribulus terrestris* L	Gokhru

4.10.6.4 Climbers and Twiners: The climbers and twiners observed along the agricultural hedges and road side hedges of the study area are given in the table below. Total 4 species of climbers/ twiners belongs to 3 families are recorded from the area.

Table 4.25. List of Climbers Observed in the Study Area

S.No.	Family and Scientific name	Vernacular name
1.	Convolvulaceae	
1/1	*Ipomoea pes-caprae*	Dariani vel
2.	Cucurbitaceae	
2/1	*Coccinia grandis* (L.) Voigt	Ghiloda
3/2	*Luffa cylindrica (L.) M.J.Roem*	Galku
3.	Cuscutaceae	
4/1	*Cuscuta chinensis* Lam.	Amarval

4.10.7 Cultivated Plants in the Study Area

The soil is more Sandy, the typical riverine basin characteristics and is mixed with sand making it more useful for agricultural purposes. The crop occupying the highest percentage of the sown area of this region is taken as the major crop and all other possible alternative crops which are sown in this region either as substitutes of the base crop in the same season or as the crops which fit in the rotation in the subsequent season, are considered as minor crop. The yields for most of the crops are one of the best in India. The major produces are that of wheat, rice, maize, sugarcane and oilseeds.

a. Major Crops: Mainly people of Yamunanagar area was dependent on Wheat *(Triticum aestivum*) and Sugar cane (*Saccharum officinarum*). Other crops in the study area are Mustard (*Brassica rapa*), Paddy (*Oryza sativa*), Maize (*Zea mays*) and Barley (*Hordeum vulgare*).

b. Minor crops: The minor crops of this region are Mustard (*Brassica campestris* var.), Green gram (*Vigna radiate*), Sesamum (*Sesamum inicum*), Pigeon Pea (*Punica granatum*) Jowar (*Sorghum bicolar)* and Black Gram (*Vigna mungo).*

c. Major horticultural crops: Aam (*Mangifera indica* L.), Papaya (*Carica papaya* L.), Banana (*Musa Paradisiaca* L.), Lime (*Citrus aurantifolia*), Guava (*Psidium guajava*), Jack-fruit (*Artocarpus heterophyllus*), Jujube (*Ziziphus mauritiana*), Myriobalan (*Phyllanthus emblica*) and Palmgranate (*Punica granatum*).

d. Major Vegetable corps: The major vegetables grown in the study area were:

i. Amari: *Hibiscus subderifa.*
ii. Brinjal: *Solanum melongena.*
iii. Cabbage: *Brassica oleracea.*
iv. Carrot: *Daucus carota.*
v. Cauliflower: *Brassica oleracea.*
vi. Chilli: *Capsicum annum.*
vii. Coriander: *Coriandrum sativum*
viii. Garlic: *Allium sativum*

ix. Potato: *Solanum tuberosum.*
x. Radish: *Raphanus sativus.*
xi. Spinach: *Beta olirecia.*
xii. Sponge gourd: *Luffa cylindrica.*
xiii. Tomato: *Lycopersicum esculantum*
xiv. White gourd (winter melon): *Benincasa hispida.*

e. Major Ornamental Plants: Following is the list of ornamental plants in the study area.

i. Marigold: *Tagates erecta.*
ii. Periwinkle: *Catharanthus roseus.*
iii. China rose: *Hibiscus rosasinensis.*
iv. Chrysanthemum: *Chrysanthemum americanum.*
v. Rose: *Rosa indica.*
vi. Jasmin: *Jasminum sambac.*
vii. Stick Rose: *Polyanthes tuberose.*

4.10.8 Rare and Endangered Flora in the Study Area: Among the enumerated flora in the study area, none of them were assigned any threat category by Red data book of Indian Plants (Jain and Sastry, 1984; Nayar and Sastry, 1987; 1988; 1990; Oldfield *et al.*, 1998; Kholia and Bhakuni, 2009) and Red list of threatened Vascular plants (IUCN, 2010).

4.10.9 Endemic Plants of the Study Area: Among recorded plant species none can be assigned the status of endemic plant of this region.

4.10.10 Status of the Forest, Their Category in Study Area:

There is no Wildlife Sanctuary/National Park in 10 Km but Some Protected Forest Area falling in 10km lease area is as under:

(i) Bir Tapu Reserved Forest 1.9 Km, towards S
(ii) Sungh Protected Forest 5 Km, towards W
(iii) Baila chaur Protected Forest 8 Km, towards N
(iv) Urjani Protected Forest 8.2 Km, towards N
(v) Mujahidwala Protected Forest 9.1 Km, towards NE

4.10.11 Faunal Biodiversity of Study Area

For the documentation of the faunal biodiversity of the study area with respect to birds, reptiles, amphibians, and butterfly species, a baseline survey had been conducted. The study area falls under two states Haryana and Uttar Pradesh (interstate boundary).

Birds: The sighting of bird species was very lass during the study period during Dec. 2015. The most commonly spotted bird species of this area were; Cattle Egret, Intermediate Egret, Black-winged Stilt, Red-wattled Lapwing, Rock Pigeon, Eurasian Collared-Dove, Spotted Dove, Chestnut-headed Bee-eater, Bank Myna and Common Myna. Only one Indian Peafowl was observed which is listed as schedule –I as per IWPA, 1972.

Table 4.26. Schedule –I Bird(s) of Study Area

Species	As IWPA 1972	IUCN	CITES
Indian Peafowl *(Pavo cristatus)*	Schedule I	Least Concern ver 3.1	Not listed

Table 4.27. Systematic Lists of Birds in the Study Area with Its Distribution and Migratory Status

Old Common name	New Common Name	Scientific Name	Dist.
I ORDER: APODIFORMES			
Family: Apodidae (swifts)			
Common Swift	Common Swift	*Apus apus*	**R**
House swift	Little Swift	*Apus affinis*	**R**
II ORDER: FALCONIFORMES			
Family: Accipitridae (vulture, Sparrow hawk, Eagle, Harrier, Kite and Vulture)			
Shikra	Shikra	*Accipiter badius*	**R**
Black-winged Kite	Black-winged Kite	*Elanus caeruleus*	**R**
III. ORDER: : CICONIIFORMES			
Family: Ardeidae (heron, Egret, Bittern)			
Cattle Egret	Cattle Egret	*Bubulcus ibis*	**R**

Median or Smaller Egret	Intermediate Egret	*Mesophoyx intermedia* *Egretta intermedia*	**R**
Little Egret	Little Egret	*Egretta garzetta*	**R**
Pond Heron	Indian Pond-Heron	*Ardeola grayii*	**R**
Family: Charadriidae (Plover, Stilt, Oystercatcher, Lapwing, Avocet)			
Black-winged Stilt	Black-winged Stilt	*Himantopus himantopus*	**R**
Red-wattled Lapwing	Red-wattled Lapwing	*Vanellus indicus*	**R**
Family: Threskiornithidae (Spoonbill and Ibis)			
Black Ibis	Red-naped Ibis	*Pseudibis papillosa*	**R**
IV ORDER: COLUMBIFORMES			
Family: Columbidae (Pigeon, Dove)			
Blue Rock Pigeon	Rock Pigeon	*Columba livia*	**R**
Ring Dove	Eurasian Collared-Dove	*Streptopelia decaocto*	**R**
Rufous Turtle Dove	Oriental Turtle-Dove	*Streptopelia orientalis*	**R**
Spotted Dove	Spotted Dove	*Streptopelia chinensis*	**R**
V : ORDER: CORACIFORMES			
Family: Dacelonidae (Kingfishers)			
White breasted Kingfisher	White-throated Kingfisher	*Halcyon smyrnensis*	**R**
Family: Coraciidae (Roller)			
BlueJay or Roller	Indian Roller	*Coracias benghalensis*	
Family: Meropidae (Bee Eater)			
Chestnut-headed Bee-eater	Chestnut-headed Bee-eater	*Merops leschenaulti*	**R**
Blue-cheeked Bee-eater	Blue-cheeked Bee-eater	*Merops persicus*	**R**
Olive Bee eater	Olive Bee eater	*Merops superciliosus*	
VI. ORDER: CUCULIFORMES			
Family: Centropodidae (Cocucal)			
Crow-Pheasant or Coucal	Greater Coucal	*Centropus sinensis*	**R**
Family: Cuculidae (cuckoo, Koel)			
Koel	Asian Koel`	*Eudynamys scolopacea*	**R**
Indian Drongo Cuckoo	Drongo Cuckoo	*Surniculus lugubris*	**R**
VII. ORDER: GALLIFORMES			
Family: Phasianidae (Peafowl, Partridge, Quail, francolin, Spur fowl, Jungle fowl, Monal)			
Common Peafowl	Indian Peafowl	*Pavo cristatus*	**R**
Grey Partridge	Grey Francolin	*Francolinus pondicerianus*	**R**
Common Quail	Common Quail	*Coturnix coturnix*	**R**
Red jungle fowl	Red jungle fowl	*Gallus gallus*	**R**
VIII. ORDER: GRUIFORMES			
Family: Rallidae (Waterhen, coot, crake water cock, Moorhen, Rail)			
White-breasted Water hen	White-breasted Water hen	*Amaurornis phoenicurus*	**R**
Indian Moorhen	Common Moorhen	*Gallinula chloropus*	**R**
XI. ORDER: PASSERIFORMES			
Family: Paridae (Tit)			
Grey Tit	Great Tit	*Parus major*	**R**
Family: Corvidae			
Raven	Common Raven	*Corvus corax*	**R**
House Crow	House Crow	*Corvus splendens*	**R**
Black drongo- King Crow	Black Drongo	*Dicrurus macrocercus*	**R**
Tree Pie	Rufous Treepie	*Dendrocitta vagabunda*	**R**
Family: Muscicapidae (Short wing, Chat, Robin, Shama			
Indian Robin	Indian Robin	*Saxicoloides fulicata*	**R**
Pied Bushchat	Pied Bushchat	*Saxicola caprata*	**R**
Family: Nectariniidae (Sun Birds, Flower pecker, Spider hunter)			
Purple Sunbird	Purple Sunbird	*Nectarinia asiatica*	**R**
Small Sunbird	Crimson-backed Sunbird	*Nectarinia minima*	**R**
Family: Passeridae (Avadavat, Pipit, Wagtail, Munia, Snowfinch, Sparrow, Accentor)			

House Sparrow	House Sparrow	*Passer domesticus*	**R**
Grey Tit	Great Tit	*Parus major*	**R**
Family: Pycnonotidae (Bulbul)			
Red-whiskered Bulbul	Red-whiskered Bulbul	*Pycnonotus jocosus*	**R**
Red-vented Bulbul	Red-vented Bulbul	*Pycnonotus cafer*	**R**
Family: Sturnidae (Myna, Starling)			
Bank Myna	Bank Myna	*Acridotheres ginginianus*	**R**
Indian Myna	Common Myna	*Acridotheres tristis*	**R**
Family: Sylviidae (Warbler, Browning, Fulvetta ,Babbler, Laughing thrash, Tailor birds)			
Common Babbler	Common Babbler	*Turdoides caudatus*	**R**
Jungle Babbler	Jungle Babbler	*Turdoides striatus*	**R**
Tailorbird	Common Tailorbird	*Orthotomus sutorius*	**R**
X. ORDER: PSITTACIFORMES			
Family: Psittacidae (Parrot and Parakeet)			
Rose-ringed Parakeet	Rose-ringed Parakeet	*Psittacula krameri*	**R**
Family: Ploceidae			
Baya	Baya weaver	*Ploceus philippinus*	**R**
XI. ORDER: STRIGIFORMES			
Family: Strigidae (Owl and Owlet)			
Owl	Indian Great Horned owl	*Bubo bubo*	**R**

Note: **R** = Widespread Resident, r = Very Local Resident, **W** = Widespread Winter Visitor, w = Sparse Winter Visitor**, RW** =Resident and winter visitor as per the distribution given in WCMC, Check list of Indian Birds

4.10.11.1 Butterflies from the study area: Butterflies observed during the present study are documented in the Table below.

Table 4.28. Butterflies in the Study Area

Scientific name and family	Common name
Family Papilionidae	
Papilio polytes	Common Mormon
Family Pieridae	
Eurema hecabe	Common Grass yellow
Ixias Marianne	White orange tip
Family: Nymphalidae	
Danaus genutia Cramer	Stripped Tiger
Hypolimanas misippus	Danaid egg fly
Mycalesis perseus	Common bush brown

(Source: Primary data)

4.10.11.2 Herpetofauna: Frog, toad, Common Garden Lizard, Indian Monitor, etc. were sighted during the study period during Dec. 2015. The reptiles' document in the region is given in the table below.

Table 4.29. Reptiles and Amphibian in the Study Area

S.No.	Common Name	Scientific name	Schedule as IWPA, 1972
1.	Toad	*Bufo bufo*	Not listed
2.	Marbled toad	*Bufo stomaticus*	-
3.	Common Toad	*Bufo melanostictus*	-
4.	Frog	*Rana tigrina*	Schedule IV
5.	Skink	*Mabuya macularia*	-
6.	Common Garden Lizard	*Calotes versicolor*	Not listed
7.	Fan-Throated Lizard	*Sitana ponticeriana*	Not listed
8.	House Gecko	*Hemidactylus flaviviridis*	Not listed

4.10.11.3 Mammals: The wild mammals observed other than the domesticated ones are given in the table below.

Table 4.30. Mammals in Study area

S.No.	Common Name	Scientific name	Status as per IWPA 1972
1.	Bat	*Rousettus leschenaulti*	Schedule V
2.	Common House rat	*Rattus rattus*	Schedule V
3.	Common Mongoose	*Herpestes edwardsii*	Schedule II

4.	Five striped Palm Squirrel	*Funambulus pennanii*	Schedule IV
6.	Indian Mole Rat	*Bandicota bengalensis*	Schedule V
7.	Hare	*Lepus nigrigolis dayanus*	Schedule IV
8.	Indian field mouse	*Mus booduga*	Schedule IV
9.	Monkey (Rhesus macaque)	*Macaca mulatta*	Schedule II
10.	Nilgai (Blue Bull)	*Boselaphus tragocamelus*	Schedule-III

4.10.11.4 Fishes: The fishes observed are given in the table below.

Table 4.31. Fishes in Study area

S.No.	Local Name	Scientific name
1.	Calbasu	*Labeo calbasu*
2.	Kali Machali	*Barbus chilinadea*
3.	Mahseer	*Tor barakae*
4.	Rohu	*Labeo rohita*
5.	Singi	*Clarias batrachus*

4.10.11.5 Domestic Animals

The domestic animals observed in the study area are given in the table below.

Table 4.32. Domestic Animals in Study area

S.No.	English/Hindi Name	Scientific name
1.	Buffalo/ Bhains	*Bulbalus bulbalis*
3.	Cow/Gai	*Bos primigenius*
5.	Dog/Kutta	*Canis lupus familiaris*
2.	Goat/Bakri	*Capra aegagrus hircus*
4.	Sheep/Bhed	*Ovis aries*

4.10.11.6 Rare and Endangered Fauna of Study Area: Among the birds in the study area, Pea fowl (*Pavo cristatus)* is included in schedule I of Wild life protection Act (1972), while many other birds are included in schedule IV. Among mammals, Common Mongoose (*Herpestes edwardsi)*, and Monkey (*Macaca mulatta*) are a schedule–II animals. Nilgai (*Boselaphus tragocamelus*) is protected as Schedule-III animal and hares and five stripped squirrels are included in schedule IV of Wild Life Protection act 1972.

4.10.11.7 Endemic Fauna of the Study Area: None of the sighted animal species can be assigned endemic species category of the study area.

Table 4.33 List of Schedule–I and II Fauna observed During the Study

S.No.	Scientific Name	Local Name	Schedule as per WPA, 1972	IUCN Category	CITES Listing
1.	*Pavo cristatus*	Indian Peafowl	Schedule I	LC	Not listed
2.	*Herpestes edwardsi*	Common Mongoose	Schedule II	LC	Appendix III
3.	*Macaca mulatta*	Monkey	Schedule II	LC	Not listed

4.10.12 Plankton Study

Most of the villages in the study area are with large village ponds for rain water harvesting option as wells to recharge aquifers for better quality water in the wells at the periphery of these village ponds. The village ponds in Dayalgarh village, Yamuna River at kanalsi(upstream) and Yamuna River at Lapra (downstream) Village Todarpur**,** Village **Mali Majra** were sampled to document the plankton diversity. Biotic communities of the in an inland water body consist of Phytoplankton (plant plankton) includes minute photosynthetic cells and microscopic unicellular and multi cellular species of several phyla of true algae, which are either solitary or colonial. Phytoplankton is autotrophs, containing photosynthetic pigments. Most of the phytoplankton has a density greater than the water hence they tend to sink down. Water turbulence combined with other factors such as shape, and physiological state, reduce the sinking rate of non motile organisms. Motile phytoplankton, like most of the dinoflagellates may actively

swim to compensate for sinking. Phytoplankton is of great ecological significance because they comprise the major portion of primary producers for all the consumers such as zooplankton and fishes. Zooplankton (animal plankton) includes a great variety of animals from single-celled protozoa to large invertebrates. Among the zooplanktons crustaceans of phylum Arthropoda easily predominate, these include numerous species within several categories. Zooplankton includes animals that are planktonic throughout their lives as well as larvae of animals that grow up to be nekton or benthos.

Table 4.34. Plankton Community of Inland Water bodies

Plankton Community	Village Dayalgarh	River Yamuna near Kanalsi (Project site)	River Yamuna at Lapra (Downstream)	Village Todarpur	Village Mali Majra
Phytoplankton					
Sub Phylum Chlorophyceae					
Order: Chlorococcoccale					
Family: Scenedesmaceae					
Scenedesmus sp.	✓	✖	✖	✓	✓
Ulothrix sp.	✓	✖	✓	✖	✓
Famiy: Hydrodictyacea					
Hydrodictyon sp	✓	✖	✖	✓	✓
Pediastrum sp.	✓	✓	✖	✓	✓
Order: Zygnematles					
Family: Zygnemataceae					
Spirogyra sp.	✓	✓	✖	✓	✓
Family : Desmidiaceae					
Closterium sp.	✖	✓	✖	✓	✓
Cosmarium sp	✓	✖	✖	✓	✓
Phylum: Euglenophyta					
Order Euglenales					
Family Euglenaceae					
Phacus sp	✓	✖	✖	✖	✖
Euglena sp.	✖	✓	✖	✖	✖
Phylum: Chrysophyta					
Sub Phylum: Bacillariophyceae					
Order: Centrales					
Melosira sp	✓	✖	✖	✖	✓
Order: Pennales					
Family: Fragilariaceae					
Fragilaria sp	✖	✖	✖		
Synedra sp.	✓	✖	✖	✓	✓
Family: Naviculaceae					
Navicula sp.	✓	✓	✓	✖	✓
Pinnularia sp	✓	✓	✓	✓	✖
Zooplankton					
Phylum Rotifera					
Class : Monogononta					
Order : Ploima					
Family : Brachionidae					
Brachionus angularis	✖	✖	✓	✓	✓
Brachionus forficula	✓	✓	✖	✖	✖
Nothalca sp.	✓	✖	✖	✓	✖
Keratella sp.	✖	✓	✓	✖	✓
Phylum: Arthropoda					
Class Brabchiopoda					
Order Cladocera					
Famliy Daphnidae					

Daphnia sp.	✓	✖	✖	✓	✖
Bosmina sp.	✓	✖	✓	✓	✓
Class : Crustaceae					
Sub class Copepoda					
Order: Calanoida					
Family: Diaptominae					
Neodiaptomus sp.	✓	✓	✓	✓	✖
Order: Cyclopoida					
Family: Cyclopidae					
Sub family: Eucyclopinae					
Cyclops sp.	✖	✖	✓	✓	✖
Eucyclops sp.	✓	✖	✖	✓	✓
Ectocyclops sp.	✓	✖	✓	✓	✓
PCI	**4**	**0**	**0**	**3**	**4**

✓ Indicates presence; ✖ Indicates absence.

PCI Codes as per Colebrook, 1960 and Batten et al. 2003.
Code 0 = No Colour
Code 1 = Very Pale Green (Shade 1)
Code 2 = Pale Green (Shade 2)
Code 3 = Light Green (Shade 3)
Code 4 = Light Green (Shade 4)
Code 5 = Light Green (Shade 5)

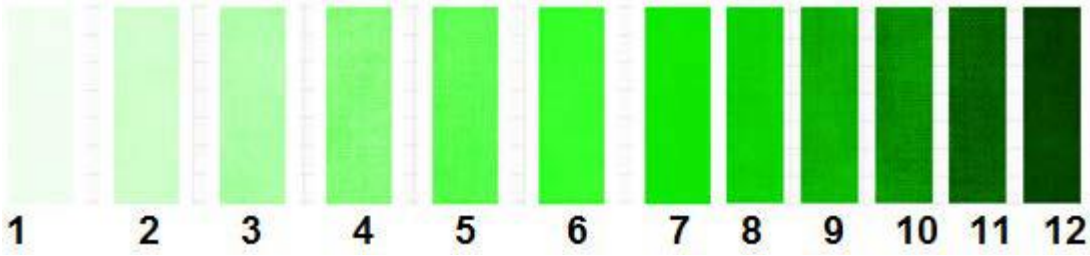


Figure 4.21. Plankton Code Index (PCI) Map

The plankton study reveals that Yamuna River has no much richness of plankton biodiversity, while village ponds have much diversity of phytoplankton and zooplankton. The mining activity will be done on dry river bed except monsoon season, hence no any impact will envisaged on plankton community of the river Yamuna.

4.10.13 Conclusion

The study area comprise of two districts of two states *i.e.* Yamunanagar (Haryana) and other part falls in Saharanpur (Uttar Pradesh). The current study reveals that the study area has most of agriculture land and vegetable corps. The ecology and biodiversity patterns reveal that the most part is covered by vegetable crops only in the winter and summer season and during the monsoon there is no vegetable or major crops grown in this area due to over flow of Yamuna River. Some of the sighted fauna was given protection by the Indian Wild Life (Protection) Act, 1972 by including them in different schedules. Among the birds in the study area, Pea fowl (*Pavo cristatus)* is included in schedule I of Wild life protection Act (1972), while many other birds are included in schedule IV. Among mammals; Common Mongoose (*Herpestes edwardsi)* and Monkey (*Macaca mulatta*) are a schedule –II animals. The species wise conservation plan is prepared for the protection of scheduled –I and II fauna along with budgetary provision to assure the implementation of the same by the proponent.

4.11 SOCIO-ECONOMIC SURVEY

Any developmental activity exerts a direct impact on the socio-economic environment of the region. Usually, the beneficial impacts such as better job opportunities, improved education, communication, energy, housing, health, transportation facilities etc. outweighs the adverse impacts, if any. The study of socio-economic component of environment is incorporating various facets, viz. demographic structure, availability of basic amenities such as housing, education, health and medical services, occupation, water supply, sanitation, communication and power supply, prevailing diseases in the region as well as features such as places of tourist attraction and monuments of archaeological importance. The study of

these parameters helps in identifying predicting and evaluating the likely impacts due to project activity in the surrounding region. The present study on the socio-economic environment incorporates existing status of the socio-economic profile of the area for the proposed activity of sand mining is located at Village Kanalsi **Block/YNR B-5** District Yamuna Nagar Haryana by **Sh. Kulvinder Singh Prop. M/s P.S.Buildtech**. Administrative map of study area is given in **Figure 4.20.**

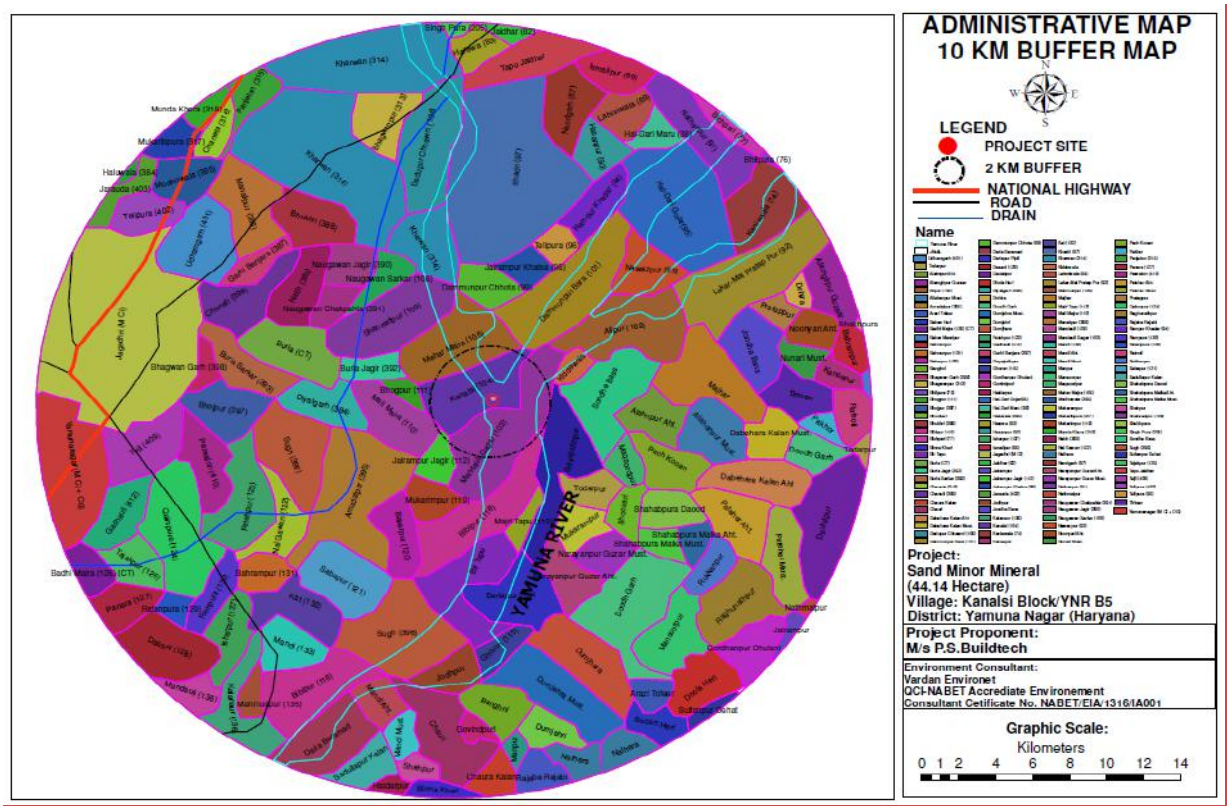


Figure 4.22: Administrative Map of the study area

The land for mining lease area is mostly barren land therefore there are no issues involved like land acquisition, displacement, compensation, resettlement and rehabilitation.

Baseline data such as demographic pattern, occupational status, educational, health and other amenities as existing in the study area have been studied.

4.11.1 Baseline Status

The latest available data has been complied to generate the existing socio-economic scenario of the study area. Information on socio-economic profile was collected from the Primary Census Abstract CD 2011 including the population details of the region. The Socio-Economic Status of the study areas is mentioned below and the villages surveyed are enlisted in **Table 1 of Annexure XII.**

Village: The basic unit for rural areas is the revenue village which has definite surveyed boundaries. The revenue village may comprise of one or more hamlets but the entire village is treated as one unit for presentation of data.

Demographic Structure: Demographic structure of the study area was estimated for the selected parameters as households, population, sex ratio, scheduled caste, scheduled tribes, literacy from primary census abstract, CD 2011. The summarized demographic structure of the study area is presented in Table 2 **of Annexure XII**, while the village wise demographic pattern is shown in Table 3 **of Annexure XII**. The study within the 10 km covers 81 villages of Chhachhrauli and Jagdhri Tehsil of Yammunanagar District, and Sahranpur Tehsil of Saharanpur District of Uttar Pradesh.

Household and Population: As per Census 2011 the total number of household in the study area is about 22513 with the total population of about 124988 with Male-66276 i.e. 53.02% and Female 58712 (46.97%) and the household ratio *i.e.* person per family is about 5.5. The population of children in the age group of 0-6 in the study area is 18002 (14.40%).

Sex Ratio: Sex ratio (number of female per thousand male) figure of the study is 885.

Scheduled Castes and Scheduled Tribes Population: The ratios of scheduled caste and scheduled tribe as compared to the total population of the Study area is about 38581 (30.86%) while the scheduled caste population is nil.

Literacy: A person who can both read and write with understanding of any one language is treated as "Literate". The literacy rate within the study areas is in an average of about 74394 (59.52%)

Occupational Pattern: Occupational Pattern of any region mainly depends upon its economically active group i.e. the working population involved in productive work. 'Work' has been defined as participation in any economically productive activity. Such participation may be physical or mental. Persons on leave and under training are also treated as workers. However, rent receivers and pensioners are not treated as workers.

There are different types of workers that may be classified as -

Main Workers: Main workers are those who have worked for a major part of the year (i.e. at least six months or 183 days). Main activity of a person who was engaged in more than one activity was reckoned in terms of time disposition. The main worker population within the study area is 33591 (26.87%) out of which 8819 (26.25%) are engaged as cultivators, 10456 (31.12%) as agricultural labourers, only 1.7% are engaged as Household Laborers, and the other worker population is about 13713 i.e. 40.82%

Non-Workers: Non-Workers may be defined as those persons who have not worked at all during the entire year under the reference period. The proportion of non workers may show the unemployment level of the region. The non worker population in the study area is very high of about 86334 (69.07%).

Economic Resource Base: Agriculture and its allied activities are the major income sources of the people in the rural region of the study areas. Major crops are grown in both Kharif and Rabi seasons. Major Kharif crops are cotton and tur. Major Rabi crops are Jawar, tur, soyabean and channa. Due to poor irrigation facilities, the productivity of land is mostly low in the study areas. However, most of the local populations are engaged in the sand mining either as contractors or laborers. Mining activities plays an important role in increasing the economic resource base for the people in the region.

Cultural and Aesthetic Attributes: As such no culturally and aesthetically important places are located within the seven study areas.

4.11.2 Socio-economic Survey

In order to access and evaluate likely impacts arising out of any development projects on socio economic environment, it is necessary to gauge the apprehensions of the people in the study areas.

Methodology applied for selection of sample and data collection: The methodology which is applied for primary source of data collection i.e. gathering data through field survey for socio-economic environment is depicted below:

- **Sampling Method**

A judgmental and purposive sampling method was used for choosing respondents of various sections of the society i.e. Sarpanch, adult males and females, teachers, medical practitioners, businessmen, agriculture laborers, unemployed group etc. Judgmental and purposive sampling method includes the right cases from the total population that helps to fulfill the purpose of research needs.

- **Data Collection Method**

For the process of data collection through primary source certain methods are used among that are:

- **Field Survey and Observations**

Field survey and observations is made at each sampling village and the socioeconomic status of that region is studied. Visits are made at hospitals, primary health centers and sub-centers to know the health status of the region. Various governmental organizations such as statistical department, department of census operations are visited to collect the population details of that region.

- **Interview Method**

Structured interview method is used to collect data regarding the awareness and opinion from the samples selected of the various socio- economic sections of the community. Structured interviews involve the use of a set of predetermined questions that includes fixed and alternative questions. The questionnaire mainly highlights the parameters such as income, employment and working conditions, housing, food, water supply, sanitation, health, energy, transportation and communication, education, environment and pollution to assess the standard of living of that particular region and general awareness, opinion and expectation of the respondents about the proposed project. Interview method helps to collect more correct and accurate information as the interviewer is present during the field survey. Socio-economic survey was conducted in the villages within the study areas located in all directions with reference to the clusters. 6 villages were surveyed from study area. The respondents were asked for their awareness / opinion about the existing sand mining and also of their opinion about the impacts of the sand mining which are an important aspect of socio-economic environment, viz. job opportunities, education, health care, housing, transportation facility and economic status. The salient

observations recorded during socio economic survey in the study areas are depicted below:

Livelihood of the villagers is primarily based on agriculture sector. Majority of main workforce are engaged either in cultivation in own land and or in laboring activities in other agricultural land owners. Majority of workers are practicing farming activities without any irrigation source, it means that area under irrigation is very low and maximum area is covered by unirrigated land. Most of the villages have Primary School (PS) while in some villages it is extended up to Middle School (MS). While for further education villagers go to the town places. The main source of drinking water supply is through tap, dug well, bore well and hand pump. The Government medical facilities in the form of primary health sub- centre and private medical reprsentatives are available in the villages. Villagers expressed positive opinion regarding the facilities available at the centre. ANM (Auxiliary Nurse Midwife) frequently visits all the villages and regular vaccination and health checkup camps are organized by the health centre. Two wheelers, auto rickshaws and bus facility are the main mode of transportation used by natives in the study area. Power supply is available in mostly all the sampling villages. Street lights are also available in all villages. Wood, kerosene and LPG gas is a major fuel used for cooking purpose. Availability of Post office and banking facilities in the surveyed villages. Majority of surveyed population opted positive response regarding the sand mining activity as most of the local population are employed as contractors, drivers, or laborers and the activity has helped in development of auxiliary as well as ancillary jobs in the region.

4.12 SUMMARY

The generation of primary data as well as collection of secondary data and information from the site and surroundings was carried out during pre monsoon season *i.e.* **1st December 2015 to 29th February 2016.** The EIA study is being done for the Mine Lease (core zone) and area within 10 Km distance from mine lease boundary (buffer zone), both of which together comprise the study area. The mine lease area exhibits plain to undulated topography. The general slope of the land surface is From N to S and the maximum elevation of the plain is 269 m amsl. The project site falls under seismic zone IV which is a high damage risk zone (MSK VIII). Many part of the state of Haryana are prone to flooding. In flood manual of Haryana, there are 102 vulnerable points in Haryana which need special attention during monsoon. Meteorological station was set-up at site to record surface meteorological parameter during study period. Ambient Air Quality Monitoring reveals that the minimum and maximum concentrations of PM_{10} for all the 6 AAQM stations were found to be **54.70μg/m^3 and 82.70 μg/m^3** respectively, minimum and maximum concentrations of $PM_{2.5}$ for all the 6 AAQM stations were found to be **27.80 μg/m^3 and 48.20 μg/m^3** respectively. The range of Free Silica in PM_{10} was found to be **2.10% to 3.20%**. The minimum and maximum concentrations of SO_2 were found to **7.50 μg/m^3 and 17.80 μg/m^3** respectively. The minimum and maximum concentrations of NO_2 were found to be **13.7 μg/m^3 and 30.2 μg/m^3** respectively. The prescribed CPCB limit of SO_2 and NO_2 is 80 μg/m^3 for residential and rural areas has never surpassed at any monitoring station. Maximum and minimum noise levels recorded during the day time were from **51.5 Leq dB and 56.8Leq dB** respectively and maximum and minimum level of noise during night time were **42.1 Leq dB and 47.32 Leq dB** respectively. Thus noise levels at all locations were observed to be within the prescribed limits. Analysis results of ground water reveal that pH varies from **7.32 to 8.06**, Total Hardness varies from **112.1 to 440.0 mg/L** and Total Dissolved Solid varies from **137 to 491mg/L**. The Analysis results of surface water reveal that pH varies from **7.46 to 8.15**, Total Hardness varies from **128 to 216 mg/L**, Total Dissolved Solids varies from **125 to 207 mg/L.** Traffic study measurements were performed at National Highway-73, National Highway-73A and District road. The LOS value from the proposed mining will be same as earlier values. Random soil samples were collected up to depth of 15 cm and homogenized samples were then sent to the laboratory for analysis. The analysis results show that soil is basic in nature as pH value ranges from **7.23 to 8.01**with organic matter **0.60% to 0.79 %.** The concentration of Nitrogen ranges from **226.32kg/hec to 296.36 kg/hec.** Concentration of Phosphorus ranges from **40.28 kg/hec to 65.4 kg/hec.** and concentration of Potassium was found to be in range from **90.12 k/hec to 112.17 kg/hec**. has been found to be in good amount in the soil samples. All plants need nitrogen, phosphorus and potassium to grow. Soil texture is **Sandy to Silty Loam**. The ecology and biodiversity patterns reveal that the most part is covered by vegetable crops only in the winter and summer season and during the monsoon there is no vegetable or major crops grown in this area due to over flow of Yamuna River. Some of the sighted fauna was given protection by the Indian Wild Life (Protection) Act, 1972 by including them in different schedules. Among the birds in the study area, Pea

fowl (*Pavo cristatus)* is included in schedule I of Wild life protection Act (1972), while many other birds are included in schedule IV. Common Mongoose (*Herpestes edwardsi)* and Monkey (*Macaca mulatta*) are a schedule –II animals among mammals. The species wise conservation plan is prepared for the protection of scheduled –I and II fauna along with budgetary provision to assure the implementation of the same by the proponent. The implementation of this mining project will generate both direct and indirect employment. Yamuna Nagar district in which the mine contract area falls is an agriculturally based district. All the basic facilities like road and rail network, medical facilities, post and telegraph, market, drinking water facilities and education facilities are available. The project will also provide impetus to industrialization of the area and mining would be boon for the district as it will not only result in employment opportunity but also infrastructure development and overall growth of the area. At present agriculture is the main occupation of the people as more than half of the population depends on it. With the implementation of the proposed mining project the occupational pattern of the people in the area will change making more people. It was found that most of the parameters were within the limits as per the Indian Standards. In general, there is no major threat to the quality of these parameters. Similarly, the study for the biotic factors was conducted. Hence it can be concluded that the present environment status of the study area is good enough for the project activity. Adoption of adequate pollution control measures will protect the surrounding environment.

CHAPTER: 5
ANTICIPATED ENVIRONMENTAL IMPACT AND ITS MITIGATION MEASURES

5.0 INTRODUCTION

The environmental parameters likely to be affected by mining are related to many factors, *i.e.* physical, social, economic, agriculture and aesthetic. Opencast mining sand involves loading and transport of overburden and ore. The excavated sand will be transported via trucks to outsiders. The operations may disturb environment of the area in various ways, such as removal of mass, change of landscape, flora and fauna of the area, surface drainage, and change in air, water and soil quality. While for the purpose of development and economic up-liftment of people, there is need for establishment of mining industries, but these should be environment friendly. Therefore, it is essential to assess the impacts of mining on different environmental parameters, before starting the mining operations, so that abatement measures could be planned in advance for eco-friendly mining in the area.

5.1 CONSTRUCTION PHASE

This is a Sand mining project in riverbed. There will be no impacts as no construction stage is envisaged in this project.

5.2 OPERATION PHASE

Some of the impacts identified in various phases of operation are insignificant and do not warrant much attention whereas some others are important especially with respect to the present context. Therefore objective is to identify those impacts, which are significant and require a detailed analysis for decision making or formulating adequate management measures. This section deals with an assessment of impact of various mining activities on the existing environmental conditions. The methodology of assessment is based upon identification and description of the existing project activities as well as environmental components followed by evaluating the impact of mining and associated activities on the environment. The environmental components that are likely to be influenced or modified by the continuation of project activities are:

i. Air Environment,
ii. Water Environment,
iii. Soil Environment,
iv. Noise and Vibration Environment,
v. Land Use,
vi. Hydrology
vii. Geology,
viii. Solid Waste/overburden
ix. Risk Assessment/ OH&S
x. Biological Environment,
xi. Socio-economic Environment.

5.3 AIR QUALITY MODELS

A) ISCST3 Dispersion Model

The Industrial Source Complex (ISC) Short Term model provides options to model emissions from a wide range of sources that might be present at a typical industrial source complex. ISCST3 is US-EPA approved model to predict the air quality.

B) CALINE 4 model

The California Line Source Dispersion Model, CALINE4 (1989), uses traffic emissions, site geometry and meteorology to predict air pollutant concentrations within 500 meters of the roadways. Predictions can be made for carbon monoxide, nitrogen dioxide and suspended particles.

5.3.1 Model Setup

5.3.1.1 Emission of PM_{10}

The major sources of PM10 emission in case of sand mining project are the loading activity at mine site (loading of material over dumpers by excavators) and the movement of vehicles on unpaved haul roads. The emission rates for these sources are given in latest USEPA's AP-42 guidelines.

5.3.1.2 Loading of Material

The Sand will be loaded on dumpers using excavators. It will be used for loading 6500 MT of sand during the working shift of 8 hours/day. The PM10 emission rate due to loading activity is calculated using below equation.

$$E = k\,X\,0.0016\,X\left(\frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}\right)$$ - AP42 (Nov 2006)

Where,

E = Emission Factor, kg/ton

k = Particle size multiplier, 0.35 for PM10

M = Moisture Content, %

u = Mean wind speed, m/s

5.3.1.3 Emission of PM_{10} due to Transportation

The hauling of Boulder, Gravel & Sand from the mine lease area to the end users via haul road (unpaved road) will cause emission of particulate matters. This emission will be limited to the extent of unpaved haul road starting from mining pit to nearest paved road connectivity. As per the mining plan the material will be transported during the working shift only. Each day maximum 90 dumpers (25 tonne capacity each) will make 260 trips for transporting Boulder, Gravel & Sand. The following empirical expressions is used to estimate the quantity in pounds (lb) of size-specific particulate emissions from an unpaved road in industrial sites, per vehicle mile traveled (VMT)

$$E = k\ \left(\frac{s}{12}\right)^{a}\left(\frac{W}{3}\right)^{b} + C$$ --- AP42 (Nov 2006)

Where

k, a, b are empirical constants i.e. different for different particle size.

E = size-specific emission factor (lb/VMT)

s = surface material silt content (%)

W = mean vehicle weight (tons)

C = emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear, 0.0047 lb/VMT for PM10. The source characteristics s and W are referred to as correction parameters for adjusting the emission estimates to local conditions. The effective emission rate after considering reduction in emission potential of haul roads due to water sprinkling was calculated for use in CALINE4 model.

5.3.1.4 Emission of CO from Vehicles

The sand will be transported outside the mining area for end use. Each day maximum 90 dumpers will be used for transportation. In order to estimate the emission of CO from these vehicles exhaust ARAI-2007 emission factors were used in CALINE4 model. The ARAI emission factors for CO emitting from heavy vehicles (diesel) is 3.92 gm/km or 6.32 g/mile

5.3.1.5 Summary of calculated Emission Rates

Table 5.1: Emissions Rates

S. No.	Activities	Units	Emission Rates
1.	Loading	g/s	0.01751
2.	Transportation on Haul Road (PM10 Emission)	g/mile/vehicle	86.2554
3.	Transportation (CO Emission)	g/mile/vehicle	6.32

5.3.2 Meteorological Data

The meteorology of the project area plays very important role in dispersion of pollutants and buildup of pollution within the atmosphere. In the present study, one season (December 2015–February 2016) meteorological data has been taken to find the dispersion of pollutant concentration. The mixing height for study period, which is an important parameter to express the dispersive potential of atmosphere, has been taken from the atlas of hourly mixing height and assimilative capacity of atmosphere in India (Attri *et al.*, 2008).

5.3.3 Input Parameters

5.3.3.1 ISCST3 Model Input Parameters

The ISCST3 model was used to predict the GLC of PM10 due to loading activity at mine site. Mineral Boulder, Gravel & Sand will be transported by trucks. Loaded trucks will travel on Kuccha road made for plying of trucks. No. of such temporary road will provide access to the river bed and the movement of loaded trucks. Point source resembling loading activity at mine site and having equivalent emission rates were setup in mining lease to predict the maximum incremental concentration of PM10 at baseline monitoring location (Figure 4.4). The predicted incremental concentration PM10 was added to baseline concentration to obtain the cumulative concentration level at baseline stations.

5.3.3.2 CALINE4 Input Parameters

CALINE4 model was used to predict the worst case GLC of PM10 due to dumper movement on haul road (unpaved road) between the mine site and nearest paved road. In the present project, dumpers having 25 tons capacity have been proposed to transport the mined Mineral Boulder, Gravel and Sand from mining area. The maximum number of dumpers proposed is 90 per day. The model was set-up with haul road links along the mining lease and receptors at all the AAQM locations to predict the pollutant concentration. Since CALINE4 has options to predict only 1-hour and 8-hour pollutant concentration, the model was used to predict 1-hour worst case GLC of pollutant which was later converted into 24-hour GLC using Turner Equation1. The 24-hour incremental concentrations (predicted) of pollutants due to transportation were added to baseline concentrations to obtain the cumulative concentration levels.

5.3.3.3 Interpretation

The maximum incremental concentration of PM10 *viz*. 3.56 µg/m^3 was predicted inside the core zone near active mining area (loading locations). These loading locations are generally away from sensitive receptors (settlements etc.). As the distance from source increases, the incremental concentration of PM10 drops drastically due to settling of PM10 particles under gravity. A graphical representation of the variation of PM10 concentration w.r.t. distance is presented in Figure 4. As evident from the line graph,

the maximum impact of loading activity at mine site is limited to 300m only. The predicted maximum cumulative GLC of PM10 was found to be **82.721** µg/m^3 at A5 (Ambient Air Quality Monitoring Station – 5); which is lower than the permissible NAAQ standard for PM_{10} concentration (100µg/m^3). The predicted 24 hours ground level concentrations at baseline air quality monitoring locations are presented in Table below. The graphical representation is given in Figure 5. The predicted concentration for CO was found to be 0.0µg/m^3 owing to very less traffic to and from the mining area.

Table 5.2: Predicted GLC of PM_{10} at Ambient Air Quality Monitoring Stations

Location Code	Location Name	Max Baseline Conc. (µg/m^3)	Predicted GLC(µg/m^3) ISCST3 Model	Predicted GLC (µg/m^3) – CALINE4 Model	Cumulative GLC(µg/m^3)
A1	Near Mine Site	78.1	3.56	0.21	81.87
A2	Village- Kanalsi	80.1	0.506	0.008	80.614
A3	Village- Sultanpur	79.3	0.038	0.001	79.339
A4	Near Village- Mail Majra	73.6	0.041	0.001	73.642
A5	Near Village- Sugh	82.7	0.02	0.001	82.721
A6	Near Village- Tapu Majra	75.9	0.011	0	75.911

The contour maps showing the predicted concentration levels of PM_{10} are presented in **Figure 5.3**

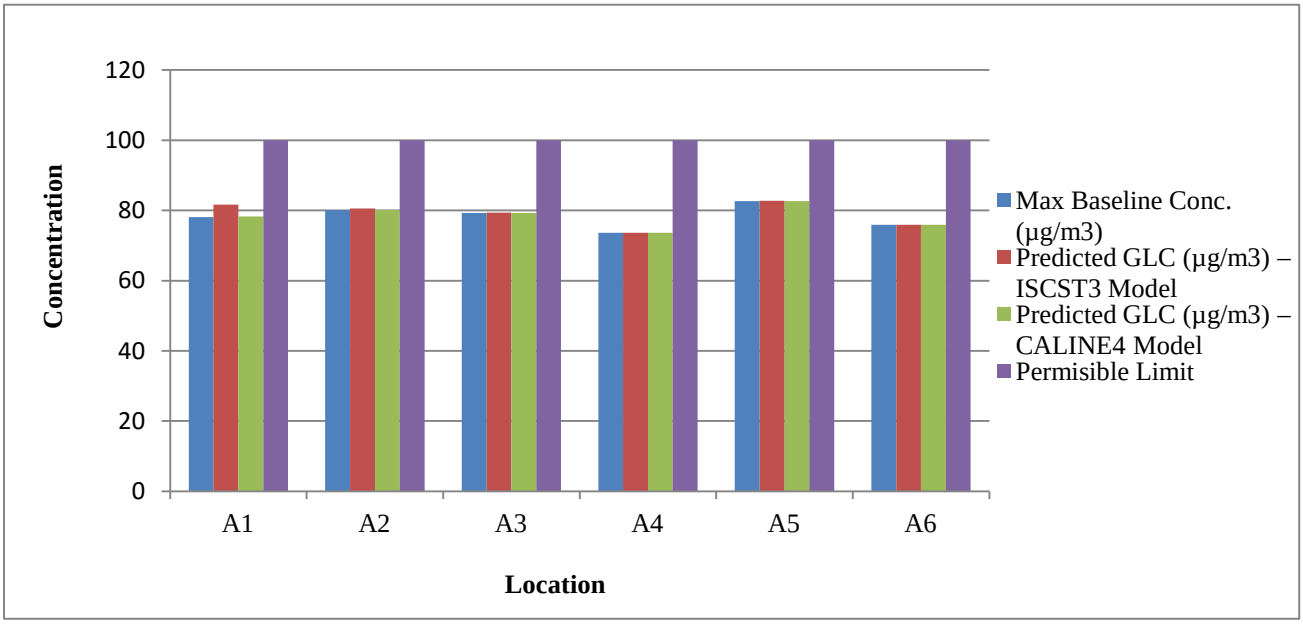


Figure 5.1 Graphical Representations of ISCST3 model

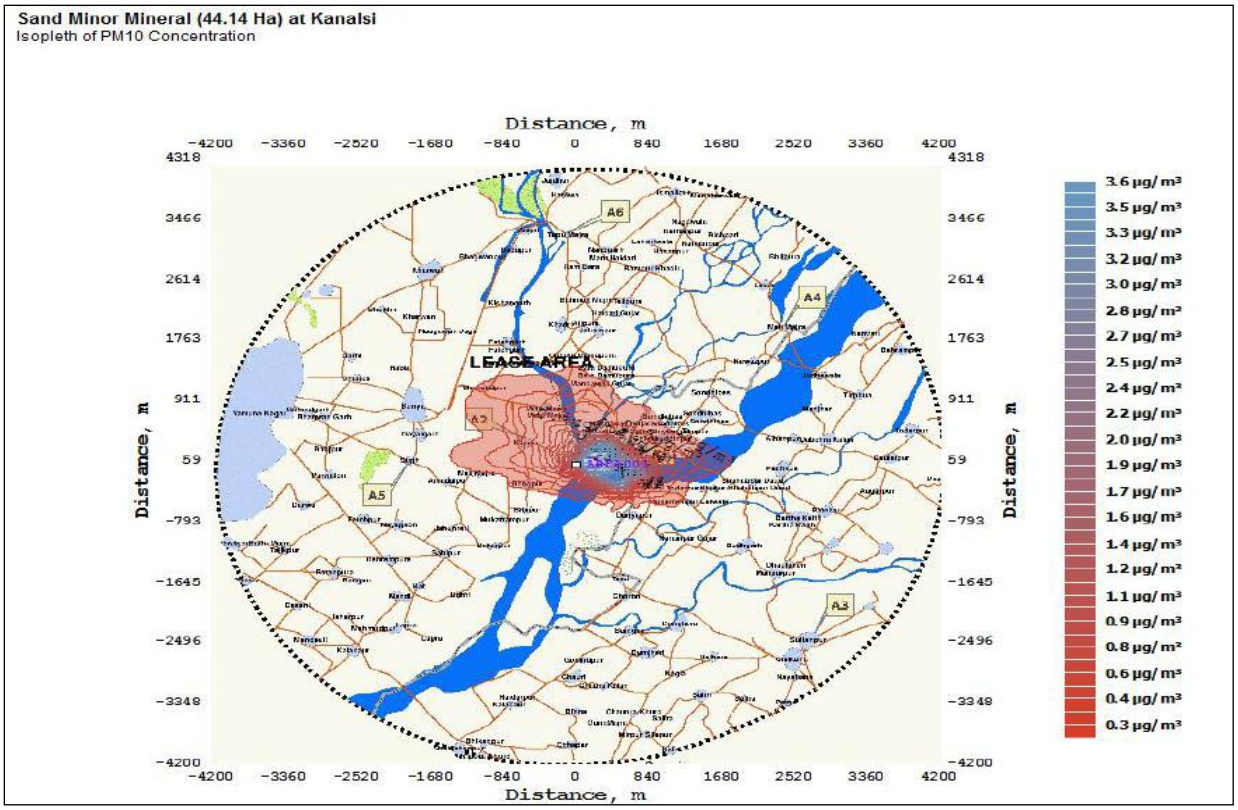


Figure 5.2. Spatial distribution of predicted GLCs of PM10 due to Mining

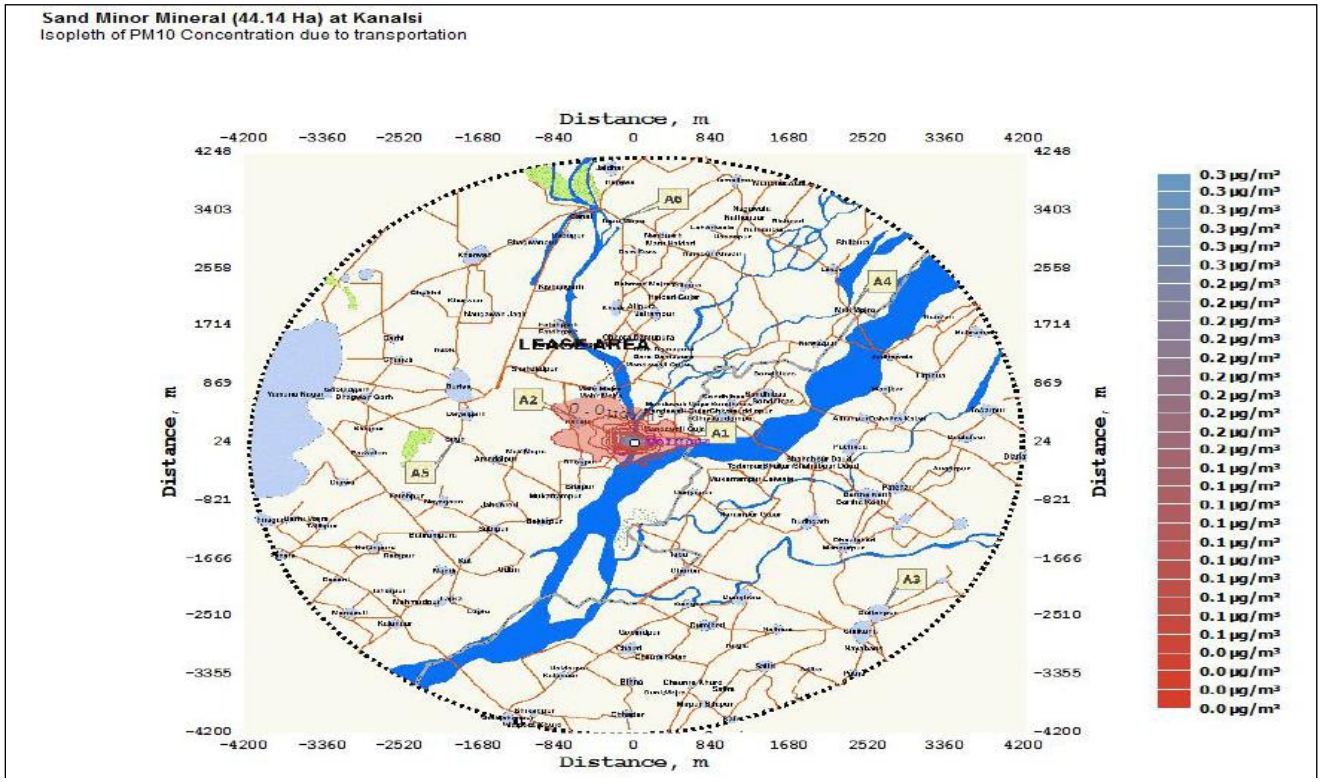


Figure 5.3. Spatial distribution of predicted GLCs of PM10 due to Transportation

5.3.4 Conclusion

The predicted maximum cumulative GLC of PM10 was found to be **82.721** µg/m^3 at A5 (Ambient Air Quality Monitoring Station-5); which is lower than the permissible NAAQ standard for PM10 concentration (100 µg/m3). From the results of ISCST3 and CALINE4 models, it is concluded that the maximum cumulative concentrations of PM10 both due to mining activities and transportation are expected to be within the prescribed standards for PM10. It is to be noted that the predicted concentrations from mining activities is insignificant; whereas transportation is the major of source of dust emission. The concentration of CO due to vehicle exhaust is negligible due to small number of vehicles plying on haul road. The concentrations of SO_2 and NO_2 generated from mining area are expected to be low due to absence of any major source. The predicted concentrations are due to proposed sand mine only and higher pollutant concentrations may be observed in the study area due to simultaneous operations of other mines/anthropogenic activities, data for which is not available. The overall impact on air quality due to proposed mining project is expected to be low extending to close vicinity of mining lease area and in proximity of unpaved haul roads only.

5.4 IMPACTS OF AIR POLLUTION AND MITIGATION MEASURES

Attributes	Impact	Mitigation Measure	Budget/annum
Human	A predicted cumulative GLC of PM_{10} was 82.721 µg/m^3 at Industrial Estate (Mine Plan) against the threshold limit of 100 µg/m^3 which can cause adverse effect on human health of neighboring villagers like effect on breathing and respiratory system. Dust generation due to loading and unloading of mineral and due to transportation can also affect the workers as well as nearby villagers. Stomatal index may be minimized due to dust deposit on leaf.	20 KLD water will be proposed for sprinkling on unpaved roads to avoid dust generation during transportation. Dust mask will be provided to the workers engaged at dust generation points like excavation and loading points. Planning transportation routes of sand so as to reach the nearest paved roads by shortest route (minimize transportation over unpaved road). Alternatively, graveled road may be constructed between mine lease area and nearest paved road connectivity. The speed of trucks plying on the haul road will be limited to avoid generation of dust and covering of material during transportation on trucks to prevent sand leak from the trucks. The trucks will be covered by tarpaulin. Overloading will be avoided.	Rs. 5.0 Lakhs under Dust Suppression Rs. 15.0 Lakhs under OHS @100 per dust mask for 240 Nos. Other fund for this activity will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund' Rs. 3.0 Lakhs(haul road maintenance)
Animal	Grassing land will be reduced.		Rs. 3.0 Lakhs
Plant	Stomatal index may be minimized due to dust deposit on leaf.	It is proposed to plant 1000 Nos. of local species per year with consultation of Forest department with some fruit bearing and medicinal trees, along the haul roads, outer periphery within the lease area to prevent the impact of dust in the nearby village.	Rs. 2.10 Lakhs. (Plantation)
Crops	Crop yield will be reduced.		

Infrastructure	There is no major impact on infrastructure due this mining operation.		-

5.4.1 Conclusion

In this mining project the only source of emission of air pollution is excavation, transportation, loading, hauling operation and handling of sand etc. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like plantation of trees along haul roads, specially near settlements, to help to reduce the impact of dust on the nearby villages; planning transportation routes of mined material so as to reach the nearest paved roads by shortest route (minimize transportation over unpaved road); regular water sprinkling on unpaved roads to avoid dust generation during transportation etc.

5.5 IMPACTS OF WATER POLLUTION AND ITS MITIGATION MEASURES

Attributes	Impact	Mitigation Measure	Budget/annum
Human	The mining in the riverbed area may cause the ground water contamination due to intersection of the water table. The municipal waste water disposed from the mining activity may cause contamination of surface water.	The water table will not be intersected during mining in the riverbed as ultimate depth is limited upto 3 meters as the water table is 5-10 m bgl. Proper analysis/Monitoring will be done to check the ground water. Water table as shown in the **Figure 5.4**. The municipal wastewater will be disposed off into septic tanks and soak pit. Waste water will be disposed off in septic tank /soak pit. There are 6 Nos. of septic tank /soak pit of capacity 1 KL (Total 6 KL capacity). Water required for domestic use= 6.0 KLD. Waste water generation= 4.8 KLD. The design of septic tank /soak pit has been given in figure 5.5.	Rs. 3.0 Lakhs (Monitoring)
Animals			
Crops	Sediments which come along with the flow of water in river will be extracted otherwise the level of riverbed will increase and river may change its course and cause flooding of nearby villages and may also damage the life and property of the people.		Rs. 1.75 Lakhs (Water Treatment)
Plantation			

Infrastructure	There is no major impact on infrastructure due this mining operation.	-	-

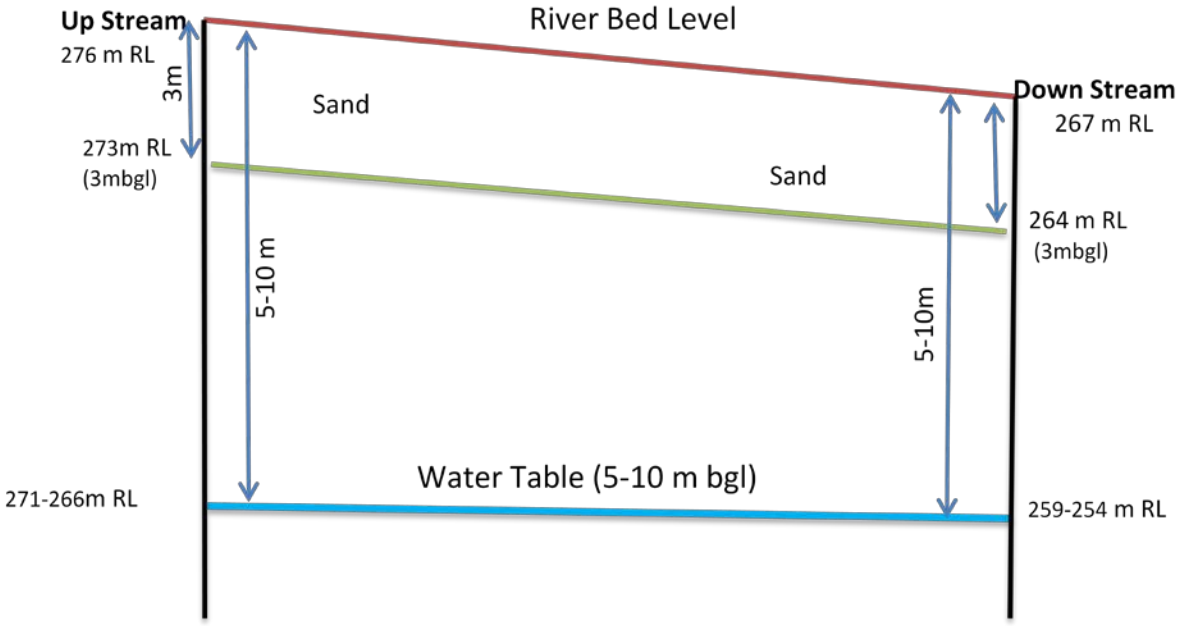


Figure 5.4: Impact of Mining on Ground Water

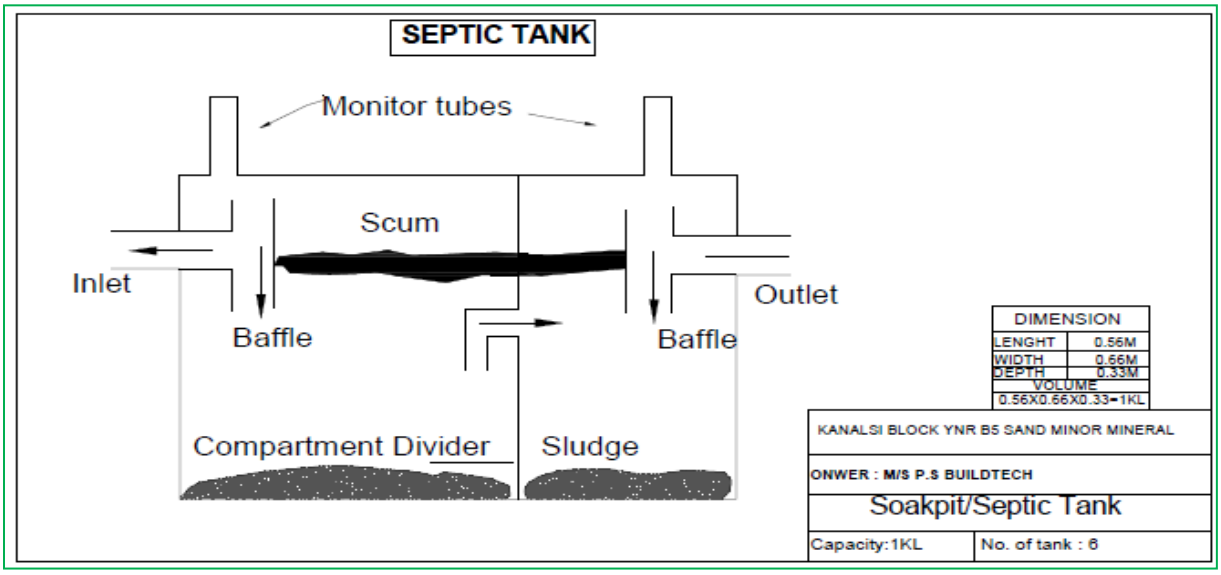


Figure 5.5: Design of Septic Tank/Soak pit

5.5.1 Conclusion

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the water environment.

5.6 IMPACTS ON SOIL ENVIRONMENT AND MITIGATION MEASURES

Attributes	Impact	Mitigation Measure	Budget/annum
Human	Mining activity may increase the soil erosion and soil degradation which have adverse impact on soil fertility. During the flood, the soil erosion may occur. During the flood, the soil erosion may occur.	It is already proposed to plant **1000 Nos.** of local species per year with consultation of Forest department with some fruit bearing and medicinal trees, along the haul roads, outer periphery within the mining area which enhances the binding property of the soil to check the erosion. 20.0 KLD water will be proposed for sprinkling on unpaved roads to avoid dust generation and soil erosion. Mine lease area has been proposed leaving a safety distance of 1/4th of the width of the river from the bank inwards which will protect the banks. Check dams have been constructed at various places for protection of banks against direct attack of the rivers and avoid bank cutting.	Rs. 2.10 Lakhs (Plantation) Rs 5.0 Lakhs (Dust Suppression)
Animals			
Crops	Mining activity may increase the soil erosion and soil degradation which have adverse impact on soil fertility.		
Plantation			
Infrastructure	There is no major impact on infrastructure due this mining operation.	-	-

5.7 IMPACTS OF NOISE/VIBRATIONS AND TRAFFIC MOVEMENT

Attributes	Impact	Mitigation Measure	Budget/annum
Human	Noise from the machinery can cause hypertension, high stress level, hearing loss, sleep disturbance etc due to prolonged exposure.	Personal protective equipment will provide to prevent the noise exposure. Personal Protective Equipment will be provided during mining activity. The machinery will be maintained in good running condition so that noise will be reduced to minimum possible level. Awareness will be imparted to the workers about the permissible noise level and effect of maximum exposure to those levels.	Rs. 15.0 Lakhs for OH&S
Animals	No. of 201 PCU/hr will increase in the existing traffic due to this mining activity hence vehicle collation may occur unwanted sound and can also cause impact on human health.	In addition, truck drivers will be instructed to make minimum use of horns in the village area and sensitive zones. It is proposed to plant 1000 Nos. of local species per year with consultation of Forest department with some fruit bearing and medicinal trees, along the haul roads, outer periphery within the lease area to reduce the impact of noise in the study area. The trucks will be diverted on three roads *viz.* National Highway-73, National Highway-73A and District road to avoid traffic congestion.	Rs. 2.10 Lakhs (Plantation) Rs. 5.00 Lakhs (OH & S) Other fund for this activity will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund'
Crops	There is no major impact on plants and crops due this mining operation.		
Plantation			
Infrastructure	There is no major impact on infrastructure due this mining operation.	-	-

5.7.1 Conclusion

In summary, it can be stated that the impact on the present noise levels due to mining operations will be restricted to the work zone areas only. The impact on the ambient noise levels will not be felt at the settlement areas due to masking effect with the existing noise levels. There is no drilling and blasting envisaged in the sand mining so there is no impact of vibration due to this project. Hence, the noise levels and vibration impact due to the proposed mining operations on community will be minimal.

5.8 IMPACTS ON LAND USE AND MITIGATION MEASURES

The project area does not consist of any forest land. It does not consist of any human habitations. Land use plan of the mining lease area during pre-operational, operational and post operational is incorporated in the **Chapter 2**.

Attributes	Impact	Mitigation Measure	Budget/annum
Human Animals	The mining activity in the riverbed will be converted into the pit. which may cause soil erosion, soil degradation etc. Mining in the riverbed may change complete land use pattern including channel geometry, bed elevation, sediment transportation capacity which can reduce flow of the river and downstream erosion.	It is proposed to plant 1000 Nos. of local species per year with consultation of Forest department with some fruit bearing and medicinal trees, along the haul roads, outer periphery within the mining area which enhances the binding property of the soil. The mined out area river bed block will be reclaimed naturally every year. The mining is planned in non monsoon seasons only so that the excavated area will be replenished naturally during the subsequent rainy season for the river bed mining block. The regular health checkup camp will be organized. Mine lease area has been proposed leaving a safety distance of 1/4th of the width of the river from the bank inwards which will protect the banks so channel geometry will not be disturbed. Check dams have been constructed at various places for protection of banks against direct attack of the rivers and avoid bank cutting. Pre and post monsoon survey for sedimentation in the riverbed will be done regularly.	Rs 2.10 Lakhs (Plantation)
Crops Plantation	Mining activity may increase the soil erosion and soil degradation which have adverse impact on soil fertility.		Rs 2.00 Lakhs
Infrastructure	There is no major impact on infrastructure due this mining operation.	-	-

5.8.1 Conclusion

The most of the land of this lease area is in the riverbed and the entire excavated land will get replenished every year hence there will be no impact on the land use. It is an eco-friendly mining project. Every year the sediments in the riverbed accumulated, if these are not removed /excavated then riverbed level may be increased and the river may change its course which may cause heavy losses to the life of nearby villagers and habitants.

5.9 IMPACT ON HYDROLOGY

Impact	Mitigation Measure	Budget/annum
The mining in the riverbed area may cause the ground water contamination due to intersection of the water table.	The water table will not be intersected during mining in the riverbed as ultimate depth is limited upto 3 meters as the water table is 5-10 m bgl. Proper analysis/Monitoring will be done to check the ground and surface water.	Rs 3.0 Lakhs
Change the topography will divert the river flow.	There is no proposal of any stream modification/diversion due to this mining activity hence there will be no any impact on flow of the river.	The fund for this activity will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund'

5.9.1 Conclusion

The flow of surface/ground water (sub surface flow) is following the trend of topography, which is in the North to South direction. There is no proposal of any stream modification/diversion. Hence, there will be no any impact on hydrology of the study area. The depth of excavation in riverbed is 3 m where ground water table is at 5-10 m bgl hence the water table is not expected to be intersected at any stage of mining.

5.10 IMPACTS ON GEOLOGY AND MITIGATION MEASURES

Impact	Mitigation Measure	Budget/annum
Slope of mining area will change which can create soil erosion and divert rain water runoff channel.	The maximum depth of mining in the river bed will not exceed 3 meters. In riverbed, more than 100 % replenishment will be done every year. Hence no slope will be changed due to mining.	The fund for this activity will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund'
Soil weathering due to dumping and mining.	Mine lease area has been proposed leaving a safety distance of 1/4th of the width of the river from the bank inwards which will protect the banks. Check dams have been constructed at various places for protection of banks against direct attack of the rivers and avoid soil weathering. It is proposed to plant 1000 Nos. of local species per year with consultation of Forest department with some fruit bearing and medicinal trees, along the haul roads, outer periphery within the mining area which enhances the binding properties of the soil. 20.0 KLD water will be proposed for sprinkling on unpaved roads to avoid soil weathering.	The fund for this activity will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund' Rs 2.10 Lakhs(Plantation) Rs 5.00 Lakhs (Dust Suppression)
Change in topography can change the river flow and flood may occur.	Scientific mining has been proposed hence no any topographical change will occur during mining activity. Mining will be prohibited in monsoon season.	The fund for this activity will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund'

5.11 IMPACTS DUE TO SOLID WASTE/OVERBURDEN AND MITIGATION MEASURES

Impact	Mitigation Measure	Budget/annum
The mine worker will generate municipal solid waste of about 16.25 Kg per day which will have adverse impact on human health.	3 Nos. of Garbage bins will be provided for the safe disposal of solid waste.	The fund for this activity will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund'

5.12 IMPACTS ON OCCUPATIONAL HEALTH AND SAFETY

Impact	Mitigation Measure	Budget/annum
The mining of sand (minor mineral) from the river bed can cause the lung disease and respiratory disorder due to dust exposure. Due to noise exposure, hearing disorder may be resulted. The accident at the site due to mining operation may be anticipated	Dust masks will be provided as additional personal protection equipment (helmet and safety shoes) to the workers working in the dust prone area. Regular water sprinkling will be done and dust masks will be provided to the workers. Ear-muffs will be provided to the workers and good maintenance of vehicles will be provided Workers are informed, kept aware and trained about possible accidents during the mining operation and persona protective equipments will be provided viz. gloves, safety shoes, dust mask, safety jackets, helmet etc. In addition to, the awareness about the occupational health hazards due to mining activities to avoid any incident will be provided to the workers Pre- placement health checkup will be made mandatory and periodic heath checkup will be done quarterly.	**Rs. 15.00 Lakhs for OH&S** Other fund for occupational health safety will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund'.

The detail of the proposed budget for the Occupational Health and Safety is given as in Chapter 10 of this EIA/EMP report.

5.13 IMPACT ON ECOLOGY AND BIODIVERSITY AND ITS MITIGATION MEASURE

Table 5.3: Ecological Impact Assessment

Ecological Criteria	Identified Impacts	Ecological significance of Impact	Magnitude	Duration /Timing/ Frequency	Reversibility	Mitigation	Cumulative Impact
Zone of Influence	**Project site habitat Due to Site clearance.**	The proposed mining lease is located in Yamuna River. No site clearance is required. Only some scrub area will be cleared.	**Low impact**	-	**Reversible**	-	**No Cumulative impact**
Zone of Influence	**Ecological Impact Surrounding habitat due to fugitive emission.**	Not much impact on the surrounding habitat is envisaged due to the transportation activity except some fugitive emission.	**Temporary Impact**	Only during the transportation activity	**Reversible**	The green belt/ community forestry near river bank and approach road will restrict the fugitive emission.	**No cumulative impact**
Accessibility	**Ecological Impact due to road construction**	No Road construction is required to assess the project site. The existing internal Roads are connected the project site to the existing SH road and then to the highway.	**No impact**	-	-	-	**No Impact**
Zone of Influence	**Ecological Impact on Surrounding/ Eco sensitive habitat due to waste water generated from the project activity.**	During operation phase daily water requirement of the proposed mining activity will be 40 KLD of which 6.0 KLD will be required for drinking which will be met through tankers from nearby villages. No waste water will be discharged in the nearby area.	**No impact**	**During operation Phase**	**No**	Proper treatment of waste water to meet CPCB permissible disposal limit	**No impact**
Zone of Influence	**Ecological Impact on Surrounding/Eco sensitive habitat**	The Noise level during the operation phase is around 75 dB. The impact on ambient noise level will be restricted	**Low impact on Flora and fauna**	**During operation Phase**	**No**	As given in the EMP section.	**No impact**

	due to Noise generated from the project activity.	only on the premises. The ambient air quality of the surrounding villages may not have any significance increase due to the project activity.					
Zone of Influence	**Ecological Impact on Surrounding/Eco sensitive habitat due to Transportation**	Transportation of sand in the trucks/dumper will disturb the movement of Wild animals and reptiles. Fugitive emission from vehicle movement will form a layer in leaves thus reducing the gaseous exchange process. This ultimately affects the growth of plants. Chances of vehicle collisions with wildlife attempting to cross roads are possible.	**Moderate Impact**	**During operation Phase**	**No**	As given in EMP. Access roads will not encroach into the riparian zones. To the extent practicable, the right-of-way (ROW) to avoid residential areas and important wildlife habitat areas (e.g. rookeries, raptor nesting areas, and calving areas) will be provided.	**Low Cumulative impact**

Table 5.4: Impact on Ecology and Biodiversity due to Mining Activity

S.No	Impact	Mitigation Measure	Budget/annum
1.	Mining on the streambed, braided flow or subsurface inter-sand flow may hinder the movement of fishes between pools. Transportation of sand in the trucks/dumper will disturb the movement of wild animals and reptiles.	Transportation of mineral will be minimize in the morning and evening and cannot be done in night. Access roads will not encroach into the riparian zones. Plantation will be carried out on approach roads and nearby vicinity at river banks areas. It is proposed to include *Azadirachta indica, Ficus religosa, Pongamia glabra* and *Ficus recimosa* in the plantation program as they serve as sinks for gaseous emissions.	Rs. 3.00 Lakhs
2.	Fugitive emission from vehicle movement will form a layer in leaves thus reducing the gaseous exchange process. This ultimately affects the growth of plants.	Haul roads will be sprinkled with water which would reduce the dust emission, thus avoiding damage to the crops. Annual bio-monitoring of roadside plants exposed to vehicular pollution will be done to check the dust load and Air Pollution Tolerance Index (APTI).	Rs. 3.00 Lakhs
3.	Chances of vehicle collisions with wildlife attempting to cross roads are possible.	Transportation of mineral will be minimize in the morning and evening and cannot be done in night.	--

4.	Any human settlement in the mining area will disturb the vegetation cover and reptiles.	No human settlement will be permitted in the lease mining or nearby area.	--
5.	Indiscriminate mining from active channels of rivers causes many adverse effects on the benthic fauna, which inhabits the bottom sandy substratum.	Scientific mining will be done.	--
6.	Excessive mineral extraction from rivers affects the eco-biology of many terrestrial insects whose initial life history begins in aquatic environments.	No mining will be carried out during the rainy season to minimize impact on aquatic life.	--
7.	The Indian peafowl movement is very common in the area; the noise from sand mining will hinder the same.	Green belt and community forestry should be encouraged to mitigate the noise level. The latest equipment with sound-control devices should be used for sand excavation and loading/unloading, etc. Use of exhaust silencers and optimized acoustical pipe lagging (acoustical wrapping) to minimize compressor noise. If wildlife are noticed crossing the area, they will not be disturbed at all.	Rs. 2.10 Lakhs
8.	Mining may drive away the wild life from their habitat, and significantly affect wildlife and nearby residents.	Green belt and community forestry should be encouraged to mitigate the noise level. Plantation will be carried out on approach roads and nearby vicinity at river banks areas. If wildlife are noticed crossing the area, they will not be disturbed at all. Awareness program about wildlife and its importance will be conducted for workers and nearby residents so that they will not disturb the wildlife at all. Sign boards will be displayed as mentioned in conservation plan.	Rs. 2.10 Lakhs

5.14 IMPACTS ON SOCIO-ECONOMIC ENVIRONMENT AND MITIGATION MEASURES

Impact	Mitigation Measure	Budget/annum
Due to mining and transportation of sand will generate the small shops, dhabas, garage, restaurant, vegetable shops etc. along the road and generate direct employment.	Positive Impact	--
Mining activity will generate direct employment by recruiting 65 people which will be employed locally and preference will be given to local people.	Positive Impact	The fund for this activity will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund'
Such shops along the roads will generate solid waste and waste water which will have adverse impact on human health.	3 nos. of Garbage bins will be provided for proper disposal of solid waste. The municipal wastewater will be disposed off into septic tanks and soak pit.	Rs. 1.75 Lakhs
Extraction from river banks and beds and the resultant generation of fugitive dust cause workers of the mine to suffer from occupational hazards like skin allergies, eye and respiratory problems etc	Mine lease area has been proposed leaving a safety distance of 1/4th of the width of the river from the bank inwards which will protect the banks. Dust mask will be provided to the workers engaged at dust generation points like excavation and loading points. Regular water sprinkling on unpaved roads to avoid dust generation	Rs. 15.0 Lakhs for OH&S Rs. 5.0 Lakhs
Further, the deep pits created in the channel also can contribute to an increase in accidents in the working environment. This creates serious threat to residents in the area who depend on river water for their domestic purposes.	The mined out area in river bed block will be reclaimed naturally every year. The mining is planned in non monsoon seasons only so that the excavated area will be replenished naturally during the subsequent rainy season for the river bed mining block..	The fund for this activity will be utilized from 'Mines and Mineral Development, Restoration and Rehabilitation fund'
The major source of socio-health impacts of transportation will generate from truck, dust etc. Increase in accidents as a result of rash driving of dumpers carrying mineral through the roads may be possible.	It is proposed to plant 1000 Nos. of local species per year with consultation of Forest department with some fruit bearing and medicinal trees, along the haul roads, outer periphery within the mining area to control the dust.	Rs. 2.10 Lakhs

	Planning transportation routes of mined material so as to reach the nearest paved roads by shortest route (minimize transportation over unpaved road). Alternatively, graveled road may be constructed between mine lease area and nearest paved road connectivity; The speed of trucks plying on the haul road should limited to avoid generation of dust; and Covering of material during transportation on trucks to prevent spillage of sand from the trucks. The trucks will be covered by tarpaulin. Overloading will be avoided.	Rs. 3.0 Lakhs
	Regular water sprinkling on unpaved roads to avoid dust generation during transportation;	Rs. 5.0 Lakhs

5.15 SUMMARY

The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like plantation of trees along haul roads, specially near settlements, to help to reduce the impact of dust on the nearby villages; planning transportation routes of mined material so as to reach the nearest paved roads by shortest route; regular water sprinkling on unpaved roads to avoid dust generation during transportation etc. Some of impacts may be due to increase in the PCU/hr which is **201 PCU/hr**. Transportation of sand should be minimized in the morning and evening and cannot be done in night. Access roads will not encroach into the riparian zones. Fugitive emission from vehicle movement will form a layer in leaves thus reducing the gaseous exchange process. The impact on the present noise levels due to mining operations will be restricted to the work zone areas only. The impact on the ambient noise levels will not be felt at the settlement areas due to masking effect with the existing noise levels. There is no drilling and blasting envisaged in the sand mining so there is no impact of vibration due to this project. Hence, the noise levels and vibration impact due to the proposed mining operations on community will be minimal. There will be no impact on water environment due to mining in riverbed since there is no intersection of water table due to mining activity. There will be no waste water generation from the proposed mining activity except sanitary waste water generation that will be treated in septic tanks and will be used for plantation purpose. The mine worker will generate municipal solid waste of about **16.25 Kg per day** which will have adverse impact on human health. There will be **3 Nos. of garbage** provided for domestic waste collection. There is no overburden due to mining in riverbed which will not change the topography of the area and not divert rain water runoff channel. The mining activities will be done in a systematic manner by maintaining the road infrastructure and vehicle transport which will be protective measure for preserving the topography and drainage in the area. The ownership will not be changed as the land has been taken on contract which will be returned as it is after the contract period is over. No human settlement should be permitted in the lease mining or nearby area. No mining will be carried out during the rainy season to minimize impact on aquatic life. There are **1 species of Schedule I and 2 species of Schedule II** are observed during study period hence, for the same conservation plan was prepared and duly submitted to Chief Conservator, Forest, Panchkula, Haryana. Subsequently, a budget of **Rs. 9.10 Lakhs** has allotted for the conservation of wildlife species. The mining of sand is likely to increase the per capita income of local people by which the socio-economic status of the people will be improved. The local people have been provided with either direct employments or indirect employment such as business, contract works and development work like roads, etc. and other welfare amenities such as medical facilities, conveyance, free education, drinking water supply etc. Except dust generation, there is no source which can show a probability for health related diseases. Regular water sprinkling will be done with sprinkle mounted tankers and dust masks will be provided to the workers. All workers will be subjected to medical examination as per Mines Rule 1955 both

at time of appointment and at least once in a year. Medical camps will be organized for this activity. Insurance of all employees as per the rules will also be carried out. R&R issues are not involved with this project. As per the point xiv of LoI, the lease holder will deposit 10% of the annual contract money *i.e.* approx. **Rs. 40.85 Lakhs** to the Mines and Minerals Development, Restoration and Rehabilitation Fund. This amount will be spent by lease holder for the protection of environment, mineral conservation in the surrounding area of core and buffer zone.

CHAPTER: 6
ENVIRONMENTAL MONITORING PROGRAM

6.0 INTRODUCTION

Regular monitoring of the various environmental parameters is necessary to evaluate the effectiveness of the management programme so that the necessary corrective measures can be taken in case there are some drawbacks in the proposed programme. Since environmental quality parameters at work zone and surrounding area are important for maintaining sound operating practices of the project in conformity with environmental regulations, the post project monitoring work forms part of Environmental Monitoring Program. Environmental Monitoring Program will be implemented once the project activity commences. Environmental Monitoring Program includes: (i) environmental surveillance (ii) analysis and interpretation of data (iii) preparation of reports to support environmental management system and (iv) organizational set up responsible for the implementation of the programme.Environmental Monitoring will be taken up for various environmental components as per conditions stipulated in Environmental Clearance Letter issued by MoEF&CC and Consent to Operate issued by the State Pollution Control Board. Compliance of same will be submitted to respective authorities on regular basis.

6.1 ENVIRONMENTAL MANAGEMENT CELL

In order to maintain the environmental quality within the stipulated standards, regular monitoring of various environmental components is necessary which will complied as per conditions. For this the lessee **Sh. Kulvinder Singh Prop. M/s P.S.Buildtech** has taken decision to formulate an Environment Policy of the mine and constitute an Environmental Management Cell and committed to operate the proposed mine with the objectives mentioned in approved Environment Policy (Copy of approved Environmental Policy attached as **Annexure XIII).** The system of reporting of Non Conformances/ violations of any Environmental Law/Policy will be as per Quality Management System of the Company. The Internal Audit will be conducted on periodic basis and any Non Conformances/violations to Environmental Law will be closed and discussed during Management Review Meetings of the Board of Directors/Partners.

Hierarchy

An EHS Manager will be appointed to look after all environmental issues and ensure compliance with Environmental Clearance conditions/SPCB norms. An Assistant Manager and Executive Environment Engineer will be appointed under the EHS Manager. EHS Manager will report to the Lessee directly and discuss the non-compliance if so any. An immediate solution will be arrived to ensure compliance with norms. Environment Policy has been approved by **Sh. Kulvinder Singh Prop. M/s P.S.Buildtech** and they assured that the company will comply accordingly**.**

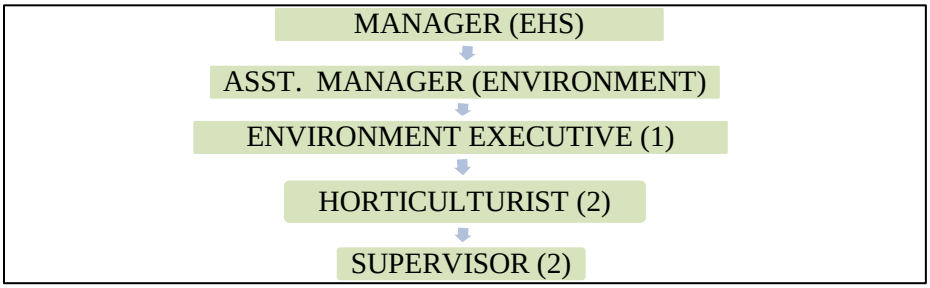


Figure 6.1: Hierarchy of Environment System for Dealing Environmental Issues

6.1.1 Responsibilities for Environmental Management Cell (EMC)

The responsibilities of the EMC include the following:

- Environmental Monitoring of the surrounding area,
- Developing the green belt/Plantation,
- Ensuring minimal use of water,
- Proper implementation of pollution control measures,
- Access the risk area,

- Implementation of Quality Management System,
- Conducting internal audits,
- Closing of Non Conformances and conducting Management Review Meetings.

6.2 ENVIRONMENTAL MONITORING AND REPORTING PROCEDURE

Monitoring shall confirm that commitments are being met. This may take the form of direct measurement and recording of quantitative information, such as amounts and concentrations of discharges and wastes, for measurement against corporate or statutory standards, consent limits or targets. It may also require measurement of ambient environmental quality in the vicinity of a sit using ecological/biological, physical and chemical indicators. Monitoring may include socio-economic interaction, through local liaison activities or even assessment of complaints.

The key aims of environmental monitoring are:

- To ensure that results/ conditions are as forecast during the planning stage, and where they are not, to pinpoint the cause and implement action to remedy the situation.
- To verify the evaluations made during the planning process, in particular with risk and impact assessments and standards and target setting and to measure operational and process efficiency.
- Monitoring will also be required to meet compliance with statutory and corporate requirements.

Finally, monitoring results provide the basis for auditing, *i.e*. to identify unexpected changes.

6.3 MONITORING METHODOLOGIES AND PARAMETERS

Table 6.1: Monitoring Methodologies and Parameters

Attributes	**Sampling**		**Measurement Method**	**Test Procedure**
A. Air Environment	**Network**	**Frequency**		
Meteorology Wind speed Wind direction Dry bulb temperature Wet bulb temperature Relative humidity Rainfall	Minimum 1 site in the project impact area	Regularly in one season by Weather Monitoring Station	Mechanical/ automatic weather station	-
Pollutants PM_{10} & $PM_{2.5}$	6 locations in the project impact area (Minimum 2 locations in upwind side, more sites in downwind side/impact zone)	Revised National Ambient Air Quality Standards (NAAQS) vide MoEF circular, dated 16.11.2009	Gravimetric method	-
SO_2			EPA Modified West and Geake method	Absorption in Potassium Tetra Chloromercurate followed by Colorimetric estimation using P-Rosaniline hydrochloride and Formaldehyde (IS: 5182 Part-II).
NO_2			Arsenite modified Jacob and Hochheiser	Absorption in dill NaOH and then estimated colorimetrically with sulphanilamide and N (I-Nepthyle) Ethylene diamine Dihydrochloride and Hydrogen Peroxide (CPCB Method).
B. Water Environment				

pH, Turbidity, Colour, Odour, Taste, Conductivity, TDS, Total Hardness, Calcium hardness, Magnesium hardness, Chloride, Fluoride, Sulphate, Nitrates, Alkalinity, Iron, Copper, Manganese, Mercury, Cadmium, Selenium, Arsenic, Cyanide, Lead, Zinc, Chromium, Aluminum, Boron, Phenolic compounds	Set of grab samples during pre and post-monsoon for 6 ground water samples and 4 surface water samples for 10 km distance area.	Diurnal and Season wise	As per IS 10500-	Samples for water quality should be collected and analyzed as per: IS:2488 (Part 1-5) methods for sampling and testing of Industrial effluents Standard methods for examination of water and wastewater analysis published by American Public Health Association.
C. Noise				
Noise levels at Day and night time-Leq dB (A)	Mine Boundary, High noise generating areas within the lease	Quarterly	As per CPCB norms	As per CPCB norms
D. Soil				
pH, Bulk Density, Soil texture, Nitrogen, Available Phosphorus, Potassium, Calcium, Magnesium, Sodium, Electrical Conductivity, Organic Matter, Chloride	4 locations in the project impact area	Yearly	As per CSSRI, IISWC Method	As per CSSRI, IISWC Method
E. Socioeconomic Status	**Network**	**Frequency**	**Measurement Method**	**Test Procedure**
• Demographic structure • Infrastructure resource base • Economic resource base • Health status: Morbidity pattern • Cultural and aesthetic attributes • Education	Socio-economic survey is based on proportionate, stratified and random sampling method	Yearly	Primary data collection through questionnaire	Secondary data from census records, statistical hard books, topo-sheets, health records and relevant official records available with Govt. agencies
Ecological Impact				
• Green Belt Development • Conservation of Wild Life	Survey	Yearly	Primary data collection.	Secondary data from statistical hard books, topo-sheets and relevant official records available with Govt. agencies

6.4 MONITORING SCHEDULE

Regular Monitoring of all the environmental parameters viz, air, water, noise and soil as per the formulated program based on CPCB and MoEF&CC guidelines will be carried out every year in order to detect any changes from the baseline status.

Table 6.2: Monitoring Schedule

S. No.	Description	Schedule Of Monitoring
1.	Air Quality	Quarterly
2.	Water Quality (Surface and Ground Water)	Half Yearly
3.	Noise Level	Quarterly
4.	Soil Quality	Yearly
5.	Socio-economic Condition	Yearly
6.	Plantation Monitoring	Once in a season

6.5 LOCATIONS OF MONITORING STATIONS

The location of the monitoring stations was selected on the basis of prevailing micro meteorological conditions of the area like; wind direction and wind speed, relative humidity, temperature. Locations for the post project monitoring shall be as under:

Table 6.3: Locations of Monitoring Stations

S.No.	Description	Location
1.	Ambient Air Quality	Lease area, Villages in down Wind direction from the Lease Boundary
2.	Noise Level Monitoring	Lease Boundary, High noise generating areas within the lease boundary
3.	Water Level and Quality	Nearby Surface and Ground water sources
4.	Soil Quality	Lease area and Villages within study area.

Reporting Schedule during Operation of Mine

After completion of analysis, copies of all the analysis reports will be sent to MoEF&CC Regional Office and SPCB. Copies of the reports will be maintained in the office and will be made available to the concerned inspecting authorities.

6.6 BUDGET ALLOCATION FOR MONITORING

The cost of the project is **Rs. 5.00 Crores** and a budget for monitoring of Air, water, Noise and Soil will be **Rs. 3.00 Lakhs per annum** to be incurred by the project proponent for undertaking pollution prevention measures during the mining activity.

6.7 SUMMARY

In order to maintain the environmental quality within the stipulated standards, regular monitoring of various environmental components is necessary which will complied as per conditions. For this the lessee **Sh. Kulvinder Singh, M/s P.S. Buildtech** has taken decision to formulate an Environment Policy of the mine and constitute an Environmental Management Cell and committed to operate the proposed mine with the objectives mentioned in approved Environment Policy. EMP may also require measurement of ambient environmental quality in the vicinity of a sit using ecological/biological, physical and chemical indicators. Monitoring may include socio-economic interaction, through local liaison activities or even assessment of complaints. Regular Monitoring of all the environmental parameters *viz.*, air, water, noise and soil as per the formulated program based on CPCB and MoEF&CC guidelines will be carried out every year. The location of the monitoring stations was selected on the basis of prevailing micro meteorological conditions of the area like; wind direction and wind speed, relative humidity, temperature. A budget for monitoring of Air, water, Noise and Soil will be **Rs. 3.00 Lakhs per annum** to be incurred by the project proponent for undertaking pollution prevention measures during the mining activity.

CHAPTER: 7
ADDITIONAL STUDIES

7.0 GENERAL

Mining operations are associated with several potential hazards that affect adversely the human health and environment. It would normally require the assistance of emergency services to handle it effectively. The mining operation will be taken up under the supervision and control of qualified staff including Mine Manager (Grade I). Similarly Sand mines also have impending dangers and risk which need to be addressed for which a disaster management plan has been prepared with an aim of taking precautionary steps to avert disasters and also to take such action after the disaster which limits the damage to the minimum.

Nevertheless, the following natural/industrial problems may be encountered during the mining operation.

a)Inundation due to excessive rains.

b) Accidents by heavy machinery.

c) Slope failures at the mine faces etc.

7.1 PUBLIC CONSULTATION

Public hearing is very significant part of the process of public participation envisaged under the guidelines issued by MoEF&CC, Government of India. It facilitates involvement of all the stake holders of the project which is essential for ensuring smooth running of project and benefitting all sections of society in the process of economic development of the region. The public hearing of boulder, gravel and sand mining project viz. 'Mining of boulder, gravel and sand mines namely "Kanalsi Block /YNR B-5" over an area of 44.14 Ha. falling in Kanalsi Block/YNR B-5", Tehsil-Jagadhri, District Yamuna Nagar (Haryana). Haryana' was conducted on 23.05.2016 at 2:00 P.M. at Project Site Village -Kanalsi, Tehsil-Jagadhari, District-Yamuna Nagar. Detailed of public hearing is attached as **Annexure-XIV**

7.1.1 Public Hearing Advertisement

HARYANA STATE POLLUTION CONTROL BOARD
C-11, SECTOR-6, PANCHKULA
Ph-2577870-73 E-mail: hspcbho@gmail.com
Website: www.hspcb.gov.in

Notice for Public Hearing

It is for the information of all concerned that M/s P.S. Buildtech, 34-Vishal Nagar, Yamuna Nagar has proposed a project of mining of Minor Minerals i.e. sand in Village Kanalsi, "Kanalsi Block/YNR B 5" having tentative area of 44.14 hectares in District Yamuna Nagar. The project is covered under the ambit of Environment Impact Assessment Notification No. S.O. 1533 (E) dated 14th Sep, 2006 issued by Ministry of Environment, Forest & Climate Change, Govt. of India, New Delhi and thus Environmental Clearance is mandatory for the proposed project. Accordingly the project proponent has applied to the concerned authority for Environmental Clearance.

As a part of procedure for seeking the Environmental clearance, as notified by the Ministry of Environment, Forest & Climate Change, Govt. of India, New Delhi vide Notification No. S.O. 1533 (E), dated 14.09.2006, as amended till date, the project proponent mentioned above has applied to the Haryana State Pollution Control Board for conducting a Public Hearing for its above said proposed project of mining of minor minerals. **Accordingly the Public Hearing for the above said project has been fixed on 23.05.2016 at 02:00 PM at the site of the Project mentioned above, in Village Kanalsi, District Yamuna Nagar.**

Copies of executive summary of the project and EIA study report, submitted by the project proponent, are available in the Head Office of this Board as well as in the following offices, which can be perused during office hours, on any working day:-

1. Deputy Commissioner, Yamuna Nagar.
2. Regional Officer, Haryana State Pollution Control Board, SCO 131/17, HUDA, Jagadhari.
3. Chairman, Zila Parishad, Yamuna Nagar.
4. Commissioner, Municipal Council, Yamuna Nagar.
5. Joint Director, District Industries Centre, Yamuna Nagar.

Notice is hereby given to all concerned to file suggestions, views, comments and objections, if any, on the proposed project, to the Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula as well as Regional Officer, Yamuna Nagar, Haryana State Pollution Control Board, SCO 131/17, HUDA, Jagadhari, within 30 days of the publication of this notice. Besides, a Public Hearing will also be held on the Date, Time & Venue mentioned above at the proposed site of the project, which can be attended by any person including Environmental Groups, bonafide residents and others located at site/sites of displacement/sites likely to be affected. Oral/Written suggestions if any can also be made during the Public Hearing.

No TA/DA will be admissible for attending the Public Hearing.

Anurag Rastogi, IAS
Chairman

Figure 7.1 Notice from Haryana State Pollution Control Board regarding Public Hearing

7.1.2 Photographs of Public Hearing



Figure 7.2 Members of SPCB, Haryana for Public Hearing



Figure 7.3 Environment Consultants along with Project Proponent at Public Hearing



Figure 7.4 Local Public in Public Hearing

7.1.3 Minutes of Public Hearing

Proceeding of public consultation (minutes of meetings) of boulder, gravel and sand mining project viz. 'Mining of boulder, gravel and sand mines namely "Kanalsi Block /YNR B-5" over an area of 44.14 Ha. falling in Kanalsi Block/YNR B-5", Tehsil- Jagadhri , District Yamuna Nagar (Haryana). Approved proceeding of public consultation is attached as **Annexure XIV**

Table 7.1 Action Plan of the issues raised during Public Hearing and reply given by Project Proponent

#	Name and address	Question	Reply	Action Plan	Budget
1.	Sh. Kiran Pal Singh Vill- kanalsi	First of all, he welcomed the Hon'ble Deputy Commissioner, Yamuna Nagar, RO, HSPCB, Yamuna Nagar, all other officers and all stakeholders.			
		1.) He submitted that the capacity of village roads is only 4-5 Tons then he asked how it will possible that the dumper of 25 Tons of capacity will go from there. And further he asked for that there is no other place where the road could be constructed apart the only existed road in the village.	1). The Environment Consultant, Sh. RS Yadav replied that the lease holder will construct a separate new road for transportation of mineral that will not disturb the local villagers and proper compensation will be paid to villagers whose land will be used for this purpose. Lease holder also assured for the same. And another alternate road will be constructed with the helps and suggestions of the villagers and Gram Panchayat.	It is ensured by lease holder that he will construct a separate new road for transportation of mineral in the mining lease with the help and suggestions from the villagers and gram panchayat. It is ensured by the lease holder that proper compensation will be paid to villagers whose land will be used for this purpose.	A budget of Rs.20.10 Lakhs per year is provided for EMP activities out of which 3.00 Lakhs is provided for haul road construction and maintenance. In addition of above a budget of Rs. 40.85 Lakhs per annum available in "Mines and Minerals Development Rehabilitation and Restoration Fund in mining department is available it is utilized for the protection of environment of surrounding area and also to compensate to affected persons from this project.
		2.) How the villagers will be benefitted from this mining project.	2.) Environment consultant replied that first of all it is a eco-friendly mining project which prevent the flooding of water in nearby agricultural land of villagers. This Mining project will generate direct and indirect employment opportunities of 400-500 to the local villagers i.e about 90 dumpers will be deployed and each dumper employ 4-5 persons as driver, cleaner, helper.	This river bed mining project prevents the flooding of water in nearby agricultural land of villagers. It is ensured by the lease holder that in employment opportunity first preference will be given to local villagers and about 400 -500 persons will be employed in	A budget of Rs. 40.85 Lakhs per year is also available in "Mines and Minerals Restoration and Rehabilitation Fund" A budget of Rs. 12.25 Lakhs per year for CSR is provided.

			About 65 technical, skilled/semi-skilled man power will be deployed in this mining project. Many bill clerks, security gaurds, Gardners will be deployed in this mining project. Many small shops for daily need, hotels, vegetable shops, spare parts shops and workshops will be opened nearby this mining project area.	this project.	
			For the CSR activity a budget of Rs. 12.25 Lakhs per year is proposed for the welfare of the villagers in which various activities will be carried out i.e. providing of drinking water, education facility, scholarship to students and organizing health camps.	It is ensured by lease holder that in CSR activity a budget Rs. 12.25 Lakhs per year will be provided for the welfare of the villagers as drinking water & Health Check up camps after obtaining Environmental Clearance.	A budget of Rs. 12.25 Lakhs per year for CSR activities.
			First time Mining department of Haryana government made a provision in their Minor Mineral concession rule June 2012 to deposit 10% of the contract money annually by the lease holder in "Mines and Minerals Restoration and Rehabilitation Fund". The amount of this fund will be utilised to compensate the affected persons from this mining project. The district monitoring committee headed by DC and other officers i.e. RO, HSPCB, Mining officers, DFO will monitor the utilisation of this fund. In this case Rs. 40.85 Lakhs per annum will be deposited by the lease holder to the mining department in this fund.	A budget of Rs. 40.85 Lakhs per year is available in "Mines and Minerals Restoration and Rehabilitation Fund" which will be deposited by lease holder. Monitoring committee headed DC Yamuna Nagar will monitor utilisation of this fund.	A budget of Rs. 40.85 Lakhs per year is available in "Mines and Minerals Restoration and Rehabilitation Fund" which will be deposited by lease holder. Monitoring committee headed DC Yamuna Nagar will monitor utilisation of this fund.
		3.) Since 2010 the mining was closed in this village hence the villagers were badly affected. Their adjoining agriculture land flooded by river water and why the senior officer of	3.) The environment consult admitted that the mining is closed since 2010 and villagers are suffered badly. However, keeping in view of the previous complaints against the contractors and lease holders Haryana Government Mining Department first	It is informed that hopefully this lease area will be operational within 2-3 months then villagers will not suffer badly due to flooding in the agriculture land.	A budget of Rs. 40.85 Lakhs per year is also available in "Mines and Minerals Restoration and Rehabilitation Fund".

		district administration were negligent about it and today they assembled here and whether they remove the excess sediments deposited in their agricultural land.	time made a provision of deposition of 10% of the annual contract money in "Mines and Minerals Restoration and Rehabilitation Fund". This fund will be utilized for the protection of the environment of the surrounding area and to compensate the affected persons. After that Haryana Govt. prayed the Hon'ble Supreme Court for allowing the mining in river bed and other stone blocks in the Haryana State. After getting permission from the Hon'ble Supreme Court Haryana Govt. auctioned these river bed areas in district Yamuna Nagar and other districts of Haryana. This lease was auctioned to M/s P.S. Buildtech and after completing other leagal formalities today public hearing is being conducted for further grant of clearance and hopefully this lease area will be operational within 2-3 months.	It is ensured by lease holder that Minerals Restoration and Rehabilitation fund Rs. 40.85 Lakhs per year will be deposited for the protection of the environment of the surrounding area and to compensate the affected persons from this mining project.	
		4.) How many trees have been planted along the bank of the Yamuna and adjoining roads by the forest department.	4.) The Environment Consultant replied that the question will be answered by the DFO in this matter. However, in future 1000 tress will be planted per year and if you suggest than the lease holder will plant additional 1000 trees annually. Local species of fruit bearing and medicinal species of trees will be planted in consultation of the forest Dept.	It is ensured that 1000 Nos. of tress will be planted per year by lease holder.	A budget of Rs.20.10 Lakhs per year is provided for EMP activities out of which 2.10 Lakhs is provided for plantation and maintenance. In addition of above a budget of Rs. 40.85 Lakhs per annum is available in "Mines and Minerals Development Rehabilitation and Restoration Fund in mining department. If required part amount may also be utilized from the fund.
		5.) What is the latest order of Hon'ble NGT court on the river bed mining.	5.)The consultant replied that presently there is an interim order of Hon'ble NGT that only manual mining will be carried out in the river bed and no mechanised mining will be carried out till final order. The	Honble NGT Principal Bench, New Delhi on dated 01.06.2016 Gurpreet Singh Bagga Vs. MoEF & Ors. And Ganga Yamuna Mining Co. Vs. State of Haryana &	

			lease holder will comply these orders.	Ors. Permitted the mining operation in river bed by semi mechanized manner using manpower, Tractor truck, JCB and excavators for three month.	
		6.) He also questioned that who will repair the roads and whether the compensation will be paid to the Gram Panchayat.	6.) The consultant assured that the lease holder will time to time repair and maintain the road from where mineral loaded truck will be transported. Before start of mining operation the lease holder will settle the compensation in mutually agreed financial terms with the Gram Panchayat or the private person whose land is affected from this mining project.	Roads will be repaired and maintained by lease holder. He also assured that before the start mining operation he will settle the compensation in mutually agreed financial terms with Gram Panchyat or the private person whose land is affected from this mining project.	A budget of Rs.20.10 Lakhs per year is provided for EMP activities out of which 3.00 Lakhs is provided for haul road constriction maintenance. 2. In addition of above a budget of Rs. 40.85 Lakhs per annum available in "Mines and Minerals Development Rehabilitation and Restoration Fund in mining department. It is utilized for the protection of environment of surrounding area and also to compensate to affected persons from this project. 3. Compensation will be settled in mutually agreed finical terms with the land owner by lease holder.
2.	Sh. Sanjeev Kumar, RO,HSPCB, Yamuna Nagar.	1.) What mitigation measures will be taken to control the air pollution from this project. Earlier many project proponents promised for many social and welfare work for the villagers before starting the project but no one fulfilled their promises.	1.)The Environment Consultant, Sh. RS Yadav replied that regular water sprinkling will be carried out around the active mining area and on the haul road from where mineral loaded dumpers will ply to suppress the dust. Everyday 20 KLD water will be provided for dust suppression and 14 KLD for plantation. A thick green belt will be developed around the	It is ensured by lease holder that 20 KLD water will be provided for dust suppression and 14 KLD water will be provided for Plantation during mining operation. It is ensured that a thick green belt will be developed around the boundary of mining lease	A budget of Rs.20.10 Lakhs per year is provided for EMP activities out of which 5.00 Lakhs is provided for dust suppression. A budget of Rs.20.10 Lakhs per year is provided for EMP

			boundary of the lease area and along the haul road. The mineral loaded dumper will be covered with tarpaulin. A budget of Rs. 20.10 Lakhs per year is provided for environment protection. A big budget is also available in "Mines and Minerals Restoration and Rehabilitation Fund" for the protection of environment of the surrounding area.	area and along haul road The mineral loaded dumper will be covered with tarpaulin. It is informed by lease holder that Minerals Restoration and Rehabilitation fund Rs. 40.85 Lakhs per year will be deposited for the protection of the environment of the surrounding area and to compensate the affected persons.	activities out of which 2.10 Lakhs is provided for Plantation. In addition of above a budget of Rs. 40.85 Lakhs per annum is available in "Mines and Minerals Development Rehabilitation and Restoration Fund in mining department and will be utilized for the protection of environment of surrounding area.
		2.) What depth mining will be carried out. 3.) What kind of machineries and equipments will be deployed in this mining project.	2.) As per Minor Mineral Concession rule June 2012 mining is permitted upto 3 m depth in this mining project. 3.) The environment consult replied that there is a proposal of semi-mechanised method of mining in this project in which small bucket JCB is used along with dumpers. The mining dept. approved this proposal in their mining plan for river bed mining. However, in view of recent interim order of NGT only manual mining will be carried out till final order of NGT.	As per minor mineral concession rule June 2012 mining operation is permitted upto 3m depth in the river bed mining project. It is informed that semi – mechanised method will be used in this mining project, Honble NGT Principal Bench, New Delhi on dated 01.06.2016 Gurpreet Singh Bagga Vs. MoEF & Ors. And Ganga Yamuna Mining Co. Vs. State of Haryana & Ors. Permitted the mining operation in river bed mining by semi mechanized manner using manpower, Tractor truck, JCB and excavators for three month. It is ensured that 20 KLD water will be provided for dust suppression and 14 KLD water will be provided for Plantation during mining	

		4.) What mitigation measures will be taken to control the air pollution from this project.	4.)The Environment Consultant, Sh. RS Yadav replied that regular water sprinkling will be carried out around the active mining area and on the haul road from where mineral loaded dumpers will ply to suppress the dust. Everyday 20 KLD water will be provided for dust suppression and 14 KLD for plantation. A thick green belt will be developed around the boundary of the lease area and along the haul road for that 1000 trees will be planted every year. The mineral loaded dumper will be covered with tarpaulin. A budget of Rs. 20.10 Lakhs per year is provide for environment protection. A big budget of Rs. 40.85 Lakhs is also available in "Mines and Minerals Restoration and Rehabilitation Fund" for the protection of environment of the surrounding area.	operation. It is ensured that A thick green belt will be developed around the boundary of mining lease area and along haul road About 1000 trees per year will be planted. The mineral loaded dumper will be covered with tarpaulin. It is informed that Minerals Restoration and Rehabilitation fund Rs. 40.85 will be given for the protection of the environment of the surrounding area and to compensate the affected persons	A budget of Rs.20.10 Lakhs per year is provided for EMP activities out of which 5.00 Lakhs is provided for dust suppression. A budget of Rs.20.10 Lakhs per year is provided for EMP activities out of which 2.10 Lakhs is provided for Plantation. In addition of above a budget of Rs. 40.85 Lakhs per annum available in "Mines and Minerals Development Rehabilitation and Restoration Fund in mining department. It is utilized for the protection of environment of surrounding area.
3.	Sh. Ran Singh Village- Shabbapur	Whether free of cost sand will be given to the local villagers or not.	The Environment Consultant, Sh. RS Yadav replied that the contract money of this mining project is very higher i.e. more than Rs. 4.0 Crore per annum hence free of cost sand cannot be given to any villager for commercial purpose. However, for the charity work, social and community work in village the sand will be provided on concessional rate by the lease holder and it will be decided mutually by conducting a joint meeting with members of the gram Panchayat.	For the charity work, social and community work in village the sand will be provided on concessional rate by the lease holder.	
4.	Sh. Ajit Singh Vill- Kanalsi	The mining will be carried out in any part of the village or only in the allotted area.	The Environment Consultant, Sh. RS Yadav replied that the mining may be carried out by the lease holder only from the allotted lease area in this	The mining may be carried out by the lease holder only from the allotted lease area of this village by the mining	

			village by the mining department. Before start of mining operation in this lease area it will be demarcated by the mining dept. with the help of revenue dept.	department. Before start of mining operation in this lease area it will be demarcated by the mining dept. with the help of Revenue dept.	
5.	Sh. Tamil Vill.- Bibipur	What depth mining will be carried out	The Environment Consultant, Sh. RS Yadav replied that as per Minor Mineral Concession rule June 2012 mining is permitted upto 3m depth in this mining project.	As per minor mineral concession rule June 2012 mining operation is permitted upto 3m depth in the river bed mining project.	
6.	Dr. S.S. Phulia, IAS, Deputy Commissioner, Yamuna Nagar	Directed the lease holder that unit will comply with all the direction/orders of Hon'ble National Green Tribunal and rule & regulations of other concerned departments.	The lease holder assured to comply the same.	The lease holder assured to comply the same.	

7.2 MINE CLOSURE PLAN

7.2.1 General

Mine closure plan is one of the most important requirements in the environment management of mining projects. The closure operation is a continuous series of activities right from the commencement to decommissioning of the project. Therefore, progressive mine closure plan is specifically included in the mining plan, which is to be reviewed every five years in the scheme of mining. The primary aim is to ensure that the following broad objectives along with the abandonment of the mine can be successfully achieved:

- Creation of a productive and sustainable after-use for the site, acceptable to mine owners, regulatory agencies, and most importantly to the community.
- Protection of public health and safety of the surrounding habitation.
- Minimization of environmental damage.
- Conservation of valuable attributes and aesthetics.
- Counter balancing the adverse socio-economic impacts.

7.2.2 Reason for Closure

The progressive mine closure plan has been prepared in compliance of Haryana Minor Mineral Concession Rules 2012 under MMCR 1986. No immediate closure is planned as sufficient reserves are available to carry on the activities. There is market potential in domestic demands.

7.2.3 Phase-Wise Plan of Restoration of Land Degraded by Mining

Our production detail for **first five year** is given below:

Year	Production (MT)
I	19,50,000
II	19,50,000
III	19,50,000
IV	19,50,000
V	19,50,000

- Geological Reserve = 26,48,400 Tons
- Mineable Reserve= 19,52,400Tons

These data are as per mine plan and has submitted to the Director General of Mines and Geology Department, Chandigarh, Haryana approved on dated **10-06-2016** (Copy of receipt of Mining Plan and Progressive Mine Closure Plan has attached as **Annexure-II**).In five year, the production will be 97,50,000 tons out of available mineable reserve 97,62,000 Tons. The remaining mineable reserve *i.e.* 12,000 MT will be excavated in next five year for which fresh mining scheme will be submitted to **DMG Haryana** well in time as per **Haryana Mines & Mineral Concession Rule, 2012** Hence, it is clarified that we will not going to attain the ultimate mining limit at the end of first year itself. However, due to proximity of lease boundary wherever further advancement is not feasible; the Restoration/Reclamation/Rehabilitation measures will be started from second year onwards.

7.2.3.1Following initiatives are proposed for Restoration/ Reclamation/Rehabilitation, the land degraded by mining operation, in case the portion of lease area going to attain ultimate limit before lease life:

a) Plantation along the Lease Boundary.
b) Plantation in the Mine Premises.
c) Plantation along the Haul Road starting from core area to mettled road.
d) Plantation at suitable location from Second Year to Fifth Year along the worked out mine benches, such that, it does not affect working of mine.
e) We would like to mention that the plantation details have been shown in Plate No. 11, Conceptual Plan of the Mining Plan along with the Afforestion/Green Belt programme. The detailed map of plantation on benches is provided in Figure-5.6.

It is pertinent to mention here that we have proposed Restoration/Reclamation/ Rehabilitation measure in conceptual plan (Plate No. 11) of the approved mine plan.

In view of **clause xiv** of LoI, the lease holder are bound to deposit 10% of annual contract money in advance to the mining department towards **Mines and Mineral Development, Restoration & Rehabilitation Fund' (MMDR &RF).**

In this regard, Mining Dept of Haryana Govt. issued the notification **Establishment of the "Mines and Mineral Development, Restoration and Rehabilitation Fund"** No. DMG/HY/MMDR&RF/2015/6016 dated 10th July 2015. The following objectives are intended to be achieved through the said Fund:

(i) Funding of the restoration or reclamation or rehabilitation works in the sites affected by mining operations;
(ii) Provision of common facilities for the benefit of community in and around areas where mining activities are undertaken;
(iii) Development of infrastructure facilities for orderly growth of the mining operations and allied activities *e.g.* roads, stone crusher estates, water supply etc.;
(iv) Funding of the studies commissioned or activities related to the mining sector e.g. survey, exploration and prospecting of minerals, procurement of equipment and machinery required to support such activities;
(v) Education, awareness and training of the mineral concession holders and the staff of the Department through field visits and exposure to the best mining practices;
(vi) Funding of expenditure incurred on implementation of any scheme of incentives that the state government may frame for recognition and awards for scientific mining undertaken with highest regard to mineral conservation, rehabilitation measures along with environmental safeguards and other measures;
(vii) Any other objects, which the Government may consider expedient to support in the overall interest of the mining sector.

The **budget** for **first five years** towards Mines and Mineral Development, Restoration and Rehabilitation Fund is given below:

S.No.	Year of Lease Period	Budget (Rs.)
1.	First Year	40,85,000
2.	Second Year	40,85,000
3.	Third Year	40,85,000
4.	Fourth Year	51,06,250
5.	Fifth Year	51,06,250

The lease holder is bound to expend this fund every year for Restoration and Rehabilitation at the project site and surrounding area. The Senior Officer of Concerned Department of Haryana Govt. will monitor the progress in this regard carried out by lease holder in view of said notification. If their work will found satisfactory, then this amount will be reimbursed to lease holder.

7.2.4 Statutory Obligations

i. As per **LoI condition No. xiv,** the lease holder is bound to deposit additional amount equal to 10 % of the due contract money in along with monthly installments towards the "Mines and Minerals, Development, Restoration and rehabilitation Fund". To the mining department, Haryana (Haryana Minor Mineral Concession, Stocking, transportation of Mineral & Prevention of Illegal Mining Rule-2012). Hence, accordingly after the mine closure the mining department will spend the fund for the same**.**
ii. The mining contractor is bound to submit the Progressive mine closure plan either with Mining plan or Scheme of Mining.
iii. Mining contractor is bound to follow the terms and conditions as will be stipulated in the mining contract.

iv. In addition to it the rules pertaining to the Protection of Environment *i.e* Environment Act. Environment Rules and other associated rules for the protection of environment will have to be followed.
v. During the course of mining the rules stipulated in Mines Act, Mines rules Metalliferous Mines Regulation 1961 and HMMCR, 2012 will be followed.
vi. All other rules pertaining to the mining existing at that time will be followed during the course of mining activities.

7.2.5 Disposal of Mining Machinery

Machinery is proposed on hire basis. Hence no de-commissioning of mining machinery is proposed.

7.2.6 Safety and Security

Safety measures to be implemented to prevent access to excavations area by un-authorized persons as per Mines Act 1952, M.M.R. 1961.

i. Safety measures will be implemented as per Mines Act 1952, MMR 1961, Mines Rules 1955.
ii. Provision of MMR 1961 shall be followed strictly and all roads shall be 10 m wide and have a gradient of not more than 1 in 20.
iii. Excavation will not be more than 3 m in river bed.
iv. Width of bench will be kept around 20.0 m for ease of operations and provide sufficient room for the movement of equipments.
v. Protective equipment like dust masks, ear plugs / muffs and other equipments shall be provided for use by the work persons.
vi. Notice giving warning to prevent inadvertent entry of persons shall be displayed at all conspicuous places and in particular near mine entries.
vii. Danger signs shall be displayed near the excavations.
viii. Security guards will be posted.
ix. In the event of temporary closer, approaches will be fenced off and notice displayed.

7.2.7 Time Scheduling for Abandonment

The mining area has enormous potential for continuance of operations even after the expiry of the awarded period. The details of time schedule of all abandonment will be given at the time of final closer plan. Mining activities are confined to river bed, up to 3.0 m. depth, relatively shallow depth of workings. Replenishment of the Sand being removed from the river bed is a natural process particularly during monsoon periods.

7.2.8 Financial Assurance

As per LoI term and condition and Minor Mineral Concession Rule 2012, Haryana; the lease holder will deposit 10% of the annual contract money *i.e.* **40.85 Lakhs** will be deposited in "Mines and Mineral development, Restoration and Rehabilitation Fund" to the Mining Department *i.e.* about Seventy Seven Lakhs. This fund will be deposited yearly till mine period.

7.3 HAZARD IDENTIFICATION AND RISK ASSESSMENT METHODOLOGY

All types of industries face certain types of hazards which can disrupt normal activities abruptly. Similar inside river bed mines also have risks which need to be addressed for which a disaster management plan has been formulated with an aim of taking precautionary steps to avert disasters and also take such action after disaster which limits the damage to minimum. In the sections below, the identification of various hazards, probable risks during the operational phase of the mining, maximum credible accident analysis and consequences analysis are addressed either qualitatively or quantitatively.
Risk assessments will help mine operators to identify high, medium and low risk levels. This is a requirement of the Occupational Health and Safety Act 2000. Risk assessments will help to priorities the risks and provide information on the need to safely control the risks. In this way, mine owners and operators will be able to implement safety improvements. The following natural/industrial problem may be encountered during the mining operation.

- Inundation: Filling of the mine pit due to excessive rains
- Slope failures at the mine faces or stacks
- Accident due to fire (in forested areas)

As per proposal made under the mining plan the area will be developed by means of opencast mining method. Extraction of minerals is to be carried out by open cast mechanized method. Water table will not be touched during the mining process. No high risk accidents like landslides, subsidence flood etc have been apprehended.

7.3.1 Risks due to Inundation

Mining will be done during the non-monsoon periods (October-June); therefore problem of inundation is not likely to happen.

7.3.2 Risks Due to Failure of Pit Slope

In order to allay dangers due to open cast slope failure, final pit, slope stability estimations will be made for the existing mines. Determining the factor of safety, the slopes should be monitored at regular intervals to check for any possible failure.

7.3.3 Risks due to Failure of Waste Dumps

During extraction of sand from mining areas silt and clay will also be removed in form of waste materials. The excavated silt and clay will be used for backfilling of the pits. Therefore there is no risk associated with failure of waste dumps.

7.3.4 Risks of Accidents due to Trucks and Dumpers

Identifying the hazards that come along with the presence of vehicles at the workplace (*e.g.* reversing operations, loading) can cause harm if not properly handled. Among some of the factors that may make vehicle accidents more likely are:

- Rough access roads,
- Time pressure,
- Inadequate brakes (Possibly from lack of maintenance),
- Carelessly parked vehicles (*e.g*. being parked on a slope without being adequately secured),
- Unsafe coupling and uncoupling of trailers,
- Untrained drivers,
- Overturning vehicles.

To avoid such instances we will talk to the workers and their representatives and will involve them in the risk assessment process and tell them what to do, to reduce risk. All transportation within the mine lease area should be carried out directly under the supervision and control of management.

- The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management,
- Road signs will be provided at each and every turning point up to the main road (wherever required),
- To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating,
- Only trained drivers will be hired.

7.4 DISASTERS AND ITS MANAGEMENT

Mining and allied activities are associated with several potential hazards to both the employees and the public at large. A worker in a mine will be able to work under conditions, which are adequately safe and healthy. At the same time the environmental conditions also will not impair his working efficiency. This is possible only when there is adequate safety in mines. Hence mine safety is one of the most essential aspects of any working mine. The safety of the mine and the employees is taken care of by the Mines Act 1952, which is well defined with laid down procedure to ensure safety and constantly monitored and supervised by Directorate General of Mines Safety and Department of Mines, State Government.

7.4.1 Identification of Hazards

There are various factors, which can create disaster in sand mine. These hazards are as follows:

a) Inundation / Flooding.
b) Quick Sand Condition.
c) Drowning.

d) Accident due to vehicular movement.
e) Accident during sand loading, transporting and dumping.

The mining activity has several disaster prone areas. List Occupational Risks in Minerals Mines is presented in **Table 7.1** and identification network for hazards are depicted in **Figure 7.1**. Accidents occur due to negligence, poor workmanship and unskilled persons.

Table 7.2: List Occupational Risks in Minerals Mines

S. No.	Activities	Human Risk		
		Probability of Occurrence	Consequence	Risk level
1.	Minerals Loading	Possible	Critical	Low
2.	Minerals Transport/ Vehicular Movement	Possible	Critical	High
3.	Minerals Dumping and Storage	Possible	Critical	Low
4.	Inundation/Flooding	Possible	Minor	Moderate

7.4.2 Sand Loading

The sand is loaded in the trucks using hand shovels and back-hoe. There are possibilities of injury in the hands during loading with shovels and staying under bucket movement.

i. There are possibilities that the workers standing on the other side of loading may get injury due to over thrown sands with pebbles.
ii. There are possibilities of workers getting injured during opening of side covers of the trucks to facilitate sand loading.
iii. There are possibilities of riverbank collapse due to close proximity of sand extraction.
iv. There are chances of falling of cattle/children into sand pit in river bed-instances of death due to fall in such pits were reported from other areas to the Department of Mines.
v. Chance of workers getting injured due to improper balancing of truck while loading.

7.4.3 Sand Transport

The sands loaded in 25 Tons trucks are being sent to the collieries through public roads.

i. All possibilities of road accidents are possible.
ii. Accident may also occur during movement in the mine (sand dunes).

7.4.4 Sand Dumping and Storage

i. There are possibilities of the trucks rolling/ sliding down the sand bunker during dumping operation.
ii. The dumper /trucks may cause injury to the workers working near the stowing plant.
iii. Dumping the sand in an empty sand bunker may cause injury to the stowing operator if the bunker chute is in open condition.
iv. Dumping the sand in an empty sand bunker may cause burying the stowing machineries if the bunker chute is in open condition.

7.4.5 Heavy Machinery

Most of the accidents occur during transportation by dumpers, trucks and other heavy vehicles and are often attributable to mechanical failures, in which the factor of human errors cannot be ruled out.

7.4.6 Inundation / Flooding

i. The possibility of inundation/flooding of the sand mines are very high during monsoon or during heavy rains in lean season as the mine area lies over the sand dunes of a riverbed.
ii. There are dangers to the trucks and other machineries due to flooding.
iii. There are dangers to the workers working in the sand dunes.

Inundation or flooding is expected and beneficial for these sand mines as during this time only the sand reserve gets replenished.

7.4.7 Quick Sand Condition

i. This condition occurs when the working crosses the water table at a certain depth and the permeability of the strata is very high.
ii. This condition occurs when the effective stress in the sand becomes zero due to influx of water *i.e.* i = i_{cr} = $\Upsilon'/\Upsilon w$; where i = Hydraulic gradient, icr=Critical Hydraulic gradient, Υ' = submerged unit weight, Υw = unit weight of water.
iii. This creates danger condition to the trucks and other machineries plying over the sand dunes.

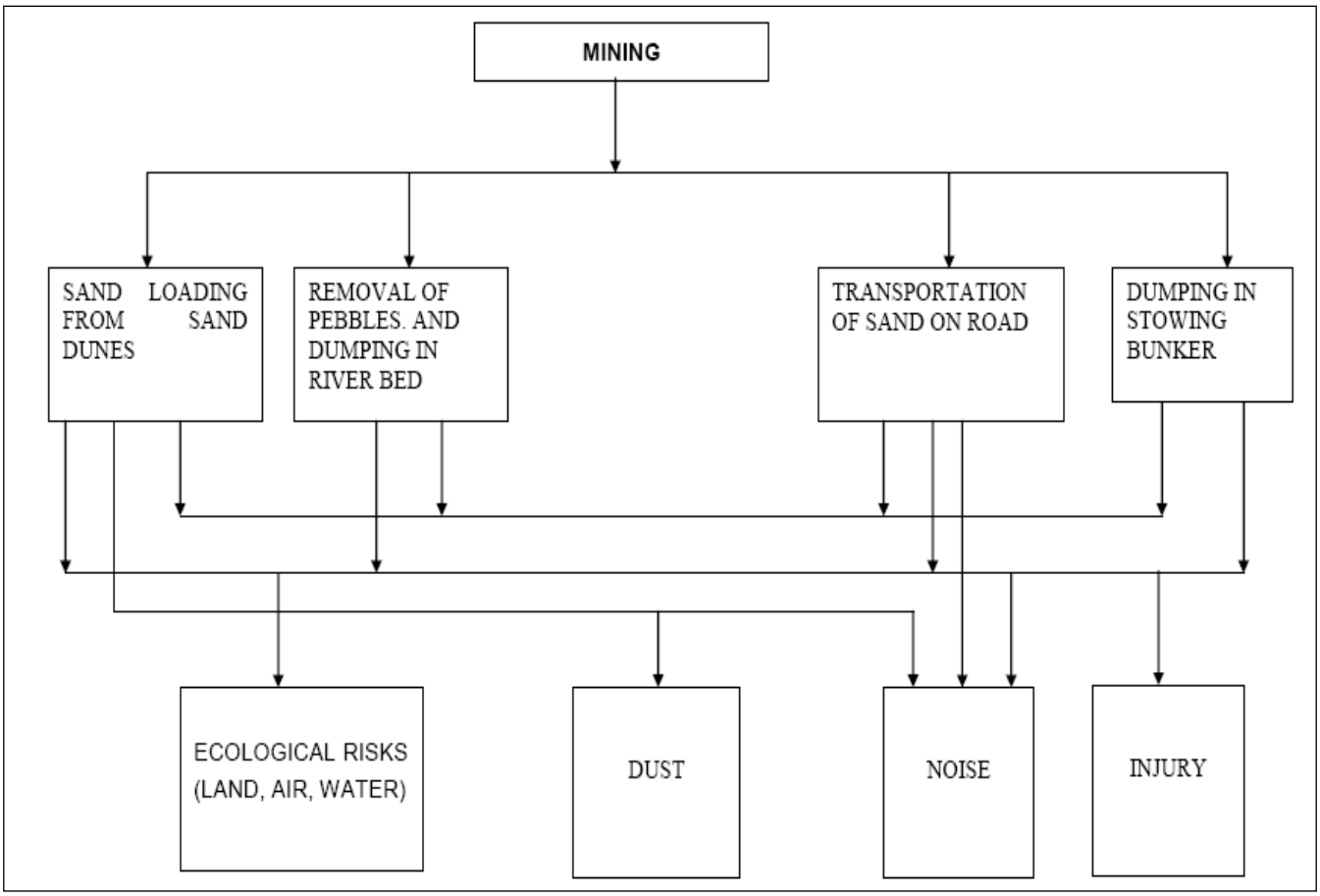


Figure 7.5: Identification of Hazards in Mine

7.4.8 Drowning

There are possibilities of drowning in the deeper part of the river. However safety jackets, floating tube will be kept at the site office to prevent any mishap.

7.4.9 Mitigation of Hazards

7.4.9.1 Measures to Prevent Accidents during Sand Loading.

i. The trucks will be brought to a level so that the sand loading operation suits to the ergonomic condition of the workers and the back-hoe.

ii. The loading will be done from one side of the truck only.

iii. The workers will be provided with gloves and safety shoes during loading.

iv. Opening of the side covers (pattas) will be done carefully and with warning to prevent injury to the loaders.

v. No sand will be collected within 7.5m from bank, especially from outer bank of the meandering river. Safe clearance will be mainly determined by the height of the river bank and thickness of sand to be extracted from the close vicinity of that bank.

vi. Ponding in the river bed shall not be allowed.

vii. Operations during daylight only.

viii. No foreign material (garbages) will be allowed to remain/spill in river bed and catchment area, or no pits/pockets are allowed to be filled with such material.

ix. Stockpiling of harvested sand on the river bank will be avoided.

x. For particular operations, approaching river bed from both the banks will be avoided.

xi. Digging inside river bank within 500m for pit sand and gravel, and also taking anything from that zone for construction of access ramps, will be strictly prohibited.

7.4.9.2 Measures to Prevent Accidents during Sand Transportation.

i. All transportation within the main working will be carried out directly under the supervision and control of the management.

ii. The Vehicles must be maintained in good repairs and checked thoroughly at least once a week by the competent person authorized for the purpose by the Management.

iii. Road signs will be provided at each and every turning point especially for the guidance of the drivers at the evening/night.

iv. To avoid danger while reversing the trackless vehicles especially at the embankment and tipping points, all workers will be removed from all areas for reversing of lorries, and the vehicle will have audio-visual alarm during reversing.

v. A statutory provision of the fences, constant education, training etc. will go along way in reducing the incidents of such accidents.

vi. Generally, overloading will not be permitted. The truck will be covered and maintained to prevent any spillage.

vii. The maximum permissible speed limit will be ensured.

viii. The truck drivers will have proper driving license.

7.4.9.3 Safety Features Required in Tippers/Trucks

i. Exhaust/ Retard Brake: Required as per DGMS circular 02 of 2004.

ii. Propeller shaft guard: Propeller shaft guard as per DGMS circular 10 of 1999.

iii. Tail gate protection: Protection of cabin against collision either by head to head or head to tail.

iv. Limiting speed device: To ensure speed limits as decided by management. The device may be Electronic or mechanical type speed governors.

v. Reverse gear for audio-visual alarm: The audio-visual alarm provided for equipments will confirm to DGMS (Tech.) Tests to be carried out on the audio-visual alarm and certificates shall be issued to user industries.

vi. Provision of two brakes: One of brakes shall be fail safe and for details refer DGMS circular 09 of 1999.

vii. Body lifting position locking arrangement: A hooter along with an indication may be provided to show the body is lifted.

viii. Fire suppression System: Semi-automatic fire suppression system. For details refer DGMS circular 10 of 2004. The fire suppression system shall be a factory fitment.

ix. Blind spot mirror: Better view of front blind spot by operator.

x. Retro reflective reflectors on all sides: For visibility of truck during night

xi. Seat belt reminder: To alert operator for using the seat belt

xii. Proximity warning device: To alert operator

xiii. Rear Vision System: For assisting operator to have back view during reversing

xiv. Auto dipping System: To reduce glaring of eyes of operator during night

xv. Load Indicator and Recorder: Enables management to detect and prevent over loading.

xvi. Global Positioning system: To prevent illegal transport and selling of sand, restricting short-cut routes other than stipulated routes and computerized monitoring.

It is the responsibility of the Project Proponent (Tata Steel) to mention these terms and conditions in the tender document.

7.4.9.4 Measures to Prevent Accidents during Sand Dumping and Storage

i. The Stowing Sand bunkers will be covered by steel grizzly (netting) to prevent inadvertent fall of human being or the vehicles during dumping operation.

ii. The dumping will be done only when the chute of the sand bunker is in closed condition or partially filled.

iii. The vehicles/trucks will not be brought over the grizzly.

iv. There will be a duly constructed berm made up of concrete or other material to prevent the rear wheels come/roll over the grizzly of sand bunker.

v. Dozers are used near the sand bunkers to maintain the safety bern and to push material over the edge as required.

vi. The dumping operation will be done under strict supervision.

7.4.9.5 Measures to Prevent Accidents due to Trucks/ Dumpers etc.

i. All transportation within applied mining lease working will be carried out directly under the supervision and control of the management.

ii. The vehicles will be maintained in good condition and checked thoroughly at least once a month by the

competent person authorized for the purpose by the management.

iii. Road signs will be provided at each and every turning point up to the main road (wherever required).

iv. To avoid danger while reversing the equipment's/ vehicles especially at the working place / loading points, stopper will be posted to properly guide reversing/ spotting operating, otherwise no person will be there within 10 Km radius of machine.

v. A statutory provision of the fences, constant education, training etc. will go a long way in reducing the incidents of such accidents.

vi. Regular training will be provided to the operators by the Company or the Contractors.

7.4.9.6 Measures to Prevent Dangerous Incidents during Inundation/Flooding

i. Inundation or flooding is expected and beneficial for these sand mines as during this time only the sand reserve gets replenished.

ii. During monsoon months and heavy rains the sand mining operations are ceased.

iii. The Trucks and other vehicle plying over the dunes will be kept on the river banks beyond HFL.

iv. The workers are not allowed to go over the dunes during heavy rains.

v. There will be mechanism/warning system of heavy rains and discharges from the upstream dams.

7.4.9.7 Measures to Prevent Quick Sand Condition

i. The only way to avoid quick sand condition is by avoiding sand lifting below water table.

ii. The critical hydraulic gradient (icr) will be maintained at less than 1 to prevent high artesian pressure in a coarse sand area.

iii. At least 0.5m sand bed will be left in-situ while harvesting sand from riverbed.

7.4.9.8 Measures to Prevent Drowning

i. The sand mining will be done under strict supervision.

ii. The workers are not allowed to go to the deeper areas of the rivers.

iii. The workers are not allowed to fish in the river during working hours.

iv. In case it is required to cross the river, it is done under strict supervision and over the shallow area using life lines.

v. Few life jackets, inflated tubes will be kept near the mine site.

7.4.10 Training and Human Resources Development

i. Appointment and delegating qualified and experienced personnel in various disciplines.

ii. Adequate training/refresher training will be provided to the supervisors, workers keeping in view provisions of Mines Vocational Training Rules, 1966; Mine Rules, 1955, Mines Rescue Rules, 1985.

iii. Personnel who have to operate and maintain HEMM, Trucks etc are to be trained under the guidance of the manufacturers and as per provisions of DGMS Circular Technical 1/1989 regarding accidents in opencast mines. Recommendation of Seventh Conference on Safety in Mines on "Safety in Open Cast Mining", "Traffic Rules and Procedures", "Mobile equipments and Highway Delivery Vehicles", "Operations and Operator Training" and other related circulars.

iv. The training of mine personnel shall be provided regularly with respect to environmental protection.

v. Special courses for employees will be arranged for afforestation, revegetation, reclamation, health hazards (identification), malaria eradication, HIV prevention etc in the training centre of the company.

7.5 OCCUPATIONAL HEALTH HAZARDS

Dry-pit mining by open cast method involves dust generation by excavation, loading and transportation of mineral. At site, during excavation and loading activity, dust is main pollutant which affects the health of workers whereas environmental and climatic conditions also generate the health problems. Addressing the occupational health hazard means gaining an understanding of the source (its location and magnitude or concentration), identifying an exposure pathway (*e.g.* a means to get it in contact with someone), and determination of likely a receptor (someone receiving the stuff that is migrating). Occupational hazard due to sand mining mainly comes under the physical hazards. Possible physical hazards are as below mention:

7.5.1 Physical Hazards Due To Mining Operations

Following health related hazards were indentified due to riverbed sand mining operations to the workers:

a) Light: The workers may be exposed to the risk of poor illumination or excessive brightness. The effects are eye strain, headache, eye pain and lachrymation, congestion around the cornea and eye

fatigue.

b) Heat and Humidity: The most common physical hazard is heat. The direct effects of heat exposure are burns, heat exhaustion, heat stroke and heat cramps; the indirect effects are decreased efficiency, increased fatigue and enhanced accident rates. Heat and humidity are encountered in hot and humid condition when temperatures and air temperatures increase in summer time up to 480C or above in the river bed mining area.

c) Eye Irritation: During the high windy days in summer the sand could be the problems for eyes like itching and watering of eyes.

d) Respiratory Problems: Large amounts of dust in air can be a health hazard, exacerbating respiratory disorders such as asthma and irritating the lungs and bronchial passages.

e) Noise Induced Hearing Loss: Machinery is the main source of noise pollution at the mine site.

7.5.2 Medical Examination Schedule

To minimize the health impacts PPE like dust masks, ear plugs/ muffs and other equipments will be provided for use by the work personnel. All workers will be subjected to Initial Medical Examination as per Mines Rule 1955 at the time of appointment. Periodical Medical Examination will be conducted at least once in five years. Medical camps will be organized. The detail of health check up and periodical medical examination schedule is given below.

Table 7.3: Medical Examination Schedule

S. No	Activities	1st Year	2nd Year	3rd Year	4th Year	5th Year
1.	Initial Medical Examination (Mine Workers)					
A.	Physical Check -up		-	-	-	-
B.	Psychological Test		-	-	-	-
C.	Audiometric Test		-	-	-	-
D.	Respiratory Test					
2.	Periodical Medical Examination (Mine Workers)					
A.	Physical Check -up	-				
B.	Audiometric Test	-				
C.	Eye Check -up	-				
D.	Respiratory Test	-				
3.	Medical Camp (Mine Workers and Nearby Villagers	-				
4.	Training (Mine Workers)					

Note: *Medical Follow Ups Work force will be divided into three targeted groups age wise as follows:*

Age Group	***PME as per Mine Rule 1955***	***Special Examination***
Less than 25 years	*Once in a Three Years*	*In case of emergencies*
Between 25 to 40 Years	*Once in a Three Years*	*In case of emergencies*
Above 40 years	*Once in a Three Years*	*In case of emergencies*

A budget of Rs 15.0 Lakhs has been allocated towards Occupational Health and Safety (OH&S)

7.6 Rain Water Harvesting

The rain water harvesting is proposed by Project Proponent and allocated a budget of Rs. 5.00 Lakhs under EMP budget. There are 9 No's of rainwater harvesting pit of 4.5 KL each will be installed at mine site. The size of rainwater harvesting is given in figure 7.2.

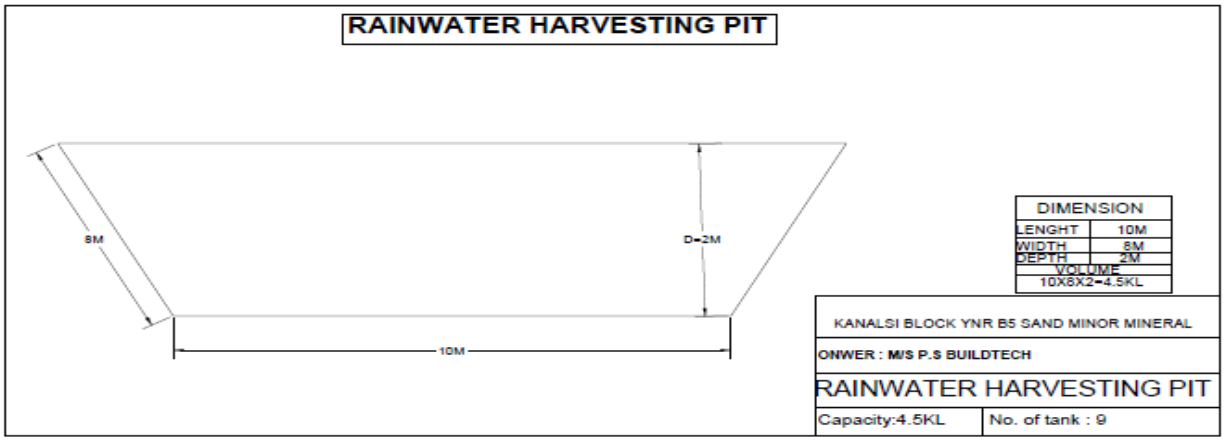


Figure 7.6: Rainwater Harvesting Pit

7.7 CONSERVATION PLAN FOR SCHEDULED FAUNA

7.7.1. Conservation plan for Indian Peafowl (Peacock)

Zoological name–***Pavo cristatus***

Peacock or Indian peafowl (*Pavo cristatus*) is a very familiar bird and also recognized as National Bird of India Asiatic peafowl like the Indian Blue Peafowl and especially the Green Peafowl occupy a similar niche as the roadrunners, secretary bird and seriema. All of these birds hunt for small animals including arthropods on the ground and tall grass and minnows in shallow streams. Because of human encroachment into their natural territories, peafowl and humans have come into increasing contact. Because of their natural beauty some are reluctant to classify the birds as pests, but their presence can be disturbing.

CLASSIFICATION

Kingdom: Animalia
Phylum: Chordata
Class: Aves
Order: Galliformes
Family: Phasianidae
Genus: *Pavo*
Species: *cristatus*
Vernacular name: Mor or Peacock

Conservation Status

IUCN: Others (LC) ver. 3.1
IWPA: Schedule I.
CITES: Not listed.





Geographical Distribution: Pakistan, India and Sri Lanka. Many feral populations exist throughout the world.

Description of *Pavo cristatus*: The male, known as a peacock, is a large bird with a length from bill to tail of 100 to 115 cm (40 to 46 inches) and to the end of a fully grown train as much as 195 to 225 cm (78 to 90 inches) and weigh 4–6 kg (8.8–13.2 lbs). The females, or peahens, are smaller at around 95 cm (38 inches) in length and weigh 2.75–4 kg (6–8.8 lbs). Indian Peafowl are among the largest and heaviest representatives of the Phasianidae family. Their size, colour and shape of crest make them unmistakable within their native distribution range. The male is metallic blue on the crown, the feathers of the head being short and curled. The fan-shaped crest on the head is made of feathers with bare black shafts and tipped with bluish-green webbing. A white stripe above the eye and a crescent shaped white patch below the eye are formed by bare white skin. The sides of the head have iridescent greenish blue feathers. The back has scaly bronze-green feathers with black and copper markings. The scapular and the wings are buff and barred in black, the primaries are chestnut and the secondary are black. The tail is dark brown and the train is made up of elongated upper tail coverts (more than 200 feathers, the actual tail has only 20 feathers) and nearly all of these feathers end with an elaborate eye-spot. A few of the outer feathers lack the spot and end in a crescent shaped black tip. The underside is dark glossy green shading into blackish under the tail. The thighs are buff coloured. The male has a spur on the leg above the hind toe. Peacocks are polygamous and the breeding season is spread out but appears to be dependent on the rains. Several males may congregate at a leek site and these males are often closely related. Males at leek appear to maintain small territories next to each other and they allow females to visit them and make no attempt to guard harems. Females do not appear to favour specific males. Peafowl are omnivorous and eat seeds, insects, fruits and reptiles. A large percentage of their food is made up of the fallen berries. Around cultivated areas, peafowl feed on a wide range of crops such as groundnut, tomato, paddy, etc. Around human habitations, they feed on a variety of food scraps. In the countryside, it is particularly partial to crops and garden plants.

Habitat: The Indian Peafowl is found mainly on the ground in open scrub forest or on land under cultivation where they forage for berries, grains but will also prey on snakes, lizards and small rodents. Their loud calls

make them easy to detect and in forest areas often indicate the presence of a predator such as a tiger. They forage on the ground in small groups and will usually try to escape on foot through undergrowth and avoid flying, though they will fly into tall trees to roost. The bird has a celebrated status in Indian mythology and hence protected culturally in India. The Indian Peafowl is listed as Least Concern by IUCN.

Peafowl Behaviour: Peacocks are gregarious by nature. In the breeding season they are usually seen in small parties of one male with three to five females whereas in the non breeding season they remain in separate parties of adult males and females with juveniles. Peacocks roost in tall trees and emerge from the dense thickets to feed in fields and openings in forests and fields.

Life Cycle

Voice/Call: Kee-ow, Kee-ow, Kee-ow, Ka-an, Ka-an, Ka-an, Kok-kok, Kok-kok, cain-kok

Breeding: April-September.

Nest site: On ground in undergrowth (wild), on buildings by semi-feral birds in villages.

Life Span: The life expectancy is about 10-15 years.

Food Habit: Peacocks are ground feeders. Indian peafowl's do most of their foraging early in the morning and shortly before sunset. They retreat to the shade and security of the trees for the hottest portion of the day. They make a meal of grains, berries drupes wild figs and some cultivated crops. They can also eat insect's small reptiles and small mammals.

Relationship with Man: The great beauty and popularity of the Indian Peafowl has ensured its protection throughout its native ranges. It is a National bird of India. The peafowl is prominent in the mythology and folklore of the Indian people. The Hindus consider the bird to be sacred because of its association with Lord Krishna who used to wear its feather as crown (Mor Mokut). It is also associated with the God Kartikeya, son of the Lord Shiva and Parvati and brother of Lord Ganesh. It is Vaahan (transport) of Lord Kartikeya. This long and close association with humans has proven the peafowl's adaptability to human altered landscapes. In villages where it is protected it becomes quite tame, but is very shy and secretive where hunted. In the buffer area of mine site peacock is generally protected by the local people.

Threats in the Study Area: No perceptible threats were identified in the villages surveyed. Village residents are against hunting or poaching of the peafowl, due to culture and mythology reasons. Adult peafowl can usually escape ground predators by flying into trees.

a) Foraging in groups provides some safety as there are more eyes to look out for predators.

b) Habitat loss, specially the shortage of tall trees in and around the villages for roosting and for providing shade during hot summer months.

c) Shortage of drinking water for the birds during the hot summer days.

d) Casualties caused by eating chemically treated agricultural crop seeds.

e) Illegal hunting by some communities.

Conservation through Habitat Improvement and Awareness: Habitat improvement programme will be undertaken through plantation of suitable tree species in the surrounding villages. While selecting the tree/ shrub species care shall be provided for beery plants which attract these birds. During summer period, villagers will be encouraged to use the old earthen pots to fill with water for drinking these birds. Summer is the time when these. Birds are facing shortage of feeds; there by supplying the feed like Bajri, Juwar, Maize to the identified villages will suffix the problem of food shortage. The proponent can directly supply these feed to the villages directly or by funding to the NGOs active in this mission.

Feeding and Watering Arrangement: Artificial water holes will be created along the natural drained nallahs which can sufficient drinking water up to summer of the region. An anicut and open wall will be created by the company as their community development programme involving the local panchayats in this work. Proposition for the suitable place to increase population of birds near plant nursery and office plantation will help. Provision for artificial nests, feeding trays and water troughs is under consideration. To support furgivorous birds, artificial feed like wild fruits and vegetables will be provided.

Direct and indirect approach is required to provide effective conservation, which is recommended as under:

i) Increasing the tree cover in the buffer area for shelter and roosting of peacocks. This will be achieved by planting of tree groves (a group of trees that grow close together, generally without many bushes or other plants) in buffer area. Some local species such as Neem, Siris, Amaltash, Ardu, Shesham, Dhak, Peepal tree etc. will be plant. Planting of tree groves in school compounds in the villages of buffers area will be plant as per the plantation programme.

ii) By conducting awareness programmes (community and school level) for conservation of peacocks in the area and also through organizing competitions during Wildlife Week and Van Mahotsave celebrations.
iii) Some provision of rewards to informers for the control of poaching and illegal trade in wildlife.
iv) Carrying out census and research projects to know the potential threats and population status of the species.
v) Provision of veterinary care and cages for injured or sick or deformed birds.
vi) Suggest strategies to minimize negative impacts of changing environment in nearby area of peacock populations and to promote conservation of peacock habitats.
vii) Another way to help preserve the endangered species is to create society dedicated to ecological ethics. All the conservation measures will be implemented with the help of and in the consultation of the district forest department.
viii) With the objective of effectively protecting the wild life and to control poaching, smuggling and illegal trade in wildlife and its derivatives, the Government of India enacted Wild Life (Protection) Act 1972. The Act was amended in January 2003 and punishment and penalty for offences under the Act have been made more stringent.

7.7.2. Conservation plan for Common Mongoose (*Herpestes edwardsi)*

A mongoose is a member of the family of small cat-like, bold, agile carnivores. The word mongoose is derived from the Marathi word mangus. Mongooses have a tapered head, long body, and short legs. They are typically gray or brown with long, coarse hair that bristles when the animal is disturbed. The claws, used for digging burrows, are quite strong and do not retract.

Classification

Kingdom: Animalia
Phylum: Chordata
Class: Mammalia
Order: Carnivora
Family: Herpestidae
Genus: *Herpestes*
Taxon: *Herpestes edwardii*

Conservation Status

IUCN: Others (LC) ver 3.1
IWPA: Schedule II.
CITES: Appendix-III.





Geographical Distribution: Mongooses are widely distributed in Asia, Africa, the Caribbean, and southern Europe.

Habitat: Mongooses live in a variety of habitats, but most often forests, open woodland, savanna, semi-desert and desert. They can inhabit ground burrows, hollow trees, or crevices among rocks or roots.

Food: Mongooses are clever predators. They eat small mammals, rodents, birds, chickens, eggs, reptiles, lizards, amphibians, crabs, snails, earthworms, insects, and sometimes fruit. However, they will also eat carrion. Some species will attack and kill even the largest and most poisonous snakes even king cobras to whose poison they are not immune, but typically avoid the cobra and have no particular affinity for consuming their meat. Mongooses are also known to crack eggs by throwing them against a rock or onto the ground.

Behavior: The animals are usually active during the day, but some species are nocturnal. They can live alone, in pairs, or in large groups, depending on the species. Litter size is two to four young. habitats from forests to.

Life span: Mongooses live about 7 to 12 years in the wild, but in captivity they may live more than 20 years.

Threat: Their behavior and small size (they weigh less than one kilogram) makes them very vulnerable to larger carnivores and birds of prey. Their greatest threat is human use of toxic agro-chemicals in farming areas. Some species of mongoose can be easily domesticated, are fairly intelligent, and can be taught simple tricks, so they are often kept as pets to protect the home from vermin. However, they can be more destructive than desired; when imported into the West Indies for the purpose of killing rats and snakes, they destroyed most of the small, ground-based fauna. For this reason, it is illegal to import most species of mongooses into the United States, Australia and other countries. Mongooses were introduced to Hawaii in 1883, and have had a significant impact on native species. Mongooses are sometimes referred to as the most dangerous animals on the planet for this reason.

Conservation

The people living in the surrounding area and employee of the company would be motivated towards the protection of the animal. Motivation will lead to timely information to the concerned authorities about any threat to wild life or any cases of pouching/hunting.

Education and Awareness: This is the most important aspect of wild life conservation. People will be educated regarding the importance of wild life conservation through mass publicity by installing sign-boards, conducting audio visual classes and distributing literature in respective villages in the buffer zone. Experts in the field of wild life conservation will also be invited to deliver talks through slides.

People Participation: With the help of the local people and employees of the Company watch will be kept on the wild life as well as illegal tree felling. Forest and police department will be informed if such incident occurs, to take legal action against the offenders. For this they will be trained for motivation.

Sign-Boards: Sign-boards will be in English as well as in local language.

7.7.3. Conservation plan for Monkey (*Rhesus macaque*)

The rhesus macaque (Macaca mulatta), is one of the best-known species of Old World monkeys. It is listed as Least Concern in the IUCN Red List of Threatened Species in view of its wide distribution, presumed large population, and its tolerance of a broad range of habitats. Native to South, Central and Southeast Asia, troops of Macaca mulatta inhabit a great variety of habitats from grasslands to arid and forested areas, but also close to human settlements.



Classification
Kingdom: Animalia
Phylum: Chordata
Class: Mammalia
Order: Primates
Family: Cercopithecidae
Genus: *Macaca*
Species: *M. mulatta*
IUCN: Others (LC) ver 3.1.
IWPA: Schedule II.
CITES: Not listed.
Conservation Status



Local names: Bandar, Monkey**,** Rhesus monkey.
Life span: 25 Years
Gestation: 5.5 Months (164 days)
Height: 531.8 mm (M), 468.8 mm (F)
Weight: 7.7 Kg (M), 5.34 Kg (F)
Native: Afghanistan; Bangladesh; Bhutan; China; India; Lao People's Democratic Republic; Myanmar; Nepal; Pakistan; Thailand; Viet Nam
Geographical Distribution: The species as a whole is found throughout most of southern Asia, in eastern Afghanistan, Bangladesh, Bhutan, central and southern China (Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hebei, Henan, Hubei, Hunan, Shaanxi, Sichuan, Tibet, and Yunnan, as well as the island of Hainan), northern and central India (in the states of Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkand, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tripura,

Uttaranchal, Uttar Pradesh and West Bengal), Lao PDR, Myanmar, Nepal, northern Pakistan, northern Thailand and Viet Nam.

Habitat: Because they are found in such a broad geographic area, it is difficult to concisely summarize the types of habitats rhesus macaques populate. In the most general terms, they are found in both tropical and temperate habitats including semi-desert, dry deciduous, mixed deciduous and bamboo, and temperate forests as well as in tropical forests and mangrove swamps, usually at elevations from sea level to 2000 m (6561 ft), but they have been seen at elevations up to 4000 m (13,123 ft) in China and northeastern India. Rhesus macaques are also found in areas close to humans in urban settings or near cultivated fields. The habitat includes primary and secondary tropical and dry evergreen forests and bamboo forests. In India, rhesus macaques are found in flat, cultivated areas, where agricultural fields dominate the landscape and in the plains, foothills and mountainous regions where habitat includes cultivated fields, tropical forests and dry, deciduous forests. During the hottest parts of the year, groups in the Himalayan region of India migrate to higher elevations where cooler temperatures persist throughout the summer months. In urban areas of India, they are found on roadsides, canal banks, in railway stations, villages, towns, and temples. It is estimated that 48.5% of rhesus macaques in northern India live in villages, towns, cities, temples and railway stations where they are in close and frequent contact with people at all times. About 37.1% of the population lives with some human contact on roadsides and canal banks and only 14.4% of the rhesus macaques in the northern part of the country live in isolation from humans and do not rely on them at all for food.

Ecology: Rhesus macaques are exceptionally adapted to coexisting with humans and thrive near human settlement, in both urban and gricultural areas. It is impossible to characterize their natural diet without considering the impact of humans. Because they are found in higher densities in areas of human disturbance compared to forests, in some areas rhesus macaques derive, both directly and indirectly, a substantial part of their diet from human activities. In fact, up to 93% of their diet can be from human sources, either from direct handouts or from agricultural sources. Rhesus macaques are omnivores and feed on a wide array of plant and invertebrate products. By raiding crops, they have access to a huge variety of cultivated fruits and vegetables, and in highly urban areas, they forage by picking through garbage. Throughout their range and especially in India, they inhabit temples and are fed as a form of worship by local people. Some of the most common foods given to rhesus macaques in temples include bread, bananas, peanuts, seeds, other fruits and vegetables, and assorted miscellaneous foods like ice cream and fried bread. In less human-influenced areas, they focus on fruits, flowers, leaves, seeds, gums, buds, grass, clover, roots, bark, and they supplement their diet with termites, grasshoppers, ants, beetles, and mushrooms. Rhesus macaques also eat bird eggs, shellfish, and fish. During the driest parts of the year, they may even eat the dirt from termite mounds. At higher elevations, where seasonal snowfall restricts food sources, rhesus macaques are restricted to eating the leaves of evergreen trees and bark as well as a few berries that grow in winter. During the winter months at high elevations, rhesus macaques suffer from food and climate stress and have higher levels of mortality if the cold weather lasts too long. Home range size and day range length is dependent on habitat in rhesus macaques. Temple, village, and urban rhesus macaques have small home ranges between 0.01 and 3.0 Km^2 (0.004 and 1.16 mi^2) in size because they derive almost all of their food from human visitors leaving offerings, crop raiding, or opportunistic foraging on human byproducts. The day ranges for these urbanized areas are variable but the average is about 1.15 Km (0.715 mi). In more forested areas of India, home range size can be up to 15 Km^2 (5.79 mi^2), but rhesus monkeys only move, on average, 1428 m (0.887 mi) per day. Both climate and season affect the timing of the onset of daily activities as well as the type of activities undertaken. In the warmest times of the year, rhesus macaques spend more time resting than during more temperate months. Home ranges of rhesus macaques overlap and groups have high frequencies of intergroup contact, which is characterized by generally mild social interactions. Across all habitat types, feeding and resting are the major activities of the rhesus macaques' day and they spend the rest of their time travelling, grooming, playing, and other activities. Potential predators of rhesus macaques include raptors, dogs, weasels, leopards, tigers, sharks, crocodiles, and snakes.

Social Organization and Behavior: Rhesus macaques live in large, multi-male/multi-female groups that have an average of 10 to 80 individuals, regardless of habitat type. Groups may number in the hundreds in mountainous areas and areas of high human food subsidization or agricultural habitats. Rhesus groups are characterized by female philopatry and male dispersal; females remain in their natal groups and form dominance hierarchies according to their matrilineal kinship while males emigrate from their natal

groups at the beginning of the breeding season shortly before puberty, and may transfer groups throughout their lives in search of mating opportunities. Female rhesus macaques very rarely leave their natal groups. Among females, rank remains relatively stable over a lifetime and is passed on to female offspring. Each female rises in rank above her older sister, and therefore when old, high-ranking females disappear or die, they are usually replaced by their youngest daughters. One of the benefits of dominance for a rhesus macaque is priority access to food and space. High-ranking females have greater access to feeding sites because they displace lower-ranking females and they are less likely to be disturbed during feeding compared to subordinates. Because they have cheek pouches, though, low-ranking females do not consume less food than high-ranking females, they simply store as much as they can into their cheek pouches and then move away from the group to eat. This method of feeding is more energetically expensive than remaining in the same area while feeding, so low-ranking females may be consuming the same amount but using more energy to consume it. Dominance status and rank among males is not stable over a lifetime, compared to female rhesus macaques. Immature males inherit the rank of their mothers, but as they mature, their status changes based upon a combination of social and aggressive skills. Aggression is sometimes used to establish and reinforce social position, though, and aggressive behavior seen in macaques includes slapping, pushing, pulling fur, tail yanking, and biting as well as other non-contact behaviors such as displays and threats. Once males attain dominant status, they enjoy this rank for an average of two years before being displaced by another male.

Reproduction: Females reach puberty around age three while males are sexually mature by age four. The ovarian cycle lasts for 28 days and is characterized by the darkening of the skin surrounding the anogenital region accompanied by menstruation. Estrus lasts for eight to 12 days, with the day of ovulation occurring at the midpoint of the estrus period. Females have increased sexual activity during ovulation, exhibiting the highest number of copulations seen during the ovarian cycle. Females reproduce from three until about 20 years of age. Males reach puberty between three and 3.5 years of age but do not reach adult body size until about eight years old. Though males are capable of reproducing by age four, they are not reproductively successful until after age eight, or when they reach adult size. During this time between becoming sexually mature and when they begin to mate, young rhesus macaques are learning the social skills, including fighting ability that will influence their success throughout their lives. Both males and females reach sexual maturity sooner in captivity. There is marked birth seasonality in rhesus macaques, with the majority of mating occurring in October through December and births coinciding with the end of the rainy season, or during the period of highest food abundance. High-ranking males have more opportunities to mate with females than low-ranking males, but do not always sire a disproportionate number of infants. Lower-ranking males may have similar reproductive success compared to high-ranking males because they are new immigrants and are more attractive to females because of this. From one breeding season to the next, females will drastically reduce the amount of mating they do with familiar males and over a period of three years, they try not to mate with any familiar males given the opportunity to mate with unfamiliar males. During the breeding season, females enter into consort ships with one or more males. An individual female will spend longer amounts of time in contact with, grooming, and mating with these males. Males and female rhesus macaques are promiscuous breeders, mating multiple times with multiple mates. Both males and females initiate these consort relationships and competition for access to mates is related to the high levels of aggression seen in rhesus macaque groups during this time of year. Gestation lasts 164 days in rhesus macaques and the interbirth interval is between 12 and 24 months. If a female does not have a successful pregnancy or her infant dies in the first year of life, she is more likely to give birth the following season than a female who successfully rears an infant.

Parental Care: While the majority of parental care is the responsibility of the mother, rhesus infants are also handled by close female relatives and protected by adult males. In the first few days, the infant is carried ventrally and protected from other group members by the mother. Ventral clinging is the position most frequently adopted during travel for the first four months of life, but rhesus infants begin to ride dorsally for short periods during the second week. By six weeks of age, locomotor skills are developed enough for the infant to move independently, but they do not move very quickly at this age, and if the mother is travelling too quickly, she will pick up the infant and carry it. Some young rhesus is carried until they reach one year of age, though it is rare. During early infancy, rhesus macaques nurse exclusively for the first two weeks of life, after which they begin to experiment with solid food. At about four months of age, rhesus

mothers begin to resist the attempts of their offspring to nurse, and young rhesus macaques are fully weaned by the birth of their next sibling. Exploration off of the mother begins as early as five days old and continues to increase so that by the third week, the infant breaks physical contact with the mother as frequently as possible. During this time, juvenile and adolescent females are intensely interested in the infant and will approach the mother and groom her in an attempt to get near the infant. When an infant is off the mother, a young rhesus female will touch the infant and try to carry it, but the mother is watchful of this interaction and any sign of distress from the infant may elicit an aggressive response from the mother towards the younger female. Mother rhesus macaques show differential investment in their offspring depending on the sex of the infant.

Communication: Vocal and gestural communication is important in rhesus macaques. Facial expression, body postures, and gestures are all forms of non-vocal communication among rhesus macaques and are important in interactions between individuals at short distances. One facial expression that is seen throughout macaque species and is one of the most common expressions in rhesus macaques is the silent bared teeth face. Among rhesus macaques this is seen between individuals of differing rank with the lower-ranking or submissive animal performing the silent bared teeth face to the dominant animal. Another common facial expression used in dominance interactions include a fear grimace accompanied by a scream, heard in frightened animals and used to appease or redirect aggression. Dominant animals use a silent open mouth stare as a threat to other animals; this is accompanied by the tail sticking straight out behind the body with the monkey standing quadrupedally. Another common visual communication signal is the present rump, where the tail is raised and the genitals are exposed to the more dominant individual. Vocalizations of rhesus macaques include coos and grunts, which are commonly, heard expressions during group movement, during affinitive interactions, and when one animal approaches another to groom. Warbles, harmonic arches, and chirps, are heard in the context of finding high-quality, rare food items. The most common alarm call heard among rhesus macaques, the shrill bark, is emitted in threatening situations and is consists of a single, loud, high-pitched sound. Vocalizations made during aggressive interactions include screeches, screams, squeaks, pant-threats, growls and barks. Infants have their own repertoire of vocalizations which include geckers, which are harsh staccato sounds heard during weaning conflict. It is usually heard along with convulsive jerks of the body, and looks and sounds much like a human child's temper tantrum.

Threats

Human-Induced Habitat Loss and Degradation: Problems of habitat destruction do not seem to affect rhesus macaques like other primates; they are well adapted to life near humans and can thrive in highly disturbed environments. Because of the cessation of export and the rhesus macaque's adaptability to human-disturbed environments, the Indian population is increasing. This increase may not necessarily be positive because in areas where rhesus macaques are in contact with humans they are menaces; threatening or biting children and the elderly, stealing food from people, raiding crops and damaging property leading to decreased tolerance and persecution of rhesus macaques in some areas. This is one rare case where the destruction of habitat and replacement with agricultural land has led to an increase in the number of primates, but at a serious social cost. These problems will only be exacerbated if habitat destruction does not stop and will likely force government control measures, like trapping and relocation, to decrease the population for the health and safety of humans in India.

Harvesting (hunting/gathering): Rhesus macaques were once seriously threatened by the rate of capture and export for use in biomedical research. In the 1960s, often 50,000 juvenile rhesus macaques were trapped and shipped from India per year, crippling the population growth of rhesus in India. In 1978, a total ban on rhesus export was the first step in re-establishing the population, and the numbers in India have more than doubled since the 1970s. There are still some rhesus macaques trapped and used for research within India, but the effect of the population is negligible compared to previous levels of usage.

Persecution: In orthodox Hindu tradition, monkeys are sacred animals to be revered and protected, but as humans and animals begin to compete for similar resources or monkeys become nuisances, causing not only property damage, but also injury to humans, the traditional bond is degraded. In some areas of India, rhesus macaques are subjected to stoning, trapping, and shooting because they are such pervasive, destructive pests. Over 95% of the local people in one region of India felt harassed by the rhesus macaques either because of bites, stealing of household items, or other reasons. Though their populations continue to expand, the deterioration of traditional beliefs that leads to their persecution could have an effect on rhesus macaque

conservation in the future. If the conservation ethic connected to deifying rhesus macaques is lost, it will be difficult to rekindle in the future if the population stops growing or decreases.

Conservation: The root cause of conflict between humans and rhesus macaques is the eradication of natural habitat, forcing monkeys into proximity with humans. Though they excel in human-disturbed environments, rhesus macaques living in forested areas are usually healthier, eating a better diet and in overall better condition than urban macaques. Restoration of their natural habitat in densely populated areas may decrease conflict, but given that they will likely move into areas where humans make food readily available, this may not be a permanent solution. In the long term, management will be necessary to conserve healthy populations of rhesus macaques and prevent persecution by humans from being a threat to their survival. Translocation of large numbers of monkeys may be one management option to remove rhesus macaques dependent on human sources of food. Mitigating human-rhesus conflict is necessary to prevent the change in attitudes towards rhesus macaques that could lead to further persecution and population decline. Translocating particularly problematic rhesus monkeys or entire groups has been successful, but is not a widespread option because there simply are not enough suitable forest patches in which large numbers of rhesus can live. Perhaps innovative engineering could lead to monkey-proof containers in which people can store household items and food and prevent local rhesus from raiding their kitchens. Deterrent fencing or other protective measures could also be established around gardens and agricultural crops to prevent rhesus macaques from crop raiding. Decreasing opportunities for conflict between local humans and rhesus macaques will lead to maintained tolerance of these monkeys that have nowhere to retreat from human encroachment.

Education and Awareness: This is the most important aspect of wild life conservation. People will be educated regarding the importance of wild life conservation through mass publicity by installing sign-boards, conducting audio visual classes and distributing literature in respective villages in the buffer zone. Experts in the field of wild life conservation will also be invited to deliver talks through slides.

People Participation: With the help of the local people and employees of the Company watch will be kept on the wild life as well as illegal tree felling. Forest and police department will be informed if such incident occurs, to take legal action against the offenders. For this they will be trained for motivation.

Conservation

The people living in the surrounding area and employee of the company would be motivated towards the protection of the animal. Motivation will lead to timely information to the concerned authorities about any threat to wild life or any cases of pouching/hunting.

Special Staff for the Protection and Anti-poaching: Special Staffs will be deployed by the forest department for patrolling and protection of the fauna and flora under their jurisdiction because the regular staff deployed for this purpose, due to their busy schedule, is unable to perform their work properly. Each of the special staff will be equipped with dress, raincoat, gumboots, sticks and wireless set for communication. Financial burden for the same has been included in financial projection of this report.

Reducing man wildlife conflicts: Unauthorised entry in to forest for illegal grazing, cutting or poaching are the major causes for Man-Wildlife conflicts. These practices will be reduced as much as possible.

Training and Awareness Programme: This is the most important aspect of wild life conservation. People will be educated regarding the importance of wild life conservation through mass publicity by installing sign-boards, conducting audio visual classes and distributing literature in respective villages in the buffer zone. Experts in the field of wild life conservation will also be invited to deliver talks through slides.

7.7.4 CONCLUSION

The conservation plan suggested here is for scheduled fauna (Animal and Bird) will be implemented by the mining lease holder and the budgetary provision is discussed and given in detail for the implementation of the same in the area. It is very important to conserve the scheduled fauna in the area by the local authority as well as by the forest officials. People are not aware about the wildlife and protection of wild animals. There is an urgent need of education and awareness to local people about the wild life and their importance.

7.7.5Green Belt Development

A green belt will be developed along the boundary of the mining lease area. The area for green belt plantation consists of undisturbed soil; hence plantation could be made as in any garden or road side plantation. Green belt is erected not from biodiversity conservation point of view but is basically developed as a screen to check the spread of dust pollution. A green belt, 7.5m in width will be developed around the

core zone. Green belt plantation will be started with the beginning of the mining and will be completed within five years from the beginning.

Following precaution will be taken:

- To raise seedlings for plantation in the green belt a nursery will be developed.
- Seedlings of only local species, suitable for green belt plantation will be raised in this nursery.
- All the representative plant species of the region were found to grow in and around the study site.
- Care will be provided against grazing and browsing.
- Timely watering during the initial stages of survival and provision will be made for the allocation of funds as well.
- During the running of mine, flora will be regenerated in different stages and the area having matured Afforestation will be properly fenced so as to avoid cutting, browsing and hacking of branches and pruning of trees
- Creating awareness among villagers residing on the periphery of the mines regarding the use of plantations.
- Plantation of indigenous species, fodder and fruit bearing tree species which can also act as habitats for wild life.
- Plantation of fruits bearing trees like Aam, Awala, Gular, Papaya, Banana, and Ficus species will attract wild animals.
- For increasing hare population turfing on the ground on both sides of nallahs by grasses will provide a suitable habitat which is most sought food for hares.

7.7.6 Plantation in the Buffer zone

Trees will be planted in the buffer zone also. This plantation will be done at selected places only and only local species will be used in the plantation. Care will be taken to include some fruit bearing trees like Gular (*Ficus glomerata*), Aonla (*Emblica officinalis*), Aam (*Mangifera indica*) and such trees to provide food to the herbivores which in turn will be the food source of the carnivores. Water, particularly during drier seasons, becomes the most important factor to all types of wild animals including the mammals, birds and reptiles. If water is available safely, then all other factors become secondary for the presence and survival of the wild life in any forested area. Places suitable for mini watersheds will be identified in the core as well as in the buffer zone to store rainwater. Further, to make water available at all the times, throughout the year, some of these water holes will be recharged through artificial means. Proper slope will be given to approach these water sources so that the wild animals will be able to drink water without any difficulty. Proper cover through vegetation or any other type of even artificial cover will be developed near to these water sources so that the prey species will be able to hide themselves from the predators, at the time of approaching the water sources. To attract the birds, plants yielding food to the birds will be planted on priority basis. If water and food are available to the birds without any anthropogenic disturbances the area can become an ideal place for bird watching.

7.7.7 Financial Projection for Conservation

Rs. 9.10 Lakhs has been allocated towards conservation of scheduled fauna in the area for the implementation of conservation proposal. The budgetary allocation for all scheduled fauna is listed table below.

Table 7.4 (a) Budget for Conservation/Management Plan

#	Component/Intervention	BUDGET (LAKSH)
1.	Planting of trees groves in surrounding area	**3.00**
2.	Promotion of agro forest in villages planting fruits trees	**3.00**
3.	Plantation of herbs/ shrubs along the river bank	**2.00**
4.	Awareness generation of labors and local people	**1.10**
	TOTAL	**9.10**

Table 7.3(a) Financial projection (yearly)

YEAR	I	II	III	IV	V	VI	VII	VIII	IX	X	TOTAL
Provision (Lakh)	**1.10**	**1.10**	**1.00**	**0.90**	**0.90**	**0.90**	**0.90**	**0.90**	**0.80**	**0.60**	**9.10**

Table 7.4(b) Financial projection (yearly)

S. No	Component/Year	I	II	III	IV	V	VI	VII	VIII	IX	X
1	Planting of trees groves in surrounding area	35,000	25,000	25,000	25,000	30,000	30,000	30,000	30,000	25,000	-
2	Promotion of agro forest in villages planting fruits trees	25,000	35,000	25,000	25,000	10,000	25,000	30,000	10,000	25,000	20,000
3	Plantation of herbs/ shrubs along the river bank	25,000	25,000	25,000	25,000	25,000	20,000	10,000	30,000	30,000	40,000
4	Awareness generation of labors and local people	25,000	25,000	25,000	15,000	25,000	15,000	20,000	20,000	15,000	-
TOTAL		**1,10,000**	**1,10,000**	**1,00,000**	**90,000**	**90,000**	**90,000**	**90,000**	**90,000**	**80,000**	**60,000**

7.8 SOCIO ECONOMIC IMPACT OF THE PROJECT & SAFETY MEASURES

Critically analyzing the existing environmental status of the socio-economic profile and visualizing the scenario with the project, the impacts of the project would be varied and may generate both positive and negative impacts of the cluster of sand mining in the region that are stated below.

7.8.1 No Rehabilitation

The villages and their inhabitants in the buffer zone will not be disturbed from their settlements due to the mining operations. There is no inhabitation within the lease area. Therefore neither villages nor any part of village or any hamlet will be disturbed during the entire life of the mine. As the mining operations will not disturb or relocate any village or settlement, no adverse impact is anticipated on any human settlement. The mining operation does not disturb/relocate any village.

7.8.2 Increases in Job Opportunities

As per the survey it has been observed that the population in general do not have opportunities of earning from employment and the non worker population is higher in the region so the mining operations in general will help to provide direct and indirect job opportunities for auxiliary and ancillary works etc. The only employment to depend on is agriculture, which is seasonal. In the absence of any high employment potential activities, the people are economically backward.

7.8.3 No burden in the existing Infrastructure Facilities

Local work force will be given first preference in the sand mining activity due to which influx of the outsiders is not envisaged or it will be very minimal. Thus, there will not be the necessity of provision of housing facility for the local workers and not stressing on the existing civic amenities of the area. If sufficient number of local workers will not be available, then workers from outside will be engaged. For the outside workers if any, housing arrangement and the facilities will be provided at mine site.

7.8.4 Improvement in Infrastructure

Continued mining activities will benefit the local people due to provision of more infrastructural facilities (developments of approach routes within the village area, street light, health facilities etc.)

7.8.5 Improvement in local economy

Growth in the revenue generation to the local gram panchayats is very much anticipated.

7.8.6 Agriculture

The agricultural activities are seen in the areas where there is sufficient soil cover. The buffer zone will remain undisturbed and no adverse impact is envisaged.

7.8.7 Adverse Impacts

Sand mining also adds to the water pollution problems in the rivers, especially in the urbanized areas. It is sure that all these activities ultimately end up in the degradation of the rivers. Productivity of crops may be deteriorated affecting the agriculture based livelihood due to the pollution arising out of the mines, if proper mitigation measures are not implemented.

7.9 ANNUAL REPLENISHMENT OF MINERAL

River Bed Area vis-à-vis Sedimentation

Sedimentation**,** in the geological sciences, is a process of deposition of a solid material from a state of suspension or solution in a fluid (usually air or water). Broadly defined it also includes deposits from glacial ice and those materials collected under the impetus of gravity alone, as in talus deposits, or accumulations of rock debris at the base of cliffs. The term is commonly used as a synonym for sedimentary petrology and sedimentology. Sedimentation is generally considered by geologists in terms of the textures, structures, and fossil content of the deposits lay down in different geographic and geomorphic environments.

The factors which affects the "Computation of Sediment":

a) Geomorphology & Drainage Pattern : The following geomorphic units plays important role :
- Structural Plain
- Structural Hill
- Structural Ridge
- Denudation Ridge & Valley
- Plain & Plateau of Gangetic plain
- Highly Dissected pediment
- Un dissected pediment

b) Distribution of Basin Area River wise (Area in Sq. Km or Sq. Miles)
c) Rainfall & Climate : Year wise Rainfall data for previous 10 years of Yamuna Basin/River
d) As per Dandy & Bolton study "Sediment Yield" can be related to:

i) Catchment Area,
ii) Mean Annual Run-off.

Sand is an essential minor mineral used extensively across the country as a useful construction constituent and variety of other uses in sports, agriculture, glass making (a form of sand with high silica content) etc. It is common knowledge that minerals are non-renewable but this form of mineral naturally gets replenished from time to time in a given river system and is very much interrelated to the hydrological cycle in a river basin. Riverine environmental systems are unique in themselves and provide environmental services, natural resources to meet variety of needs of urban and rural communities. The Rivers originating from the Himalayas bring with them lots of aggregate materials whereas as they move downstream, only finer elements / minerals like sand are found in abundance. River Yamuna near Dakpathar barrage leaves Uttarakhand and enters Himachal Pradesh.

The Yamuna River is the biggest tributary of the river Ganga in North India. Its source in the Yamunotry glacier at an elevation of 6387 mtrs on south western sides of Banderpooch crests in the lower Himalayan ranges. The overall span of the Yamuna River is 1376 Km (855 miles) with catchment area of 366223 square Km (141,399 square mile). This encompasses 40.2 % of the whole Ganga valley, prior to joining Ganga at Triveni Sangam in Allahabad (UP).

Itinerary of Yamuna River: The river passes through many states such as Uttrakhand, UP, Haryana, going across to HP and then Delhi. With yearly discharge of around 10,000 cubic billion meters (cbm) and consumption of 4400 cbm (of which irrigation comprises 96%), the river represents above 70% of water provision of Delhi. Yamuna water are fairly good quality for its entire span from Yamunotri in Himalayan ranges to Wazirabad in Delhi, the length of which is around 375 Kms.

Itinerary of Drainage area of Yamuna: The origin of Yamuna is situated in the Yamunotri glacier at an elevation of 6387 mtrs on SE sides of Banderpooch crests, which are located in the Mussoorie range of lower Himalayan range in Uttrakashi district of Uttrakhand, to the North of Haridwar. From this place Yamuna runs to South around 200 Kms across the Shivalik mountain ranges and lower Himalayan ranges. A significant portion of its beginning of Drainage basin (with total area of 2320 square km) is situated in HP and a major tributary sapping the upper drainage basin in the Tons, which is also biggest and most extensive tributary of the Yamuna. Other tributaries in the area are the Rishi Ganga, Giri, Hanuman Ganga, Kunta & Bata, which sap the upper drainage basin of the huge Yamuna River. Subsequently, the river moves down the terrains of Doon basin at Dak Pathar close to Dehradun, in this place water is redirected into a channel

for the purpose of electricity generation. Once it goes across the sikh religious place of Ponta Sahib, the river arrives at Tajewala in the Yamunanagar district of Haryana where a dam was constructed in 1873. This dam is the origin of the two major channels or water courses – Eastern Yamuna Canal and Western Yamuna Canal and both drain in UP & Haryana. The Western Yamuna Canal (WYC) traverses Karnal, Yamunanagar and Panipat prior to arriving at the Haiderpur water treatment plant, which provides a portion of municipal water provisions of Delhi.. The Yamuna also forms natural boundary between the states of Uttrakhand & HP and also amid the states of UP and Haryana. Together with the Ganga to which it flows almost parallel once it meets the Indo-Gangetic plateau, the biggest Alluvial productive area in the World, it forms the Ganges-Yamuna Doab are stretched across 69,000 square Km which is 33% of the whole area.

Table of Drainage Basin area of River Yamuna (square KM/square mile) with % of Drainage Basin

i. HP 5799/2240 (1.6)
ii. UP & Uttrakhand 73618/28662 (21.50)
iii. Rajasthan 102883/39739 (29.80%)
iv. Haryana 21265/8214(6.5%)
v. Delhi 1485/574(0.4%)
vi. MP 14023/5416 (40.6%)

Catchment Area

The amount of water carried by a stream, the shape of the channel, the chemical composition of its water, and its ability to support life are determined by its catchment and what is happening there. A stream is only as healthy as its surrounding catchment. This section will help you to look beyond the stream, and learn about the land that surrounds it. Everybody lives in a catchment. A catchment is a basin shaped area of land, bounded by natural features such as hills or mountains from which surface and sub surface water flows into streams, rivers and wetlands. Water flows into, and collects in, the lowest areas in the landscape. The system of streams which transport water, sediment and other material from a catchment is called a drainage network. A catchment catches water which falls to earth as precipitation (rainfall), and the drainage network channels the water from throughout the catchment to a common outlet. The outlet of a catchment is the mouth of the main stream or river. The mouth may be where it flows into another river or stream, or the place where it empties into a lake, estuary, wetland or ocean. Tributaries are small feeder streams that empty into larger streams or rivers. The catchments of tributaries are referred to as sub-catchments. Large catchments are often made up of a number of smaller sub-catchments. For example, the catchment of the Yamuna River contains many subcatchments. Each has a different size, shape, drainage pattern and features that are determined by natural processes, particularly geology and climate. The geology of your catchment will influence many of its characteristics, from the stability of the streambanks and streambed to the natural pH of the water. Climatic processes and flowing water erode and shape the land. As rocks are broken down into smaller pieces they can be transported in the flow. Fine materials are transported as sediment throughout the catchment. Weathered rock and organic matter make up the soils that blanket the landscape. Soils have different textures, mineral content, structure and drainage properties. The nature of the soils in your catchment will have a key role in deciding how much water runs off the land and how likely the land is to erode.

Upper Catchment Area

Streams begin their journey to the sea in the upper reaches of the catchment. Some may appear briefly, flowing only during periods of intense rainfall. Some are intermittent, flowing during the wet seasons of the year. Others are more permanent, having year-round flow. If the stream is steep it will be fast-flowing and energetic. This means that it has the energy to carry large amounts and large-sized pieces of rock and gravel which have been eroded from stream beds and banks. Streams tend to be narrower here and riparian vegetation almost completely covers the stream with its canopy. Very little sun reaches these streams, so the water temperature remains cool throughout the year. Low light levels restrict algal growth, and upstream plant eaters (herbivores) rely mostly on food material from outside the stream, leaves, fruits, seeds, twigs and bark. The headwaters of a river system can be very important to the health of the entire river.

Middle Catchment

In the middle reaches of the catchment some tributaries have entered the stream and added to the flow. The land is generally flatter, and the flow of the stream is slower. There are frequent shallow areas of faster moving water called riffles, where rocks break the surface and deeper areas of water called pools. The

bottom substrate is composed of mostly gravel and cobble. The stream regularly overflows onto this area, slows, and dumps its load of sediment. The stream often flows across the flood plain in curves or meanders. Usually there is a combination of erosion on the outside edge of bends, where the water flow is more rapid, and sediment in areas where the water flow is slower. In these middle reaches the canopy no longer reaches across the stream to shade the entire water surface. Here the sun is able to warm the water, raising water temperature over the day. Slower flows, together with murkier water in these reaches may increase the heat. Seasonal changes in water temperature are usually greatest in this section. Organic debris still falls into the stream from the riparian zone but the amount of light increases algae become an important part of the food base.

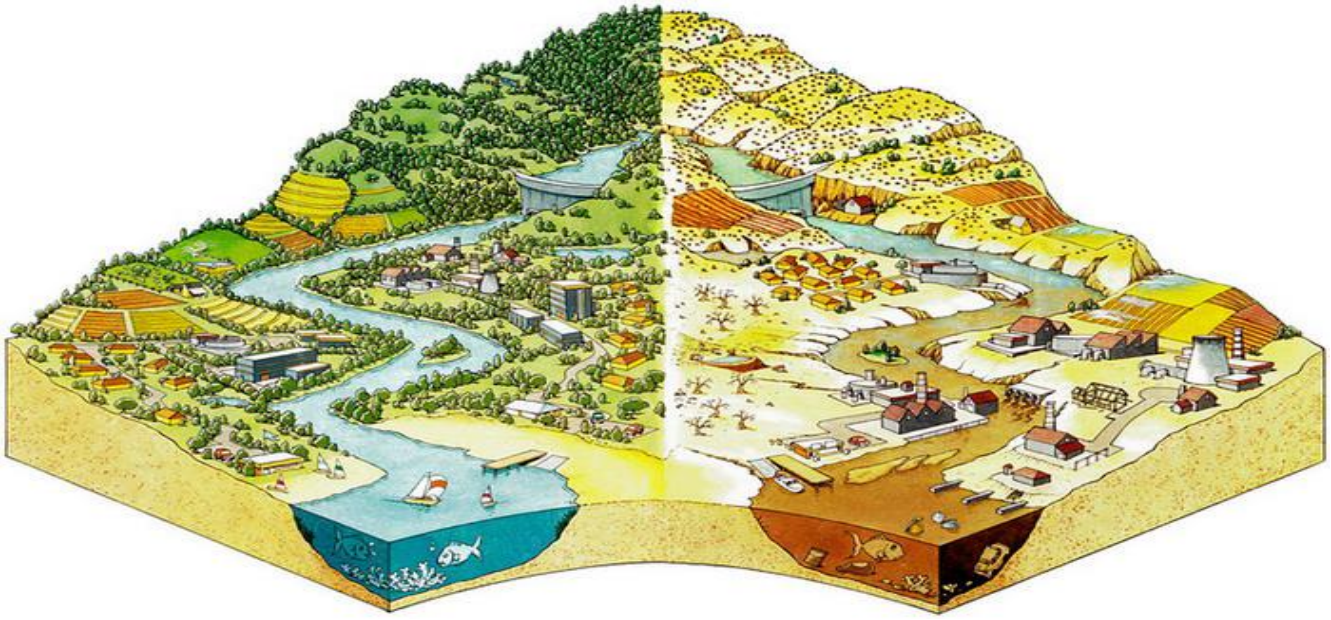


Figure 7.7. Demonstration of Catchment area for river

Lower Catchment area

Moving downstream towards the streams mouth, more tributaries have entered and added more flow. The wider, deeper channel meanders through a flat flood plain and broad valley. The stream travels very slowly and deposits the large quantities of sediment it has been carrying from further upstream. Although the water is unshaded, the murky water limits sunlight penetration, but some attached algae may grow in the shallows if stones or other suitable substrate are available. Fine particles replace organic debris and algae as the food source. The community of small aquatic organisms is changed again. Collector-filterer macroinvertebrates are more common in this stretch of the stream, filtering out accumulated minute particles suspended in the water and gathering fine particles that have settled to the river bottom.

Table-7.5. Downstream Changes in Streams

Factor	Change from Upstream to Downstream	Explanation
Stream Velocity	Decrease	Reduced gradient of the stream and greater depth
Temperature	Increase	Increased exposure to sunlight (less shade and an increase in the length of sunlight time), lower altitude and energy absorbed by suspended particles (turbid streams).
Water Clarity	Decrease	Accumulation of sediment from runoff and erosion
Nitrogen and	Increase	Increased discharge into the stream, particularly

Phosphorus		from soil water. Increase may be hidden because aquatic plants use it. More agricultural activity on lowlands
Conductivity	Increase	Above
Dissolved Oxygen	Decrease	Decrease in tumbling and mixing (aeration), slower flow velocity, higher water temperature. Abundant aquatic plant growths result in greater daily variation.
Biological Oxygen Demand (BOD)	Increase	Increased amount of organic matter, uses oxygen as it decays.
pH	Decrease	CO2 levels increase as a result of photosynthesis by aquatic plants. Daily change particularly evident in the middle reaches of the stream.
Faecal Coliforms	Increase	Accumulated contamination along length of stream from stock wastes
Macroinvertebrate Community	Shift in composition	Shift from collector-browsers to grazers and collector-filterers Less .sensitive. Species present as substrate and oxygen levels become less suitable
Habitat	Fewer riffles and less variety in pool depth and size	Reduced gradient of the stream
Substrate	Smaller particle sizes poorly sorted	Reduced gradient (lower flow velocities and therefore less kinetic energy

Stream Order

Streams are often classified by size. Within any catchment the smallest streams that have year round flow and no tributaries are called first order streams. When two first order streams meet they form a second order stream. A third order stream is formed when two second order streams join, and so on. Stream order only changes when two streams with the same classification meet. For example, when a first order stream meets a second order stream the resulting stream remains a second order stream. The idea of catchments is useful, as it is the standard functioning unit of the landscape: water, soil, plants and animals are all linked together within a catchment, and any activity that occurs within a catchment will affect the whole catchment. Healthy catchments are important for human survival, as it is where our food is grown and where all the water we drink comes from.

Dandy and Bolton Formula for Calculation of Sediment Yield

Dandy-Bolton formula is often used to check whether the sedimentation yield exceeds the replenishment rate but the whole question is whether there is adequate monitoring of the river basin, the answer is no as hydrological stations are sparsely spread. The formula uses catchment area and mean annual runoff as key determinants to give a yield value. It does not differentiate in basin wide smaller streams and their characteristics. CWC distinguishes river basins as classified and non-classified, as per the latest hydrological data for unclassified River basins; there are 122 GDSW (Gauge, Discharge, Sediment & Water Quality) sites in 12 such basins, the number was 147 in 2005. This brings in context the whole issue of scientific mining, thereby indicating that the monitoring of sediment yield in rivers / streams within the river basins is essential to arrive at extraction rates and express and conduct environmental studies based on these basin wide characteristics which should become part of the 'Terms of Reference'.

Sediment Yield versus Drainage Area

On the average, sediment yield is inversely proportional to the 0.16 power of drainage area between 1 and 30,000 square miles.

Sediments Yield versus Mean Annual Runoff

Sediment yield increased sharply to about 1,860 tons per square mile per year as run-off increased from 0 to about 2 inches. As runoff increased from 2 to about 50 inches, sediment yield decreased exponentially. Because sediment yield must approach zero as runoff approaches zero, a curve through the plotted points must begin at the origin. The abrupt change in slope of a curve through the data points at Q equals 2 inches precluded the development of a continuous function that would adequately define this relationship. Thus, there are two equations derived for when Q was less than 2 inches and when Q was greater than 2 inches.

Combined Effect of Drainage area and Run off on Sediment Yield

Dandy- Bolton determined the combined influence of runoff and drainage area on sediment yield to compute the sediment yield. They develop two equations *i.e.* for run off less than 2 inch and for run off more than 2 inch, which are given below:-

For run off less than 2 inches (Q < 2 in)

$S=1280*(Q)^{0.46}*[1.43-0.26\ Log(A)]$

For run off more than 2 inches (Q > 2 in):

$S= 1958*(e^{-0.055*Q})*[1.43-0.26\ Log(A)]$

Where: S = Sediment yield (tons/mi^2/yr)
Q = Mean Annual runoff (inch)
A = Net drainage area (mi^2)

Table 7.6 District Profile Yamuna Nagar

Name of State	Haryana
Name of District	Yamuna Nagar
Geographical Area (sq.km.)	1,756
Major Geological formation	Alluvium and Hard Rock
Major drainage system	Yamuna river and Markanda R.
Population (As per 2011Census)	1214205
No of Blocks	6
Existing Major / Medium irrigation projects	Western Yamuna canal
Utilizable ground water resources (MCM)	758
Net ground water draft (MCM)	414
Stage of ground water development (%)	59
Average annual Rainfall (mm)	**1107**
Range of Temperature (^oC)	6.3 – 40.3
Name of Block showing intensive GW development	Nil

Source: http://cgwb.gov.in/District_Profile/Haryana/Yamuna%20Nagar.pdf

Drainage

The drainage pattern of Yamuna River from North to South and its originates from the Yamunotri glacier near Bandar Punch in the Mussourie range of the lower Himalayas in the district Uttarkashi (Uttrakhand) and confluence with river Ganga at Allahabad (Uttar Pradesh). Yamuna Nagar district is bestowed with rich water resources, both surface as well as ground water resources. The ground water is major sources of irrigation in the district. Nearly 40% of area is irrigated by canal water. Distributaries in the district are 21.45 Km long. Two major canals passing through the district are Western Yamuna Canal and augmentation canal. Length of unlined WJC is 63.64 Km whereas augmentation canal is 22.54 Km long. Net irrigated area is 1130 Km^2 whereas, gross irrigated area 1860 Km^2. Total catchment area of Yamuna River in Haryana is 21265 Km^2 and % contribution is 6.5%.

Table 7.7: Catchment of River Yamuna

Name of state	Total catchment area in Yamuna (Sq.Km.)	%age contribution
U.P. (including Uttrakhand)	74208	21.5
Himachal Pradesh	5799	1.6
Haryana	21265	6.5

Rajasthan	102883	29.8
Madhya Pradesh	14028	40.6
Delhi	1485	0.4

Source: CPCB, 2006

Calculation and Replenishment Capacity of Yamuna River

River - Yamuna River

Nature – Perennial/Seasonal .

Catchment Area-15000 Km^2 (assumption for lease area of 44.14 ha. or 0.4414Km^2 having 34466.81 ha. or 345 Km^2 area within 10Km radius in study area and the catchment area for this region as per physiographic of the area is 15000 Km^2 .The catchment area is defined above para).

Annual Average Rainfall -1107 mm

Average Annual Runoff- 10 mm

Sediment Yield Formula

For Q < 2 in: $S = 1280\ Q^{0.46}$ [1.43-0.26 log (A)]

For Q > 2 in: $S = 1965\ e^{-0.055Q}$ [1.43-0.26 log (A)]

Here:

Q (in) = Mean Annual run off = 3.5 inch or 10 mm

A (mi^2) = Catchment Area= 15000 Km^2

Sediment yield S= (M. tons /yr)

S= 1965 e-0.055x10[1.43 – 0.26 log (15000)]

S = 131.93 T/Km square per annum

Total Sediment (tons/yr) = 1979005.71 tons/yr.

Source: Calculation of sediment yield by the Dandy-Bolton formula & http://grdc.sr.unh.edu/.

Replenishment With Respect to Production Capacity

- The maximum annual production is 19.50 Lakhs TPA in riverbed block.
- The amount of sediment regenerated every year derived hypothetically by Dandy-Bolton's equation will be **1979005.71 Tons per annum** for the proposed lease area.
- Therefore, the percentage of replenishment is more than 100% every year. In view of this huge amount of sedimentation there are fare chances of replenishment of the river bed annually.
- The hypothetical derivation of replenishment data is not supported by any ground evidence as the same can be derived only after annual study due to inconsistent rains in Haryana.
- The derived replenishment data is based on macro-watershed data taken from satellite imagery with sample ground truthing and annual average rainfall.
- The data derived is based on SRTM 30 m resolution processed using ARCGIS software with linear and resolution factors affecting the derivation.

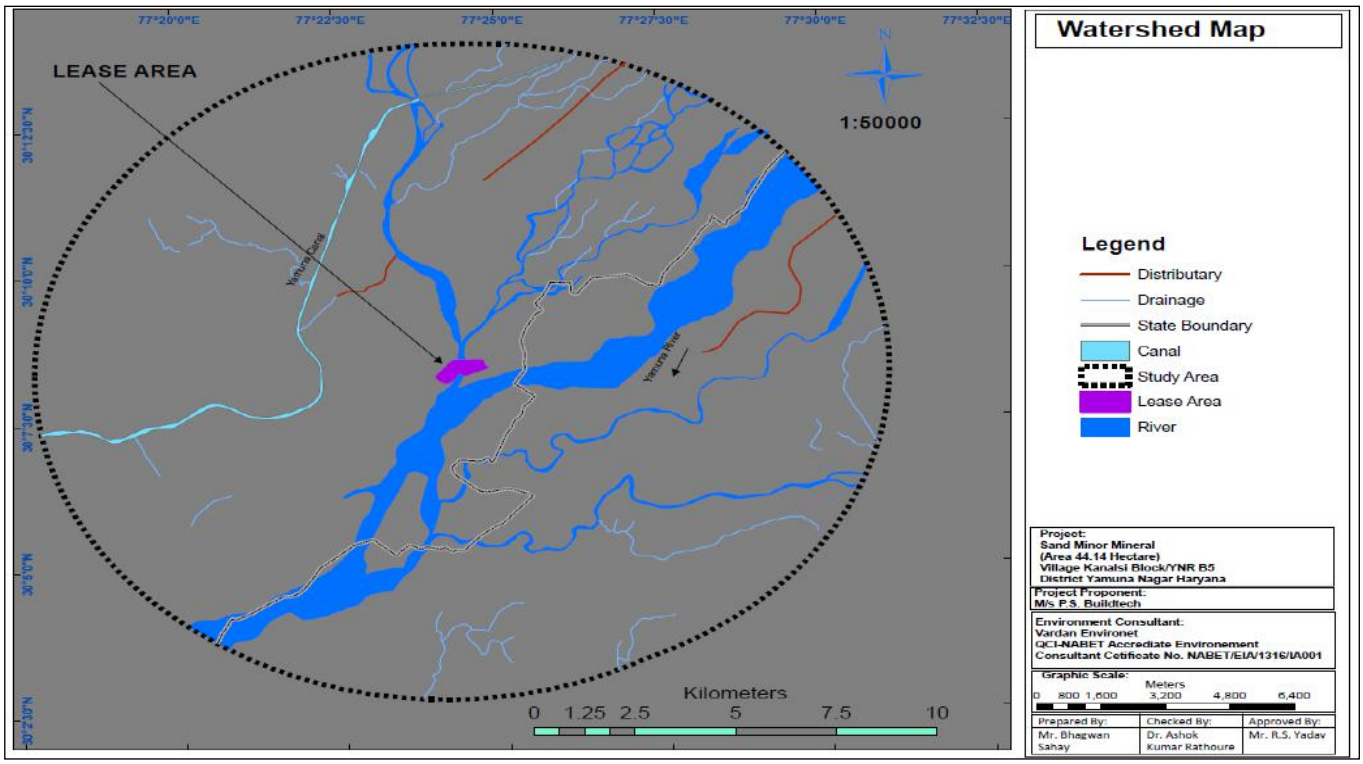


Figure: 7.3 Watershed Map of the Study Area

7.10 REHABILITATION & RESETTLEMENT (R & R)

There is no displacement of the population within the project area and adjacent nearby area and the complete lease area is Govt. land. However Social development of village will be considered as per social activities. Reclamation and rehabilitation by back filling the worked out area, Provision and maintenance of protective works like drains, parapet walls, retaining walls, check dams, Management of Air & water quality, Management of Waste, top soil, infrastructure and mining machinery disposal, Safety and security. The resources required for management of these operations shall be supervision, raw materials (mainly sand available at mines), gates, fencing, transport and Communication. All the above operations shall be carried out in three months time. As per the point xiv of LoI the lease holder will be deposited 10% of the annual contract money *i.e.* **40.85 Lakhs,** approx. to the **Mines and Minerals Development, Restoration and Rehabilitation Fund**.

7.10.1Mines and Minerals Development, Restoration and Rehabilitation Fund

As per the point xiv of LoI the lease holder will be deposited 10% of the annual contract money *i.e.* **Rs. 40.85 Lakhs** to the **Mines and Minerals Development, Restoration and Rehabilitation Fund**. This amount will be spent by lease holder for the protection of environment in the nearby surrounding area. The officers of the State Government Haryana will strictly monitor the compliance of lease holder in this regard. Other than this social development of village will be considered as per social activities.

The following objectives are intended to be achieved through the aforesaid fund:

- **i.**Funding of the restoration or reclamation or rehabilitation works in the sites affected by mining operations.
- **ii.**Provision of common facilities for the benefit of community in and around areas where mining activities are undertaken.
- **iii.**Development of infrastructure facilities for orderly growth of the mining operations and allied activities e.g. roads, water supply etc.
- **iv.**Funding rehabilitation measures along with the environmental safeguards, mineral conservation and others.

In this way this amount will be spent by the lease holder for environmental protection and mineral conservation in the surrounding area of core and buffer zone.

7.11 ENVIRONMENTAL SOCIAL RESPONSIBILITY

The activities to be undertaken for the local people under ESR have been identified and approx. **Rs. 12.25 Lakhs** per annum towards Environmental Social Responsibility. The major activities will be:

Table 7.8: Budget for Environmental Social Responsibility

S. No.	Description	Budget (Lakhs)
1.	Vocational training on- • Fire and safety, • Health and safety, • Awareness program on cancer and AIDS.	2.25
2.	Sanitations and drinking water facility at Village Kanalsi	2.00
3.	Sanitations and drinking water facility at Village Bhojpur	2.00
4.	Sanitations and drinking water facility at Village Majri Tapu	2.00
5.	Assistance to self help group	2.00
6.	Health check up camps	2.00
Total		**12.25**

It is expected that this will improve the socio-economic status of the people and at the same time the popularity of the project proponent will enhance. The local community in the study area desired that the project proponent should take up development initiatives for the betterment of the local people. For each activity the funds to be earmarked by the proponent will be decided after discussion with the local authority and the beneficiaries. It has been planned to undertake a concurrent evaluation of the activities to be taken up under the ESR program.

7.12 SUMMARY

The public hearing of boulder, gravel and sand mining project viz. 'Mining of boulder, gravel and sand mines namely "Kanalsi Block /YNR B-5" over an area of 44.14 Ha. falling in Kanalsi Block/YNR B-5", Tehsil-Jagadhri, District Yamuna Nagar (Haryana). Haryana' was conducted on 23.05.2016 at 2:00 P.M. at Project Site Village -Kanalsi, Tehsil-Jagadhari, District-Yamuna Nagar. Risk assessments will help mine operators to identify high, medium and low risk levels. This is a requirement of the Occupational Health and Safety Act 2000. Risk assessments will help to priorities the risks and provide information on the need to safely control the risks. In this way, mine owners and operators will be able to implement safety improvements. Mining and allied activities are associated with several potential hazards to both the employees and the public at large. A worker in a mine will be able to work under conditions, which are adequately safe and healthy. At the same time the environmental conditions also will not impair his working efficiency. This is possible only when there is adequate safety in mines. Hence mine safety is one of the most essential aspects of any working mine. The conservation plan has been prepared and will be submitted to APCCF Panchkula Haryana. A budget of **Rs 9.10 Lakhs** has been allocated towards conservation of scheduled fauna in the area for the implementation of conservation proposal. This mining project has positive impact on social and economic well being of the community because this project provides employment opportunities to local people and many social welfare works done by project proponent. The percentage of replenishment is more than 100% every year. In view of this huge amount of sedimentation there are fare chances of replenishment of the river bed annually. There is no displacement of the population within the project area and adjacent nearby area. However, as per the point xiv of LoI the lease holder will deposit 10% of the annual contract money *i.e.* **Rs. 40.85 Lakhs per annum** to the **Mines and Minerals Development, Restoration and Rehabilitation Fund**. This amount will be spent by lease holder for environmental protection and mineral conservation in the surrounding area of core and buffer zone. The officers of the State Government Haryana will strictly monitor the compliance of lease holder in this regard.

CHAPTER-8
PROJECT BENEFITS

8.0 GENERAL
The execution of the project bring overall improvement in the locality, neighborhood and the State by bringing industry, roads, employment and hence improving living standard and economic growth.

8.1 PHYSICAL BENEFITS
The opening of the proposed project will enhance the following physical infrastructure facilities in the adjoining areas:

a. **Road Transport:** There will be improved road communication due to the proposed project and maintenance will also be done time to time.
b. **Market:** Generating useful economic resource for construction. Excavated mineral will provide a good market opportunity.
c. **Infrastructure:** Creation of community assets (infrastructure) like provision for drinking water, construction of school buildings, village roads/ linked roads, dispensary and health centre, community centre, market place etc, as a part of environmental and social responsibility.
d. **Enhancement of Green Cover**: As a part of reclamation plan, plantation will be carried along the river banks or along the road sides or near the civic amenities.
e. **Green Belt Development:** A suitable combination of trees that can grow fast and also have good leaf cover will be adopted to develop the green belt. It is proposed to plant **1,000 Nos**. per annum of native species along with some fruit bearing and medicinal trees during the mining plan period.
f. **Local Employment:** This project will enhance the opportunities of employment for the local villagers near the lease area due to which their economic status become better.

8.2 SOCIAL BENEFITS
The mining in the area will create rural employment. It has been observed that conditions of the villages around mining areas are better than that of distant villages. The mining activity in the region will have positive impact on the social economic condition of the area by way of providing employment to the local inhabitants; wages paid to them will increase the per capita income, housing, education, medical and transportation facilities, economic status, health and agriculture.

A detailed program for socio economic development of the area has been framed. The salient features of the programme are as follows:

i) Social welfare program like provision of medical facilities educational facilities, water supply for the employees as well as for nearby villagers will be taken.
ii) A well laid plan for employment of the local people has been prepared by giving priority to local people.
iii) Supplementing Govt. efforts in health monitoring camps, social welfare and various awareness programs among the rural population.
iv) Assisting social forestry program.
v) Adoption of villages for general development.
vi) Supply of water to village nearby villages.
vii) Development of facilities within villages like roads, etc.

Environmental and Social Responsibility

A budget of **Rs. 12.25 Lakhs** per annum towards Environmental and Social Responsibility which can be used for welfare of nearby village and will help in improving the socio-economic status of the residents. Description of Budget for Environmental and Social Responsibility (ESR) is given in chapter 7.

8.3 ECOLOGICAL BENEFITS
A green belt will be developed along the boundary of the mining lease area. The area for green belt plantation consists of undisturbed soil; hence plantation could be made as in any garden or road side plantation. Green belt is erected not from biodiversity conservation point of view but is basically developed as a screen to check the spread of dust pollution. It is proposed to plant **1000 Nos.** per annum of native species along with some fruit bearing and medicinal trees during the plan period and a budget of **Rs. 2.10 Lakhs** for plantation is given

in EMP. A green belt, 7.5m in width will be developed around the core zone. Green belt plantation will be started with the beginning of the mining and will be completed within five years from the beginning.

8.4 SUMMARY

The management will recruit the semi-skilled and unskilled workers from the nearby villages. The project activity and the management will definitely support the local Panchayat and provide other form of assistance for the development of public amenities in this region. The company management will contribute to the local schools, dispensaries for the welfare of the villagers. A suitable combination of trees that can grow fast and also have good leaf cover will be adopted to develop the green belt. It is proposed to plant **1000 Nos.** per annum of native species along with some fruit bearing and medicinal trees during the mining plan period. The project proponent has allocated about **Rs. 12.25 Lakhs** per annum for ESR Activities and **Rs 40.85 Lakhs** to the **Mines and Minerals Development, Restoration and Rehabilitation Fund**. This amount will be spent by lease holder for the protection of environment in the nearby surrounding area. The officers of the State Government Haryana will strictly monitor the compliance of lease holder in this regard. Other than this social development of village will be considered as per social activities.

CHAPTER-9
ENVIRONMENTAL COST BENEFIT ANALYSIS

9.0 PROJECT COST

After making exhaustive study, it is considered desirable that the mining project may be implemented. Project cost for the proposed Sand Mining namely **"Kanalsi Block/ YNR B-5"** over an area of **44.14 Ha**. falling in Kanalsi, Tehsil Jagadhri District Yamuna Nagar (Haryana) is **Rs. 5.00 Crores**. The estimated profit will be **Rs. 1.50 Crores** which is 39.0% of capital cost.

Table-9.1 Financial Pattern

Major Heads	**Total**
Production Capacity	19,50,000 Tons per annum
Production Cost of Mineral	Rs 107.50/- Per Ton
Sale Value of Mineral	Rs 118.50/- Per Ton
Profit	Rs.10.00 per Ton
Estimated Profit per Annum	**1,95,00,000/- Per Annum**

9.1 ENVIRONMENT COST ANALYSIS

The Environment cost for this proposed mining includes Environmental Management Plan, Environmental and Social Responsibility, Occupational Health and Safety and Conservation Plan which is likely to come approximately **Rs. 82.10 Lakhs per annum**. The detailed cost for Environmental Expenses is given in Table 9.2. The profit from this project will be **Rs. 1,95,00,000- 82,10,000 = Rs. 1,12,90,000/-.** which is 22.58% of capital cost.

Table 9.2 Environmental Cost Analysis

S. No	**Major Heads**	**Budget (Rs. in Lakhs/Annum)**
1.	**Environmental Management Plan**	36.00
2.	**Environmental and Social Responsibility**	30.00
3.	**Occupational Health and Safety**	15.00
4.	**Conservation/Management Plan**	1.10
	Total	**82.10**

9.2 SCHEDULE OF PROJECT IMPLEMENTATION

The estimated capital cost and financial viability of the present scheme has been worked out on the assumptions that the above scheme will be completed by the end of Year, 2025.

From the above financial analysis it is clear that this sand mining project is financial and technically viable.

9.3 SUMMARY

It is considered desirable that the mining project may be implemented. Project cost for the proposed Sand Mining namely "**Kanalsi Block/ YNR B-5**" over an area of **44.14 Ha**. falling in Kanalsi Block, Tehsil Jagadhri , District Yamuna Nagar (Haryana) is **Rs. 5.00 Crore.** The profit will be **Rs. 1,12,90,000/-** per annually approx.

CHAPTER-10
ENVIRONMENTAL MANAGEMENT PLAN

10.0 INTRODUCTION

The mine development in the ML area needs to be intertwined with judicious utilization of natural resources within the limits of permissible assimilative capacity. The assimilative capacity of the study area is the maximum amount of pollution load that can be discharged in the environment without affecting the designated use and is governed by dilution, dispersion and removal due to natural physicochemical and biological processes.

The environmental management must be integrated into the process of mine planning so that ecological balance of the area is maintained and adverse affects are minimized. An Environmental Management Plan (EMP) is a site specific plan developed to ensure that the project is implemented in an environmentally sustainable manner. An effective EMP ensures the application of best practice environment management to a project. The purpose of an EMP is to:

- **i.** Assists proponent in the preparation of an effective and user friendly EMP.
- **ii.** Improve the contribution that an EMP can make to the effectiveness of the environmental management process.
- **iii.** Ensure a minimum standard and consistent approach to the preparation of EMP's.
- **iv.** Ensure that the commitments made as part of the project's EIA are implemented throughout the project life.
- **v.** Ensure that environment management details is captured and documented at all stages of a project.

The design of EMP for operational phase has been aimed to achieve the following objectives:

- **i.** To ensure adoption of state of art technological environmental control measures and implementing them satisfactorily.
- **ii.** Effectiveness of mitigatory measures in mitigation of impacts.
- **iii.** Description of monitoring program of the surrounding environment.
- **iv.** Institution arrangements to monitor effectively and take suitable corrective steps for implementation of proper EMP.
- **v.** An Environmental Management Cell (EMC) should be set up to take care of all environment aspects and to maintain environmental quality in the project area.

The detailed hierarchy and responsibilities of Environment Management Cell is discussed in Chapter-6.

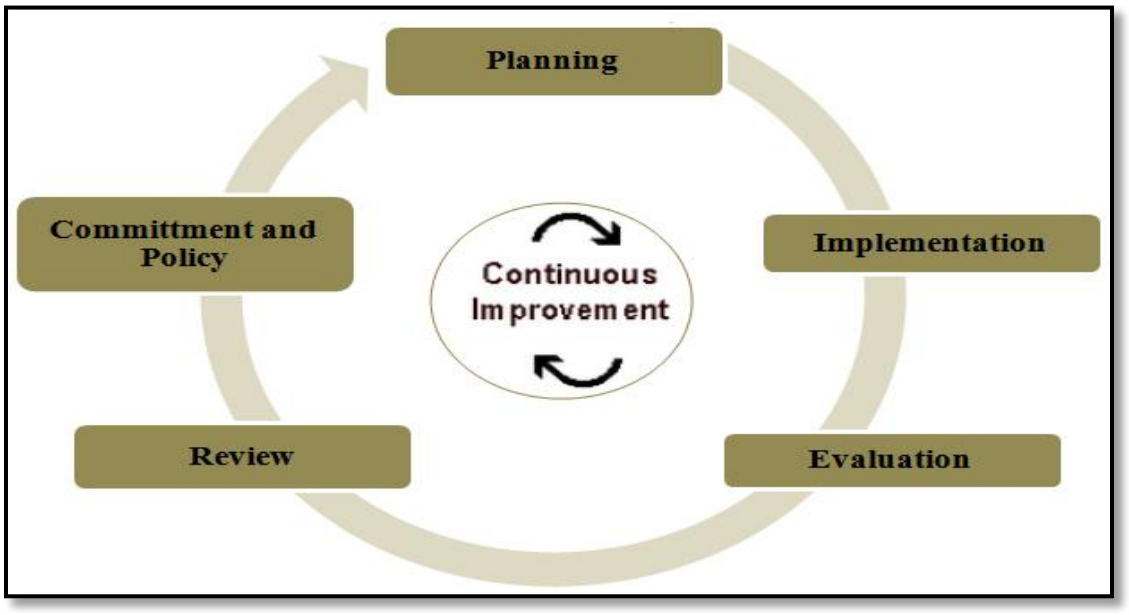


Figure 10.1: Flow Chart of EMP

10.1 LAND USE PATTERN

River bed mining can lead to river bank erosion and sedimentation arising from changes in hydrology due to alteration in water depths and river bed morphology. Sand and gravel in lowland river landforms are biologically important and an economic asset. Keeping this in mind, the following management plans are suggested:

i. The area under mining at a given time will be kept minimum and the area will be reclaimed by top soil.
ii. There will be no mining near the banks. This is to protect the bank erosion and river migration.
iii. Proper wide benches in the mining area will be created to prevent any erosion.
iv. Slopes of the sides in mine will be at least 45^0 to prevent any erosion.
v. Grass/plants will be planted on the slopes and benches to prevent soil erosion.

10.2 AIR ENVIRONMENT MANAGEMENT

Mitigative measures suggested for air emission control will be based on the baseline ambient air quality monitoring data. From the point of view of maintenance of an acceptable ambient air quality in the region, it is desirable that the air quality needs to be monitored on a regular basis to check it vis-à-vis the NAAQS prescribed by MoEF&CC and in cases of non-compliance, appropriate mitigative measures will be adopted. In order to minimize impacts of mining on air and to maintain it within the prescribed limits of CPCB/ SPCB, an Environmental Management Plan (EMP) has been prepared. This will help in resolving all environmental and ecological issues likely to cause due to mining in the area.

During the course of mining no toxic substances are released into the atmosphere as such there seems to be no potential threat to health of human beings. In the mining activities, the only source of gaseous emissions is from the engines of vehicles. The reasons may be quality of fuel, improper operation of the engine, etc; proper maintenance of engines will improve combustion process and brings reduction in pollution.

10.2.1 Control of Gaseous Pollution

In mining activities, the only source of gaseous emissions is from the engines of transport vehicles. The emissions from the diesel engines of the machinery can be controlled by proper maintenance and monitoring of machines.

10.2.2 Control of Dust Pollution

The main pollutant in air is PM_{10}, which is generated due to various mining activities. However to reduce the impact of dust pollution the following steps have been taken during various mining activities.

a) During loading operation

i) Latest loading equipment like hydraulic excavators will be used with dumpers. This reduces the number of buckets to fill from height and thus have comparatively less dust generation. The propagation of this dust is confined to loading point only and does not affect any person both the operators of excavator and dumpers who will sit in closed chamber and will be equipped with dust mask.
ii) Skilled operators will operate excavators.
iii) Avoid overloading of dumpers and consequent spillage on the roads.
iv) The operators' cabin in the drills, dumpers will be provided with dust free enclosure and persons working at high dust prone areas will be provided with dust mask.

b) During Transport operation

i) All the haulage roads including the main ramp be kept wide, leveled, compacted and properly maintained and watered regularly during the shift operation to prevent generation of dust due to movement of dumpers, and other vehicles.
ii) Mineral carrying trucks will be effectively covered by Tarpaulin to avoid escape of fines to atmosphere.
iii) Regular Compaction and grading of haul roads to clear accumulation of loose material.
iv) Air quality will be regularly monitored both in the core zone and the buffer zone.

c) Plantation work carried out

In order to reduce air pollution in the surroundings, green belt will be developed around mines office, mine approach road. The plantation will be done around the lease boundary.

d) Monitoring of air pollution

Periodic air quality survey will be carried out to monitor the changes consequent upon mining activities as per the norms of Haryana State Pollution Control Board.

10.3 NOISE AND VIBRATION ENVIRONMENT

The ambient noise level monitoring carried out in and around the proposed mine lease area shows that ambient noise levels are well within the stipulated limits of MoEF&CC. There is no drilling and blasting for mineral extraction. Noise pollution will only be due to loading and transporting equipment. Effective steps will be taken to keep the noise level well below the DGMS prescribed limit of 85 dbA.

10.3.1 Noise Abatement and Control

i. Proper maintenance of all machines is being carried out, which help in reducing generation of noise during operations.
ii. No other equipments accept the Transportation vehicles and Excavator and Loaders (as and when required) for loading is allowed.
iii. Noise generated by these equipments is intermittent and does not cause much adverse impact.
iv. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.
v. Plantation will be taken up along the approach roads. The plantation minimizes propagation of noise and also arrests dust.

10.4 WATER MANAGEMENT

There will be no wastewater generation from the mining operations. Only wastewater generation will be sanitary wastewater, which will be treated in septic tank followed by subsurface dispersion.

10.4.1 Surface and Ground Water Management

i. Mining will neither intersect the ground water table of the area. So not at all disturbing water environment.
ii. The mining does not have any impact on topography and natural drainage of surrounding area.
iii. Rain water harvesting pits will be proposed on the mining site.

10.4.2 Waste Water Management

No waste water is generated from the mining activity of minor minerals as the project only involves lifting/excavation of Sand and transportation directly to the consumers.

10.4.3 Water Conservation

The project do not consume any process water except for drinking, dust suppression and plantation. Plantation is proposed, which will increase the water holding capacity and help in recharging of ground water. No artificial rainwater harvesting is proposed for the present project.

10.5 SOLID WASTE MANAGEMENT

Waste management is an important facet of environment management. Thus, solid waste management is important from both aesthetics and environment viewpoints.

i. Solid waste (sand and silt) that will be generated during mining activities as spillage will be utilized for filling of the mine voids. Apart from this, no other solid wastes will be generated from the said mining operations.
ii. Top soil from inside riverbed will be stocked and re-laid post mining to reclaim the land for agriculture.
iii. Generated food waste or any other domestic waste will be collected in dustbins and will be properly disposed off.
iv. There are no toxic elements present in the mineral which may contaminate the soil or river water.

10.6 GREEN BELT DEVELOPMENT

The green belt shall be developed as per approved eco-friendly mine lease plan and as per CPCB guidelines. The project proponent shall also develop greenbelt in the premises of the schools, hospitals and also carry out the avenue plantation in the vacant areas along roads. The greenbelt shall be developed by planting saplings per year. Indigenous species with the consultation of the State Forest Department shall be planted and maintained

10.6.1 Plantation Program

Under the afforestation plan, plantation in nearby villages and connecting roads will be undertaken. The implementation for development of greenbelt will be of paramount importance as it will not only add up as an aesthetic feature but will also act as a pollution sink. The species to be grown in the areas should be dust tolerant and fast growing species so that a permanent greenbelt is created. Plantation in the barrier zone and roads is necessary as these areas will contain fine particulates resulting from mining operation and vehicle movement. Mining activities will not cause any harm to riparian vegetation cover as the working will not extend beyond the offset left against the banks in the river. Link road from the active zone pass through the areas. It is proposed to have plantation on both sides of the roads as greenbelt to provide cover against dust dissemination. River banks will be strengthened by way of plantation on the banks. Plantation will also be carried out as social forestry program in village, school and the areas allocated by the Panchayat/State authorities. Native plants like Neem, Khejri, Mango and other local species will be planted. A suitable combination of trees that can grow fast and also have good leaf cover shall be adopted to develop the greenbelt. It is proposed to plant 1000 No's per annum of native species along with some fruit bearing and medicinal trees during the plan period. The greenbelt development program is given in **Table 10.1 and Table 10.2**. Plantation will increase the water holding capacity and help in recharging of ground water. No artificial rainwater harvesting is proposed for the present project.

Objective of Plan:

The main purpose of this plan is to develop greenbelt and landscape at project site so that following specific purpose is met with after completion of the project:

a. General pollution abatement.
b. Air pollution attenuation.
c. Dust absorption.

As envisaged in the National Forest Policy 1988 that one third of the total area should be under green cover to maintain ecological balance in the country. It is very difficult target to attain agricultural state like Haryana but their enormous scope for attaining this target under the developmental projects where the project is designed as fresh and there is change of land use from agriculture primarily to other uses.

Therefore, to attain the target as envisaged under State Forest Policy and National Forest Policy, the provision of green belts/avenue plantations is made under developmental projects. The species proposed should be long rotation, ornamental, evergreen, hardy, wind firm. The species proposed should be long rotation, ornamental, evergreen, hardy, wind firm. The species suitable for urban areas should have capacity to combat pollution.

The project will be implemented on an area of 44.14 Ha (4,41,400 m^2).

The detail of the areas proposed under various components is given below:

1. Plantation along the Lease Boundary = 7.5*3366.19=25246.43 m^2
2. Plantation in the Mine Premises= 83370.65m^2
3. Plantation along the Haul Road starting from core area to mettled road= 3*2136= 6408 m^2
4. Plantation at suitable location from Second Year to Fifth Year along the worked out |mine benches, such that, it does not affect working of mine.

Total plantation area = 115025.08 m^2

Total no. of plants to be planted: 5000 Nos.

A green belt will be developed along the boundary of the mining lease area. The area for green belt plantation consists of undisturbed soil; hence plantation could be made as in any garden or road side

plantation. Green belt is erected not from biodiversity conservation point of view but is basically developed as a screen to check the spread of dust pollution. A green belt, 7.5m in width will be developed around the core zone. Green belt plantation will be started with the beginning of the mining and will be completed within five years from the beginning.

Following precaution will be taken:

- To raise seedlings for plantation in the green belt a nursery will be developed.
- Seedlings of only local species, suitable for green belt plantation will be raised in this nursery.
- All the representative plant species of the region were found to grow in and around the study site.
- Care will be provided against grazing and browsing.
- Timely watering during the initial stages of survival and provision will be made for the allocation of funds as well.
- During the running of mine, flora will be regenerated in different stages and the area having matured Afforestation will be properly fenced so as to avoid cutting, browsing and hacking of branches and pruning of trees
- Creating awareness among villagers residing on the periphery of the mines regarding the use of plantations.
- Plantation of indigenous species, fodder and fruit bearing tree species which can also act as habitats for wild life.
- Plantation of fruits bearing trees like Karonda, Zizyphus, Awala, Gular, Timbru, Lasoda, Aam and other Ficus species will attract sloth bear population.
- For increasing hare population turfing on the ground on both sides of nallahs by grasses will provide a suitable habitat which is most sought food for hares.

Plantation in Buffer zone

Trees will be planted in the buffer zone also. This plantation will be done at selected places only and only local species will be used in the plantation. Some of the tree species included will be Saja (*Terminalia tomentosa*), Baheda (*Terminalia bellerica*), Bija (*Pterocarpus masupium*), Bargad (*Ficus benghalensis*), Peepal (*Ficus religiosa*), Mahua (*Madhuca latifolia*), Sal (*Shorea robusta*), *Ficus recimosa*, *Pongamia glabra* etc. Care will be taken to include some fruit bearing trees like Gular (*Ficus glomerata*), Aonla (*Emblica officinalis*), Aam (*Mangifera indica*) and such trees to provide food to the herbivores which in turn will be the food source of the carnivores. Water, particularly during drier seasons, becomes the most important factor to all types of wild animals including the mammals, birds and reptiles. If water is available safely, then all other factors become secondary for the presence and survival of the wild life in any forested area. Places suitable for mini watersheds will be identified in the core as well as in the buffer zone to store rainwater. Further, to make water available at all the times, throughout the year, some of these water holes will be recharged through artificial means. Proper slope will be given to approach these water sources so that the wild animals will be able to drink water without any difficulty. Proper cover through vegetation or any other type of even artificial cover will be developed near to these water sources so that the prey species will be able to hide themselves from the predators, at the time of approaching the water sources. To attract the birds, plants yielding food to the birds will be planted on priority basis. If water and food are available to the birds without any anthropogenic disturbances the area can become an ideal place for bird watching.

Table 10.1: Time bound Progressive Plantation program

Year	Saplings to be planted	Survival 80%	Species	Place of Plantation
I	1000	800	Neem, Mango, Pipal, Jamun, Ashok, Champa, Shisham, Amaltas, Arjun etc.	Along the roads, in schools and public building and other social forestry programme.
II	1000	800		
III	1000	800		
IV	1000	800		
V	1000	800		
Total	**5000**	**4000**		

Table 10.2 List of Species for Greenbelt Development

Scientific Name	Common Name	Type	Effective in Control of Pollution
Azadirachta indica	Neem	Tree	Dust, Air Pollution, Noise Pollution
Bauhinia variegata	Kachnar	Tree	Dust
Tamarindus indica	Imli	Tree	Air Pollution
Zizyphus mauritiana	Ber	Tree	Air Pollution
Aegle marmelos	Bel	Tree	Air Pollution, Noise Pollution
Polyalthis longifolia	Ashok	Tree	Dust, Air Pollution,
Ficus glomerata	Guler	Tree	Dust, Air Pollution, Noise Pollution

Source: Guidelines for Greenbelt Development, CPCB, March, 2000

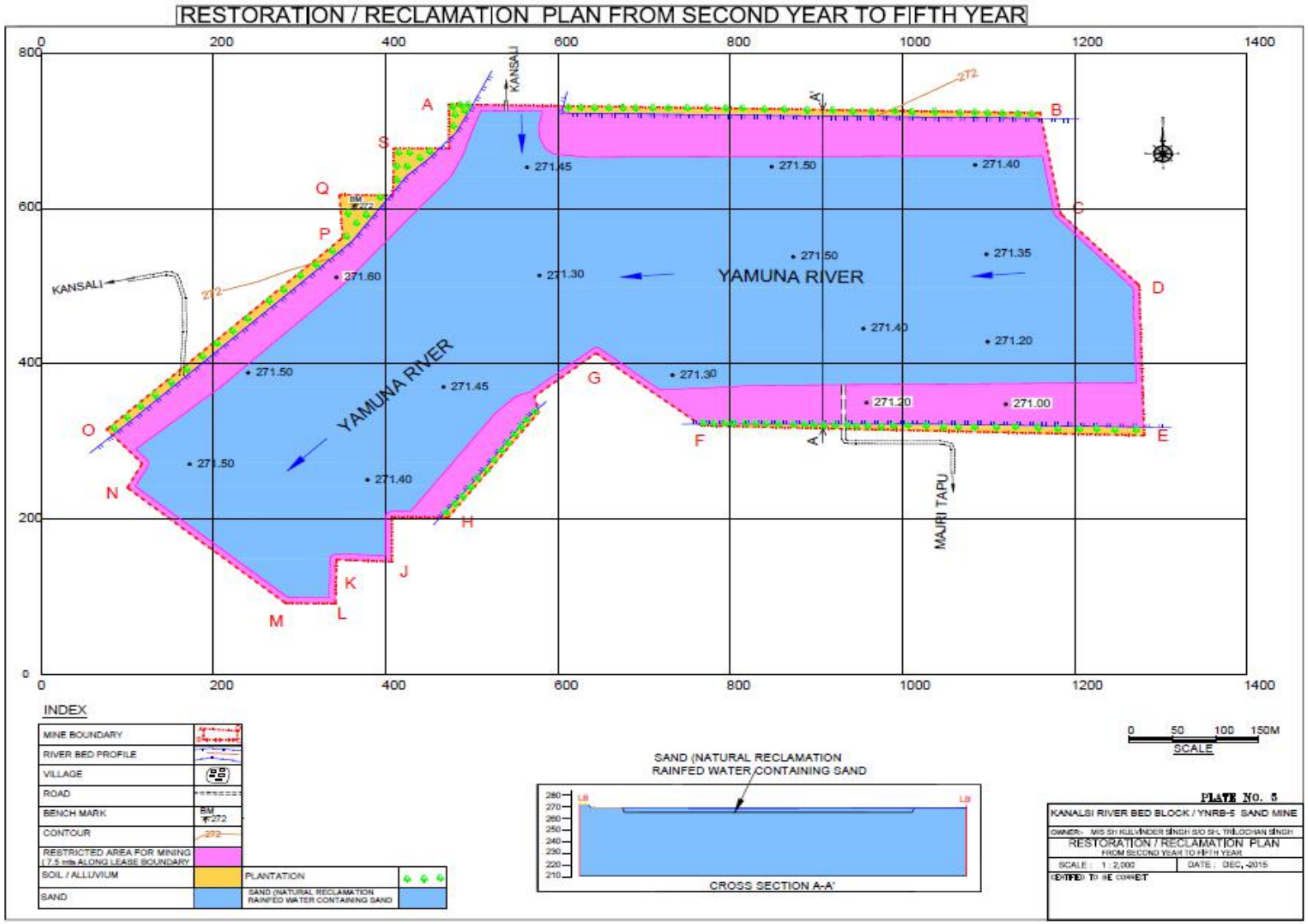


Figure 10.2:- Restoration program

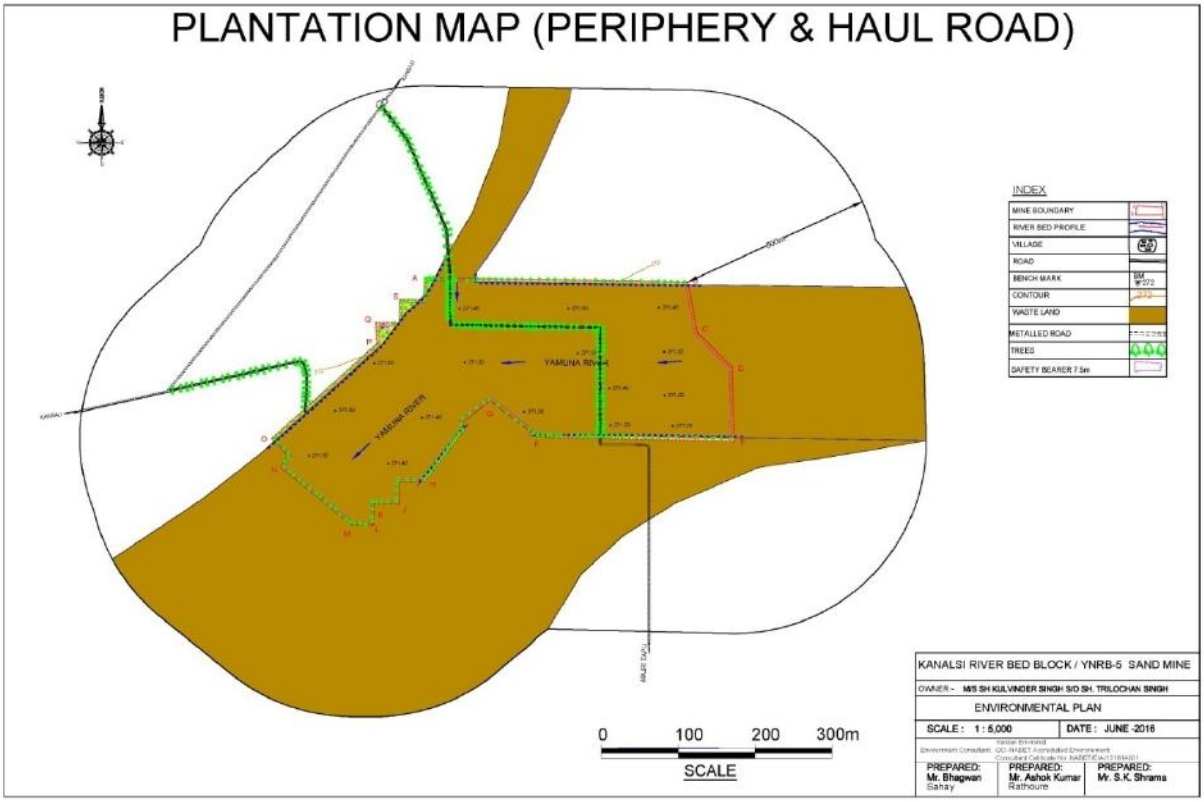


Figure 10.3 Plantation Map (Periphery and Haul Road)

10.7 SOCIO-ECONOMIC ENVIRONMENT

10.7.1 Management Plan for Socio-Economic Environment

i. In general, socio-economic environment will have positive impact due to the mining project in the area.
ii. The deployed laborers will be from nearby villages only as these people are mainly dependent upon such mining activities.
iii. In order to further improve the socio-economic conditions of the area, the management will contribute for development works in consultation with local bodies**.**

The lessee has already allocated **Rs 12.25 Lakhs** for Socio-Economic Measures.

10.8 OCCUPATIONAL HEALTH AND SAFETY

Occupational Health and Safety professionals develop and coordinate safety and health systems and strategies within organizations. They identify workplace hazards, assess risks to employee health and safety, and recommend solutions. Increasingly, Health and Safety Professionals are also responsible for many of the environmental aspects of their workplace. As this profession matures there is an increased emphasis on risk management strategy and on the development of workplace culture.

Occupational Health and Safety professionals in the minerals industry may perform the following tasks:

i. The collection of minor minerals from the Sand mine does not cause any occupational ill effects.
ii. Except fugitive dust generation there is no source which can show a probability for health related diseases and proper dust suppression will control dust generation and dispersion.
iii. Dust masks will be provided to the workers working in the dust prone areas as additional personal protective equipment.
iv. The occupational health hazards have so far not been reported.

v. Awareness program will be conducted about likely occupational health hazards so as to have preventive action in place.
vi. Any workers health related problem will be properly addressed.
vii. Periodical medical checkup will be conducted.
viii. Promote occupational health and safety within their organization and develop safer and healthier ways of working;
ix. Help supervise the investigation of accidents and unsafe working conditions, study possible causes and recommend remedial action;
x. Develop and implement training sessions for management, supervisors and workers on health and safety practices and legislation;
xi. Coordinate emergency procedures, mine rescues, fire fighting and first aid crews;
xii. Communicate frequently with management to report on the status of the health and safety strategy and risk management strategy, and Develop occupational health and safety strategies and systems, including policies, procedures and manuals.

Table 10.3: Budget for Occupational Health and Safety of the workers (15.0 Lakhs/Annum)

S. No	Risks	Mitigation of Risk	Budget/Annum (Lakhs)
1.	Minerals Loading & Vehicular Movement	**Measures to Prevent Accidents during Sand Loading.** The trucks will be brought to a level so that the sand loading operation suits to the ergonomic condition of the workers and the back-hoe. The loading will be done from one side of the truck only. The workers will be provided with gloves and safety shoes during loading. Opening of the side covers (pattas) will be done carefully and with warning to prevent injury to the loaders. No sand will be collected within 7.5m from bank, especially from outer bank of the meandering river. Safe clearance will be mainly determined by the height of the river bank and thickness of sand to be extracted from the close vicinity of that bank. Pounding in the river bed shall not be allowed. Operations during daylight only. No foreign material (garbage) will be allowed to remain/spill in river bed and catchment area, or no pits/pockets are allowed to be filled with such material. Stockpiling of harvested sand on the river bank will be avoided. For particular operations, approaching river bed from both the banks will be avoided. Digging outside river bank within 500m for pit sand and gravel, and also taking anything from that zone for construction of access ramps, will be strictly prohibited.	Rs. 2.0
2.	Minerals Transport	**Measures to Prevent Accidents during minerals Transportation.** All transportation within the main working will be carried out directly under the supervision and control of the management. The Vehicles must be maintained in good repairs and checked thoroughly at least once a week by the competent person authorized for the purpose by the Management. Road signs will be provided at each and every turning point especially for the guidance of the drivers at the evening/night. To avoid danger while reversing the trackless vehicles especially at the embankment and tipping points, all workers will be removed from all areas for reversing of lorries, and the vehicle will have audio-visual alarm during reversing. A statutory provision of the fences, constant education, training etc. will go along way in reducing the incidents of such accidents. Generally, overloading will not be permitted. Big boulders will not be loaded. This is unsafe and may damage equipment and stowing bunker. The truck will be covered and maintained to prevent any spillage. The maximum permissible speed limit will be ensured. The truck drivers will have proper driving license.	Rs. 2.5

3.	Minerals Dumping and Storage	**Measures to Prevent Accidents due to Trucks/ Dumpers etc.** All transportation within applied mining lease working will be carried out directly under the supervision and control of the management. The vehicles will be maintained in good condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. Road signs will be provided at each and every turning point up to the main road (wherever required). To avoid danger while reversing the equipment's/ vehicles especially at the working place / loading points, stopper will be posted to properly guide reversing/ spotting operating, otherwise no person will be there within 10 Km radius of machine. A statutory provision of the fences, constant education, training etc. will go a long way in reducing the incidents of such accidents. Regular training will be provided to the operators by the Company or the Contractors.	Rs. 2.5
4.	Inundation/ Flooding	**Measures to Prevent Dangerous Incidents during Inundation/Flooding** Inundation or flooding is expected and beneficial for these sand mines as during this time only the sand reserve gets replenished. During monsoon months and heavy rains the sand mining operations are ceased. The Trucks and other vehicle plying over the dunes will be kept on the river banks beyond HFL. The workers are not allowed to go over the dunes during heavy rains. There will be mechanism/warning system of heavy rains and discharges from the upstream dams. In case of critical situation or in case of death the victim will be compensate financially.	Rs. 2.0
5.	**Education awareness and first aid kit** The training will be provided to all the personnel by s qualified and having more than five year of experience in relevant field. Adequate training/refresher training will be provided to the supervisors, workers keeping in view provisions of Mines Vocational Training Rules, 1966; Mine Rules, 1955, Mines Rescue Rules, 1985. Personnel who have to operate and maintain HEMM, Trucks etc are to be trained under the guidance of the manufacturers and as per provisions of DGMS Circular Technical 1/1989 regarding accidents in opencast mines. Recommendation of Seventh Conference on Safety in Mines on "Safety in Open Cast Mining", "Traffic Rules and Procedures", "Mobile equipments and Highway Delivery Vehicles", "Operations and Operator Training" and other related circulars. The training of mine personnel will be provided regularly with respect to environmental protection. Special courses for employees will be arranged for afforestation, revegetation, reclamation, health hazards (identification), malaria eradication, HIV prevention etc in the training centre of the company. The first aid box will be keep at a place which can be easy to access to the worker.		Rs. 2.0
6.	**The qualified (MBBS) person will be hired to Medical Examination.** **Medical Examination Schedule** Initial Medical Examination (Mine Workers) Physical Check -up Psychological Test Audiometric Test Respiratory Test Periodical Medical Examination (Mine Workers) Physical Check -up Audiometric Test Eye Check -up Respiratory Test		

	Medical Camp (Mine Workers and Nearby Villagers Training (Mine Workers) ***Note:*** *Medical Follow Ups Work force will be divided into three targeted groups age wise as follows:* ***Age Group*** — ***PME as per Mine Rule 1955*** — ***Special Examination*** *Less than 25 years* — *Once in a Three Years* — *In case of emergencies* *Between 25 to 40 Years* — *Once in a Three Years* — *In case of emergencies* *Above 40 years* — *Once in a Three Years* — *In case of emergencies*	

10.9 COST OF EMP MEASURES

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures.

Table 10.4: Budget for EMP

S. No.	Particulars	Capital Cost (Lakhs)
1.	Pollution monitoring – Air, Water, Noise and Soil	3.00
2.	Dust Suppression	5.00
3.	Plantation with maintenance	2.10
4.	Rainwater Harvesting	5.00
5.	Haul road and other roads repair and maintenance	3.0
6.	Pre monsoon and Post Monsoon survey for sedimentation in the river bed	2.00
	Total	**20.10**

10.10 REHABILITATION AND RESETTLEMENT (R &R)

There is no displacement of the population within the project area and adjacent nearby area and the riverbed area is Govt. land. However, as per the point xiv of LoI the lease holder will deposit 10% of the annual contract money *i.e.* **40.85 Lakhs** to the **Mines and Minerals Development, Restoration and Rehabilitation Fund**. This amount will be spent by lease holder for the protection of environment in the nearby surrounding area. The officers of the State Government Haryana will strictly monitor the compliance of lease holder in this regard.

10.11 SUMMARY

As per Above discussion there is no measure impact on the environment due to mining except fugitive emission in the form of dust generated during handling of mineral. The adequate preventive measures will be adopted to contain the various pollutants within permissible limits. Plantation development will be carried out in the mine premises, along the approach roads, around Govt. buildings, schools approx 1000 trees per year. It will prove an effective pollution mitigate technique, and help avoid soil erosion during monsoon season. Employment opportunities will be provided to the locals only as providing extraction of minerals from the mine site is the only prevailing occupation for them for their livelihood. A budget of **Rs. 12.25 Lakhs per annum** for Environmental and Social Responsibility, budget of **Rs. 15.00 Lakhs** for Occupational Health and Safety and budget of **Rs 20.10 Lakhs per annum for EMP** is incurred by Project Proponent. The lease holder will also deposit 10% of the annual contract money *i.e.* **40.85 Lakhs** to the **Mines and Minerals Development, Restoration and Rehabilitation Fund.**

CHAPTER-11
SUMMARY AND CONCLUSION

11.0 GENERAL

The chapter discuses about the summary of whole EIA/EMP report along with recommendation and conclusion. The proposed mining lease area falls in Survey of India Toposheet (OSM) No. H43L8, H43L12 The lease area is located near Kanalsi Block, Tehsil- Jagadhri and District Yamuna Nagar, Haryana.
The mine lease coordinates are listed below:

Table 11.1 Details of the Project

A	**Lease Area Details**	
	Lease Area	44.14Ha
	Type of Land	Govt. land (Gaur Mumkin, Nadi, Nala.)
	Topography	Undulating (Inside Riverbed)
	Site Elevation Range	Ranges from 267 m amsl to 276 m amsl
B	**Production Details**	
	Proposed production	19.50 Lakhs TPA
	Mineable reserves	19,52,400 tonnes
C	**Cost Details**	
	Cost of the project	Rs. 5.00 Crores
	Cost for EMP	Rs. 20.10 Lakhs/ year
	Cost of ESR	Rs. 12.25 Lakhs/ year
	Cost of OH&S	Rs. 20.10 Lakhs/ year
	Cost of conservation of scheduled fauna	Rs. 9.10 Lakhs
D	**Details of Environmental Setting**	
	Ecological Sensitive Areas (National Park, Wild Life Sanctuary, Biosphere Reserve, Reserve/ Protected Forest etc.) within 10 Km radius	Project area not falling under forest reserve. So, no approval is required. However Protected Forest Area falling in 10 km lease area is as under (i) Bir Tapu Reserved Forest 1.9 Km, Towards S (ii) Sungh Protected Forest 5 Km, Towards W (iii) Baila chaur Protected Forest 8 Km, Towards N (iv) Urjani Protected Forest 8.2 Km, Towards N (v) Mujahidwala Protected Forest 9.1 Km, Towards NE No. The Project area is not falling under wild life. No. The Project area is not falling under CRZ notification
	Archaeological Important Place	None within 10 Km radius of the project
	CRZ areas within 10 Km radius	None within 10 Km radius of the project
	Nearest Town	Yamuna Nagar– 8 Km in NW direction
	Nearest major city with 200000 population	Jagadhri- 10.56 Km in NW direction
	Nearest Railway Station	Jagadhri Railway Station-11.13 Km in SW direction
	Nearest National Highway	NH -73 8.30 Km SW, SH-1 12 Km, NW, SH- 57 20, SE
	Nearest Airport	Chandigarh Airport-83.49 Km in NW direction
	Seismic Zone	Zone IV

11.1 INTRODUCTION

As per MoEF, New Delhi Gazette dated 14th September 2006 and a amendment in MoEF notification dated MoEF&CC Notification dated 15.01.2015 this project falls under Category "B1", 1(a), as total area is exceeding more than 25 hectares and less than 50 hectares. The project involves extraction of Sand from inside River bed of Yamuna of Yamuna Nagar district, Haryana. The Letter of Intent (LoI) vide Memo no. **DMG/HY/Cont/Kanalsi Block/NYR B5/2015/10072** dated **30/11/2015** has been issued by Department of Mines & Geology, Haryana in favor of Sh. Kulvinder Singh Prop. M/s P.S.Buildtech, Yamuna Nagar for removal of Sand (minor mineral) from the inside river bed in Kanalsi Block . The validity period of the contract is **09 years**. The project involves total area of 44.14 Ha in Kanalsi Block, Tehsil Jagadhri and District Yamuna Nagar, Haryana.

11.2 PROJECT DESCRIPTION

The proposed project is for mining of sand (Minor Mineral) by open cast semi-mechanized method in riverbed over an area of 44.14 Ha. by Sh. Kulvinder Singh Prop. M/s P.S. Buildtech, Yamuna Nagar in Kanalsi Block,YNR B-5, Tehsil-Jagadhri, District- Yamuna Nagar, Haryana with proposed production capacity of 19.50 Lakh TPA of sand (Minor Mineral). The climate of Yamuna Nagar district can be classified as subtropical monsoon, mild and dry winter, hot summer and sub-humid which is mainly dry with hot summer and cold winter except during monsoon season when moist air of oceanic origin penetrates into the district. The normal annual rainfall of the district is 1107 mm, which is unevenly distributed over the area in 43 days. The south west monsoon sets in from last week of June and withdraws in end of September, contributed about 81% of annual rainfall. July and August are the wettest months. Rest 19% rainfall is received during non-monsoon period in the wake of western disturbances and thunderstorms. The project site falls under seismic zone IV which is a high damage risk zone (MSK VIII). Many part of the state of Haryana are prone to flooding. The total geological reserve is **26,48,400 Tons** and total mineable reserve is **19,52,400 Tons.** Mine lease area will be restricted to 3 m inside riverbed. Mineral will be transported by trucks. The deposit is moderate to good quality of sand (Minor Mineral). It is widely used in construction, buildings, bridges and other infrastructure. It is free from clay and non sticky in nature. Total water requirement for the project is **40 KLD**. Total man power requirement for the project is **65**. The site facilities like canteen, rest-shelter, first aid facility, water and electricity supply etc. will be provided as per requirement. There is no litigation pending against this project.

11.3 ANALYSIS OF ALTERNATIVES

We have analyzed all the option for alternatives of the proposed mine site. This project is for mining of Sand (minor mineral) and existing land use of mine lease classified as inside Yamuna River and there is no alternate site is suggested for this project.

11.4 DESCRIPTION OF THE ENVIRONMENT

Environmental data has been collected in relation to proposed mining for Air, Noise, Water, Soil, Ecology and Biodiversity. The generation of primary data as well as collection of secondary data and information from the site and surroundings was carried out during pre monsoon season *i.e.* **December 2015 to February 2016.** The EIA study is being done for the Mine Lease (core zone) and area within 10 Km distance from mine lease boundary (buffer zone), both of which together comprise the study area. The mine lease area exhibits plain to undulated topography.

Table 11.2: Baseline Environment Status

Parameters	Baseline Status
Ambient Air Quality	PM_{10} – **54.70μg/m^3 and 82.70 μg/m^3** $PM_{2.5}$ – **27.80 μg/m^3 and 48.20 μg/m^3** SO_2 – **7.50 μg/m^3 and 17.80 μg/m^3** NOx – **13.7 μg/m^3 and 30.2 μg/m^3**

Noise Level	Noise Level During Day Time: **51.5 Leq dB and 56.8 Leq dB** Noise Level During Night Time: **42.1 Leq dB and 47.3 Leq dB**
Water Quality	**Ground Water:** pH **(7.32 to 8.06),** EC varies from **0.234 to 0.820 mS/cm** TDS **(137.00 to 491.00 mg/L),** Total Hardness **(112.10 to 440.00 mg/L)** Fluoride varies from **0.07 to 0.24 mg/L** Chloride varies from **1.97 to 25.62 mg/L** are found within the permissible limits.
	Surface Water: pH **(7.46 to 8.15),** TDS **(125.00to 207.00 mg/L),** Total Hardness **(128.00 to 216.00 mg/L)** EC varies from **0.216 to 0.360 mS /cm** Fluoride varies from **0.06 to 0.08 mg/L** Chloride varies from **1.97 to 3.94 mg/L** COD varies from **9.10 to 12.0 mg/L** BOD varies from **4.00 to 4.80 mg/L** are found within the permissible limits.
Soil Quality	pH – **7.23 to 8.01**, Texture – **Silty to Sandy** Organic Matter– **0.60 % to 0.79 %** Nitrogen- **226.32 kg/hec to 296.36 kg/hec** Phosphorus-**40.28 kg/hec to 65.40 kg/hec** Potassium-**90.12 kg/hec to 112.17 kg/hec.**
Ecology And Biodiversity	Project area not falling under forest reserve. So, no approval is required. However Protected Forest Area falling in 10 km lease area is as under (i) **Bir Tapu** Reserved Forest 1.9 Km, Towards S (ii) **Sungh** Protected Forest 5 Km, Towards W (iii) **Baila chaur** Protected Forest 8 Km, Towards N (iv) **Urjani** Protected Forest 8.2 Km, Towards N (v) **Mujahidwala** Protected Forest 9.1 Km, Towards NE So, no approval is required.Subsequently, a budget of **Rs. 9.10 Lakhs** has been earmarked for conservation of wildlife.

The study area comprise of two districts of two states *i.e.* Yamunanagar (Haryana) and other part falls in Saharanpur (Uttar Pradesh). The current study reveals that the study area has most of agriculture land and vegetable corps. The ecology and biodiversity patterns reveal that the most part is covered by vegetable crops only in the winter and summer season and during the monsoon there is no vegetable or major crops grown in this area due to over flow of Yamuna River. Some of the sighted fauna was given protection by the Indian Wild Life (Protection) Act, 1972 by including them in different schedules. Among the birds in the study area, Pea fowl (*Pavo cristatus)* is included in schedule I of Wild life protection Act (1972), while many other birds are included in schedule IV. Common Mongoose (*Herpestes edwardsi)* and Monkey (*Rhesus macaque*) are a schedule –II animals among mammals. Nilgai (*Boselaphus tragocamelus*) is protected as Schedule-III animal and hares and five stripped squirrels are included in schedule IV of Wild Life Protection act 1972. The species wise conservation plan is prepared for the protection of scheduled –I and II fauna along with budgetary provision to assure the implementation of the same by the proponent.

The implementation of this mining project will generate both direct and indirect employment. Yamuna Nagar district in which the mine contract area falls is an agriculturally based district. All the basic facilities like road and rail network, medical facilities, post and telegraph, market, drinking water facilities and

education facilities are available. The project will also provide impetus to industrialization of the area and mining would be boon for the district as it will not only result in employment opportunity but also infrastructure development and overall growth of the area. At present agriculture is the main occupation of the people as more than half of the population depends on it. With the implementation of the proposed mining project the occupational pattern of the people in the area will change making more people. It was found that most of the parameters were within the limits as per the Indian Standards. In general, there is no major threat to the quality of these parameters. Similarly, the study for the biotic factors was conducted. Hence it can be concluded that the present environment status of the study area is good enough for the project activity. Adoption of adequate pollution control measures will protect the surrounding environment.

11.5 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like plantation of trees along haul roads, specially near settlements, to help to reduce the impact of dust on the nearby villages; planning transportation routes of mined material so as to reach the nearest paved roads by shortest route; regular water sprinkling on unpaved roads to avoid dust generation during transportation etc. Some of impacts may be due to increase in the PCU/hr which is **201 PCU/hr**. Transportation of sand should be minimized in the morning and evening and cannot be done in night. Access roads will not encroach into the riparian zones. Fugitive emission from vehicle movement will form a layer in leaves thus reducing the gaseous exchange process. The impact on the present noise levels due to mining operations will be restricted to the work zone areas only. The impact on the ambient noise levels will not be felt at the settlement areas due to masking effect with the existing noise levels. There is no drilling and blasting envisaged in this mining project so there is no impact of vibration due to this project. Hence, the noise levels and vibration impact due to the proposed mining operations on community will be minimal. The soil removed from inside riverbed will be simultaneously utilized for reclamation purpose before shifting in to next hectare area/field. There will be no impact on water environment due to mining in inside riverbed since there is no intersection of water table due to mining activity. There will be no waste water generation from the proposed mining activity except sanitary waste water generation that will be treated in septic tanks and will be used for plantation purpose. The mine worker will generate municipal solid waste of about **16.25 Kg per day** which will have adverse impact on human health. There will be **3 No. of garbage** provided for domestic waste collection. No overburden due to mining inside riverbed will generate pile which will change the topography of the area and divert rain water runoff channel. The mining activities will be done in a systematic manner by maintaining the road infrastructure and vehicle transport which will be protective measure for preserving the topography and drainage in the area. The ownership will not be changed as the land has been taken on contract which will be returned as it is after the contract period is over. No human settlement should be permitted in the lease mining or nearby area. No mining will be carried out during the rainy season to minimize impact on aquatic life. There are 1 species of Schedule I and 2 species of Schedule II are observed during study period hence, for the same conservation plan will be prepared and duly submitted to Chief Conservator, Forest, Panchkula, Haryana. Subsequently, a budget of **Rs. 9.10 lakhs** has allotted for the conservation of wildlife species. The mining of sand is likely to increase the per capita income of local people by which the socio-economic status of the people will be improved. The local people have been provided with either direct employments or indirect employment such as business, contract works and development work like roads, etc. and other welfare amenities such as medical facilities, conveyance, free education, drinking water supply etc. Except dust generation, there is no source which can show a probability for health related diseases. Regular water sprinkling will be done with sprinkle mounted tankers and dust masks will be provided to the workers. All workers will be subjected to medical examination as per Mines Rule 1955 both at time of appointment and at least once in a year. Medical camps will be organized for this activity. Insurance of all employees as per the rules will also be carried out. R&R

issues are not involved with this project. As per the point xiv of LoI, the lease holder will deposit 10% of the annual contract money *i.e.* approx. **Rs. 40 Lakh 85 Thousands** to the Mines and Minerals Development, Restoration and Rehabilitation Fund. This amount will be spent by lease holder for the protection of environment, mineral conservation in the surrounding area of core and buffer zone.

11.6 ENVIRONMENTAL MONITORING PROGRAM

In order to maintain the environmental quality within the stipulated standards, regular monitoring of various environmental components is necessary which will complied as per conditions. For this the lessee **Sh. Kulvinder Singh of M/s P. S. Buildtech** has taken decision to formulate an Environment Policy of the mine and constitute an Environmental Management Cell and committed to operate the proposed mine with the objectives mentioned in approved Environment Policy. EMP may also require measurement of ambient environmental quality in the vicinity of a sit using ecological/biological, physical and chemical indicators. Monitoring may include socio-economic interaction, through local liaison activities or even assessment of complaints. Regular Monitoring of all the environmental parameters *viz.*, air, water, noise and soil as per the formulated program based on CPCB and MoEF&CC guidelines will be carried out every year. The location of the monitoring stations was selected on the basis of prevailing micro meteorological conditions of the area like; wind direction and wind speed, relative humidity, temperature. A budget for monitoring of Air, water, Noise and Soil will be **Rs. 3.00 Lakhs** to be incurred by the project proponent for undertaking pollution prevention measures during the mining activity.

11.7 ADDITOINAL STUDIES

Risk assessments will help mine operators to identify high, medium and low risk levels. This is a requirement of the Occupational Health and Safety Act 2000. Risk assessments will help to priorities the risks and provide information on the need to safely control the risks. In this way, mine owners and operators will be able to implement safety improvements. Mining and allied activities are associated with several potential hazards to both the employees and the public at large. A worker in a mine will be able to work under conditions, which are adequately safe and healthy. At the same time the environmental conditions also will not impair his working efficiency. This is possible only when there is adequate safety in mines. Hence mine safety is one of the most essential aspects of any working mine. The conservation plan suggested here is for scheduled fauna (Animal and Bird) will be implemented by the mining lease holder and the budgetary provision is discussed and given in detail for the implementation of the same in the area. It is very important to conserve the scheduled fauna in the area by the local authority as well as by the forest officials. People are not aware about the wildlife and protection of wild animals. There is an urgent need of education and awareness to local people about the wild life and their importance. A green belt will be developed around the core zone. Green belt plantation will be started with the beginning of the mining and will be completed within five years from the beginning. This plantation will be done at selected places only and only local species will be used in the plantation. A budget of **Rs. 9.10 Lakhs** has been allocated towards conservation of scheduled fauna in the area for the implementation of conservation proposal. This mining project has positive impact on social and economic well being of the community because this project provides employment opportunities to local people and many social welfare works done by project proponent. The percentage of replenishment is more than 100% every year *i.e*. **2002823 Tons/ Annum**. In view of this huge amount of sedimentation there are fare chances of replenishment of the river bed annually. There is no displacement of the population within the project area and adjacent nearby area. However, as per the point xiv of LoI the lease holder will deposite 10% of the annual contract money *i.e.* **Rs. 40.85 Lakhs** to the **Mines and Minerals Development, Restoration and Rehabilitation Fund**. This amount will be spent by lease holder for environmental protection and mineral conservation in the surrounding area of core and buffer zone. The officers of the State Government Haryana will strictly monitor the compliance of lease holder in this regard.

11.8 PROJECT BENEFIT

The management will recruit the semi-skilled and unskilled workers from the nearby villages. The project activity and the management will definitely support the local Panchayat and provide other form of assistance for the development of public amenities in this region. The company management will contribute to the local schools, dispensaries for the welfare of the villagers. A suitable combination of trees that can grow fast and also have good leaf cover will be adopted to develop the green belt. It is proposed to plant 1000 no's per annum of native species along with some fruit bearing and medicinal trees during the mining plan period. The project proponent has allocated **Rs. 12.25 Lakhs** per annum for ESR Activities and **Rs. Rs. 40.85 Lakhs** approx. to the **Mines and Minerals Development, Restoration and Rehabilitation Fund**. This amount will be spent by lease holder for the protection of environment in the nearby surrounding area. The officers of the State Government Haryana will strictly monitor the compliance of lease holder in this regard. Other than this social development of village will be considered as per social activities.

11.9 ENVIRONMENTAL COST BENEFIT ANALYSIS

It is considered desirable that the mining project may be implemented. Project cost for the proposed and Sand (minor mineral) Mining namely "**Kanalsi Block/ YNR B 5**"over an area of **44.14 ha**. falling in Village- Kanalsi Tehsil –Jagadhri, District Yamuna Nagar(Haryana) is **Rs. 5 Crores**. The profit will be **Rs. 1,12,90,000 per annum.**

11.10 ENVIRONMENTAL MANAGEMENT PLAN

It is safe to say that this mining project does not cause any significant impact on the ecology of the area as there are no major polluting sources except the dust generated during loading of mineral. Besides this adequate preventive measures will be adopted to contain the various pollutants within permissible limits. Plantation development will be carried out in the mine premises, along the approach roads, around Govt. buildings, schools approx 1000 trees per year. It will prove an effective pollution mitigate technique, and help avoid soil erosion during monsoon season. Employment opportunities will be provided to the locals only as providing extraction of minerals from the mine site is the only prevailing occupation for them for their livelihood. The project cost is **5.00 Crores.** A budget of Rs**. 12.25 Lakhs** for Environmental and Social Responsibility, budget of **Rs.15.00 Lakhs** for Occupational Health and Safety and budget of **Rs. 20.10 Lakhs for EMP** are incurred by Project Proponent. The lease holder will also deposit 10% of the annual contract money *i.e.* **Rs 40.85 Lakhs** to the **Mines and Minerals Development, Restoration and Rehabilitation Fund.**

11.11 CONCLUSION

From the baseline study and various discussion on probable impacts of all the operational activity, it has been concluded that this project will more positive impact and will generate the revenue and employment in the area. On the above facts and baseline study, the proposed activity is recommended for the commencement with proper mitigation measure as suggested.

CHAPTER-12
DISCLOSURE OF CONSULTANT ENGAGED

12.0 Introduction

Vardan EnviroNet, established on 16th August 2012, is an accredited organization by Quality Council of India/NABET (National Accreditation Board for Education and Training) certificate no. **NABET/EIA/1316/IA001**. The updated list of accredited consultant is also available online at http://nabet.qci.org.in/environment/pop.asp?file=documents/Annexure7.pdf&heading=Accredited%20EIA%20Consultant%20Organizations%20with%20accredited%20sectors. We have our in-house Environmental Laboratory named "Vardan EnviroLab" at Village Samaspur, Opposite Amity International School, Sector 51, Gurgaon (Haryana) approved by National Accreditation Board for Testing and Calibration Laboratories, Govt. of India (NABL).

12.1 Deceleration

I, hereby, certify that I was a part of the EIA team in the following capacity that developed the above EIA.

EIA Coordinator: Mr. SK Sharma



Signature

Date: 11.06.2016

I, hereby, certify that I was a part of the EIA team in the following capacity that developed the above EIA.

Team Member: Mr. K Siddiki



Signature

Date: 11.06.2016

12.2 List of Functional Area Experts

#	Name of Person	FAE/FAA/TM	Area of Expertise
1.	Mr. S. K. Sharma	FAE	AP, WP, SHW and SC
2.	Mr. R.S. Yadav	FAE	HG and GEO
3.	Dr. Ashok Kumar	FAE	EB and WP
4.	Mr. Asif Hussain	FAE	AQ and NV
5.	Mr. Kuldipak Ahuja	FAE	RH
6.	Mrs. Shilpa Mishra	FAE	SE
7.	Mr. Joshua Anand	FAE	LU
8.	Mr. Bhagwan Sahay	FAA	LU and SE

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY HARYANA
Bay No. 55-58, Prayatan Bhawan, Sector-2, PANCHKULA.

No. SEIAA/HR/2016/746 Dated: 15.09.2016

To

M/s P.S Builtech,
34, Vishal Nagar,
Yamuna Nagar-135001

Subject: Environmental Clearance for proposed Boulder, Gravel and Sand Minor Mineral Mines of "Kanalsi Block/YNR B-5" over an area of 44.14 Ha. In Tehsil Jagadhri, District-Yamuna Nagar by M/s P.S.Buildtech.

*****

This has reference to your online application no. nil dated 23.06.2016 addressed to Member Secretary, SEIAA Haryana for seeking prior environmental clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., Form-1, Pre-feasibility report, copy of approved Mining Plan, EIA/EMP on the basis of approved TOR and the additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC) constituted by MoEF, GOI vide their Notification 21.08.2015, in its meetings held on 09.07.2016 and 03.08.2016.

[2] The SEAC has examined the application and noted that the proposal is for mining of Minor Mineral for porposed Boulder, Gravel and Sand (Minor Mineral) at Village Kanalsi Block/YNR B-5 over an area of 44.14 Ha. In district Yamunanagar, Haryana. The Letter of Intent (LOI) dated 30.11.2015. The lease has been granted for an area of 44.14 Ha out of which about 11.60 Ha area is under restricted zone. About 32.54 hectare area is free from restriction and the mining is proposed in the 32.54 Ha at the production proposed 6500 Mt/day @260 Trips/day (25Ton/day) having in the Village Kanalsi Block/YNR B-5 for a period of 09 years. The project proponent on 23.06.2016 submitted online application along with copy of approved Mining plan under category B-1. The validity of Mining Scheme in the Mining plan is for 5 years. NOC from Forest Deprtment has been Obtained.

Brief details of the project:

1.	Category/Item no. (in schedule):	1 (a) B-1
2.	Location of Project	"Kanalsi Block/YNR B-5" in Tehsil Jagadhri , District-Yamuna Nagar
3.	Project Details Khasra No.	Mining of Boulder, Gravel and Sand Minor Mineral at "Kanalsi Block/YNR B-5" in Tehsil Jagadhri, District-Yamuna Nagar over an area of 44.14 Ha.

<table>
<tr><td></td><td>Kanalsi Block/YNR B 33</td><td>41//16, 24, 25
42//16 to 19, 20, 21, 22 to 25
43//16, 17 to 24, 25
44//1, 10, 11, 12, 19,20, 21, 22
45//1, 2,3 to 8,9, 10 to11,12,13 to 18,19,20 to 21,22,23 to 24, 25/1, 25/2
46//1,2,3,4,5,6,7,8,9 to 17,18,19,20,21,24,25
47//3,4,5,6,7/1,7/2,8,9 min, 11min, 12 to 25
48//16 min, 24 min, 25
52//4 min,5,6,7,15
53//1,2,3,4/1,4/2,5,7,8,to 13, 19</td></tr>
<tr><td></td><td>Production capacity</td><td>19,50,000 TPA @ 260 Trips/day (25 Ton/Trip)</td></tr>
<tr><td>4.</td><td>Project Cost</td><td>5.00 crores</td></tr>
<tr><td>5.</td><td>Water Requirement & Source</td><td>40 KLD through Tankers<table><tr><td>Dust suppression</td><td>20KLD</td></tr><tr><td>Plantation</td><td>14 KLD</td></tr><tr><td>Drinking</td><td>6 KLD</td></tr></table></td></tr>
<tr><td>6.</td><td>Environment Management Plan Budget</td><td>25.10 lakh</td></tr>
<tr><td>7.</td><td>CSR Activates Budget</td><td>17.25 Lakh</td></tr>
<tr><td>8.</td><td>Production</td><td>The proposed production for the five years is @ 19,50,000 TPA. The ultimate depth of Mining will be 3 meter. The alivation range of mine site is 267 amsl to 276amsl.</td></tr>
<tr><td>9.</td><td>Corner Coordinates of the lease area</td><td><table><tr><td>Block</td><td>Latitude</td><td>Longitude</td></tr><tr><td>Kanalsi Block/YNR B-29</td><td>30°08' 09"N
30°08'31"N</td><td>77°24 '00"E
77°24 '46"E</td></tr></table></td></tr>
<tr><td>10.</td><td>Green belt/ plantation</td><td><table><tr><th>Year of Plantation</th><th>Proposed Plantation</th></tr><tr><td>I Yr.</td><td>1000 Trees</td></tr><tr><td>II Yr.</td><td>1000 Trees</td></tr><tr><td>III Yr.</td><td>1000Trees</td></tr><tr><td>IV Yr.</td><td>1000 Trees</td></tr><tr><td>V Yr.</td><td>1000 Trees</td></tr></table></td></tr>
<tr><td>11.</td><td>Machinery required</td><td>Excavator/ JCB Tipers/Trucks, Water Tanker Light Vehicles/Geep and Maintaniance Van</td></tr>
</table>

The recommendation of SEAC and project details as given above was taken up for consideration in the 95th meeting held on 26.08.2016. It was observed by the Authority that Environment Clearance to this project on the following conditions:-

A. SPECIFIC CONDITIONS:

[1] This Environment Clearance is granted for the proposed production for the five years @ 19,50,000 TPA. The ultimate depth of Mining will be 3 meter. The alivation range of mine site is 267-276m amsl. The Corner Coordinates of the leased area are:

Corners	Latitude	Longitude
A	N 30° 08’ 31’’	E77° 24’ 15’’
B	N 30° 08’ 31’’	E77° 24’ 42’’
C	N 30° 08’ 27’’	E77° 24’ 42.5’’
D	N 30° 08’ 24’’	E77° 24’ 46’’
E	N 30° 08’ 17’’	E77° 24’ 26’’
F	N 30° 08’ 17’’	E77° 24’ 26’’
G	N 30° 08’ 20’’	E77° 24’ 19’’
H	N 30° 08’ 13’’	E77° 24’ 15’’
I	N 30° 08’ 13’’	E77° 24’ 12.5’’
J	N 30° 08’ 11’’	E77° 24’ 12.5’’
K	N 30° 08’ 11’’	E77° 24’ 10’’
L	N 30° 08’ 09’’	E77° 24’ 10’’
M	N 30° 08’ 09’’	E77° 24’ 7.5’’
N	N 30° 08’ 14’’	E77° 24’ 00’’
O	N 30° 08’ 16’’	E77° 24’ 00’’
P	N 30° 08’ 25’’	E77° 24’ 10’’
Q	N 30° 08’ 27’’	E77° 24’ 10’’
R	N 30° 08’ 27’’	E77° 24’ 12.5’’
S	N 30° 08’ 29’’	E77° 24’ 12.5’’
	N 30° 08’ 29’’	E77° 24’ 15’’

[2] The project proponent shall carry out mining activity strictly as per the approved Mining Plan.

[3] Environmental Clearance is subject to obtaining clearance, under the Wildlife (Protection) Act, 1972 from the National Board of Wildlife, as applicable to the project.

[4] No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.

[5] The Project proponent shall obtain consent to Operate from the State Pollution control Board, Haryana and effectively implement all the conditions stipulated therein.

[6] Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the project and records maintained; also, Occupational health check-ups for workers having some aliments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for labour for ensuring good occupational environment for mine workers would also be adopted.

[7] Project Proponent shall appoint a Monitoring Committee to monitor the replenishment study, traffic management, levels of production, River Bank erosion and maintenance of Road etc.

[8] The number of trips of the trucks shall not exceed the estimated quantity of 6500 Mt/day @ 260 Trips/day (25 Mt/Trip). Transport of minerals shall be done either by dedicated road or it should be ensured that the trucks/dumpers carrying the mineral should not be allowed to pass thought the villages.

[9] Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.

[10] Excavation will be carried out up to a maximum depth of 3 meters from surface of Mineral deposit and not less thanone meter from the water level of the river channel whichever is reached earlier.

[11] The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly. Vehicles with PUCC only will be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Project should obtain ‘PUC’ certificate for all the vehicles from authorized pollution testing centre.

[12] Washing of all transport vehicles should be done inside the mining lease.

[13] Permanent pillars has to be constructed to demarcate width of extraction of Reserve of Minerals leaving 25% of River width from the bank with depth of 1.5m below the ground and 1.2 m above the ground to observe its stability.

[14] There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis in consultation with Regional Director, Central Groundwater Board and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.

[15] The Project Proponent shall also take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted in the study area.

[16] Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers.

[17] Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

[18] No River sand mining shall be allowed in flowing water and no mining is allowed in rainy season.

[19] The project proponent shall submit annual replenishment report certified by an authorized agency. In case the replenishment is lower than the approved rate of production, then the mining activity/ production levels shall be decreased/ stopped accordingly till the replenishment is completed.

[20] In River flood plain mining a buffer of 3 meter to be left from river bank for mining.

[21] The project proponent shall ensure that no natural water course/water body shall be obstructed due to any g operations.

[22] The dumping site selected and proposed shall used for OB dump at the designated site within the lease area per as per the approved time plan. In no case the overburden should be dumped outside the lease area.

[23] Garland drains shall be constrcuted to prevent the flow of the water in the dump.

[24] Green belt should be developed as per the proposed plantation as given in the proposal. Plantation should be carried out in phased manner.

[25] Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RPM such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality Parameters conform to the norms prescribed by the CPCB.

[26] Regular monitoring of ground water level and quality shall be carried out in and around the mine lease. The monitoring shall be carried out four times in a year- pre monsoon (April-May), monsoon (August), post monsoon (November); winter (January) and the data thus collected may be sent regularly to MOEF Regional Office, Chandigarh and Regional Director CGWB.

[27] Data on ambient air quality and stack emissions shall be submitted to Haryana Pollution Control Board once in six months carried out by MOEF/NABL/CPCB/ Government approved lab.

[28] Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles shall be covered with a tarpaulin and shall not be overloaded. The project proponent shall ensure that the vehicle must have pollution under control certificate.

[29] The project proponent shall take all precautionary measures during mining operations for conservation and protection of endangered fauna, if any, spotted in the study area. A plan for conservation shall be drawn and got approved from the Chief Wildlife Warden of the State before start of mining operations. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the wildlife conservation plan so prepared specific to the project site shall be effectively implemented. A copy of action plan may be submitted to the HSPCB and MOEF, Regional Office, Chandigarh within 3 months..

[30] As envisaged, the Project Proponent shall invest at least an amount of Rs. 25.10 Lakhs/annum as cost for implementing various environmental protection measures including recurring expenses per year.

[31] A sum of Rs. 17.25 Lakhs/annum shall be earmarked by the Project proponent for investment as CSR on socio economic up-liftment activities of the area particularly in the area of habitat, health or education, training programme of rural women & man provide the kit for employment generation. The proposal should contain provision for monthly medical camps, distributions of medicines and improvement in educational facilities in the nearby schools. Details of such activity along with time bound action plan be submitted to HSPCB/SEIAA Haryana before the start of operation.

[32] Budgetary provision of Rs. 15.00 Lakhs/annum per year earmarked for the labours working in the Mine for all necessary infrastructure facilities such as health facility, sanitation facility, fuel for cooking, along with safe drinking water, medical camps and toilets for women, crèche for infants should be made and submitted to HSPCB at the time of CTE/CTO/SEIAA Haryana. The housing facilities should be provided for mining labours.

[33] A Final Mine Closure Plan along with details of corpus fund shall be submitted to the SEIAA well within the stipulated period as prescribed in the minor mineral concession rules 2012.

[34] The project proponent shall ensure that the EC letter as well as the status of compliance of EC conditions and the monitoring data are placed on company's website and displayed at the project site.

[35] The project proponent shall ensure that loading in Trucks do not exceed the norms fixed by the Transport Department as per relevant rules.

[36] The project proponent shall ensure approach roads are widened and strengthened as per requirements fixed by PWD and district administration before the start of the work.

[37] The project proponent shall ensure supply of drinking water through RO.

[38] The project proponent shall Strictly adhere to the sustainable sand mining management guidelines 2016, issued by MoEF &CC GoI on 15.03.2016 and shall ensure the complaince of the standard environmental conditions prescribed for the sand mining in the said guidelines; in addition to the conditions imposed in the environment clearance letter.

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GENERAL CONDITIONS:

[i] Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

[ii] Any change in mining technology/scope of working shall not be made without prior approval of the SEIAA.

[iii] Any change in the calendar plan including excavation, quantum of mineral and waste shall not be made.

[iv] Periodic monitoring of ambient air quality shall be carried out for PM10, PM2.5,SO2 and NOx monitoring. Location of the stations (minimum 6) shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring shall be decided in consultation with the Haryana State Pollution Control Board (HSPCB). Six monthly reports of the data so collected shall be regularly submitted to the HSPCB/CPCB including the MOEF, Regional office, Chandigarh.

[v] Personnel working in dusty areas shall wear protective respiratory devices they shall also be provided with adequate training and information on safety and health aspects.

[vi] Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

[vii] The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the HSPCB and the Regional office of MOEF located at Chandigarh.

[viii] The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the northern Regional Office of MoEF, the respective Office of CPCB, HSPCB and SEIAA Haryana.

[ix] The above conditions will be enforced, inter alia, under the provision of the Water (Prevention & Control of Pollution) Act, 1974 the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act 1991 (all amended till date) and rules made hereunder and also any other orders passed by the Honb'le Supreme Court of India/High Court of Haryana and other Court of law relating to the subject matter.

[x] The Project proponent should inform the public that the project has been accorded Environment Clearance by the SEIAA and copies of the clearance letter are available with the Haryana State Pollution Control Board & SEIAA. This should be advertised within 7 days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region and the copy of the same should be forwarded to SEIAA Haryana. A copy of Environment Clearance conditions shall also be put on project proponent's web site for public awareness.

[xi] All the other statutory clearances such as the approvals for storage of diesel from the Chief Controller of Explosives, Fire department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (protection) Act, 1972 etc. shall be obtained, as may be applicable, by Project proponent from the competent authority before the start of mining operation.

[xii] That the grant of this EC is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time being in force, rests with the industry/unit/project proponent. Any appeal against this environmental clearance shall lie with the National Green Tribunal,

if preferred, within a period of 30 days as prescribed under section 16 of National Green Tribunal Act, 2010.

[xiii] The methodology of mining shall be strictly as per orders passed by Hon'ble NGT/ Hon'ble Supreme Court from time to time.

[xiv] The PP shall not disturb/damage the position of studs in river bed and also not to damage the river banks and not to degrade the river bed in any manner.

[xv] Any area which have been banned by any authority/courts shall not be used for mining activity.

[xvi] Distance of mining to be maintained from Pucca Hydraulic structure/ Bridges shall be as per approved mining plan/ guideline issued by MoEF & CC/ Court Orders.

[xvii] The PP will not violate any judicial orders/pronouncements issued by the Hon'ble Supreme Court/High Courts/NGT.

-Sd-
Member Secretary,
State Level Environment Impact
Assessment Authority, Haryana, Panchkula.

Endst. No. SEIAA/HR/2016/747-50 **Dated: 15.09.2016.**

A copy of the above is forwarded to the following:

1. The Director (IA Division), MoEF&CC, GoI, Indra Paryavaran Bhavan, Zor bagh Road-New Delhi.

2. The Regional office, Ministry of Environment, Forests & Climate Change, Govt. of India, Bay's no. 24-25, Sector 31-A, Dakshin Marg, Chandigarh.

3. The Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Pkl.

4. The Director General, Mines & Geology Department Haryana, Chandigarh.

-Sd-
Member Secretary,
State Level Environment Impact
Assessment Authority, Haryana, Panchkula.

ANNEXURE R8/7

HARYANA STATE POLLUTION CONTROL BOARD
C-11, SECTOR-6, PANCHKULA
Website – www.hspcb.gov.in E-Mail - hspcb.pkl@sifymail.com
Telephone No. – 0172-2577870-73

No. HSPCB/Consent/ : 313100416YAMCTE3386421 **Dated:14/12/2016**

To

M/s : PS Buidtech
Mining of Sand Minor Minerals at Kanalsi Block YNR B 5 Tehsil Jagadhri
District Yamuna Nagar Haryana
YAMUNANAGAR
135003

Sub. : Issue of Consent to Establish from pollution angle .

Please refer to your Consent to Establish application received in this office on the subject noted above.Under the Authority of the Haryana State Pollution Control Board vide its agenda Item No. 47.8 dated 28.04.83 sanction to the issue of "Consent to Establish" with respect to pollution control of Water and Air is hereby accorded to the unit PS Buidtech, for manufacturing of **Sand,** with the following terms and conditions:-

1. The industry has declared that the quantity of effluent shall be 1 KL/Day i.e 0KL/Day for Trade Effluent, 0 KL/Day for Cooling, 1 KL/Day for Domestic and the same should not exceed .
2. The above "Consent to Establish" is valid for 60 months from the date of its issue to be extended for another one year at the discretion of the Board or till the time the unit starts its trial production whichever is earlier. The unit will have to set up the plant and obtain consent during this period.
3. The officer/official of the Board shall have the right to access and inspection of the industry in connection with the various processes and the treatment facilities being provided simultaneously with the construction of building/machinery. The effluent should conform the effluent standards as applicable
4. That necessary arrangement shall be made by the industry for the control of Air Pollution before commissioning the plant. The emitted pollutants will meet the emission and other standards as laid/will be prescribed by the Board from time to time.
5. The applicant will obtain consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21/22 of the Air (Prevention & Control of Pollution) Act,1981 as amended to-date-even before starting trial production
6. The above Consent to Establish is further subject to the conditions that the unit complies with all the laws/rules/decisions and competent directions of the Board/Government and its functionaries in all respects before commissioning of the operation and during its actual working strictly.
7. No in-process or post-process objectionable emission or the effluent will be allowed, if the scheme furnished by the unit turns out to be defective in any actual experience
8. The Electricity Department will give only temporary connection and permanent connection to the unit will be given after verifying the consent granted by the Board, both under Water Act and Air Act.
9. Unit will raise the stack height of DG Set/Boiler as per Board's norms.

10. Unit will maintain proper logbook of Water meter/sub meter before/after commissioning.

11. That in the case of an industry or any other process the activity is located in an area approved and that in case the activity is sited in an residential or institutional or commercial or agricultural area, the necessary permission for siting such industry and process in an residential or institutional or commercial or agricultural area or controlled area under Town and Country Planning laws CLU or Municipal laws has to be obtained from the competent Authority in law permitting this deviation and be submitted in original with the request for consent to operate.

12. That there is no discharge directly or indirectly from the unit or the process into any interstate river or Yamuna River or River Ghaggar.

13. That the industry or the unit concerned is not sited within any prohibited distances according to the Environmental Laws and Rules, Notification, Orders and Policies of Central Pollution control Board and Haryana State Pollution Control Board.

14. That of the unit is discharging its sewage or trade effluent into the public sewer meant to receive trade effluent from industries etc. then the permission of the Competent Authority owing and operating such public sewer giving permission letter to his unit shall be submitted at time of consent to operate.

15. That if at any time, there is adverse report from any adjoining neighbor or any other aggrieved party or Municipal Committee or Zila Parishad or any other public body against the unit's pollution; the Consent to Establish so granted shall be revoked.

16. That all the financial dues required under the rules and policies of the Board have been deposited in full by the unit for this Consent to Establish.

17. In case of change of name from previous Consent to Establish granted, fresh Consent to Establish fee shall be levied.

18. Industry should adopt water conservation measures to ensure minimum consumption of water in their Process. Ground water based proposals of new industries should get clearance from Central Ground Water Authority for scientific development of previous resource.

19. That the unit will take all other clearances from concerned agencies, whenever required.

20. That the unit will not change its process without the prior permission of the Board.

21. That the Consent to Establish so granted will be invalid, if the unit falls in Aravali Area or non conforming area.

22. That the unit will comply with the Hazardous Waste Management Rules and will also make the non-leachate pit for storage of Hazardous waste and will undertake not to dispose off the same except for pit in their own premises or with the authorized disposal authority.

23. That the unit will submit an undertaking that it will comply with all the specific and general conditions as imposed in the above Consent to Establish within 30 days failing which Consent to Establish will be revoked.

24. That unit will obtain EIA from MoEF, if required at any stage.

25. In case of unit does not comply with the above conditions within the stipulated period, Consent to Establish will be revoked.

Specific Conditions

1 Unit will construct the proper septic tank as per Bureau of Indian standards.

2 Green belt of adequate width shall be provided by the unit.

Other Conditions :

1037

1. That unit will abide with all the condition mentioned in the Environmental clearance.
2. That unit will abide by the directions of CPCB/HSPCB/any other competent authority time to time.
3. That unit will abide the directions/ orders of Honble Supreme court /High Court/NGT/any other court.
4. That the Project Proponent will abide by the recommendations of the HIGH POWER COMMITTEE CONSTITUTED by the Hon`ble NGT in the OA NO 184 OF 2013 in the case of GURPREET SINGH BAGGA vs MoEF & CC and subjected to final outcome/decision of the case.
5. That the unit will submit the Land Agreement between Farmers and the unit at the time of CTO application.
6. That the unit will obtained the CTO application before starting the Production Activity.

Regional Officer, HQ
For and on be'half of chairman
Haryana State Pollution Control Board

HSPCB

HARYANA STATE POLLUTION CONTROL BOARD
C-11, SECTOR-6, PANCHKULA

Website – www.hspcb.gov.in E-Mail - hspcb.pkl@sifymail.com

Tele Fax No. – 0172-2577870-73

No. HSPCB/Consent/ : 313100417YAMCTO3547533 **Dated:25/01/2017**

To

M/s :**P S BUILDTECH**
Mining of Sand Minor Minerals at Kanalsi Block YNR B 5 Tehsil Jagadhri District Yamuna Nagar Haryana
YAMUNANAGAR

Subject: Grant of Consent to operate for discharge of effluent under section 25/26 of the Water(Prevention & Control of Pollution) Act, 1974, from **28/12/2016 - 30/09/2018**

Please refer to your consent application received on dated **2016-12-15** in Regional Officer, Yamuna Nagar on the subject cited above.

With reference to your above application for consent for the discharge of domestic effluent and trade effluent under Water (Prevention & Control of Pollution) Act, 1974 hereinafter referred as the Act M/s **P S BUILDTECH** is hereby authorized by the Haryana State Pollution Control Board, to discharge their effluent arising out of their premises in accordance with the terms and conditions as mentioned below:-

1. The daily quantity of domestic effluent from the factory shall not exceed **01 KLD**
2. The daily quantity of the industrial effluent (Process, floor & equipment wash, cooling and bleed water) from the factory shall not exceed **0 KLD**
3. **The industry has been assessed for the purpose of Consent to operate fee with investment cost (land, building, plant and machinery) of Rs.** 500.000092 **Lakh. In case the investment cost varies as per the annual report for the years duly audited by the Chartered Accountant, the difference of Consent to operate fee, if any, arises, the industry shall pay the same amount within one month of the receipt of notice from the Board in this regard.**
4. The consent to operate shall be valid for the period from **28/12/2016 - 30/09/2018**
5. The industry shall ensure that various characteristics of the effluents remain within the tolerance limits as specified in EPA Standard and as amended from time to time and at no time the concentration of any characteristics should exceed these limits for discharge.
6. The industry would immediately submit the revised application to the Board in the event of any change in the raw material in process, mode of treatment/discharge of effluent.
   In case of change of process at any stage during the consent period, the industry shall submit fresh consent application alongwith the consent to operate fee, if found due, which may be on any account and that shall be paid by the industry and the industry would immediately submit the consent application to the Board in the event of any change during the year in the raw material, quantity, quality of the effluent, mode of discharge, treatment facilities etc.
7. The officer/official of the Board shall reserve the right to access for the inspection of the industry in connection with the various process and the treatment facilities. The consent to operate is subject to review by the Board at any time.

8. The industry shall not discharge any altered quantity/quality of the trade/domestic effluent without prior permission of the Board.

9. Permissible limits for any pollutants mentioned in the consent to operate order should not exceed the concentration permitted in the effluent by the Board.

10. The industry shall pay the balance fee, in case it is found due from the industry at any time later on.

11. In case the industrial unit uses the Municipal/HUDA/Industrial Estate Sewerage system for disposal of effluent for the final disposal they will submit the sewerage connection certificate.

12. If the industry fails to adhere to any of the conditions of this consent to operate order, the consent to operate so granted shall automatically lapse.

13. The industry will plant minimum three varieties (Eucalyptus, Su Babul or any suitable variety) of trees in the vacant area.

14. The consent to operate under Air (Prevention & Control of Pollution) Act, 1981 should be obtained.

15. The industry shall obtain Authorization under Hazardous Waste (Management handling and transbonding movement) Rules, 2008 as amended to date.

16. The industry shall install separate Energy Meter for ETP and also maintain log book for energy and chemical consumption.

17. The industry shall obtain permission from Irrigation Department for discharging effluent into any drain/water bodies.

18. If the industry is closed temporarily at its own, they shall inform the Board and obtain permission before restart of the unit.

19. The industry shall provide non-leachate storage facilities for storage of Hazardous Waste or dispose off same in the common facilities & will adhere to the norms laid down as per the amended notification under HWTM Rules, 2008

20. The industry shall submit A/R once in 3 months in case of 17 categories and other categories. The L&M shall submit A/R once in 6 months.

21. The industry shall comply the Public Liability Insurance Rules, 1991, as amended to date.

22. The industry shall submit Environmental Audit /Report once in a year.

23. The industry shall obtain Environmental Clearance, if applicable as per MOEF Notification.

24. The industry shall inform to HO/RO office immediately by FAX in case of failure of ETP.

25. In case of bye passing the effluent the consent to operate shall be deemed revoke.

26. The industry shall comply all the Directions/ Rules/Instructions issued from time to time by the Board.

Specific Conditions :

1 The unit shall not discharge any trade effluent without prior permission of Board

Other Conditions :

1. 1. That the unit will submit the analysis report from the Board lab within one month from the date of issue of first consent to operate.
2. That the unit will run and maintain the APCM & green belt.
3. That the unit will apply for renewal of consent to operate before 90 days from the expiry of this CTO.
4. That unit will abide with all the condition mentioned in the Environmental clearance obtained from SEIAA, Panchkula and submit compliance report.
5. After grant of the Ist CTO the inspection of the unit will be carried out by the authorized officer within a period of 3 months of grant of Ist CTO for collection of samples of effluent/ air emissions/ noise in case sampling is required. In case the analysis report of samples of Air/ effluent/ noise so collected are found complying the standards prescribed under EP Rules, 1986, then Ist CTO so granted will remain valid for the period of CTO for which it has been granted based upon the category of the unit or as was demanded by the unit but in case of failure of sample the Ist CTO so granted will be revoked/cancelled after following the due procedure.
6. That the unit will comply the Order of NGT, New Delhi vide Dated 01.06.2016 & 06.06.2016 in the case of the OA NO 184/2013, 176/2016 & 272/2016 in the case of GURPREET SINGH BAGGA vs MoEF & CC and, subjected to final outcome/decision of the case.
7. That the unit will abide by the directions of CPCB/HSPCB/any other competent authority time to time
8. That the unit will abide the directions/ orders of Hon"ble Supreme court /High Court/NGT/any other court.
9. The Proponent will abide by the recommendations of the HIGH POWER COMMITTEE CONSTITUTED by the Hon`ble NGT in the OA NO 184 OF 2013 in the case of GURPREET SINGH BAGGA vs MoEF & CC and subjected to final out come/decision of the case.

Regional Officer, HQ
For and be'half of chairman
Haryana State Pollution Control Board,
Panchkula.

ANNEXURE R8/8

Director General, Mines & Geology, Haryana

ORDER

M/s P. S. Buildtech, 34-Vishal Nagar, Yamuna Nagar were granted mining contract for extraction of **"sand"** a minor mineral for the period of 9 years through competitive bidding held on 05th-06th November,2015at the rate of **Rs. 04,08,50,000/-** [Rs. Four Crore eight lakhs fifty thousand only] per annum. As per terms & conditions of the auction notice the actual mining operations were to be allowed only after prior Environmental Clearance by the competent authority as per requirement of Environment Impact Assessment (EIA)Notification dated 14.09.2006 of Ministry of Environment, Forest and Climate Change (MoEF & CC, GoI) Government of India as amended from time to time. Further, the period of contract was to commence from the date of grant of Environmental Clearance or after 12 months from the date of issuance of Letter of Intent (LoI) dated 30.11.2015, whichever is earlier. In the instant case LoI was issued on 30.11.2015.

2. M/s P. S. Buildtech obtained Environmental Clearance from State Environment Impact AssessmentAuthority (SEIAA) on 15.09.2016 and after obtaining Consent to Operate from the Haryana State Pollution Control Board commenced mining operation on 27.01.2017.

3. As per terms of conditions of the contractagreement and Rule 56(17) of the State Rules, 2012 where any mineral concession holder finds any other minor mineral not granted under said concession, the discovery of same shall be reported without any delay to the Director or an officer authorized by him and shall not win or dispose of the same without obtaining a separate mineral concession from the Director. The Rule 56(19) further provides that where the newly discovered minor mineral is not available in sufficient quantity and the grant of a separate mining lease/ contract is not found justified, the Director may allow the lessee/ contractor to excavate and dispose of such newly discovered mineral by issuing a separate permit in Form 'PIM-8' on payment of advance royalty at the rates prescribed in the First Schedule. The royalty payable for the newly discovered

minor mineral and prorated contribution to the R & R Fund shall be in addition to the dead rent/ contract money/ contribution to the R & R Fund for the mineral already granted on mining lease/ contract/ permit. The mineral concession holder shall also be liable to pay all other sums as prescribed for disposal of the mineral as if the same had been allowed under a regular mineral concession.

4. M/s P S Buildtech vide letter dated 24.12.2018 informed that the mining area also has Boulder and Gravel along with Sand and sought permission for the grant of mineral concession for said newly discovered mineral for which they will pay all applicable dues/ royalty i.e for mining and disposal of boulder and gravel mineral.

5. The then Mining Engineer from head office was directed to inspect the contract area along with Mining Officer Yamunanagar and submit his report. The then ME inspected the area without associating the MO concerned. He, however, reported that sand deposits in the area also contain gravel, pebble and cobbleestimated the same tobe about 25%. He gave abovesaid estimate based on pits dug up tothe depth of 03 meters at different places with the help of JCB excavator. Based on the same the then DGMG allowed the grant of mineral concession / contract for newly discovered mineral also and the contractor firm was informed vide letter dated 12.06.2019. The permission was granted subject to payment of Royalty and R & R Fund for Boulder Gravel (newly discovered mineral) to be disposed of at the rates prescribed under State Rules, 2012. Further actual excavation of Boulder, Gravel and Sand (consolidated production) shall not exceed approved production capacity i.e. 19,50,000 TPA. However, on receipt of complaint dated 26.06.2019 the then DMG after seeking permission of the then ACSMG, revoked/ withdrew the above said permission dated 12.06.2019 vide letter dated 12.07.2019.

6. M/s P S Buildtech vide letter dated 03.09.2019 again requested the Department to add newly discovered Boulder and Gravel in their contract area. The matter remained un-decidedfor want of clarity on the quantum of newly discovered mineral and the pending dues. M/s P S Buildtech filed an appeal before the State

Government against the order dated 12.07.2019 vide which the then DMG had withdrawn the permission dated 12.06.2019

7. In the light of directions of Appellant Authority,a fresh report was sought by deputing a new team comprising the then Assistant Mining Engineer, Charkhi Dadri, the then Geologist (Jr.), Head Office and Mining Officer, Yamuna Nagar for survey and inspection of contract area. The team carried out a geological survey on 16.02.2020. The team reported that Boulder, Gravel and Sand was found in the area and the percentage of gravel and boulder to be 15% to 30% at different places. The percentage of Bolder Gravel was estimated at 25% of the overall volume of mineral deposits in the contracted area .

8. The report was not considered to be acceptable mainly on the ground that mines located upstream of the mine being operated by M/s P.S. Buildtech had not reported to have Boulder Gravel (BG). In the absence of same it was not clear as to how an area downstream of mines that were having only sand deposits was having deposits of BG along with sand. In the light of same another team comprising of Sh. Deepak Kumar, State Geologist, Sh. Sanjay Simberwal, Mining Engineer, assisted by Mining Officer, Yamunanagar and Sr. Surveyor was constituted to inspect the area in the presence of representative of Revenue Department.

9. The fresh inspection by the team was conducted on 24.09.2019 along with Sub-Divisional Magistrate (Civil), Yamuna Nagar and Tehsildar, Jagadhari and the report was submitted on 1.10.2020. Perusal of the report showed that proper survey was conducted to identify and assess the quantity of BG along with sand. The mixed material/ Boulder Gravel and Sand found in the contracted area from different locations was got screened in the screening plant. After having weighment of raw mineral and separated mineral the team found that about 34.98% of overall mineral was Boulder / Gravel. The team also noted that BG was also available in the riverbed in village Mandoli Ghaggar upstream of the contract area mined by M/s P.S. Buildtech. Further the quantum of mineral in Kanalsi area

was more as additional quantity Boulder Gravel are also brought to the Yamuna riverbed from *Som* River, a tributary of river Yamuna.

10. In the meantime, it was found with the help of e-Rawaana portal that a number of sand contractors (not having permission for BG) had been supplying/ selling sand to the Crushers and Screening plants. The sand found in river Yamuna being fine sand is not the raw material of the screening plants/ crushers. All such contractors including applicant M/s P.S. Buildtech were issued notices to explain their position for disposing of BG without permission or providing e-Rawaana to be used to legitimize processing of BG illegally mined from other sources by the Screening Plant/ crushers. M/s P S Buildtech sold a total 9,93,270 MT during the period from 1.1.2020 to 21.07.2020 out of which 50,522 MT was sold to screening plants/ crushers.

11. In order to decide the application for allowing additional mineral namely BG, it was found necessary to decide action on the show cause notice dated 14.08.2020 for alleged volition of contract agreement. So in the interest of natural justice an opportunity of hearing was afforded on 23.11.2020 to the contractor. Sh. Kulvinder Singh appearing for the contractor firm stated that the firm applied for addition of mineral/ Boulder Gravel found in the area and were also granted permission but the same was withdrawn. He stated that now as per fresh report not only the existence of newly discovered mineral had been established beyond doubt but the quantity of mineral had been assessed with all precision. He stated that though they were not disposing of the mineral in river where notable quantity of BG was present but it cannot be stated that no BG may have gone along with sand as some of the quantity was purchased by the Screening plants. He stated that no mineral was supplied/ sold/ purchased from their mine by the crushers. He stated that they were seeking permission for addition of mineral since long and rather had suffered losses for want of permission. He also clarified that under their EC permission was for BGS and maximum production approved is **19,50,000 MT per annum**. He agreed to pay additional royalty and other dues as may be applicable (over and above the contract money) for 34.98% of

production on account of intermixed BG and sought to file the show cause notice also.

12. After having considered all related facts of the case it has been established that in the area granted on contract to M/s P. S. Buildtech over an area of 44.14 hectares of land in village Kanalsi i.e for 'Kanalsi Block/YNR B-5' 35% of mineral is Boulder and Gravel inextricably mixed with sand. The contractor firm is entitled for grant of permission for addition of the mineral. Accordingly, as per the provisions of Rule 56(17) of the State Rules, 2012 the permission / mining contract for the period co-terminus with contract of existing mining contract granted for sand mineral subject to condition that:

A. The contractor shall pay for 35% of the total production, as additional amount of Royalty and additional amount of 10% of the same towards 'Mines and Minerals Development, Restoration and Rehabilitation Fund' 'for Boulder/ Gravel at the rate prescribe in the First Schedule of the State Rules,2012 i.e over and above the contract money and other dues as applicable under contract.

Note: To clarify the above they shall pay Royalty= total production of mineral during preceding month X 0.35 X applicable Rate of Royalty by 7th of each month along other applicable dues. Further 10% of total amount of additional royalty shall also be deposited as R&R Fund for newly discovered mineral.

B. The period of permission / contract for Boulder gravel shall be co-terminus with original contract granted for sand mineral;

C. The overall quantity of mineral production [Boulder, gravel and sand] shall not exceed the maximum annual production of 19,50,000 MT allowed under Environmental Clearance grant by the Competent authority

D. The contractor shall execute a supplementary deed for additional mineral namely Boulder gravel.

13. Further, it is clear that M/s P. S. Buildtech had been disposing of the Boulder Gravel along with sand on e-Rawaana / bills issued for sand. The contention that mineral was being disposed of from sites not having BG was not found justified as it is not the case that BG was availableonly in part of the total area. It is clear beyond doubt that the BG is

Director General, Mines & Geology, Haryana

inextricably mixed with sand and sand alone could have been disposed off only after screening. It is admitted fact that within mining area no screening is/ was being carried out, so along with sand the mineral BG was disposed off.

To file the show cause notice dated 14.08.2020 it was decided and was also agreed by the contractor during the course of the hearing that firm shall pay royalty at the rate of Rs 50 per MTand Rs 5 per MT towards R&R Fund for 35% of the mineral production since from 1.1.2020 to 31.10.2020. The amount of additional royalty and R& R fund for above period shall be deposited in 03 equal monthly installments. The first installment on this account shall be paid on or before 10.01.2021. Further, payment of additional royalty for Nov, 2020 shall be paid on regular basis from 7th December, 2020 onward. The show cause notice dated 14.08.2020 shall stand filed on payment of first installment.

(Amitabh Singh Dhillon, IPS)
Director General, Mines and Geology,
Haryana.

Place : Panchkula.
Dated: 26.11.2020.

Speed Post

Endst No.: DMG/HY/Cont./KanalsiBlock/YNR B-5/2015/ 5573 Dated: **26.11.2020**

A copy is forwarded to **Sh. Kulvinder Singh S/o Sh. Trilochan Singh, Prop. of M/s P. S. Buildtech,** 34-Vishal Nagar, Yamuna Nagarfor information and necessary action.

Director General
Mines & Geology Department, Haryana.

Speed Post

Endst No.: DMG/HY/Cont./Kanalsi Block/YNR B-5/2015/ 5574 Dated: 26.11.2020

A copy is forwarded to the Assistant Mining Engineer, Department of Mines & Geology, Yamuna Nagar for information.

Director General
Mines & Geology Department, Haryana.

(Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii)
MINISTRY OF ENVIRONMENT AND FORESTS
New Delhi 14th September, 2006
Notification

S.O. 1533(E). - Whereas, a draft notification **under sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986 for imposing** certain restrictions and prohibitions on new projects or activities, or on the expansion or modernization of existing projects or activities based on their potential environmental impacts as indicated in the Schedule to the notification, being undertaken in any part of India[1], unless prior environmental clearance has been accorded in accordance with the objectives of National Environment Policy **as approved by the Union Cabinet on 18th May, 2006** and the procedure specified in the notification, by the Central Government or the State or Union territory Level Environment Impact Assessment Authority (SEIAA), to be constituted by the Central Government in consultation with the State Government or the Union territory Administration concerned under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 for the purpose of this notification, was published in the Gazette of India ,Extraordinary, Part II, section 3, sub-section (ii) vide number S.O. 1324 (E) dated the 15th September ,2005 inviting objections and suggestions from all persons likely to be affected thereby within a period of sixty days from the date on which copies of Gazette containing the said notification were made available to the public;

And whereas, copies of the said notification were made available to the public on 15th September, 2005;

And whereas, all objections and suggestions received in response to the above mentioned draft notification have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986, read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 and in supersession of the notification number S.O. 60 (E) dated the 27th January, 1994, except in respect of things done or omitted to be done before such supersession, the Central Government hereby directs that on and from the date of its publication the required construction of new projects or activities or the expansion or modernization of existing projects or activities listed in the Schedule to this notification entailing capacity addition with change in process and or technology shall be

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

undertaken in any part of India only after the prior environmental clearance from the Central Government or as the case may be, by the State Level Environment

Impact Assessment Authority, duly constituted by the Central Government under sub-section (3) of section 3 of the said Act, in accordance with the procedure specified hereinafter in this notification.

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[1]Includes the territorial waters

2. Requirements of prior Environmental Clearance (EC):- The following projects or activities shall require prior environmental clearance from the concerned regulatory authority, which shall hereinafter referred to be as the Central Government in the Ministry of Environment and Forests for matters falling under Category 'A' in the Schedule and at State level the State Environment Impact Assessment Authority (SEIAA) for matters falling under Category 'B' in the said Schedule, before any construction work, or preparation of land by the project management except for securing the land, is started on the project or activity:

(i) All new projects or activities listed in the Schedule to this notification;

(ii) Expansion and modernization of existing projects or activities listed in the Schedule to this notification with addition of capacity beyond the limits specified for the concerned sector, that is, projects or activities which cross the threshold limits given in the Schedule, after expansion or modernization;

(iii) Any change in product - mix in an existing manufacturing unit included in Schedule beyond the specified range.

3. State Level Environment Impact Assessment Authority:- (1) A State Level Environment Impact Assessment Authority hereinafter referred to as the SEIAA shall be constituted by the Central Government under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 comprising of three Members including a Chairman and a Member – Secretary to be nominated by the State Government or the Union territory Administration concerned.

(2) The Member-Secretary shall be a serving officer of the concerned State Government or Union territory administration familiar with environmental laws.

(3) The other two Members shall be either a professional or expert fulfilling the eligibility criteria given in Appendix VI to this notification.

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(4) One of the specified Members in sub-paragraph (3) above who is an expert in the Environmental Impact Assessment process shall be the Chairman of the SEIAA.

(5) The State Government or Union territory Administration shall forward the names of the Members and the Chairman referred in sub- paragraph 3 to 4 above to the Central Government and the Central Government shall constitute the SEIAA as an authority for the purposes of this notification within thirty days of the date of receipt of the names.

(6) The non-official Member and the Chairman shall have a fixed term of three years (from the date of the publication of the notification by the Central Government constituting the authority).

[I] "(7) All decisions of the SEIAA shall be taken in a meeting and shall ordinarily be unanimous:

Provided that, in case a decision is taken by majority, the details of views, for and against it, shall be clearly recorded in the minutes and copy thereof sent to MoEF."

4. Categorization of projects and activities:-

(i) All projects and activities are broadly categorized in to two categories - Category A and Category B, based on the spatial extent of potential impacts and potential impacts on human health and natural and man made resources.

(ii) All projects or activities included as Category 'A' in the Schedule, including expansion and modernization of existing projects or activities and change in product mix, shall require prior environmental clearance from the Central Government in the Ministry of Environment and Forests (MoEF) on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the Central Government for the purposes of this notification;

(iii) All projects or activities included as Category 'B' in the Schedule, including expansion and modernization of existing projects or activities as specified in sub paragraph (ii) of paragraph 2, or change in product mix as specified in sub paragraph (iii) of paragraph 2, but excluding those which fulfill the General Conditions (GC) stipulated in the Schedule, *will* require prior environmental clearance from the State/Union territory Environment Impact Assessment Authority (SEIAA). The SEIAA shall base its decision on the recommendations of a State or Union territory level Expert Appraisal Committee (SEAC) as to be constituted for in this notification. [II] "In the absence of a duly constituted SEIAA

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

or SEAC, a Category 'B' project shall be considered at Central Level as a Category 'B' project;"

5. Screening, Scoping and Appraisal Committees:-

The same Expert Appraisal Committees (EACs) at the Central Government and SEACs (hereinafter referred to as the (EAC) and (SEAC) at the State or the Union territory level shall screen, scope and appraise projects or activities in Category 'A' and Category 'B' respectively. EAC and SEAC's shall meet at least once every month.

(a) The composition of the EAC shall be as given in Appendix VI. The SEAC at the State or the Union territory level shall be constituted by the Central Government in consultation with the concerned State Government or the Union territory Administration with identical composition;

(b) The Central Government may, with the prior concurrence of the concerned State Governments or the Union territory Administrations, constitutes one SEAC for more than one State or Union territory for reasons of administrative convenience and cost;

(c) The EAC and SEAC shall be reconstituted after every three years;

(d) The authorised members of the EAC and SEAC, concerned, may inspect any site(s) connected with the project or activity in respect of which the prior environmental clearance is sought, for the purposes of screening or scoping or appraisal, with prior notice of at least seven days to the applicant, who shall provide necessary facilities for the inspection;

(e) The EAC and SEACs shall function on the principle of collective responsibility. The Chairperson shall endeavour to reach a consensus in each case, and if consensus cannot be reached, the view of the majority shall prevail.

6. Application for Prior Environmental Clearance (EC):-

An application seeking prior environmental clearance in all cases shall be made in the prescribed Form 1 annexed herewith and Supplementary Form 1A, if applicable, as given in Appendix II, after the identification of prospective site(s) for the project and/or activities to which the application relates, before commencing any construction activity, or preparation of land, at the site by the applicant. The applicant shall furnish, along with the application, a copy

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

of the pre-feasibility project report except that, in case of construction projects or activities (item 8 of the Schedule) in addition to Form 1 and the Supplementary Form 1A, a copy of the conceptual plan shall be provided, instead of the pre-feasibility report.

7. Stages in the Prior Environmental Clearance (EC) Process for New Projects:-

7(i) The environmental clearance process for new projects will comprise of a maximum of four stages, all of which may not apply to particular cases as set forth below in this notification. These four stages in sequential order are:-

- Stage (1) Screening (Only for Category 'B' projects and activities)
- Stage (2) Scoping
- Stage (3) Public Consultation
- Stage (4) Appraisal

I. **Stage (1) - Screening**:

In case of Category 'B' projects or activities, this stage will entail the scrutiny of an application seeking prior environmental clearance made in Form 1 by the concerned State level Expert Appraisal Committee (SEAC) for determining whether or not the project or activity requires further environmental studies for preparation of an Environmental Impact Assessment (EIA) for its appraisal prior to the grant of environmental clearance depending up on the nature and location specificity of the project . The projects requiring an Environmental Impact Assessment report shall be termed Category 'B1' and remaining projects shall be termed Category 'B2' and will not require an Environment Impact Assessment report. For categorization of projects into B1 or B2 except item 8 (b), the Ministry of Environment and Forests shall issue appropriate guidelines from time to time.

II. **Stage (2) - Scoping**:

(i) "Scoping": refers to the process by which the Expert Appraisal Committee in the case of Category 'A' projects or activities, and State level Expert Appraisal Committee in the case of Category 'B1' projects or activities, including applications for expansion and/or modernization and/or change in product mix of existing projects or activities, determine detailed and comprehensive Terms Of Reference (TOR) addressing all relevant environmental concerns for the preparation of an Environment Impact Assessment (EIA) Report in respect of the project or activity for which prior environmental clearance is sought. The Expert Appraisal Committee or State level Expert Appraisal Committee

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

concerned shall determine the Terms of Reference on the basis of the information furnished in the prescribed application Form1/Form 1A including Terns of Reference proposed by the applicant, a site visit by a sub- group of Expert Appraisal Committee or State level Expert Appraisal Committee concerned only if considered necessary by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, Terms of Reference suggested by the applicant if furnished and other information that may be available with the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned. All projects and activities listed as Category 'B' in Item 8 of the Schedule (Construction/Township/Commercial Complexes /Housing) shall not require Scoping and will be appraised on the basis of Form 1/ Form 1A and the conceptual plan.

(ii) The Terms of Reference (TOR) shall be conveyed to the applicant by the Expert Appraisal Committee or State Level Expert Appraisal Committee as concerned within sixty days of the receipt of Form 1. In the case of Category A Hydroelectric projects Item 1(c) (i) of the Schedule the Terms of Reference shall be conveyed along with the clearance for pre-construction activities .If the Terms of Reference are not finalized and conveyed to the applicant within sixty days of the receipt of Form 1, the Terms of Reference suggested by the applicant shall be deemed as the final Terms of Reference approved for the EIA studies**.** The approved Terms of Reference shall be displayed on the website of the Ministry of Environment and Forests and the concerned State Level Environment Impact Assessment Authority.

(iii) Applications for prior environmental clearance may be rejected by the regulatory authority concerned on the recommendation of the EAC or SEAC concerned at this stage itself. In case of such rejection, the decision together with reasons for the same shall be communicated to the applicant in writing within sixty days of the receipt of the application.

III. **Stage (3) - Public Consultation**:

(i) "Public Consultation" refers to the process by which the concerns of local affected persons and others who have plausible stake in the environmental impacts of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate. All Category 'A' and Category B1 projects or activities shall undertake Public Consultation, except the following:-

(a) modernization of irrigation projects (item 1(c) (ii) of the Schedule).

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(b) all projects or activities located within industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals.

(c) expansion of Roads and Highways (item 7 (f) of the Schedule) which do not involve any further acquisition of land.

III "(cc) maintenance dredging provided the dredged material shall be disposed within port limits.";

III "(d) All Building or Construction projects or Area Development projects (which do not contain any category 'A' projects and activities) and Townships (item 8(a) and 8(b) in the Schedule to the notification)."

e) all Category 'B2' projects and activities.

f) all projects or activities concerning national defence and security or involving other strategic considerations as determined by the Central Government.

(ii) The Public Consultation shall ordinarily have two components comprising of:-

(a) a public hearing at the site or in its close proximity- district wise, to be carried out in the manner prescribed in Appendix IV, for ascertaining concerns of local affected persons;

(b) obtain responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity.

(iii) the public hearing at, or in close proximity to, the site(s) in all cases shall be conducted by the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) concerned in the specified manner and forward the proceedings to the regulatory authority concerned within 45(forty five) of a request to the effect from the applicant.

(iv) in case the State Pollution Control Board or the Union territory Pollution Control Committee concerned does not undertake and complete the public hearing within the specified period, and/or does not convey the proceedings of the public hearing within the prescribed period directly to the regulatory authority concerned as above, the regulatory

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

authority shall engage another public agency or authority which is not subordinate to the regulatory authority, to complete the process within a further period of forty five days,.

(v) If the public agency or authority nominated under the sub paragraph (iii) above reports to the regulatory authority concerned that owing to the local situation, it is not possible to conduct the public hearing in a manner which will enable the views of the concerned local persons to be freely expressed, it shall report the facts in detail to the concerned regulatory authority, which may, after due consideration of the report and other reliable information that it may have, decide that the public consultation in the case need not include the public hearing.

(vi) For obtaining responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity, the concerned regulatory authority and the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) shall invite responses from such concerned persons by placing on their website the Summary EIA report prepared in the format given in Appendix IIIA by the applicant along with a copy of the application in the prescribed form, within seven days of the receipt of a written request for arranging the public hearing. Confidential information including non-disclosable or legally privileged information involving Intellectual Property Right, source specified in the application shall not be placed on the web site*.* The regulatory authority concerned may also use other appropriate media for ensuring wide publicity about the project or activity. The regulatory authority shall, however, make available on a written request from any concerned person the Draft EIA report for inspection at a notified place during normal office hours till the date of the public hearing. All the responses received as part of this public consultation process shall be forwarded to the applicant through the quickest available means.

(vii) After completion of the public consultation, the applicant shall address all the material environmental concerns expressed during this process, and make appropriate changes in the draft EIA and EMP. The final EIA report, so prepared, shall be submitted by the applicant to the concerned regulatory authority for appraisal. The applicant may alternatively submit a supplementary report to draft EIA and EMP addressing all the concerns expressed during the public consultation.

IV. Stage (4) - Appraisal:

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(i) Appraisal means the detailed scrutiny by the Expert Appraisal Committee or State Level Expert Appraisal Committee of the application and other documents like the Final EIA report, outcome of the public consultations including public hearing proceedings, submitted by the applicant to the regulatory authority concerned for grant of environmental clearance. This appraisal shall be made by Expert Appraisal Committee or State Level Expert Appraisal Committee concerned in a transparent manner in a proceeding to which the applicant shall be invited for furnishing necessary clarifications in person or through an authorized representative. On conclusion of this proceeding, the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall make categorical recommendations to the regulatory authority concerned either for grant of prior environmental clearance on stipulated terms and conditions, or rejection of the application for prior environmental clearance, together with reasons for the same.

(ii) The appraisal of all projects or activities which are not required to undergo public consultation, or submit an Environment Impact Assessment report, shall be carried out on the basis of the prescribed application Form 1 and Form 1A as applicable, any other relevant validated information available and the site visit wherever the same is considered as necessary by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned.

(iii) The appraisal of an application be shall be completed by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned within sixty days of the receipt of the final Environment Impact Assessment report and other documents or the receipt of Form 1 and Form 1 A, where public consultation is not necessary and the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee shall be placed before the competent authority for a final decision within the next fifteen days .The prescribed procedure for appraisal is given in Appendix V ;

7(ii). Prior Environmental Clearance (EC) process for Expansion or Modernization or Change of product mix in existing projects:

All applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernization of an existing unit with increase in

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence necessary including preparation of EIA and public consultations and the application shall be appraised accordingly for grant of environmental clearance.

8. Grant or Rejection of Prior Environmental Clearance (EC):

(i) The regulatory authority shall consider the recommendations of the EAC or SEAC concerned and convey its decision to the applicant within forty five days of the receipt of the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned or in other words within one hundred and five days of the receipt of the final Environment Impact Assessment Report, and where Environment Impact Assessment is not required, within one hundred and five days of the receipt of the complete application with requisite documents, except as provided below.

(ii) The regulatory authority shall normally accept the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned. In cases where it disagrees with the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, the regulatory authority shall request reconsideration by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned within forty five days of the receipt of the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned while stating the reasons for the disagreement. An intimation of this decision shall be simultaneously conveyed to the applicant. The Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, in turn, shall consider the observations of the regulatory authority and furnish its views on the same within a further period of sixty days. The decision of the regulatory authority after considering the views of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall be final and conveyed to the applicant by the regulatory authority concerned within the next thirty days.

(iii) In the event that the decision of the regulatory authority is not communicated to the applicant within the period specified in sub-paragraphs (i) or (ii) above, as applicable, the

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

applicant may proceed as if the environment clearance sought for has been granted or denied by the regulatory authority in terms of the final recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned.

(iv) On expiry of the period specified for decision by the regulatory authority under paragraph (i) and (ii) above, as applicable, the decision of the regulatory authority, and the final recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall be public documents.

(v) Clearances from other regulatory bodies or authorities shall not be required prior to receipt of applications for prior environmental clearance of projects or activities, or screening, or scoping, or appraisal, or decision by the regulatory authority concerned, unless any of these is sequentially dependent on such clearance either due to a requirement of law, or for necessary technical reasons.

(vi) Deliberate concealment and/or submission of false or misleading information or data which is material to screening or scoping or appraisal or decision on the application shall make the application liable for rejection, and cancellation of prior environmental clearance granted on that basis. Rejection of an application or cancellation of a prior environmental clearance already granted, on such ground, shall be decided by the regulatory authority, after giving a personal hearing to the applicant, and following the principles of natural justice.

9. Validity of Environmental Clearance (EC):

The "Validity of Environmental Clearance" is meant the period from which a prior environmental clearance is granted by the regulatory authority, or may be presumed by the applicant to have been granted under sub paragraph (iv) of paragraph 7 above, to the start of production operations by the project or activity, or completion of all construction operations in case of construction projects (item 8 of the Schedule), to which the application for prior environmental clearance refers. The prior environmental clearance granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects (item 1(c) of the Schedule), project life as estimated by Expert Appraisal Committee or State Level Expert Appraisal Committee subject to a maximum of thirty years for mining projects and five years in the case of all other projects and activities. However, in the case of Area Development projects and Townships [item 8(b)], the validity

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

period shall be limited only to such activities as may be the responsibility of the applicant as a developer. This period of validity may be extended by the regulatory authority concerned by a maximum period of five years provided an application is made to the regulatory authority by the applicant within the validity period, together with an updated Form 1, and Supplementary Form 1A, for Construction projects or activities (item 8 of the Schedule). In this regard the regulatory authority may also consult the Expert Appraisal Committee or State Level Expert Appraisal Committee as the case may be.

10. Post Environmental Clearance Monitoring:

[IV] "(i)(a) In respect of Category 'A' project, it shall be mandatory for the project proponent to make public the environment clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the district or State where the project is located and in addition, this shall also be displayed in the project proponent's website permanently.

(b) In respect of Category 'B' projects, irrespective of its clearance by MoEF / SEIAA, the project proponent shall prominently advertise in the newspapers indicating that the project has been accorded environment clearance and the details of the MoEF website where it is displayed.

(c) The Ministry of Environment and Forests and the State/Union Territory Level Environmental Impact Assessment Authorities (SEIAAs), as the case may be, shall also place the environmental clearance in the public domain on Governmental portal.

(d) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.";

[IV] (ii) It shall be mandatory for the project management to submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

[IV] (iii) All such compliance reports submitted by the project management shall be public documents. Copies of the same shall be given to any person on application to the

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

concerned regulatory authority. The latest such compliance report shall also be displayed on the web site of the concerned regulatory authority.

11. Transferability of Environmental Clearance (EC):

A prior environmental clearance granted for a specific project or activity to an applicant may be transferred during its validity to another legal person entitled to undertake the project or activity on application by the transferor, or by the transferee with a written "no objection" by the transferor, to, and by the regulatory authority concerned, on the same terms and conditions under which the prior environmental clearance was initially granted, and for the same validity period. No reference to the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned is necessary in such cases.

12. Operation of EIA Notification, 1994, till disposal of pending cases:

From the date of final publication of this notification the Environment Impact Assessment (EIA) notification number S.O.60 (E) dated 27th January, 1994 is hereby superseded, except in suppression of the things done or omitted to be done before such suppression to the extent that in case of all or some types of applications made for prior environmental clearance and pending on the date of final publication of this notification, the Central Government may relax any one or all provisions of this notification except the list of the projects or activities requiring prior environmental clearance in Schedule I , or continue operation of some or all provisions of the said notification, for a period not exceeding one year from the date of issue of this notification.

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

SCHEDULE

(See paragraph 2 and 7)

LIST OF PROJECTS OR ACTIVITIES REQUIRING PRIOR ENVIRONMENTAL CLEARANCE

Project or Activity		Category with threshold limit		Conditions if any
		A	B	
1		Mining, extraction of natural resources and power generation (for a specified production capacity)		
(1)	(2)	(3)	(4)	(5)
[v] "1(a)	(i) Mining of minerals.	≥ 50 ha. of mining lease area in respect of non-coal mine lease. > 150 ha of mining lease area in respect of coal mine lease. Asbestos mining irrespective of mining area	<50 ha ≥ 5 ha .of mining lease area in respect of non-coal mine lease. ≤ 150 ha ≥ 5 ha of mining lease area in respect of coal mine lease.	General Condition shall apply Note: Mineral prospecting Is exempted.”;
	(ii) Slurry pipelines (coal lignite and other ores) passing through national parks / sanctuaries / coral reefs, ecologically sensitive areas.	All projects.		
1(b)	Offshore and onshore oil and gas exploration, development & production	All projects		Note Exploration Surveys (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey
1(c)	River Valley pojects	(i) ≥ 50 MW hydroelectric power generation; (ii) ≥ 10,000 ha. of culturable command area	(i) < 50 MW ≥ 25 MW hydroelectric power generation; (ii) < 10,000 ha. of culturable command area	[v] “General Condition shall apply. Note: Irrigation projects not involving submergence or inter-state domain shall be appraised by the SEIAA as Category ‘B’ Projects.”;

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(1)	(2)	(3)	(4)	(5)
1(d)	Thermal Power Plants	[v] " ≥ 500 MW (coal / lignite / naphtha & gas based); ≥ 50 MW (Pet coke diesel and all other fuels including refinery residual oil waste except biomass); ≥ 20 MW (based on biomass or non hazardous municipal waste as fuel).”;	< 500 MW (coal / lignite / naphtha & gas based); <50 MW ≥ 5MW (Pet coke, diesel and all other fuels including refinery residual oil waste except biomass); ≥ 20 MW > 15 MW (based on biomass or non hazardous municipal waste as fuel).”;	[v] “General Condition shall apply. Note: (i) Power plant up to 15 MW, based on biomass and using auxiliary fuel such as coal / lignite / petroleum products up to 15% are exempt. (ii) Power plant up to 15 MW, based on non-hazardous municipal waste and using auxiliary fuel such as coal / lignite / petroleum products up to 15% are exempt. (iii) Power plants using waste heat boiler without any auxiliary fuel are exempt.”;
1(e)	Nuclear power projects and processing of nuclear fuel	All projects		
2		Primary Processing		
2(a)	Coal washeries	≥ 1 million ton/annum throughput of coal	<1million ton/annum throughput of coal	General Condition shall apply (If located within mining area the proposal shall be appraised together with the mining proposal)
2 (b)	Mineral beneficiation	≥ 0.1million ton/annum mineral throughput	< 0.1million ton/annum mineral throughput	General Condition shall apply (Mining proposal with Mineral beneficiation shall be appraised together for grant of clearance)

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

3		Materials Production		
(1)	(2)	(3)	(4)	(5)
3(a)	Metallurgical industries (ferrous & non ferrous)	a)Primary metallurgical industry All projects b) Sponge iron manufacturing ≥ 200TPD c) Secondary metallurgical processing industry All toxic and heavy metal producing units ≥ 20,000 tonnes /annum	 Sponge iron manufacturing <200TPD Secondary metallurgical processing industry i.)All toxic and heavy metal producing units <20,000 tonnes /annum ii.)All other non –toxic secondary metallurgical processing industries >5000 tonnes/annum	[V] "General condition shall apply. Note: (i) The recycling industrial units registered under the HSM Rules, are exempted. (ii) In case of secondary metallurgical processing industrial units, those projects involving operation of furnaces only such as induction and electrical arc furnace, submerged arc furnace, and cupola with capacity more than 30,000 tonnes per annum (TPA) would require environmental clearance. (iii) Plant / units other than power plants (given against entry no. 1(d) of the schedule), based on municipal solid waste (non-hazardous) are exempted."
3(b)	Cement plants	≥ 1.0 million tonnes/annum production capacity	<1.0 million tonnes/annum production capacity. All Stand alone grinding units	General Condition shall apply
4		Materials Processing		
(1)	(2)	(3)	(4)	(5)
4(a)	Petroleum refining industry	All projects	-	-
4(b)	Coke oven plants	≥2,50,000 tonnes/annum	<2,50,000 & ≥25,000 tonnes/annum	[V] "General Condition shall apply."
4(c)	Asbestos milling and asbestos based products	All projects	-	-

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(1)	(2)	(3)	(4)	(5)
4(d)	Chlor-alkali industry	≥300 TPD production Capacity or a unit located out side the notified industrial area/ estate	[v] "(i) All projects irrespective of the size, if located in a Notified Industrial Area/ Estate. (ii) <300 tonnes per day (TPD) and located outside a Notified Industrial Area/ Estate."	[v] "General as well as specific condition shall apply. No new Mercury Cell based plants will be permitted and existing units converting to membrane cell technology are exempted from this notification."
4(e)	Soda ash Industry	All projects	-	-
4(f)	Leather/skin/hide processing industry	New projects outside the industrial area or expansion of existing units out side the industrial area	All new or expansion of projects located within a notified industrial area/ estate	[v] "General as well as specific condition shall apply."
5		Manufacturing / Fabrication		
5(a)	Chemical fertilizers	[v] "All projects except Single Super Phosphate."	[v] "Single Super Phosphate."	-
5(b)	Pesticides industry and pesticide specific intermediates (excluding formulations)	All units producing technical grade pesticides	-	-
5(c)	Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics)	All projects -	-	-
5(d)	Manmade fibers manufacturing	Rayon	Others	General Condition shall apply
5(e)	Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes)	Located out side the notified industrial area/ estate -	Located in a notified industrial area/ estate	[v] "General as well as specific condition shall apply."

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(1)	(2)	(3)	(4)	(5)
5(f)	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	Located out side the notified industrial area/ estate	Located in a notified industrial area/ estate	[v] "General as well as specific condition shall apply."
5(g)	Distilleries	(i)All Molasses based distilleries (ii) All Cane juice/ non-molasses based distilleries ≥30 KLD	All Cane juice / non-molasses based distilleries – <30 KLD	General Condition shall apply
5(h)	Integrated paint industry	-	All projects	General Condition shall apply
5(i)	Pulp & paper industry excluding manufacturing of paper from waste paper and manufacture of paper from ready pulp with out bleaching	Pulp manufacturing and Pulp& Paper manufacturing industry	Paper manufacturing industry without pulp manufacturing	General Condition shall apply
5(j)	Sugar Industry	-	≥ 5000 tcd cane crushing capacity	General Condition shall apply
5(k)	[v] Omitted			
6		Service Sectors		
6(a)	Oil & gas transportation pipe line (crude and refinery/ petrochemical products), passing through national parks / sanctuaries /coral reefs / ecologically sensitive areas including LNG Terminal	All projects		-

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(1)	(2)	(3)	(4)	(5)
6(b)	Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)	-	All projects	General Condition shall apply
7		Physical Infrastructure including Environmental Services		
7(a)	Air ports	V "All projects including airstrips, which are for commercial use."	-	V "Note: Air strips, which do not involve bunkering/ refueling facility and or Air Traffic Control, are exempted."
7(b)	All ship breaking yards including ship breaking units	All projects	-	-
7©	Industrial estates/ parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes.	If at least one industry in the proposed industrial estate falls under the Category A, entire industrial area shall be treated as Category A, irrespective of the area. Industrial estates with area greater than 500 ha. and housing at least one Category B industry.	Industrial estates housing at least one Category B industry and area <500 ha. Industrial estates of area> 500 ha. and not housing any industry belonging to Category A or B.	V "Genral as well as special conditions shall apply. Note: 1. Industrial Estate of area below 500 ha. and not housing any industry of Category 'A' or 'B' does not require clearance. 2. If the area is less than 500 ha. but contains building and construction projects > 20,000 Sq. mts. And or development area more than 50 ha it will be treated as activity listed at serial no. 8(a) or 8(b) in the Schedule, as the case may be."
7(d)	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	All integrated facilities having incineration &landfill or incineration alone	All facilities having land fill only	General Condition shall apply

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(1)	(2)	(3)	(4)	(5)
7(e)	[V] "Ports, harbours, break waters, dredging."	≥ 5 million TPA of cargo handling capacity (excluding fishing harbours)	< 5 million TPA of cargo handling capacity and/or ports/ harbours ≥10,000 TPA of fish handling capacity	[V] "General Condition shall apply. Note: 1. Capital dredging inside and outside the ports or harbors and channels are included; 2. Maintenance dredging is exempt provided it formed part of the original proposal for which Environment Management Plan (EMP) was prepared and environmental clearance obtained."
7(f)	Highways	i) New National High ways; and ii) Expansion of National High ways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State.	[V] " i) All State Highway Project; and ii) State Highway expansion projects in hilly terrain (above 1,000 m AMSL) and or ecologically sensitive areas."	General Condition shall apply. Note: Highways include expressways."
7(g)	Aerial ropeways	[V(xvi)(a)] "(i) All projects located at altitude of 1,000 mtr. And above. (ii) All projects located in notified ecologically sensitive areas."	[V(xvi)(b)] "All projects except those covered in column (3)."	General Condition shall apply
7(h)	Common Effluent Treatment Plants (CETPs)		All projects	General Condition shall apply
7(i)	Common Municipal Solid Waste Management Facility (CMSWMF)		All projects	General Condition shall apply
8		Building /Construction projects/Area Development projects and Townships		
8(a)	Building and Construction projects		≥20000 sq.mtrs and <1,50,000 sq.mtrs. of built-up area#	#(built up area for covered construction; in the case of facilities open to the sky, it will be the activity area)
8(b)	Townships and Area Development projects.		Covering an area ≥ 50 ha and or built up area ≥1,50,000 sq .mtrs ++	++All projects under Item 8(b) shall be appraised as Category B1

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

Note:-

[V(xvii)] **"General Condition (GC):**
Any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as identified by the Central Pollution Control Board from time to time, (iii) Eco-sensitive areas as notified under section 3 of the Environment (Protection) Act, 1986, such as, Mahabaleshwar Panchgani, Matheran, Pachmarhi, Dahanu, Doon Valley, and (iv) inter-State boundaries and international boundaries:

Provided that the requirement regarding distance of 10 km of the inter-State boundaries can be reduced or completely done away with by an agreement between the respective States or U.Ts sharing the common boundary in case the activity does not fall within 10 kilometres of the areas mentioned at item (i), (ii) and (iii) above."

Specific Condition (SC):
If any Industrial Estate/Complex / Export processing Zones /Special Economic Zones/Biotech Parks / Leather Complex with homogeneous type of industries such as Items 4(d), 4(f), 5(e), 5(f), or those Industrial estates with pre –defined set of activities (not necessarily homogeneous, obtains prior environmental clearance, individual industries including proposed industrial housing within such estates /complexes will not be required to take prior environmental clearance, so long as the Terms and Conditions for the industrial estate/complex are complied with (Such estates/complexes must have a clearly identified management with the legal responsibility of ensuring adherence to the Terms and Conditions of prior environmental clearance, who may be held responsible for violation of the same throughout the life of the complex/estate).

[No. J-11013/56/2004-IA-II (I)]
(R.CHANDRAMOHAN)
JOINT SECRETARY TO THE GOVERNMENT OF INDIA

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

APPENDIX I

(See paragraph – 6)

FORM 1

[VI(a)] **"(I) Basic Information**

Serial Number	Item	Details
1.	Name of the project/s	
2.	S. No. in schedule	
3.	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of wells to be drilled	
4.	New/Expansion/Modernization	
5.	Existing Capacity/Area etc.	
6.	Category of Project i.e. 'A' or 'B'	
7.	Does it attract the general condition? If' Yes, please specify.	
8.	Does it attract the specific condition? If' Yes, please specify.	
9.	Location	
	Plot/Survey/Khasra No.	
	Village	
	Tehsil	
	District	
	State	
10.	Nearest railway station/airport along with distance in kms.	
11.	Nearest Town, city, District Headquarters along with distance in kms.	
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	
13.	Name of the applicant	
14.	Registered Address	
15.	Address for correspondence:	
	Name	
	Designation (Owner/Partner/CEO)	
	Address	
	Pin Code	
	E-mail	
	Telephone No.	
	Fax No.	
16	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Village-District-State 1. 2. 3.
17.	Interlinked Projects	
18	Whether separate application of interlinked project has been submitted?	

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

19.	If yes, date of submission	
20.	If no, reason	
21.	Whether the proposal involves approval/ clearance under: If yes, details of the same and their status to be given. (a) The Forest (Conservation) Act, 1980 ? (b) The Wildlife (Protection) Act, 1972 ? (c) The C.R.Z. Notification, 1991 ?	
22.	Whether there is any Government Order/Policy relevant/ relating to the site ?	
23.	Forest land involved (hectares)	
24.	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up ? (a) Name of the Court. (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project.	

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)		
1.2	Clearance of existing land, vegetation and buildings?		
1.3	Creation of new land uses?		
1.4	Pre-construction investigations e.g. bore houses, soil testing?		
1.5	Construction works?		
1.6	Demolition works?		
1.7	Temporary sites used for construction works or housing of construction workers?		
1.8	Above ground buildings, structures or earthworks including linear structures, cut And fill or excavations		

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

1.9	Underground works including mining or tunneling?		
1.10	Reclamation works?		
1.11	Dredging?		
1.12	Offshore structures?		
1.13	Production and manufacturing processes?		
1.14	Facilities for storage of goods or materials?		
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?		
1.16	Facilities for long term housing of operational workers?		
1.17	New road, rail or sea traffic during construction or operation?		
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?		
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?		
1.20	New or diverted transmission lines or pipelines?		
1.21	Impoundment, damming, culverting, realignment or other changes to the ydrology of watercourses or aquifers?		
1.22	Stream crossings?		
1.23	Abstraction or transfers of water form ground or surface waters?		
1.24	Changes in water bodies or the land surface affecting drainage or run-off?		
1.25	Transport of personnel or materials for construction, operation or decommissioning?		
1.26	Long-term dismantling or decommissioning or restoration works?		
1.27	Ongoing activity during decommissioning which could have an impact on the environment?		
1.28	Influx of people to an area in either temporarily or permanently?		
1.29	Introduction of alien species?		

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

1.30	Loss of native species or genetic diversity?		
1.31	Any other actions?		

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)		
2.2	Water (expected source & competing users) unit: KLD		
2.3	Minerals (MT)		
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)		
2.5	Forests and timber (source – MT)		
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)		
2.7	Any other natural resources (use appropriate standard units)		

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)		
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)		
3.3	Affect the welfare of people e.g. by changing living conditions?		
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,		
3.5	Any other causes		

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes		
4.2	Municipal waste (domestic and or commercial wastes)		
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)		
4.4	Other industrial process wastes		
4.5	Surplus product		
4.6	Sewage sludge or other sludge from effluent treatment.		
4.7	Construction or demolition wastes		
4.8	Redundant machinery or equipment		
4.9	Contaminated soils or other materials		
4.10	Agricultural wastes		
4.11	Other solid wastes		

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources.		
5.2	Emissions from production processes		
5.3	Emissions from materials handling including storage or transport		
5.4	Emissions from construction activities including plant and equipment		
5.5	Dust or odours from handling of materials including construction materials, sewage and waste		

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

5.6	Emissions from incineration of waste		
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)		
5.8	Emissions from any other sources		

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers		
6.2	From industrial or similar processes		
6.3	From construction or demolition		
6.4	From blasting or piling		
6.5	From construction or operational traffic		
6.6	From lighting or cooling systems		
6.7	From any other sources		

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials		
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)		
7.3	By deposition of pollutants emitted to air into the land or into water		
7.4	From any other sources		
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?		

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances		
8.2	From any other causes		
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?		

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. lities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries • supply industries • other		
9.2	Lead to after-use of the site, which could have an impact on the environment		
9.3	Set a precedent for later developments		
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects		

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

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(III) Environmental Sensitivity

S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value		
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, esting, foraging, resting, over wintering, migration		
4	Inland, coastal, marine or underground waters		
5	State, National boundaries		
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas		
7	Defence installations		
8	Densely populated or built-up area		
9	Areas occupied by sensitive man-made land uses *(hospitals, schools, places of worship, community facilities)*		
10	Areas containing important, high quality or scarce Resources *(ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)*		
11	Areas already subjected to pollution or environmental damage. *(those where existing legal environmental standards are exceeded)*		
12	Areas susceptible to natural hazard which could cause the project to present environmental Problems (*earthquakes, subsidence, landslides, erosion, Flooding or extreme or adverse climatic conditions*)		

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(IV). Proposed Terms of Reference for EIA studies

VI(b) "I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost."

Date: _____

Place: _____

Signature of the applicant
With Name and Full Address
(Project Proponent/Authorised Signatory)

NOTE:

1. The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z. map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z. (at the stage of TOR) and the recommendations of the State Coastal Zone Management Authority (at the stage of EC). Sinmultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z. Notification, 1991 for the activities to be located in the CRZ.
2. The projects to be located within 10 km of the National Prks, Sancturies, Biosphere Reserves, Migratory Corridors of Wile Animals, the project proponenet shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon (at the stage of EC)."
3. All correspondence with the Ministry of Environment & Forests including aubmission of application for TOR/Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC Meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being and authorized signatory for the specific project."

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

APPENDIX II
(See paragraph 6)

FORM-1 A (only for construction projects listed under item 8 of the Schedule)

CHECK LIST OF ENVIRONMENTAL IMPACTS

(Project proponents are required to provide full information and wherever necessary attach explanatory notes with the Form and submit along with proposed environmental management plan & monitoring programme)

1. **LAND ENVIRONMENT**

(Attach panoramic view of the project site and the vicinity)

1.1. Will the existing landuse get significantly altered from the project that is not consistent with the surroundings? (Proposed landuse must conform to the approved Master Plan / Development Plan of the area. Change of landuse if any and the statutory approval from the competent authority be submitted). Attach Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii) the site (indicating levels & contours) to appropriate scales. If not available attach only conceptual plans.

1.2. List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.

1.3. What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing landuse, disturbance to the local ecology).

1.4. Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).

1.5. Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)

1.6. What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc.)

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

1.7. Give details regarding water supply, waste handling etc during the construction period.

1.8. Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)

1.9. Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)

2. WATER ENVIRONMENT

2.1. Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.

2.2. What is the capacity (dependable flow or yield) of the proposed source of water?

2.3. What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality)

2.4. How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)

2.5. Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)

2.6. What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)

2.7. Give details of the water requirements met from water harvesting? Furnish details of the facilities created.

2.8. What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

2.9. What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any)

2.10. What precautions/measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)

2.11. How is the storm water from within the site managed?(State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels)

2.12. Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)

2.13. What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)

2.14. Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.

3. VEGETATION

3.1. Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with it's unique features, if any)

3.2. Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)

3.3. What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale)

4. FAUNA

4.1. Is there likely to be any displacement of fauna- both terrestrial and aquatic or creation of barriers for their movement? Provide the details.

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

4.2. Any direct or indirect impacts on the avifauna of the area? Provide details.

4.3. Prescribe measures such as corridors, fish ladders etc to mitigate adverse impacts on fauna

5. AIR ENVIRONMENT

5.1. Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)

5.2. What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.

5.3. Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.

5.4. Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.

5.5. Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.

5.6. What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.

6. AESTHETICS

6.1. Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?

6.2. Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?

6.3. Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.

6.4. Are there any anthropological or archaeological sites or artefacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.

7. SOCIO-ECONOMIC ASPECTS

7.1. Will the proposal result in any changes to the demographic structure of local population? Provide the details.

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

7.2. Give details of the existing social infrastructure around the proposed project.

7.3. Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?

8. BUILDING MATERIALS

8.1. May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)

8.2. Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?

8.3. Are recycled materials used in roads and structures? State the extent of savings achieved?

8.4. Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.

9. ENERGY CONSERVATION

9.1. Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?

9.2. What type of, and capacity of, power back-up to you plan to provide?

9.3. What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?

9.4. What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.

9.5. Does the layout of streets & buildings maximise the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details.

9.6. Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?

9.7. Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.

9.8. What are the likely effects of the building activity in altering the micro-climates? Provide a self assessment on the likely impacts of the proposed construction on

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

creation of heat island & inversion effects?

9.9. What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) fenestration? Give details of the material used and the U-values or the R values of the individual components.

9.10. What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.

9.11. If you are using glass as wall material provides details and specifications including emissivity and thermal characteristics.

9.12. What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.

9.13. To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.

10. Environment Management Plan

The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

APPENDIX III

(See paragraph 7

GENERIC STRUCTURE OF ENVIRONMENTAL IMPACT ASSESSENT DOCUMENT

S.NO	EIA STRUCTURE	CONTENTS
1.	Introduction	• Purpose of the report • Identification of project & project proponent • Brief description of nature, size, location of the project and its importance to the country, region • Scope of the study – details of regulatory scoping carried out (As per Terms of Reference)
2.	Project Description	• Condensed description of those aspects of the project (based on project feasibility study), likely to cause environmental effects. Details should be provided to give clear picture of the following: • Type of project • Need for the project • Location (maps showing general location, specific location, project boundary & project site layout) • Size or magnitude of operation (incl. Associated activities required by or for the project • Proposed schedule for approval and implementation • Technology and process description • Project description. Including drawings showing project layout, components of project etc. Schematic representations of the feasibility drawings which give information important for EIA purpose • Description of mitigation measures incorporated into the project to meet environmental standards, environmental operating conditions, or other EIA requirements (as required by the scope) • Assessment of New & untested technology for the risk of technological failure

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

3.	Description of the Environment	• Study area, period, components & methodology • Establishment of baseline for valued environmental components, as identified in the scope • Base maps of all environmental components
4.	Anticipated Environmental Impacts & Mitigation Measures	• Details of Investigated Environmental impacts due to project location, possible accidents, project design, project construction, regular operations, final decommissioning or rehabilitation of a completed project • Measures for minimizing and / or offsetting adverse impacts identified • Irreversible and Irretrievable commitments of environmental components • Assessment of significance of impacts (Criteria for determining significance, Assigning significance) • Mitigation measures
5.	Analysis of Alternatives (Technology & Site)	• In case, the scoping exercise results in need for alternatives: • Description of each alternative • Summary of adverse impacts of each alternative • Mitigation measures proposed for each alternative and • Selection of alternative
6.	Environmental Monitoring Program	• Technical aspects of monitoring the effectiveness of mitigation measures (incl. Measurement methodologies, frequency, location, data analysis, reporting schedules, emergency procedures, detailed budget & procurement schedules)
7.	Additional Studies	• Public Consultation • Risk assessment • Social Impact Assessment. R&R Action Plans
8.	Project Benefits	• Improvements in the physical infrastructure • Improvements in the social infrastructure

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

		• Employment potential –skilled; semi-skilled and unskilled • Other tangible benefits
9.	Environmental Cost Benefit Analysis	If recommended at the Scoping stage
10.	EMP	• Description of the administrative aspects of ensuring that mitigative measures are implemented and their effectiveness monitored, after approval of the EIA
11	Summary & Conclusion (This will constitute the summary of the EIA Report)	• Overall justification for implementation of the project • Explanation of how, adverse effects have been mitigated
12.	Disclosure of Consultants engaged	• The names of the Consultants engaged with their brief resume and nature of Consultancy rendered

APPENDIX III A

(See paragraph 7)

CONTENTS OF SUMMARY ENVIRONMENTAL IMPACT ASSESSMENT

The Summary EIA shall be a summary of the full EIA Report condensed to ten A-4 size pages at the maximum. It should necessarily cover in brief the following Chapters of the full EIA Report: -

1. Project Description
2. Description of the Environment
3. Anticipated Environmental impacts and mitigation measures
4. Environmental Monitoring Programme
5. Additional Studies
6. Project Benefits
7. Environment Management Plan

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

APPENDIX IV

(See paragraph 7)

PROCEDURE FOR CONDUCT OF PUBLIC HEARING

1.0 The Public Hearing shall be arranged in a systematic, time bound and transparent manner ensuring widest possible public participation at the project site(s) or in its close proximity District -wise, by the concerned State Pollution Control Board (SPCB) or the Union Territory Pollution Control Committee (UTPCC).

2. 0 **The Process:**

2.1 The Applicant shall make a request through a simple letter to the Member Secretary of the SPCB or Union Territory Pollution Control Committee, in whose jurisdiction the project is located, to arrange the public hearing within the prescribed statutory period. In case the project site is covering more than one District or State or Union Territory, the public hearing is mandated in each District, State or Union Territory in which the project is located and the applicant shall make separate requests to each concerned SPCB or UTPCC for holding the public hearing as per this procedure.

2.2 The Applicant shall enclose with the letter of request, at least 10 hard copies and an equivalent number of soft (electronic) copies of the draft EIA Report with the generic structure given in Appendix III including the Summary Environment Impact Assessment report in English and in the official languageof the state/local language, prepared strictly in accordance with the Terms of
Reference communicated after Scoping (Stage-2). Simultaneously the applicant shall arrange to forward copies, one hard and one soft, of the above draft EIA Report along with the Summary EIA report to the following authorities or offices, within whose jurisdiction the project will be located:

(a) District Magistrate/District collector/Deputy commissioner/s
(b) Zila Parishad or Municipal Corporation or Panchayats Union
(c) District Industries Office
(d) Urban Local Bodies (ULBs) / PRIs Concerned / Development authorities.
(d) Concerned Regional Office of the Ministry of Environment and Forests

2.3 On receiving the draft Environmental Impact Assessment report, the abovementioned authorities except the Regional Office of MoEF, shall arrange to widely publicize it within their respective jurisdictions requesting the interested persons to send their comments to the concerned regulatory authorities. They shall also make available the draft EIA Report for inspection electronically or otherwise to the public during normal office hours till the Public Hearing is over.

2.4 The SPCB or UTPCC concerned shall also make similar arrangements for giving publicity about the project within the State/Union Territory and make available the Summary of the draft Environmental Impact Assessment report (Appendix III A) for

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I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

inspection in select offices or public libraries or any other suitable location etc. They shall also additionally make available a copy of the draft Environmental Impact Assessment report to the above five authorities/offices as given in para 2.2.

3.0 Notice of Public Hearing:

3.1 The Member-Secretary of the concerned SPCB or UTPCC shall finalize the date, time and exact venue for the conduct of public hearing within 7(seven) days of the date of receipt of the draft Environmental Impact Assessment report from the project proponent, and advertise the same in one major National Daily and one Regional vernacular Daily / Official State Language. A minimum notice period of 30(thirty) days shall be provided to the public for furnishing their responses;

3.2 The advertisement shall also inform the public about the places or offices where the public could access the draft Environmental Impact Assessment report and the Summary Environmental Impact Assessment report before the public hearing**.** In places where the newspapers do not reach, the Competent Authority should arrange to inform the local public about the public hearing by other means such as by way of beating of drums as well as advertisement / announcement on radio / television.

3.3 No postponement of the date, time, venue of the public hearing shall be undertaken, unless some untoward emergency situation occurs and then only on the recommendation of the concerned District Magistrate/District collector/Deputy Commissioner, the postponement shall be notified to the public through the same National and Regional vernacular dailies and also prominently displayed at all the identified offices by the concerned SPCB or Union Territory Pollution Control Committee;

3.4 In the above exceptional circumstances, fresh date, time and venue for the public consultation shall be decided by the Member – Secretary of the concerned SPCB or UTPCC only in consultation with the District Magistrate/District collector/Deputy Commissioner and notified afresh as per procedure under 3.1 above.

4.0 Supervision and Presiding over the Hearing:

4.1 The District Magistrate/District collector/Deputy Commissioner or his or her representative not below the rank of an Additional District Magistrate assisted by a representative of SPCB or UTPCC**,** shall Supervise and preside over the entire public hearing process.

5.0 Videography

5.1 The SPCB or UTPCC shall arrange to video film the entire proceedings. A copy of the videotape or a CD shall be enclosed with the public hearing proceedings while Forwarding it to the Regulatory Authority concerned.

6.0 Proceedings

6.1 The attendance of all those who are present at the venue shall be noted and annexed with the final proceedings.

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

6.2 There shall be no quorum required for attendance for starting the proceedings.

6.3 A representative of the applicant shall initiate the proceedings with a presentation on the project and the Summary EIA report.

6.4 Persons present at the venue shall be granted the opportunity to seek information or clarifications on the project from the Applicant. The summary of the public hearing proceedings accurately reflecting all the views and concerns expressed shall be recorded by the representative of the SPCB or UTPCC and read over to the audience at the end of the proceedings explaining the contents in the local/vernacular language and the agreed minutes shall be signed by the District Magistrate/District collector/Deputy Commissioner or his or her representative on the same day and forwarded to the SPCB/UTPCC concerned**.**

6.5 A Statement of the issues raised by the public and the comments of the Applicant shall also be prepared in the local language or the Official State language, as the case may be, and in English and annexed to the proceedings:

6.6 The proceedings of the public hearing shall be conspicuously displayed at the office of the Panchyats within whose jurisdiction the project is located, office of the concerned Zila Parishad, District Magistrate/District collector/Deputy Commissioner, and the SPCB or UTPCC . The SPCB or
UTPCC shall also display the proceedings on its website for general information. Comments, if any, on the proceedings which may be sent directly to the concerned regulatory authorities and the applicant concerned.

7.0 **Time period for completion of public hearing**

7.1 The public hearing shall be completed within a period of 45 (forty five) days from date of receipt of the request letter from the Applicant. Thereafter the SPCB or UTPCC concerned shall sent the public hearing proceedings to the concerned regulatory authority within 8(eight) days of the completion of the public hearing.Simultaneously, a copy will also be provided to the project proponent.The applicant may also directly forward a copy of the approved public hearing proceedings to the regulatory authority concerned along with the final Environmental Impact Assessment report or supplementary report to the draft EIA report prepared after the public hearing and public consultations incorporating the concerns expressed in the public hearing along with action plan and financial allocation, item-wise, to address those concerns.”.

7.2 If the SPCB or UTPCC fails to hold the public hearing within the stipulated 45(forty five) days, the Central Government in Ministry of Environment and Forests for Category ‘A’ project or activity and the State Government or Union Territory Administration for Category ‘B’ project or activity at the request of the SEIAA, shall engage any other agency or authority to complete the process, as per procedure laid down in this notification.

APPENDIX –V

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

(See paragraph 7)

PROCEDURE PRESCRIBED FOR APPRAISAL

1. The applicant shall apply to the concerned regulatory authority through a simple communication enclosing the following documents where public consultations are mandatory:

- Final Environment Impact Assessment Report [20(twenty) hard copies and 1 (one) soft copy)]
- A copy of the video tape or CD of the public hearing proceedings
- A copy of final layout plan (20 copies)
- A copy of the project feasibility report (1 copy)

2. The Final EIA Report and the other relevant documents submitted by the applicant shall be scrutinized in office within 30 days from the date of its receipt by the concerned Regulatory Authority strictly with reference to the TOR and the inadequacies noted shall be communicated electronically or otherwise in a single set to the Members of the EAC /SEAC enclosing a copy each of the Final EIA Report including the public hearing proceedings and other public responses received along with a copy of Form -1or Form 1A and scheduled date of the EAC /SEAC meeting for considering the proposal.

3. Where a public consultation is not mandatory, the appraisal shall be made on the basis of the prescribed application Form 1 and EIA report, in the case of all projects and activities other than Item 8 of the Schedule. In the case of Item 8 of the Schedule, considering its unique project cycle, the EAC or SEAC concerned shall appraise all Category B projects or activities on the basis of Form 1, Form 1A and the conceptual plan and make recommendations on the project regarding grant of environmental clearance or otherwise and also stipulate the conditions for environmental clearance."

4. Every application shall be placed before the EAC/SEAC and its appraisal completed within 60 days of its receipt with requisite documents / details in the prescribed manner.

5. The applicant shall be informed at least 15 (fifteen) days prior to the scheduled date of the EAC /SEAC meeting for considering the project proposal.

6. The minutes of the EAC /SEAC meeting shall be finalised within 5 working days of the meeting and displayed on the website of the concerned regulatory authority. In case the project or activity is recommended for grant of EC, then the minutes shall clearly list out the specific environmental safeguards and conditions. In case the recommendations are for rejection, the reasons for the same shall also be explicitly stated.

Note: The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) vide notification number S.O. 1533 (E), dated 14th September, 2006 and amended vide S.O. 1737 (E), dated the 11th October, 2007.

APPENDIX VI

(See paragraph 5)

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

COMPOSITION OF THE SECTOR/ PROJECT SPECIFIC EXPERT APPRAISAL COMMITTEE (EAC) FOR CATEGORY A PROJECTS AND THE STATE/UT LEVEL EXPERT APPRAISAL COMMITTEES (SEACs) FOR CATEGORY B PROJECTS TO BE CONSTITUTED BY THE CENTRAL GOVERNMENT `

1. The Expert Appraisal Committees (EAC(s) and the State/UT Level Expert Appraisal Committees (SEACs) shall consist of only professionals and experts fulfilling the following eligibility criteria:

Professional: The person should have at least (i) 5 years of formal University training in the concerned discipline leading to a MA/MSc Degree, or (ii) in case of Engineering /Technology/Architecture disciplines, 4 years formal training in a professional training course together with prescribed practical training in the field leading to a B.Tech/B.E./B.Arch. Degree, or (iii) Other professional degree (e.g. Law) involving a total of 5 years of formal University training and prescribed practical training, or (iv) Prescribed apprenticeship/article ship and pass examinations conducted by the concerned professional association (e.g. Chartered Accountancy),or (v) a University degree , followed by 2 years of formal training in a University or Service Academy (e.g. MBA/IAS/IFS). In selecting the individual professionals, experience gained by them in their respective fields will be taken note of.

Expert: A professional fulfilling the above eligibility criteria with at least 15 years of relevant experience in the field, or with an advanced degree (e.g. Ph.D.) in a concerned field and at least 10 years of relevant experience.

Age: Below 70 years. However, in the event of the non-availability of /paucity of experts in a given field, the maximum age of a member of the Expert Appraisal Committee may be allowed up to 75 years

2. The Members of the EAC shall be Experts with the requisite expertise and experience in the following fields /disciplines. In the event that persons fulfilling the criteria of “Experts” are not available, Professionals in the same field with sufficient experience may be considered:

- **Environment Quality Experts**: Experts in measurement/monitoring, analysis and interpretation of data in relation to environmental quality

- **Sectoral Experts in Project Management**: Experts in Project Management or Management of Process/Operations/Facilities in the relevant sectors.

- **Environmental Impact Assessment Process Experts**: Experts in conducting and carrying out Environmental Impact Assessments (EIAs) and preparation of Environmental Management Plans (EMPs) and other Management plans and who have wide expertise and knowledge of predictive techniques and tools used in the EIA process

- **Risk Assessment Experts**

- **Life Science Experts in floral and faunal management**

- **Forestry and Wildlife Experts**

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

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- **Environmental Economics Expert with experience in project appraisal**

3. The Membership of the EAC shall not exceed 15 (fifteen) regular Members. However the Chairperson may co-opt an expert as a Member in a relevant field for a particular meeting of the Committee.

4. The Chairperson shall be an outstanding and experienced environmental policy expert or expert in management or public administration with wide experience in the relevant development sector.

5. The Chairperson shall nominate one of the Members as the Vice Chairperson who shall preside over the EAC in the absence of the Chairman /Chairperson.

6. A representative of the Ministry of Environment and Forests shall assist the Committee as its Secretary.

7. The maximum tenure of a Member, including Chairperson, shall be for 2 (two) terms of 3 (three) years each.

8. The Chairman / Members may not be removed prior to expiry of the tenure without cause and proper enquiry.

I; II; III (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b) , (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

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असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 18 जनवरी, 2021

का.आ. 221(अ).— केंद्रीय सरकार, तत्कालीन पर्यावरण और वन मंत्रालय में, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) के अधीन अपनी शक्तियों के प्रयोग करते हुए, पर्यावरण समाघात निर्धारण अधिसूचना, 2006 (जिसे इसके बाद उक्त अधिसूचना कहा गया है) संख्या का. आ. 1533 (अ), तारीख 14 सितंबर, 2006 द्वारा प्रकाशित किया जा चुका है, उक्त अधिसूचना की अनुसूची में सभी संबंधित सूचीबद्ध नई परियोजनाओं या क्रियाकलापों के लिए उनके विस्तार और आधुनिकीकरण और/या उत्पाद मिश्रण में परिवर्तन किया जा सकता है यथास्थिति, भूमि को अभिप्राप्त करने के सिवाय, परियोजना प्रबंधन द्वारा किसी भी संनिर्माण कार्य या भूमि को तैयार करने से पूर्व संबंधित विनियामक प्राधिकरण से पूर्व पर्यावरणीय अनापत्ति अपेक्षित होगी ।

और कोरोना वायरस (कोविड-19) के प्रकोप को देखते हुए और तत्पश्चात इसके नियंत्रण के लिए घोषित लॉकडाउन (कुल या आंशिक) ने , क्षेत्र में परियोजनाओं या क्रियाकलापों के कार्यान्वयन को प्रभावित किया है। पर्यावरण और वन जलवायु परिवर्तन मंत्रालय उक्त अधिसूचना में अनुज्ञात अधिकतम अवधि से परे पूर्व पर्यावरणीय अनापत्तियों की विधिमान्यता के विस्तार के लिए अनुरोधों की संख्या प्राप्ति में है, क्योंकि कोविड 19 महामारी अभी तक समाप्त नहीं हुई है। मामले की उक्त मंत्रालय में समीक्षा की गई है और चिंता इस तथ्य को ध्यान में रखते हुए है कि लॉकडाउन (कुल या आंशिक) के कारण, क्षेत्र में क्रियाकलापों को जारी रखना कठिन हो सकता है।

अत: अब, केंद्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के (4) खंड के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) की उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, लोक हित में उक्त नियमों के नियम 5 के उप-नियम (3) के खंड (क) के अधीन नोटिस की अपेक्षा अभिमुक्ति के पश्चात भारत के राजपत्र असाधारण, भाग- II, खंड 3, उपखंड (II), में प्रकाशित, भारत सरकार की तत्कालीन पर्यावरण और वन मंत्रालय अधिसूचना का.आ.1533 (अ), तारीख 14 सितंबर, 2006, में निम्नलिखित और संशोधन करती है, अर्थात्: -

उक्त अधिसूचना में,

(i) उप शीर्ष II "चरण (2)_विस्तारण", के अधीन पैरा 7 के उप पैरा 7(i) में, खंड (viii) के पश्चात निम्नलिखित खंड अंत:स्थापित किया जाएगा अर्थात्: -

"(ix) उपरोक्त में अंतर्विष्ट किसी बात के होते हुए, 1 अप्रैल 2020 से 31 मार्च 2021 की अवधि में कोरोना वायरस (कोविड-19) के प्रकोप को देखते हुए और तत्पश्चात इसके नियंत्रण के लिए घोषित लॉकडाउन (कुल या आंशिक) की दृष्टि में इस अधिसूचना के उपबंधो के अधीन मंजूर संदर्भ की शर्तों की विधिमान्यता की अवधि की गणना के प्रयोजन के लिए विचार नहीं किया जाएगा ,तथापि उक्त संदर्भ की शर्तों के संबंध में इस अवधि के दौरान अपनाए गए सभी क्रियाकलाप विधिमान्य समझे जाएंगे ।";

(ii) पैरा 9 क के स्थान पर, निम्नलिखित पैरा रखा जाएगा, अर्थात् : -

"9 क. इस अधिसूचना में अंतर्विष्ट किसी बात के होते हुए, 1 अप्रैल 2020 से 31 मार्च 2021की अवधि में कोरोना वायरस (कोविड-19) के प्रकोप को देखते हुए और तत्पश्चात इसके नियंत्रण के लिए घोषित लॉकडाउन (कुल या आंशिक) की दृष्टि में इस अधिसूचना के उपबंधो के अधीन मंजूर पूर्व पर्यावरणीय अनापत्ति की विधिमान्यताकी अवधि की गणना के प्रयोजन के लिए विचार नहीं किया जाएगा ,तथापि उक्त पर्यावरणीय अनापत्ति के संबंध में इस अवधि के दौरान अपनाए गए सभी क्रियाकलाप विधिमान्य समझे जाएंगे ।";

[फा. सं. 22-25/2020-आईए.III]

गीता मेनन, संयुक्त सचिव

टिप्पण : मूल अधिसूचना भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (ii) संख्या का.आ. 1533 (अ), तारीख 14 सितंबर, 2006 द्वारा प्रकाशित की गई थी और अधिसूचना अधिसूचना संख्या का.आ. 4254 (अ),तारीख 27 नवंबर, 2020 द्वारा अंतिम बार संशोधन किया गया था।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 18th January, 2021

S.O. 221(E).—Whereas, the Central Government in the erstwhile Ministry of Environment and Forests, in exercise of its powers by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 has published the Environment Impact Assessment Notification, 2006 (hereinafter referred to as the said notification) *vide* number S.O.1533(E), dated the 14th September, 2006, making the requirement of prior environmental clearance from the concerned regulatory authority mandatory for all new projects or activities listed in the Schedule to the said notification, their expansion and modernisation and/or change in product mix, as the case may be, before any construction work or preparation of land by the project management except for securing the land;

And whereas, in view of the outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, implementation of projects or activities in the field has been affected. Ministry of

Environment, Forest and Climate Change is in receipt of number of requests for extension of the validity of prior environmental clearances beyond the maximum period allowed in the said notification, as the COVID-19 pandemic has not yet come to an end. The matter has been examined in the said Ministry and the concern is genuine keeping in view the fact that due to lockdowns (total or partial), continuation of activities in the field has been difficult.

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), read with sub-rule (4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government, after having dispensed with the requirement of notice under clause (a) of sub-rule (3) of rule 5 of the said rules in public interest, hereby makes the following further amendments in the notification of Government of India, in the erstwhile Ministry of Environment and Forests, number S.O. 1533 (E), dated the 14th September, 2006, published in the Gazette of India, Extraordinary, Part-II, Section 3, Sub-section (II), namely:-

In the said notification, -

(i) in paragraph 7, in sub-paragraph 7(i), under sub-heading II. "Stage (2) – Scoping", after clause (viii), the following clause shall be inserted, namely:-

"(ix). Notwithstanding anything contained above, the period from the 1st April, 2020 to the 31st March, 2021 shall not be considered for the purpose of calculation of the period of validity of Terms of Reference granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, however, all activities undertaken during this period in respect of the said Terms of Reference shall be treated as valid.";

(ii) for paragraph 9A, the following paragraph shall be substituted namely:-

"9A. Notwithstanding anything contained in this notification, the period from the 1st April, 2020 to the 31st March, 2021 shall not be considered for the purpose of calculation of the period of validity of Prior Environmental Clearances granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, however, all activities undertaken during this period in respect of the Environmental Clearance granted shall be treated as valid.".

[F.No.22-25/2020-IA.III]

GEETA MENON, Joint Secy.

Note: The principal notification was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) *vide* number S.O. 1533 (E), dated the 14th September, 2006 and was last amended vide the notification number S.O. 4254(E), dated the 27th November, 2020.

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ANNEXURE R8/11

State Environment Impact Assessment Authority, Haryana,
Bays No.55-58, PrayatanBhawan, Sector-2 Panchkula.

Tel: 0172-2565232, 4043956
E-mail Id: seiaa-21.env@hry.gov.in

Memo No: SEIAA/HR/2022/1597 Date: 07/10/2022

To

M/s P.S.Buildtech,
34, Vishal Nagar, Yamuna Nagar, Haryana-135001
Email Id: kulvinder2004singh@gmail.com

Subject: **Extension of Validity of EC for proposed project Mining of sand minor mineral from the riverbed Yamuna river with 19,50,000 MT production capacity over an area of 44.14 hectare located at Village- Kanalsi, Tehsil-Chhachhrauli, District- Yamuna nagar, Haryana.**

1. This has reference to your Proposal No. SIA/HR/MIN/ 237132/2021 dated 20.12.2021 for obtaining Extension of validity of EC under category 1(a) of EIA Notification dated 14.09.2006 along with submission of required Scrutiny Fee amounting of Rs.1,5,00,00/- vide DD. No.502778 dated 08.11.2021 in compliance of Haryana Government, Environment & Climate Change Notification No. DE&CCH/3060 dated 14th October, 2021. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., Form-6, PFR, Replenishment Study Report, Approved Mining Plan and additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC) constituted by MoEF& CC, GoI vide their Notification dated 21.02.2022, in its meeting held on 06.01.2022, 28.03.2022, 24.06.2022, 25.07.2022 & 30.08.2022.

2. It is inter-alia, noted that the project involves the Extension of Validity of EC for proposed project Mining of sand minor mineral from the riverbed Yamuna river with 19,50,000 MT production capacity over an area of 44.14 hectare located at Village- Kanalsi, Tehsil-Chhachhrauli, District- Yamuna nagar, Haryana.

3. The State Expert Appraisal Committee, Haryana after due consideration of the relevant documents submitted by the project proponent and additional clarification furnished in response to its observations, **have recommended the grant of Extension of validity in Environmental Clearance for the project mentioned above, subject to decision of any Court of law and Hon'ble NGT.**

4. **The recommendation of SEAC was taken up in the 146th meeting of SEIAA held on 20.09.2022; after detailed deliberation the Authority decided to grant** of **extension in period of validity of earlier EC granted to the project vide letter dated 15.09.2016, as per approved mining plan issued by Mines & Geology Department, Haryana vide**

letter No. DMG/HY/MP/ Kanalsi/ YNR B-5/2021/5672 dated 01.12.2021 for four years. As gathered from the record, the Project Proponent holds mining lease period for 9 years commencing from 15.09.2016 (date of issuance of EC). Thus, the Authority grant extension of validity of EC till 14.09.2025 i.e. till the approved Mining Plan & lease period of the Project Proponent (approved & accepted by the Mines & Geology Department, Haryana).

Further, the Authority directs Project Proponent to comply with the directions as made vide order dated 13.09.2022 in the case of Hon'ble Punjab & Haryana High Court in CWP No. 10588 of 2022 titled as M/s Ganga Yamuna Mining Co. V/s State of Haryana and CWP No. 10595 of 2022 titled as Ram Pal V/s State of Haryana & Ors.

In view of the above, The Authority decided to consider the proposal for extension of validity of the earlier EC dated 15.09.2016 till 14.09.2025. This is in pursuance to the recommendation of SEAC and lease and mining plan as approved by the Mines & Geology Department, Haryana.

Further, the Authority deem it appropriate to direct Project Proponent not to carry out any activity beyond the scope and directions of orders dated 13.09.2022 in regard to pending CWP No. 10588 of 2022 titled as M/s Ganga Yamuna Mining Co. V/s State of Haryana and CWP No. 10595 of 2022 titled as Ram Pal V/s State of Haryana & Ors before the Hon'ble Punjab & Haryana High Court.

(Pardeep Kumar, IAS)
Member Secretary,
State Level Environment Impact
Assessment Authority, Haryana, Panchkula.

Endst No: SEIAA/HR/2022/1598-1604 D.t. 07/10/2022

A copy of the above is forwarded to the following:

1. Director (IA Division), MoEF & CC, GoI, Indira Paryavaran Bhavan, Zor bagh Road-New Delhi-110003.
2. Chairman, State Environment Impact Assessment Authority, Bay No. 55-58, Prayatan Bhawan, Sector-2, Panchkula, Haryana
3. Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula.
4. Director, Environment & Climate Change Department, Haryana, Bay No. 55-58, Prayatan Bhawan, Sector-2, Panchkula, Haryana
5. Director General, Mines & Geology Department, Haryana
6. Regional Office, Ministry of Environment, Forests & Climate Change, Govt. of India, Bay's No. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160018.
7. Concerned File/ Office Copy

(Pardeep Kumar, IAS)
Member Secretary,
State Level Environment Impact
Assessment Authority, Haryana, Panchkula.

Minutes of the 256thMeeting of the State Expert Appraisal Committee (SEAC), Haryana held on 30.11.2022 and 01.12.2022 under the Chairmanship of Sh. V. K. Gupta, Chairman, SEAC, in Conference Hall (SEIAA), Bays No.55-58, First Floor, ParyatanBhawan, Sector-2, Panchkulafor considering Environmental Clearance of Projects (B Category) under Government of India Notification dated 14.09.2006

At the outset the Chairman, SEAC welcomed the Members of the SEAC and advised the Member Secretary to give brief background of this meeting.

The minutes of 255thmeeting were discussed and approved. In this meeting 32nos. of agenda projects received from SEIAA, were taken up for scoping, appraisal and grading as per agenda circulated.

The following members joined the meeting:

Sr. No.	Name	Designation
1.	Sh.Prabhaker Verma (Through VC)	Member
2.	Dr.Vivek Saxena, IFS	Member
3.	Shri Rajbir Bondwal, IFS (Rtd). (on leave out of country)	Member
4.	Dr.Sandeep Gupta (Attended on 30.11.2012 and on leave on 01.12.2022)	Member
5.	Sh.Bhupender Singh Rinwa, Joint Director, Environment & Climate Change Department, Haryana	Member Secretary
6.	Shri Omdutt Sharma	Mining Officer

256.01 Corrigendum in Environmental Clearance (EC) for "Addition of (minor mineral) Boulder and Gravel" as per the DMG letter at Kanalsi Block/YNR B-5, over an area of 44.14 Hectares in Village Kanalsi, Tehsil Chhachhrauli, District Yamunanagar, Haryana by M/s P S Buildtech

Project Proponent : Shri Veer Bhan
Consultant : Vardan EnviroNet

The Project Proponent submitted the proposal to SEIAA vide online Proposal SIA/HR/MIN/293365/2022dated 28.10.2022 for obtaining Corrigendum in Environmental Clearance under category 1(a) of EIA Notification dated 14.09.2006. The PP submitted the scrutiny fee vide DD No. 505444of amount Rs.1,50,000/-.

The case was taken up in 256th meeting held on 30.11.2022. PP presented the case before the committee and followings points were discussed during the presentation:

- The LOI for the project was granted the Letter of Intent (LOI) by the Director General, Mines and Geology department, Haryana vide letter no DMG/HY/Cont/Kanalsi/YNR B-5/2015/10072 dated, 30.11.2015.
- Environment Clearance for the project has been granted by SEIAA Haryana vide letter no SEIAA/HR/2016/746 Dated 15.09.2016 only for five years, which was expired on 14.09.2021.
- Environment Clearance for the project has been extended by SEIAA Haryana vide letter no SEIAA/HR/2022/1597 Dated 07.10.2022 for a period upto 14.09.2025 i.e. till the validity of LOI granted on 30.11.2015.
- District Survey report of Yamuna Nagar District was prepared and approved by DC Yamunanagar on 10.08.2017. Our case of "KanalsiBlock/YNR B-5" with production

capacity of 19,50,000 TPA has been mentioned at point no. 7, page no. 16 of DSR Report.

- DMG issued a letter for Addition of (minor mineral) boulder and gravel as per the DMG letter no. DMG/HY/Cont/KanalsiBlock/YNR B-5/2015/5573 dated 26.11.2020.
- Replenishment study was conducted during the Pre-monsoon (15th to 20th June, 2021) and post-monsoon (18th to 21st September, 2021) and approved vide letter no. DMG/HY /RS/Kanalsi Block YNR B-5/2022/5116 on 09.08.2022.
- Mining Scheme for boulder, gravel and sand has been approved by DMG Haryana vide letter no. DMG/HY/MP/KanalsiYNR B-5/2021/5672 dated 01.12.2021 for productionof19,50,000TPA.
- Report on Status of EC Compliance by Haryana State Pollution Control Board was issued vide File No. HSPCB-180001/84/2022-Region Yamuna Nagar-HSPCB dated 09/07/2022.

The PP submitted an undertaking dated 01.12.2022 affirming the above mentioned facts. An affidavit dated 02.12.2022 also submitted by PP to the effect that there is a case OA No.423 is pending on the project at NGT and they will comply to the judgement pronounce by the NGT.

The Committee thoroughly discussed the details, affidavit, undertaking and reply submitted by the PP at length. This project is proposed for issuance of Corrigendum in EC already granted for mining of Boulder, Gravel in addition to Sand Minor mineral mining to M/s P.S. Buildtech. The rate of production shall be 19,50,000TPA. The lease area lies of Yamuna riverbed.

The Environment Clearance for the project hadalready been granted by SEIAA Haryana on 15.09.2016 only for five years, which was expired on 14.09.2021 but the same has been extended by SEIAA Haryana for a period upto 14.09.2025 i.e. till the approved Mining Plan and lease period.

The has further submitted that Letter of Intent (LOI) has been granted by the Director General, Mines and Geology department, Haryana vide letter no DMG/HY/Cont./Kanalsi/YNR B-5/2015/10072dated, 30.11.2015 for the sand minor mineral.

The earlier Mining plan for the mineral Boulder Gravel and sand has been approved by the Department of Mines and Geology, Haryana vide letter no DMG/HY/MP/KanalsiYNR B-5/2015/3095 dated 10.06.2016 for production of 19,50,000 TPA.

Latest Mining Scheme for boulder, gravel and sand has been approved by DMG Haryana vide letter no.DMG/HY/MP/Kanalsi/YNRB-5/2021/5672 dated 01.12.2021 for production of 19,50,000TPA.

Addition of (minor mineral) boulder and gravel as per the DMG letter no. DMG/HY/Cont./KanalsiBlock/YNR B-5/2015/5573 dated, 26.11.2020 over an area measuring 44.14 Ha proposed by M/s P.S. Buildtech. The Project Proponent has proposed for issuance of Corrigendum in EC for mining of additional mineral i.e. Boulder and Gravel in addition to existing mining of sand.

Shri Omdutt Sharma, Mining Officer also stated that minerals cannot be excavated separately as such the Director General has allowed on the overall quantity of mineral production shall not exceed the annual production of 1950000 MT allowed as per environment clearance.

A detailed discussion was held on the documents as well as details submitted by the PP and after discussion, the committee found the details given as well as documents submitted by the PP,

in order and decided to recommend the case to SEIAA for issuance of Corrigendum in EC issued to PP for mining of Boulder, Gravel in addition to Sand Minor mineral mining of "Kanalsi Block/YNR B-5" Village Kanalsi, Tehsil Chhachhrauli, District Yamunanagar, over an area of 44.14 Hectares proposed by M/s P. S. Buildtech Amendment/modification of EC with same quantity of production as mentioned in earlier EC.

256.02 Amendment/Modification of EC for Expansion of International Tech Park (ITPG), IT/ITES, SEZ (63.25 Acres), Village Behrampur, Near Sector 59, Gurugram, Haryana by M/s ITPG Developers PVT. LTD.

Project Proponent : Sh. Pankaj Tyagi
Consultant : Ind Tech House Consult

The Project Proponent submitted the case to SEIAA vide online Proposal SIA/HR/MIS/293760/2022dated 10.11.2022 for obtaining Modification of Environmental Clearance under category 8(b) of EIA Notification dated 14.09.2006. The PP submitted the scrutiny fee vide DD No. 765263 dated 10.10.2022 of amount Rs.2,00,000/-.

Previous EC was granted to the project on 22.11.2021 in favour of M/s ITPG Developers Pvt. Ltd.

The case was taken up in 256th meeting held on 30.11.2022. The PP and consultant presented the case before the committee.

The brief facts of the case are as under:

- Earlier Environment clearance of the project was obtained under expansion category for plot area: 2,55,972.3 sqm and built-up area was 11,28,839.42 sqm (processing zone) vide file no. SEIAA/HR/2020/281 and EC Identification No. EC21B039HR151147 dated 22/11/2021 and construction of the project is going on in phase wise manner.
- In Approved Master plan in Building No.8, FAR of 3859.86 sqm out of 105748.56 sqm will be used for lab purpose with built up area 4130.21 sqm and No. of floors will be G+2.
- No construction has been done in phase 3 under which building no.8 Comes.
- Building plan of lab building has been approved vide File no. 10/76/2012/SEZ/3360 dated 27/04/2022.
- Approx. 39.6 KLD ~ 40 KLD is required for lab building in which 1.7 KLD Fresh water for lab population, 2 KLD for flushing and approx. 36 KLD (for making distilled water) will be used for lab operations.
- Domestic Effluent generated from the lab building will be treated in STP and Trade Effluent generated from the lab building will be treated in ETP having capacity 43 KLD (1.25 % of Trade Effluent generated)
- There will be no change in the other parameters in obtained EC except ETP proposal.

The committee discussed the case and raised some observations. The PP replied to the observations in the form of an undertaking and also submitted an affidavit with regard to the pendency of court case.

The PP also submitted Comparative Statement as below:

Sr. No.	Particulars	Details as per EC Letter	Changes	Total
1	Plot area	255972.3 sqm	No Change	255972.3 sqm
2.	Proposed Ground coverage	68984.99 sqm	No Change	68984.99 sqm
3	Proposed FAR	638722.74 sqm	No Change	638722.74 sqm
4	Non FAR Area	490116.684 sqm	No Change	490116.684 sqm
5	Total Built Up Area	1128839.42 sqm	No Change	1128839.42 sqm
6	Total Green area with percentage	60016.258 sqm(23.45%)	No Change	60016.258 sqm(23.45%)
7	Rain water harvesting pits	63 nos.	No Change	63 nos.
8	Total Parking	9958 ECS	No Change	9958 ECS
9	Organic waste converter	02 Nos.	No Change	02 Nos.
10	Maximum height of the building	94.20 M	No Change	94.20 M
11	Power requirement.	71.90 MVA	No Change	71.90 MVA
12	Power backup	51000 KVA	No Change	51000 KVA
13	Total water requirement	5381 KLD	No Change	5381 KLD
14	Domestic water requirement	3081 KLD	No Change	3081 KLD
15	Fresh water requirement	1746 KLD	No Change	1746 KLD
16	Treated Water available	3635 KLD	No Change	3635 KLD
17	Waste Water Generated	2750 KLD	No Change	2750 KLD
	Domestic Effluent to STP	2750	-34 KLD	2716 KLD
	Trade Effluent to ETP	-	34 KLD	34 KLD
18	Total STP and ETP Capacity	3300 KLD	-	3300 KLD (3257 KLD STP + 43 KLD ETP)
19	Solid Waste Generated	20 TDP	No Change	20 TDP
20	Basement	3	No Change	3

Details of configuration is as follows for which modification is proposed

Sr. No.	Particulars	Details as per EC Letter	Changes	Total
1	Waste Water Generated	2750 KLD	No Change	2750 KLD
	Domestic Effluent to STP	2750	-34 KLD	2716 KLD
	Trade Effluent to ETP	-	34 KLD	34 KLD
2	STP Capacity	3300 KLD	-43	3257 KLD (Approx 1.2 % of domestic effluent)
3	ETP Capacity	-	+43 KLD	43 KLD (i.e. 1.25 % of trade effluent)

The committee discussed the documents and details submitted by the PP at length. The PP has proposed for "modification" in the earlier granted "EC" dated 22.11.2021 with regard to bifurcation of the treatment of effluent. The PP has submitted that total water generation would be 2750 KLD, still the total volume remained the same, only change is sought that for better treatment and disposal of effluent, project proponent wants to treat the effluent from the Lab in a separate "ETP". The PP has further submitted that total effluent generated from Lab would be 34 and will be treated in the 43 KLD capacity of "ETP" which is 1.25 times of the effluent treated.

The PP also submitted that this case is not of "Expansion" in plan, as there is no increase in Plot area/built-up area and there is no increase in population. Even the water requirement and total waste water generation remains the same. Only modification sought is in regard to treatment of the

water of Laboratory through a separate "ETP", total capacity of STP + ETP being 2716 +34 = 2750 KLD, which is same as mentioned in the "Accorded EC" i.e. 2750 KLD.

After detailed discussion, the committee found the details as well as documents submitted by the PP, in order and decided to recommend the case to SEIAA for modification of earlier EC granted on 22.11.2021.

256.03 EC (under violation) for Proposed Panipat Cooperative Sugar Mills Limited, 5000 TCD Sugar Mill Crushing Capacity at Village Dahar, Tehsil Israna, District Panipat, Haryana by M/s Panipat Cooperative Sugar Mills Limited

Project Proponent : Sh. Navdeep Singh
Consultant : SMS Envocare Ltd

The Project Proponent submitted the case to SEIAA vide online Proposal SIA/HR/IND2/404530/2022 dated 29.10.2022 for obtaining Environmental Clearance under category 5 (j) of EIA Notification dated 14.09.2006. The PP submitted the scrutiny fee vide DD No. 075275 dated 12.11.2021 of amount Rs.2,00,000/-.

ToR was granted to the project on 08.04.2022 under violation.

The case was taken up in 256th meeting held on 30.11.2022. The PP and consultant presented the case before the committee.

The Committee discussed the documents and information given by PP and further, raised following observations:

1. The PP shall submit detailed/chronological note of the project
2. The PP shall submit latest status report of the project with photographs
3. The PP shall submit cost certificate duly verified by authorised CA including Civil, Mechanical and component costs
4. The PP shall submit latest google images of the project
5. The PP shall submit details of Air Pollution Control Measure device
6. The PP shall submit the proof of the fact that data regarding air quality/emission is being provided to HSPCB/CPCB.
7. The PP shall submit technical details of Bioler and its SoP
8. The PP shall submit report regarding efficiency of Bioler with reasonability
9. The PP shall details of work order given to the agency for lifting of ash/baggase
10. The PP shall revise details/figures of hazardous waste given in PPT
11. The PP shall submit actual, tangible and audited EMP detail.
12. The PP shall submit the details of expenses done so far and future action plan (tabular form) of its EMP budget in tabular form
13. The PP shall clearly depict public demands raised during public hearing in the revised EMP detail
14. The PP shall identify and adopt a nearby pond for its rejuvenation
15. The PP shall given the details of use of ground water as well as water from canal
16. The PP shall submit plan as to how use of ground water can be reduced for the project.
17. The PP shall submit updated compliance report of public demand and its future action plan in tabular form
18. The PP shall submit a revised, detailed and tangible Damage Assessment Study keeping in view the fact that the project has been completed before taking Environment Clearance.
19. The PP shall submit the detail of ETP/STP and ZLD.

The PP shall submit the reply of above mentioned observations within 15 days. Thereafter, the case shall be taken in next meeting as and when the reply is submitted by PP.

256.04 EC for Capacity Expansion Mining of Stone along with Associated Minor Minerals mine for total production enhancement from 5.6 MTPA to 9 MTPA at Khasra No 216, over area of 29.50 ha Located at Kalyana 2 Village Kalyana, Tehsil & District- Charkhi Dadri, Haryana proposed by M/s SBIPL Projects Limited

Project Proponent : Sh. Rakesh Sangwan
Consultant : Vardan EnviroNet

The Project Proponent submitted the cases to SEIAA vide online Proposal SIA/HR/MIN/406448/2022 dated 15.11.2022 for obtaining Environmental Clearance under category 1(a) of EIA Notification dated 14.09.2006. The PP submitted the scrutiny fee vide DD No. 751532 dated 15.11.2022 of amount Rs.1,50,000 /-.

Previous EC was granted on 23.05.2017. The ToR was auto generated on 23.06.2021.

The case was taken up in 256th meeting held on 30.11.2022. The PP and consultant appeared before the committee and presented the case.

During the presentation, it was submitted by PP that the project relates to District Charkhi Dadri but District Survey Report has still not been finalized, however, mining plan has been approved. It is also submitted by PP that Certified Compliance Report with regard to the project also not available.

After due deliberation, the committee decided to defer the case and directed PP to submit finalized District Survey Report as well as Certified Compliance Report of the project within 15 days. Thereafter, the case shall be taken up in next meeting.

256.05 EC for Proposed Group Housing Project (5.00 ACRE) falling in the Residential Plotted Colony (50.14375 ACRE) in the revenue estate of Village Maheshwari & Garhi Alawalpur, Sector-23 & 24, Tehsil Dharuhera & District Rewari, Haryana by M/s AMD Estates Private Limited

Project Proponent : Sh. Sanjay Malhotra
Consultant : OCEAO-ENVIRO Management Solutions (India) Pvt. Ltd.

The Project Proponent submitted the case to SEIAA vide online Proposal SIA/HR/INFRA2/402398/2022 dated 15.11.2022 for obtaining Environmental Clearance under category 8(a) of EIA Notification dated 14.09.2006. The PP submitted the scrutiny fee vide DD No. 011877 dated 11.10.2022 of amount Rs.2,00,000/-.

The case was taken up in 256th meeting held on 01.12.2022. The PP along with its consultant presented the case before the committee.

During discussion it is submitted by PP that earlier environment clearance dated 12.12.2013 has been obtained for the Group Housing part of the project having plot area 5 acres and built-up area 48588.30 $m^2$and the remaining plot area measuring 45.14375 acres is a residential plotted colony project as per the zoning plan so it has been exempted from Environment Clearance. Further, the PP has submitted site photographs stating that no construction activity has been done till date on the area for which EC has been obtained. However, the PP could not produce the certified compliance report issued by the competent authority on the earlier obtained environment clearance.

Further, the PP informed the Committee that there are slight changes in the planning with regard to this proposal (Group Housing project (5.00 acres) and requested vide letter dated 01.12.2022 to raise EDS/ADS to enable them to submit revised Form-I, IA etc. with regard to falling the Residential Plotted Colony (50.14375 acre) in the revenue estate of Village Maheshwari & Garhi Alawalpur, Sector-23 & 24, Tehsil Dharuhera & District Rewari, Haryana.

The committee after deliberation decided to raise ADS as requested by PP to enable them to revise/update required information through PARIVESH portal. The case is deferred and shall be taken up after receiving the revised proposal on portal to be uploaded by PP.

256.06 EC for construction of Group Housing Colony in the revenue estate of village Kadarpur & Maidawas, District Gurgaon Sector-63 A Gurgaon by M/s Mahamaya Exports Pvt. Ltd

Project Proponent : Not present
Consultant : Not present

The case was lastly taken up in 131st SEIAA meeting held on 03.12.2021 and decided to defer this case with the decision that RO, HSPCB, Sh. V.K. Gupta, Chairman, SEAC and Dr. S. N. Mishra, Member SEAC shall visit the site for current status of Project and shall submit the report within 3 weeks period. Further, the Authority decided to issue Final Show-Cause Notice to PP stating that why the case should not be de-listed as he is not responding to the communications since long.

The case was again taken up in 136th meeting of SEIAA held on 02.03.2022 and it was observed that sub-committee has not submitted the report. The Authority decided to request Member Secretary, HSPCB to nominate concerned RO, HSPCB (Convener of sub-committee) along with Dr. Rajbir Singh Bondwal, IFS (Retd.) to carry out the spot inspection to get the current status of project & submit the report within 10 days. Accordingly, the case is referred back to SEAC to make recommendations after perusing the report of Sub-committee as and when received.

The case was taken up in 235th meeting and neither PP nor consultant appeared before the committee. During discussion it is informed by member of nominated sub- committee that no orders have been received. The SEAC decided that MS, HSPCB may be requested to depute concerned RO for site visit. The Member may also be requested to carry the inspection and submit the report before SEAC and decided to take up the case after the receipt of sub-committee report

The case was taken up in 242nd meeting of SEAC, Haryana held on 24.06.2022 but deferred as site visit report was not received.

The case was taken up in 256th meeting held on 30.11.2022. The site inspection report of sub-committee still not been received. The sub-committee member has been requested to visit the site and submit the report. The PP has also not **submitted scrutiny fee as prescribed**. The case is deferred and shall be taken up in the next meeting on receipt of site inspection report.

256.07 EC for warehouse project in the revenue estate of village Pathrari, Gurgaon by M/s Sunsat Infotech Pvt. Ltd.

Project Proponent :Not present
Consultant : Not present

The case was taken up in 131st SEIAA meeting held on 03.12.2021; after going through the report of the sub-committee the Authority decided to defer this case for the next meeting and before that a self- contained note mentioning all the facts of the case will be submitted in the next meeting. The matter was again considered in the 135th meeting of SEIAA held on 25.01.2022 and after detailed deliberations; the Authority opined that this is a clear-cut case of violation and to ascertain the facts a committee of Mr. V.K. Gupta (Chairman, SEAC) &Mr. A.K. Mehta (Member, SEAC) is being constituted. The committee will submit the report within next 7 days.

The case was again taken up 136th meeting of SEIAA held on 02.03.2022 and it was observed that sub-committee has not submitted the report. The Authority decided to request Member Secretary, HSPCB to nominate concerned RO, HSPCB (Convener of sub-committee) along with Dr. Rajbir Singh Bondwal, IFS (Retd.) to carry out the spot inspection to get the current status of project & submit report within 10 days. Accordingly, the case is referred back to SEAC to make the recommendations after appraising the report of sub-committee as and when received.

The case was taken up in 235th meeting and neither PP nor consultant appeared before the committee. It is informed by sub-committee member that no orders have been received

The case was taken up in 242nd meeting. After detailed deliberations, the committee decided that SEIAA may be requested to take up with HSPCB to depute concerned RO for site visit. Dr.Rajbir Singh, Member SEAC may also be requested to carry out the inspection and submit the report before SEAC and decided to take up after the receipt of sub-committee report.

The case was taken up in 256th meeting held on 30.11.2022. Dr.Rajbir Singh, Member SEAC has been replaced with Dr.Sandeep Kumar, Member, SEAC in the sub-committee vide order dated 20.10.2022. The site inspection report of sub-committee still not been received. The sub-committee member has been requested to visit the site and submit the report. The PP has also not **submitted scrutiny fee as prescribed**. The case is deferred and shall be taken up in the next meeting on receipt of site inspection report.

256.08 ToR for Project Commercial Colony at Village Fazilpur Jharsa, Sector 48, Gurgaon, Haryana by M/s Victory Infraedge Private Limited

Project Proponent : Not present
Consultant : Perfact Enviro Solutions Pvt. Ltd.

The Project was submitted to the SEIAA, Haryana vide online Proposal No. SIA/HR/MIS/82897/2022 dated 24.08.2022 for approval of Terms of Reference under Violation

Category. The Project Proponent has deposited Scrutiny fees of Rs. 2,00,000/- vide DD No.504182 dated 01.09.2022in compliance of Haryana Govt. Notification dated 14.10.2021.

The case was taken up in 250th meeting of SEAC held on 28.09.2022 for the appraisal and SEAC recommended this Project to SEIAA for Grant of Terms of Reference (under violation) for undertaking EIA and preparation of Environment Management Plan (EMP).

The recommendations of SEAC were taken up in the 148th meeting of SEIAA held on 28.10.2022.

On perusal of records placed on the file, the Authority observed that the Project Proponent has applied again for Approval of Terms of reference under violation Category; whereas, ToR has already been granted to the Project by SEIAA vide letter dated 07.08.2018. This appeared to be a case of repeated/wilful and blatant set of violations, without getting the Environment Clearance.

After discussion; the Authority decided to constitute a Sub-Committee comprising of Shri Vijay Kumar Gupta, Chairman, SEAC, Bhupender Singh Rinwa, Member Secretary, SEAC and Concerned Regional Officer, HSPCB (to assist the Sub-committee) to visit the site and to submit status report of the project site before Appraisal Committee and copy to the office of Authority.

Further, the Authority decided to refer back this case to SEAC to re-look into all the aspects pertaining to violations and other activities being carried out by the project proponent at site.

The case was taken up in 256th meeting held on 30.11.2022. The sub-committee submitted Site Inspection Report during the meeting. The report was circulated among all the members. The detailed discussion was held on the report and after deliberation, the committee decided to send the case to SEIAA alongwith site visit report (in original) and also reiterated its recommendations conveyed to SEIAA vide MoM of 250thSEAC meeting for granting Terms of Reference to the project (**under violation**).

256.09 EC for proposed expansion of Affordable Residential Plotted Colony Project under DDJAY-2016 located at Village Dhunela, Sector-33, Tehsil Sohna & District Gurugram Haryana by M/s Global Horizon Holdings Private Limited

Project Proponent : Sh.Harshit Singla
Consultant : OCEAO-ENVIRO Management Solutions (India) Pvt. Ltd.

The project was submitted to the SEIAA, Haryana vide online proposal No. SIA/HR/MIS/279337/2022 dated 22.06.2022 for obtaining Environmental Clearance under Category 8(a) of EIA Notification 14.09.2006.

The Project Proponent has deposited Scrutiny fees of Rs.1,50,000/- vide DD No.001837 dated 29.04.2022 (in compliance of Haryana Government, Environment & Climate Change Department Notification No. DE&CCH/3060 dated 14.10.2021) on the cost of the Project i.e. Rs.90 crores (as disclosed by the PP).

The case was taken up in 244th meeting of SEAC and decided to recommend this case to SEIAA for grant of EC.

The recommendations of SEAC were taken up in the 144th meeting of SEIAA held on 09.08.2022, and the Authority decided to refer the case back this case to SEAC. Further, it was decided by SEIAA to constitute a sub-committee comprising of Dr. Rajbir Singh Bondwal, IFS (Retd.), Member SEAC and a representative of HSPCB to verify the **status of construction on the ground** and to send a comprehensive report within 10 days.

Thereafter, the case was taken up in 247th meeting. However, PP submitted a letter with a request to defer the case. The Committee acceded with the request of PP and deferred the case.

The case was taken up in 252nd Meeting of SEAC held on 14.10.2022. However, an email dated 14.10.2022 of consultant is received requesting to defer the case as site inspection has not been done yet in the present case.

It is observed that a sub-committee was constituted by SEIAA in 144th Meeting. Shri Rajbir Singh Bondwal is one of the Member of the said sub-committee who has gone abroad. Thus, site inspection could not be conducted in the present case. After due deliberation, the Committee recommended to send the case to SEIAA with a request to re-constitute sub-committee replacing Shri Rajbir Singh Bondwal, IFS, Member, SEAC with some other Member so that the site inspection can be done.

The recommendations of SEAC were taken up in the 149th meeting of SEIAA held on 08.11.2022.

After due deliberations; the Authority decided to refer back this case to SEAC for consideration as Shri Sandeep Kumar Gupta, Member SEAC has already been nominated in place of Shri Rajbir Singh Bhondwal, IFS (Retd.) for site visit.

The case was taken up in 256th meeting held on 30.11.2022. The sub-committee submitted Site Inspection Report during the meeting. The report was circulated among all the members. The Committed held a detailed discussion on the report and after deliberation, the committee decided to send the case to SEIAA alongwith site visit report (in original) and reiterated the previous recommendations conveyed to SEIAA vide MoM of 244th SEAC meeting for granting EC.

256.10 EC For Proposed Expansion of Godowns/Warehouse for other than Agriculture Produce Ware House at Land Measuring 328454.874 Sqm. Located at Village Pathredi & Bhudka, Tehsil Manesar, Distt. Gurugram by M/s Embassy Industrial Parks Private Limited
Project Proponent : Sh. Ankur
Consultant : Ind Tech House Consult

The Project Proponent submitted the case to the SEIAA vide online Proposal SIA/HR/MIS/72822/2022 dated 02.03.2022 for obtaining Environmental Clearance under Category 8(b) of EIA Notification 14.09.2006. The Project Proponent has deposited Scrutiny fees of Rs.2,00,000/- vide DD No.158642 dated 25.02.2022 (in compliance of Haryana Government, Environment & Climate Change Department Notification No. DE&CCH/3060 dated 14.10.2021) on the cost of the Project i.e. Rs. 431.5 Cr. (as disclosed by the PP).

The said case was taken up in 251st meeting of SEAC held on 10.10.2022 and SEAC recommended the Project to SEIAA for Grant of Expansion in existing EC (Environment Clearance) dated 07.12.2021.

The recommendations of SEAC were taken up in the 149th meeting of SEIAA held on 08.11.2022.

After having gone through the details & record placed on the file and upon considering the recommendations of SEAC, the Authority observed the followings:

1. That Green area details provided by the Project Proponent are not at harmony as the Project Proponent has mentioned in the plan that Green Area is achieved @18.50% i.e. 60,764.45 sqmtrs, whereas in the application PP has proposed that Green area will be provided 58560.13 Sqmtr. This is quite contradictory / ambiguous and devoid of factual position. This needs clarity and clarification.
2. In view of the Govt. Notification No. 08/04/2021-ICI dated 01.06.2021 issued by Department of Urban Local Bodies, Haryana and subsequently Notification No. 391-ARIC-I-2021/6273 dated 25.11.2021 issued by Revenue & Disaster Management Department, Haryana; RoW is required to be obtained by the PP from the Competent Authority. Whereas, status of revenue rasta in the instant case requires clarity. Permission of RoW from Competent Authority is required.
3. Having seen the Plan and location of the Project site, Land parcel of other entity appearing in the middle of the Project, needs clarity.
4. Status of Sewerage Permission is not clarified.

After due deliberations, the Authority decided to constitute a Sub-committee consisting of Shri V.K. Gupta, Chairman, SEIAA, Shri Prabhaker Kumar Verma, Member SEAC and concerned Regional Officer, HSPCB (to assist the Sub-committee) to carryout site inspection and to submit its report before the Appraisal Committee under intimation to SEIAA.

Accordingly, the case is referred back to SEAC with the directions to re-look into all the aspects including aforesaid observations raised by SEIAA at Sr. No. 1 to 4.

The case was taken up in 256th meeting held on 30.11.2022. PP submitted the reply of observations raised by SEIAA vide letter dated 22.11.2022 as below:

Sr.No.	Query	Reply	Observation of SEAC
1	That Green area details provided by the Project Proponent are not at harmony as the Project Proponent has mentioned in the plan that Green Area is achieved @18.50% i.e. 60,764.45 Sqmtrs, whereas in the application PP has proposed that Green area will be provided 58560.13 Sqmtr. This is quite contradictory/ambiguous and devoid of factual position. This needs clarity and clarification.	Proposed Green area will be 58560.13 sqm (16910.13 as per previous EC and 41650 sqm proposed), the same has also mentioned in Form 1 and EIA report. Landscape plan is attached in this regard as Annexure 1. The green area proposed for the project is 58560.13 sqm which is 17.82 % of total plot area if some where it is written as @18.50% i.e. 60,764.45 Sqmtrs, kindly ignore it, if it is there in any document then it is because of typographical error.	Reply of PP is not satisfactory as they have not intimated the reason and simply to ignore the figure. It seems that they could not find the fault. On perusal of the documents submitted by PP it was found that landscape plan provided with the documents by PP is in different name and indicating area as @18.50% i.e. 60,764.45 Sqmtrs. PP is directed to submit **correct landscape**

			plan with correct figures.
2	In view of the Govt. Notification No.08/04/2021-ICI dated 01.06.2021issued by Department of Urban Local Bodies, Haryana and subsequentlyNotification No. 391-ARIC-I-2021/6273 dated 25.11.2021 issued by Revenue & Disaster Management Department, Haryana; RoW is required to be obtained by the PP from the Competent Authority. Whereas, status of revenue rasta in the instant case requires clarity. Permission of RoW from Competent Authority is required.	Mentioned notification are for purchase and exchange of defunct rasta in any project whereas in our project there is no defunct rasta and we will maintain the rasta as it by constructing boundary on both side of rasta. We will use rastas as access for us and in public use.	The reply submitted by PP is not satisfactory as the revenue rasta is shown in Zoning Plan submitted by PP and landscape plan shows that there is other land in between their project which indicates that revenue rasta. Permission of RoW from Competent Authority is required.
3	Having seen the Plan and location ofthe Project site, Land parcel of otherentity appearing in the middle of theProject, needs clarity.	Land parcel showing other land belongsto different owner and have proper access is available to such lands.	PP shall submit **the access to the other land as other land from all sides is surrounded by project of PP.**
4	Status of Sewerage Permission is notclarified.	There is no sewer line in the projectvicinity. Our project is Zero liquiddischarge (ZLD). There will be no discharge of excess treated water. Wewill install Multi effect evaporator(MEE) for evaporation of excesstreated water.	**Affidavit** for installation of Multi effect evaporator(MEE) for evaporation be submitted.

Reply submitted by the PP is not proper, therefore directed to submit revised reply to the observations raised by SEIAA. Further, the sub-committee constituted in this case, has not submitted its report. The sub-committee is advised to submit site visit report as soon as possible. The case is deferred and shall be taken up in the next meeting and shall be taken up as and when reply of observations as well as report of sub-committee is received.

256.11 EC for Commercial Complex "JMD The Regent" at village Nangli Umarpur, Sector-62, Gurugram, Haryana by M/s JMD Limited

Project Proponent : Not present
Consultant : Gaurang Environmental Solutions Pvt. Ltd.

The application was submitted on 13.02.2015 and the case was considered by SEAC in its 129th meeting held on 15.03.2016 wherein it was observed that PP has already started construction work which amounts to violation of EIA Notification and sent back to SEIAA for taking legal Action.

The file was transferred to MoEF&CC, GoI in compliance of MoEF& CC, GoI Notification dated 14.03.2017. The Ministry of Environment Forest & Climate Change returned back all the cases pertains to violation category to SEIAA Haryana in view of MoEF& CC, GoI Notification dated 08.03.2018.

Thereafter, the case was considered by SEAC in its 169th meeting held on 18.05.2018 for approval of Terms of Reference under violation notification dated 14.03.2017 and 08.03.2018 and recommended to SEIAA for Approval of Terms of Reference. The recommendation of SEAC was considered in 115th meeting of SEIAA held on 25.07.2018 and SEIAA decided to agree with the recommendation of SEAC and approved the ToR and communicated to the PP vide letter dated 09.08.2018. The case was taken up in 131st SEIAA meeting held on 3rd December, 2021 and Authority deliberated on the reply submitted by PP and recommendations of SEAC.

After due deliberations, Authority decided to defer this case till the legal opinion from Ld. LR, Haryana is received. Thereafter, the case was taken up in 232nd meeting of SEAC held on 07.01.2022. The committee deliberated on the inspection report submitted by sub-committee members and as per report no construction has been done on the project site and therefore it was decided by the committee to recommend to SEIAA for withdrawal of earlier TOR issued to the project as the PP has also requested vide letter dated 12.10.2021 to Chairman SEIAA for withdrawal of Proposal No. SIA/HR/NCP/22996/2018 applied under Violation Notification.

The recommendation of SEAC was taken up in the 135th meeting of SEIAA held on 25.01.2022 and the Authority after examining the MoM of SEAC of 129th and 232nd meeting gathered that there is clear cut contradiction in stand of PP and recommendations of SEAC, and more so the record indicated that violation has been committed vis-à-vis approved plan.

The Authority decided to refer the case back to SEAC with the direction that there is need for thorough inspection of records and SEAC should do the critical analysis before recommending such cases to SEIAA.

The case was taken up in 235th meeting, and the PP requested vide letter dated 28.03.2022 for the deferment which was considered and acceded by SEAC after discussion. Thereafter, the case was taken up in 242nd meeting of SEAC, held on 24.06.2022. The PP submitted the self contained note of the project as below:

- The proposal was for EC for Commercial Complex 'JMD The Regent' at village Nangli Umarpur, Sector-62, Gurugram, Haryana under fresh category.
- Earlier ToR under violation category has been granted to the project vide letter dated 09.08.2018
- As per earlier planning of project, the plan were approved on 26.04.2019 with plot area of 2.00 acres and built up area of 19,974.761 sqmt. which is less than 20,000 sq.mt
- CTE has been granted by HSPCB to the project valid till 18.11.2022 for built up area 19,774.76 sq.m.
- PP then planned for Revision of building plan and area statement and submitted drawings having a plot area of 2.00 acres and built up area of 23,113.591 sqmt.
- To verify the present site condition, the site inspection was conducted by HSPCB's representative on 24.03.2021 and was found that the construction work done at site was less than 20,000 sq. m. A joint sub-committee was constituted by SEAC comprising of HSPCB (RO HSPCB) and SEAC members (Shri S. N. Mishra and Shri Hitender Singh), who also inspected the site and found the construction below 20,000 sqm.

The SEAC thus reiterated the previous decision submitted to SEIAA in view of similar facts and findings conveyed vide MoM of 232nd SEAC meeting for delisting the case.

The recommendation of SEAC was taken up in the 143rd meeting of SEIAA held on 15.07.2022. After detailed examination of records, SEIAA observed that the SEAC handling two issues – one regarding violation and another regarding expansion and that there is no clear-cut harmony between the details submitted by PP and subsequent proposal put up for considering the expansion proposal, which requires a clarity with reference to the details mentioned at page No. 3 of 61 regarding FAR, wherein the PP has clearly agreed that total built up area was 22,437.76 sqm. After this initial claim, details have been placed on record indicating 19,974.761 sqm, just less than 30m short of the area required for applicability of EC. It is, therefore, decided that the case be referred back to SEAC to examine the issue thoroughly along with all the relevant documents with reference to the claims of the unit on its non-applicability.

Further, the Authority decided to constitute 2 Members Committee consisting of Shri Sandeep Gupta, Member, SEAC and Shri Prabhaker Kumar Verma, Member, SEAC along with RO, HSPCB (concerned) to visit the site location and put up a comprehensive report/status of the project within 15 days. MS, HSPCB be requested to depute the concerned RO to assist the team during the site visit.

The case was taken up in 251st meeting of SEAC held on 10.10.2022. Further, Shri Sandeep Gupta, Member SEAC, informed the committee that he has not received any communication/order for conducting the site visit. The committee unanimously decided to send the case to SEIAA with a request to write a letter to Members of Sub-Committee and concerned RO to conduct site inspection and submit the report in the present case, at the earliest as it is pending since long, as well as PP be asked to submit the prescribed pending scrutiny fees.

The recommendations of SEAC were taken up in the 149th meeting of SEIAA held on 08.11.2022.

The Authority after due deliberations; decided to refer back this case to Appraisal Committee (SEAC) with the direction to Sub-committee to carry out site inspection within 07 days, positively and submit its report before the Appraisal Committee under intimation to SEIAA. Further, the project proponent is also directed to submit required Scrutiny fee.

The case was taken up in 256th meeting held on 30.11.2022. **PP has submitted requisite scrutiny fee vide DD No. 147056 dated 01.12.2022 of Rs.1,50,000/-.** However, the site inspection report of sub-committee still not been received yet. The sub-committee has been requested to visit the site and submit the report. The case is deferred and shall be taken up in the next meeting on receipt of site inspection report.

256.12 EC of proposed Ware House Project at Village-Narhera, District – Gurgaon, Haryana by Sh.Jai Karan Sharma

Project Proponent : Not present
Consultant : Vardan EnviroNet

The project was submitted to the SEIAA, Haryana on 15.06.2018. The project proponent has submitted the Form-1, Form-1A and Conceptual Plan to the SEIAA with reference to the Notification No. S.O.804 (E) dated the 14thMarch, 2017 and subsequent Notification No. S.O.1030 (E) dated 08th March, 2018, issued by the Ministry of Environment, Forest and Climate Change. The MoEF& CC has prescribed the process for appraisal of projects for grant of Terms of Reference and Environmental Clearance, which have started the work on site, expanded the production beyond the limit of environmental clearance or changed the product mix without obtaining prior environmental clearance as mandated under the Environment Impact Assessment Notification, 2006 [S.O.1533 (E), dated the 14th September, 2006; The Ministry of Environment, Forest and Climate Change in the Notification dated 08.03.2018 inter alia, directed vide sub-paragraph (2) of paragraph 13, that in case the projects or activities requiring prior environmental clearance under Environment Impact Assessment Notification, 2006 from the concerned Regulatory Authority, are brought for environmental clearance after starting the construction work, or have undertaken expansion, modernization, and change in product-mix without prior environmental clearance, these projects shall be treated as cases of violations and in such cases, even Category B projects which are granted Environmental Clearance by the State Environment Impact Assessment Authority constituted under sub-section (3) section 3 of the Environment (Protection) Act, 1986 shall be appraised for grant of environmental clearance only by the State Expert Appraisal Committee and Environmental Clearance will be granted at the State level by State Environment Impact Assessment Authority constituted under sub-section (3) section 3 of the Environment (Protection) Act, 1986.Thereafter the proposal was considered by the State Expert Appraisal Committee, Haryana in its 172nd meeting held on 03.07.2018 for approval of Terms of Reference under violation Notification dated 14.03.2017 and 08.03.2018 respectively.

The PP neither attended the meeting nor requested for adjournment. The Committee is of the view that 30 days notice be issued to the project proponent.

Thereafter, the case was taken up in 192nd meeting of SEAC held on 03.12.2019 .The PP neither attended the meeting but submitted that the project area is less than 20,000sqm and also submitted the Occupation certificate that covered area of the project is 19995.522sqm which is less than 20,000m2. However, the CLU was granted for 40364.51sqm and the committee decided that the PP shall give evidence in support of his claim that the construction has not been carried out beyond the 20,000sqm. The PP had not submitted the reply after lapse of six months, Thereafter; the case was taken up in 201th meeting of SEAC Haryana held on 11.08.2020. The PP neither submitted the reply nor attended the meeting. The committee deliberated on the issue of construction and decided to constitute a committee consisting of Sh. S. N. Mishra and Sh.Vivek Saxena both members SEAC to visit

the project and submit a report on the status of construction to the committee for further decision/appraisal

The members inspected the site on 04.03.2021 and enquired about the project details.

Observations of committee as given below:

1. The PP was able to furnish only Occupation certificate issued by DTCP dated 14-7-2014. Mentioning covered area of 19,995.522 sq. mtr for warehouse building shed no. A, C and D. (Annexure A). The size of each shed was not provided by PP and also could not provide copy of the CLU as well. There was more than ten rooms constructed within the premises
2. The PP representative was not able to provide any of details of the project.
3. The PP did not provide the any approved construction plan copy/ map to the committee.
4. Rainwater harvesting (RWH) pits neither dug proper nor in desired number nor working.
5. Septic tank constructed to manage sewage generated due to workers/employees/ visitors staying in the premises.
6. Fresh water supply is being managed by bore well & any permission/ approval in this regards was not furnished.
7. Greenery/ Plants / tree/ shrubs or any kind of vegetation around premises which may help in abatement of air pollution was absolutely absent.

Thereafter, the case was taken up in 216th meeting of SEAC held on 29.06.2021. The PP presented the case before the committee. The discussion was held on Occupation certificate, Building plans, self contained note and report of sub-committee etc. and certain observations were raised as following:-

1. The PP shall submit the approval of existing borewell in the project.
2. The PP shall submit the details of Occupation Certificate obtained
3. The PP shall submit approved Building Plan from the competent authority before the start of the construction and any other revision of building plan.
4. The PP shall submit the details of 10 extra rooms constructed apart from building plan and affidavit that whether FAR of extra rooms is added into the OC or not.
5. The PP shall submit the self contained note for existing status, details of area constructed in consonance with approved building plans, any violation being carried out and if any expansion part apart from approved building plan status duly signed by the PP and the consultant.

The PP shall submit the required information as detailed above within 30 days and it was also made clear to the PP that his project will be considered as received only after the receipt of complete information. In case of non-receipt of information in time the case shall be recommended for rejection/ filing.

Thereafter, the case was taken up in 222ndmeeting of SEAC held on 11.10.2021. The PP attended the meeting and requested for the deferment of the case for the last time and committee after deliberation gave the last chance and defer the case and again conveyed that the next time decision will be taken according to MoEF&CC notification dated 18.11.2020.

Then, the case was again taken up in 231st meeting of SEAC held on 28.12.2021. The PP submitted undertaking vide letter dated 28.12.2021 that the project has temporary structure which will be removed. The committee deliberated that in order to ascertain the status of construction at the site a sub-committee consisting of following 2 members is constituted;

1. Sh. Hitender, Member SEAC
2. Sh. Vivek Saxena, Member SEAC

The Committee shall visit the project site and submit the report regarding the status of the project in view of the details as mentioned above within 30 days positively.

Thereafter, the case was taken up in 235th meeting of SEAC held on 25.03.2022.The committee deliberated in view of the request of PP and consultant that new committee may be constituted as the term of earlier nominated member i.e. Sh. Hitender, Ex-Member SEAC is expired on 29.01.2022. The Committee decided to constitute new sub-committee consisting of Dr Vivek Saxena, Member SEAC and Sh. Prabhakar Verma, Member SEAC for site visit. The case will be taken up after the receipt of sub-committee report.

The case was taken up in 242nd meeting of SEAC, Haryana held on 24.06.2022. The site visit report was to be submitted in this case, however, one of the committee member Sh.Prabhakar Verma, who was present in the meeting had stated that he is overburdened in various other official works and also been nominated as member in several other committees. Therefore, he has shown unavailability to visit the site for inspection. Hence, the name of Sh.Prabhakar Verma is replaced with Dr.Rajbir Singh Bondwal, IFS (Retd.), Member SEAC. The new committee will inspect the site and submit its report at the earliest. The case will be taken up after the receipt of sub-committee report.

The case was taken up in 254th meeting held on 31.10.2022. The site inspection report of the sub-committee has been received and circulated among the members. The case is deferred and shall be taken up in next meeting.

The case was taken up in 256th meeting held on 30.11.2022. Comments of PP not received. Report be circulated again to PP for their comments with direction to submit comments within 15 days from the date of issue of minutes. **The PP shall submit scrutiny fee as prescribed**. The case is deferred and shall be taken up as and when the comments of PP received.

256.13 EC for Expansion of Group Housing Colony at Sector 48, Gurugram, Haryana by M/s Sweta Estates Pvt Ltd

Project Proponent : Not present.
Consultant : Gaurang Environmental Solutions Pvt. Ltd.

The EIA/EMP report was submitted to the SEIAA, Haryana vide online proposal No. SIA/HR/MIS/68360/2015 dated 03.06.2022for obtaining Environmental Clearance under Category 8(b) of EIA Notification 14.09.2006.

The PP has submitted scrutiny fee amounting to Rs.2,00,000/- vide DD No.507024 dated 26.11.2021 in compliance of Haryana Government, Environment & Climate Change Department Notification No. DE&CCH/3060 dated 14.10.2021.

The case was taken up in 244th meeting of SEAC, Haryana held on 09.07.2022 and recommended the case to SEIAA for grant of EC.

The recommendations of SEAC were taken up in the 144th meeting of SEIAA held on 09.08.2022. SEIAA observed that the project proponent has obtained Environmental Clearance of 562141.739 Sq. Meters and now has proposed addition of 8826.641 Sq. Meters in the existing EC already granted by the Government of India. The total built-up area proposed after expansion will be 570968.38 Sq. Meters unit.

After going through the above facts and records, the Authority decided to refer the case back to SEAC to examine the case with respect to the status of construction of existing site with detailed report of FAR and Non FAR areas and status of construction of the proposed expansion and submit its recommendations for further consideration.

Further, it was decided to depute a sub-committee comprising of Dr. Rajbir Singh Bondwal, IFS (Retd.), Member SEAC and a representative of HSPCB to verify the status of existing construction and proposed construction on ground and to send a comprehensive report within 10 days.

Vide SEIAA order dated 20.10.2022, Dr.Sandeep Kumar Gupta, Member SEAC was nominated in place of Shri Rajbir Bondwal during his leave period to carry out the site visit.

The case was taken up in 255th meeting held on 14.11.2022. The site visit report in this case is still awaited. The PP appeared before the committee and has submitted that Dr.Sandeep Gupta, Member, SEAC has conducted site visit on 01.11.2022. However, Dr.Sandeep Gupta, Member, SEAC has sent an email dated 14.11.2022 that he is unable to attend the meeting due to sickness and could not prepare site inspection report. He has further stated that site inspection report will be submitted as early as possible. Accordingly, the committee decided to defer the case for next meeting and Sub-Committee, SEAC Member is requested to submit the site visit report, positively before the next meeting.

The case was taken up in 256th meeting held on 30.11.2022. The sub-committee submitted Site Inspection Report during the meeting. The committee decided to circulate the report among all the members and PP for comments. The case is deferred and shall be taken as and when comments of PP received with regard to report, in this case.

256.14 EC for compliance under violation category for the project Expansion of Residential Group Housing Colony (Township Residential Complex and Commercial complex) at Village Rasoi, G. T. Karnal Road, Sector 61, Sonipat, Haryana by M/s CMD Pardesi Developers Pvt. Ltd

Project Proponent : Not present
Consultant : Perfact Enviro Solutions Pvt. Ltd.

The project was submitted to the SEIAA, Haryana on 19.04.2018 received in the SEAC on 27.04.2018for the extension of validity of ToR under violation category approval of Terms of Reference under violation Notification dated 14.03.2017 and 08.03.2018 respectively.

The ToR under violation category with total plot area 14.149 acres was granted on 07.08.2018 but thereafter there is no response from the PP. This case has been taken up in various

meetings by SEAC but all the time PP did not appear before the Committee on one or the other pretext and all the time sought deferment of the case.

A sub-committee for site visit was also constituted in this case. During the site visit, the representative of PP conveyed their willingness to apply to get the validity of ToR under violation category extended for further appraisal. The Committee conveyed to SEIAA along with the recommendations of SEAC vide earlier MoM's regarding violation and taking action under the provisions of the Section 15 read with 19 of the Environment (Protection) Act, 1986.

The recommendation of SEAC was considered in the 132nd Meeting of SEIAA held on 21.12.2021 and the Authority decided to refer back the above said case to SEAC with the following observations:

a) Whether PP has applied under the Violation Window period as per Notification dated 14.03.2017.
b) Authority found out that one Member SEAC has sent a mail dated 02.12.2021 stating that the visit reports of sub-committee are not being circulated among the constituent members of SEAC and such cases could not be thoroughly deliberated.
c) Further, SEAC is being directed to examine the case in the light of recent judgment of Hon'ble Supreme Court dated 9th December, 2021 in Civil Appeal No. 7576-7577of 2021.

Thereafter, the case was taken up in 246th Meeting of SEAC. The PP and consultant submitted that since the submission of EIA report to SEIAA vide online proposal no.102984/2019 dated 23.04.2019, some changes/addition have been made in the built up area and occupancy has also come up as PP has obtained occupation certificate from Town and Country Planning Department and consent to operate from HSPCB on dated 05.01.2021 for built up area 134762.5 sqm. Therefore, a revised/updated EIA study has to be submitted /uploaded on PARIVESH portal. Further the damage assessment, natural and community resource accommodation shall have to be revised as per SoP dated 07.07.2021 from MoEF&CC.

The detailed deliberations were held and committee was of the view that before appraisal of the project under violation category, the case be recommended to SEIAA to allow the project proponent as following:

1. The PP shall submit a revised EIA report as per the OC Certificate obtained from Town and Country Planning Department and consent to operate obtained from HSPCB.
2. The damage assessment, natural and community resource augmentation shall also be revised as per SoP dated 07.07.2021 issued by MoEF&CC as earlier EIA report submitted on dated 23.04.2019 in SEIAA was not as per the SoP.

The recommendations of SEAC were considered in 145th meeting held on 08.09.2022. After having gone through the facts and records placed on the file; the Authority deemed it appropriate to constitute a sub-committee comprising of Sh.Rajbir Singh Bondwal, IFS (Retd.), Member, SEAC, Sh.Vivek Sexana, IFS, Member SEAC and Sh.Bhupinder Singh Rinwa, Member Secretary, SEAC to verify the actual/current status of the project. Regional Officer, HSPCB, Sonipat will assist the Sub-Committee. The Sub-Committee will submit report within 15 days, positively.

Accordingly, the case is referred back to SEAC with the advice to re-look at the case with regard to its earlier recommendations, site visit report, scrutiny fee and current status of credible action.

Vide SEIAA order dated 20.10.2022, Dr.Sandeep Kumar Gupta, Member SEAC was nominated in place of Shri Rajbir Bondwal during his leave period to carry out the site visit.

The case was taken up in 255th meeting held on 14.11.2022. The site inspection report in this case is still awaited. After detailed discussion, the committee raised following observation:

1. The PP shall submit the requisite scrutiny fee
2. The PP shall submit the credible action

The PP submitted that site visit has been conducted by the sub-committee, however, report is still awaited. Accordingly, the committee decided to defer the case and to be taken up after the receipt of site visit report of sub-committee**.**

The case was taken up in 256th meeting held on 30.11.2022. **PP has submitted Scrutiny fee vide DD No. 008174 dated 18.11.2022 of Rs. 2,00,000/-.** The site inspection report of sub-committee has also been received. The Committee decided to circulate the report among the members as well as PP for their comments alongwith reply to the previous observations raised in 255th meeting of SEAC. The case is deferred for next meeting and shall be taken up as and when comments of PP are received.

256.15 EC for VSR Mall Retail cum Office Complex Sec 114 Village Bajghera, Gurgaon, Haryana-122017 by Sh. Puran Das M/s VSR Mall Retail

Project Proponent : Shri Shailesh Mathur
Consultant : Earthvision India Associate Consultants

The project was submitted to the SEIAA, Haryana vide online proposal No.**SIA/HR/MIS/290750/2022** dated 29.08.2022 for obtaining Environmental Clearance under Category 8(a) of EIA Notification 14.09.2006.

- The ToR granted to the project on dated 03.08.2022
- PP submitted the requisite scrutiny fee of Rs.1,50,000/- vide DD No. 112829 dated 26.04.2022

The case was taken up in 250th meeting of SEAC, Haryana. The Project Proponent along with consultant has appeared before the committee. They were informed about a complaint received against them. In the said complaint it is stated by M/s Aplinka Solutions and Technologies Pvt. Ltd. (NABET Accreditation, Disclosure of Consultant, and Management details) that M/S VSR Infratech Private Limited, having its registered office at Plot No. 14, Institutional Area, Sector 44, Gurugram, Haryana has illegally used the credentials of their company in their EIA Report for obtaining the Environment Clearance of one of their Projects, namely; **"VSR Mall, A Retail-cum-Office Complex (Expansion Under Violation)"** from SEIAA/ SEAC, Haryana. It has further been submitted that the same Project is to be taken up in 250th meeting of SEAC, Haryana, at Agenda No: 250.06 proposed to be held on 28.09.2022.It has further been submitted by complainant that any details submitted by the PP

and/or his non-accredited consultant with respect to this project are not known to them and they have no role in the preparation and submission of any ToR application, EIA report, and supplementary documents submitted on the online portal/circulated in hard copy to SEIAA/SEAC pertaining to said project. The copy of complaint provided to Project Proponent as well as to consultant and the Committee directed them to furnish their comments with regard to the complaint.

The Project Proponent received the copy of complaint and requested to give them time for submitting their reply in connection with the complaint. The committee acceded with the request of PP and deferred the case. PP was directed to submit reply/comments to complaint within 15 days.

The case taken up in 252nd meeting of SEAC held on 14.10.2022. The consultant appeared before the committee and submitted that he has submitted that he has made a written apology to M/s Aplinka Solutions and Technologies Pvt. Ltd. A copy of email dated 14.10.2022 sent by M/s Earthvision India Associate (EIA) Consultants to M/s Aplinka Solutions and Technologies Pvt. Ltd. has also been submitted by consultant. In response to the said email M/s Aplinka Solutions and Technologies Pvt. Ltd. also conveyed to Member Secretary, SEAC through its **official email** dated 14.10.2022, as under:

> *"We would like to update you that we have received an email from the consultant, M/s Earthvision India Associate who is the NABET accredited consultant for the project M/s. VSR Infratech Pvt. Ltd. Based on the Apology submitted by the consultant and subject to the compliance of points mentioned in the undertaking submitted by him, we would like to withdraw the complaint made by us against the PP for illegally using the credentials of Aplinka Solutions and Technologies Pvt. Ltd. for the said project."*

Further, Sh.Varun Gupta representative of M/s Earthvision India Associate (EIA) Consultants also submitted an undertaking stating therein that:

1. Inadvertently, the "work in progress" report was attached as the same was placed next to our finalized report. M/s Aplinka Solutions & Technologies Pvt. Ltd. is not responsible for this error made by us.
2. We, the consultants, M/s Earthvision India Associate (EIA) Consultants (NABET accredited consultant bearing accreditation no.QCI/NABT/ENV/ACO/21/1884) take the full responsibility of the error made by us.
3. The contents of the final report have not been copied/pasted from any report of M/s Aplinka Solutions & Technologies Pvt. Ltd.
4. This is an inadvertent error conducted at our part and will not be repeated ever again in the future.
5. We assure that this report will be replaced by the final report prepared by us on the online portal after decision taken by the Honourable SEIAA&SEAC for our project. All the consequences related to this will be borne by us and M/s Aplinka Solutions & Technologies Pvt Ltd will not be held liable for the mistake made by us.
6. We will take the complete responsibility for the for any harm happened and/or to happen in future to the image or reputation of M/s Aplinka Solutions &Technologies Pvt Ltd. due to this error and will be ready to pay the damages linked to it.
7. Further, we want to assure that similar mistake will not be repeated in future, if by any reason Earth Vision found in similar activity in that case M/s Aplinka Solutions &Technologies Pvt. Ltd. can take legal action against us.

After detailed deliberation on the email of M/s Aplinka Solutions and Technologies Pvt. Ltd. regarding withdrawal of the compliant and the documents submitted by consultant as well as apology made by Sh.Varun Gupta, representative of M/s Earthvision India Associate (EIA) Consultants in writing, the committee accepted his request for apology, however, the consultant M/s Earthvision India Associate (EIA) Consultants (through Sh.Varun Gupta, representative) has been warned to be careful and not to repeat such mistake in future.

Further, an application has also been submitted wherein it is requested to generate ADS to enable PP to upload updated EIA report on PARIVESH portal after making necessary correction/rectification as discussed above. The committee acceded with the request and decided that ADS be generated in this case and deferred the case.

The case was taken up in 254thmeeting held on 31.10.2022. The PP submitted Basic Detail, EMP detail and Remediation and Natural & Community Resource Augmentation Plan.

The committee observed that the PP has not submitted the complete details of the project as required such as tangible Remediation Plan and Natural Resource & Community Resource Augmentation Plan. Therefore, it was decided that the PP may be directed to submit the complete documents/ information and deferred the case.

The case was taken up in 256th meeting held on 01.12.2022.

The PP submitted that as Non-FAR area is increased they have not gone for EC expansion but later they got in knowledge that EC For expanded Non FAR area is required they applied the same under the expansion Category as there is no window available for Non Compliances. The case was considered 218th & 222nd meeting of SEAC held on 30.07.2021 & 11.10.2021 Committee recommended that constructed area is more than that sanctioned in the EC letter hence, it is, the clear case of violation of MoEF&CC notification dated 14.09.2006 and the Committee unanimously decided to recommend to SEIAA for taking action against the PP. The recommendation of SEAC was considered in the 130th Meeting of SEIAA held on 15.11.2021 and the Authority decided to issue a "Show Cause Notice" to the Project Proponent, stating why not the legal proceedings be initiated under Section 19 of EPA, 1986 for increase in built-up area beyond the specified area in accorded "EC".

The Authority decided to de-list this application submitted for grant of Environment Clearance and advised the PP to apply online as per the current guidelines issued vide letter F. No 22-37/2018-IA.III dated 19.04.2021 by MOEF & CC, GOI, under violation category as per SOP vide F.No.22-21/2020-IA.III dated 07.07.2021 issued by MoEF& CC, GoI being a case of violation. Thereafter, this proposal No.SIA/HR/MIS/290750/2022 dated 29.08.2022 for obtaining Environmental Clearance under Category 8(a) (under violation) of EIA Notification 14.09.2006 was submitted.

Project Brief

- Building plan for FAR 21010 sqm with built up area 41420 (without LGF and Service floor) was sanctioned on 26.08.2011.
- Application for EC was submitted in MOEF on 26.05 11 , which was resubmitted in SEIAA Haryana on 24.08.12

- The EC was granted by SEIAA ON 28.05.13 for built-up area 41429 sqm, having validity up to 27.05.2020
- Consent to establish from HSPCB , has been obtained and revalidated (extension) till 2020 .
- The project got extension of validity of EC under memo No. SEIAA/HR/2020/298 dated 22.07.2020 and was granted extension up to 27.05.2023 .
- Planned for revising the building plan in 2019 and new plan was sanctioned on 12.04.2019 FAR 21010+369 (3% additional FAR for MSW) = 21379 sqm
- Built-up area 45147 + 427 (2% compounding) = 45574 sqm G+8, LGF, Service Floor And 2 Basements
- Explanation: area without compounding and MSW = 45574 – 788 = 44786 SQM
- Difference from old EC and EC Proposed = 44786 – 41429 = 3367sqm (is the area of LGF and Service floor
- Part Occupancy certificate received for built up area 41008.44 sqm dated 17.02.2021
- Part CTO granted by HSPCB dated 08.03.2022 for built-up area 41008.44 sqm valid till 30.09.2026. .
- Regular six monthly compliance has been submitted latest receiving attached i.e JAN TO JUNE 2022
- Certified compliance has been received from MOEF DTD 19.04.2021
- License from Directorate Of Town and Country Planning has been obtained for 2.968 acres area valid till 20.07.2024

The PP has submitted the Damage Assessment Plan as asked by the authority which is for Rs.6.00 lacs (Remediation of Environmental Damages, Natural Resource Augmentation and Community Resource Augmentation)

- PP submitted that the project M/s G.P. Realtors Pvt. Ltd. is not related to this project in any way as this is an individual legal case decided by NGT on NBWL issue, so it does not relate to this project. Moreover, there is no Notification/Office Memorandums/Guidelines of MoEF&CC to follow M/s G.P. Realtors Pvt. Ltd. project matter in any of the violation category projects.
- PP also submitted that scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI has been followed in true spirit.
- As per SOP vide F.No.22-21/2020-IA.III dated 07.07.2021 issued by MoEF&CC, GoI,
  "**12. Penalty provisions for Violation cases and applications:**
  a. **For new projects:**
  i. **Where operation has not commenced:** 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report. [Ex: Rs. 1 Lakh for project cost of Rs. 1 Cr]
  ii. **Where operations have commenced without EC:** 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover during the period of violation. [Ex: For Rs.100 Cr project cost and Rs.100 Cr total turnover, the penalty shall be Rs.1 Cr + Rs. 0.25 Cr Rs. 1.25 Cr]
- Subsequently, in para 12.2 it is mentioned that:

  "12.2 The percentage rates, as above, shall be halved if the project proponent suo-moto reports such violations without such violations coming to the knowledge of the Government either on inquiry or complaint."
- Damage assessment i. e. Cost for damage assessment (Cost on Remediation of Environmental damages, Cost towards Natural Resource augmentation, Cost

towards Community Resource augmentation) and **1% penalty as per SoP 7th July 2021, Clause no 12.a(ii) is given below :**

Remediation Plan and Cost

S.No.	Environmental Component	Action Plan	Total Cost INR lakh)	Year I Cost INR Thousand)	Year II Cost INR Thousand)	Year III Cost INR Thousand)
1	Water Conservation	STP Water will be reused for Flushing, Low Water Fixtures at project site and nearbyareas	-	---	-----	-----
2	Waste Water treatment	Installation of waste water treatment facilities (STP, soak pits, etc.)	-	------	------	------
3	Rain Water Harvesting & Ground Water Recharge	Rain Water Harvesting Structure and Storm Water Drain at project site and nearby areas	0.1	0.033	0.033	0.033
4	Top Soil Preservation & Reuse	Land reclamation of nearby areas	--	---	----	----
5	Solid Waste Management	Organic Waste Convertor and disposal arrangement at project site and nearby areas	0.2	0.01	0.01	----
6	Energy Conservation	Solar Water Heater, Solar Photo Voltaic, ECBC compliance	0.2	0.01	0.01	----
7	Ambient air quality	Installation of air pollution control devices and measures at project site; tree plantation and green area maintenance in nearby areas	-	----	-------	0.1
8	Noise level	Installation of acoustic DG sets, barricading at project site; tree plantation and green area maintenance in nearby areas	--	----	-----	-----
9	Green Cover	Landscaping & tree plantation within project site	0.5	0.2	0.2	0.1
10	Topography & Natural Drainage	Natural Drainage shall be maintained in vicinity of project site	0.5	0.2	0.2	0.1
11	Transportation Management	Traffic management within project site and in vicinity	-			
12	Environment Monitoring	Six monthly environment	0.2	0.1	0.1	---
13	Community Welfare	Promoting rain water harvesting in nearby schools Awareness camps for local community on waste minimization and water conservation Provision of clean drinking water taps for public Upgradation of Community resources including religious place, school and health center Free health check-up camps for workers engaged at project site and residents of nearby villages. Training on good construction practices for workers engaged at project site	1 .3	0.1	0.1	1.0
		TOTAL	**3.00**	**0.83**	**0.83**	**1.34**

Natural Resource & Community Resource Augmentation Plan & Budgetary Provision

S.No.	Component	Activity Proposed	Further Remarks	Rate	Quantity	Total Cost	Year I	Year II	Year III
1	Natural Augmentation	Providing Solar Lighting in the Islampur village	Solar Provision	₹31,000	4	₹1,24,000	₹41,333	₹41,333	₹41,333
			TOTAL COST			**₹1,24,000**	**₹41,333**	**₹41,333**	**₹41,333**
2	Community Welfare (Final score: 0.1) i.e. 5% of total damage	Infrastructure Development in Govt. Senior Secondary School, Jharsa village, sec-39 Gurgaon	Distribution of computers, books, digital tools etc.	₹1,34,000	1	₹1,34,000	₹44,667	₹44,667	₹44,667

TOTAL COST			**₹1,34,000**	**₹44,667**	**₹44,667**	**₹44,667**
COST OF NATURAL AUGMENTATION AND COMMUNITY			**₹2,58,000**	**₹86,000**	**₹86,000**	**₹86,000**

Cost Summary

S.No.	ITEM	Total Cost	Year I	Year II	Year III
1	Cost on remediation plan based on damage assessment due to violation	₹300,000	₹1,00,000	₹1,00,000	₹1,00,000
2	Natural Resource	₹42,500	₹14,166	₹14,166	₹14,166
3	Community Resources Augmentation plan	₹2,58,000	₹86,000	₹86,000	₹86,000
TOTAL COST TO BE SPENT		**₹6,00,500**	**₹2,00,166**	**₹2,00,166**	**₹2,00,166**

Total Summarised Cost on Environmental Damage, Natural resource, community augmentation (% contribution w.r.t. total project cost)

S.No.	Particular	Cost in INR (lacs)	% of total project cost	Timeline
	Project Cost	₹6,00	100	-
1	Cost on Remediation of Environmental damages	₹3.00	0.87	In 3 years
2	Cost towards Natural Resource augmentation	0.425	0.07	In 3 years
3	Cost towards Community Resource augmentation	2.58	0.06	In 3 years
Total Damage Cost Proposed- A		**₹6.005**	**1.00**	
4	**1 % penalty as per SOP 7th July 2021, Clause no 12.a(ii)**	6.00	1.00	
Total Penalty as per SOP 7th July 2021-B		**6.00**	-	
	Total cost-(A+B)	**12.005**		

It is submitted by PP that the order passed in project M/s G.P. Realtors Pvt. Ltd. by NGT is not related to their project in any way as the above mentioned case was an individual legal case decided by NGT on NBWL issue, so their project does not come within purview of said order. The PP also submitted that no Notification/ Office Memorandums/Guidelines has been issued by MoEF&CC to follow directions issued in M/s G.P. Realtors Pvt. Ltd. It is further submitted by PP that they agreed to follow the scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The PP submitted the basic details and EMP details of the project as below:

Table 1: Basic Details

Name of the Project: EC for Expansion of VSR MALL (Retail cum Office Complex) Project under Violation at Sector 144, Bajghera Gurgaon, Haryana by M/s VSR Infratech Private Limited				
Sr. No.	**Particulars**	**As per Existing EC**	**Modification & Expansion**	**Total**
1.	Online Proposal Number	SIA/HR/MIS/290750/2022		
2.	Latitude	28° 27' 36.36" N		

3.	Longitude	77° 01' 34.86" E		
4.	Total Plot Area(Sqm)	12011.05	No Change	122011.05
5.	Net Plot Area(Sqm)	12011.05	No Change	12011.05
6.	Achieved Ground Coverage(Sqm)	4764.64	No Change	4764.64
7.	Achieved FAR(Sqm)	21010	379.4420	21379.4420
8.	Non FAR Area(Sqm)	20429	3337.748	23766.748
9.	Built up area (Sqm)	41429	4145.0083	45574.00834
10.	Total Green Area (Sqm) with Percentage	2447.35 Sqm (20.37%)	No Change	2447.35 Sqm (20.37%)
11.	Rain Water Harvesting (Nos.)	3	No Change	3
12.	STP Capacity	170	No Change	170
13.	Total Parking (ECS)	428	No Change	428
14.	Organic Waste Converter (Nos.)	1	No Change	1
15.	Maximum height & number of floors (in meter)	40	No Change	40
16.	Power Requirement	3291	No Change	3291
17.	Power Backup (KVA)	2500	No Change	2500
18.	Total Water Requirement (KLD)	378	No Change	378
19.	Fresh Water Requirement (KLD)	201	No Change	201
20.	Recycled/Treated Water Requirement (KLD)	127	No Change	127
21.	Waste Water Generated (KLD)	144	No Change	144
22.	Solid Waste Generated (TPD)	1.12	No Change	1.12
23.	Biodegradable Waste (TPD)	No	No	No
24.	Number of Towers (Nos.)	2	No Change	2
25.	Main Dwelling Units (Nos.)	360	No Change	360
26.	Stories	2B + SF + LG + G +8	No Change	2B + SF + LG + G +8
27.	Total Cost of the project:	85.68	6	91.68
30.	Incremental Load in respect of:	PM10 (µg/m3)	0.357 µg/m3	
		PM2.5 (µg/m3)	0.199 µg/m3	
		SO2 (µg/m3)	1.08 µg/m3	
		NO2 (µg/m3)	5.71 µg/m3	
		CO (mg/m3)	0.00168 mg/m3	

Table 2: EMP Details

CAPITAL EXPENDITURE		
S. No	**Description**	**Cost (Rs.in Lakhs)**
1	Landscaping	15.00
2	STP/Waste water treatment	60.00

3	Rain Water harvesting	8.00
4	Acoustic Treatment	4.00
5	Solid Waste Management	30.00
6	Miscellaneous	6.00
	Total	123.00

RECURING

S.No	Description	Cost (Rs. in Lakhs/Year)
1	Landscaping	8.00
2	Water Management	10.00
3	Air Management	1.00
4	Environmental Monitoring	2.90
5	Solid Waste Management	2.00
6	Misc.	5.00
	Total	**28.9**

AS PER VIOLATION

Cost of Environment Management Plan
Capital Expenditure: 1.10 CR
Recurring Expenditure

Sr.No.	Description	Cost (Rs. In Lakhs/Year
1	Landscaping	8.00
2	Water Management	10.00
3	Air Management	1.00
4	Environmental Monitoring	2.90
5	Solid Waste Management	2.00
6	Misc.	5.00
	Total	**28.9**

The committee discussed on the given information and Cumulative Budget for Remediation, Natural & Community Resource Augmentation Plan submitted by PP. After detailed deliberations, the Committee decided to recommend the case to SEIAA for grant of Environmental Clearance **under violation category** of EIA Notification dated 14.09.2006 issued by the Ministry of Environment and Forest, Government of India subject to the following specific conditions in addition to all standard conditions applicable for such projects:

A. Specific conditions:-

1. SEAC recommended for an amount of Rs**.**12.005 lakhs towards Remediation Plan, Natural and Community Resource Augmentation plan, 1% penalty in addition to 0.25% of total turn over as per table given above and to be spend within a span of three years as per the details given.

2. Total budgetary provision with respect to Remediation plan and Natural & Community Resource Augmentation plan is rupees ₹6.005 lakhs. Therefore, project proponent shall be required to submit a bank guarantee of an amount of Rupees ₹6.005 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan with the Haryana State Pollution Control Board prior to the grant of EC.
3. The PP will have to deposit ₹6.005 lakhs with SEIAA for 1% penalty as per SOP 7th July 2021, Clause no 12.a(ii) and 0.25 % of Total Turnover as per SOP 7th July 2021, Clause no 12.a(ii).
4. Remediation plan shall be completed in 3 years and bank guarantee will be of equivalent period. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority/SEIAA.
5. The PP should submit the 6 monthly action taken report on the compliance of environmental conditions to the Regional Officer, MoEF&CC, Haryana State Pollution Control Board and Chairman, SEIAA.
6. The PP shall bear the cost of remedial plan and will be responsible to maintain and manage the same.
7. The PP shall also submit the details of status of development of Green plan, species planted, survival status along with existing trees species wise and also maintain the record date wise along with digital mapping.
8. The PP shall also maintain the record of trees/plants to be planted as per the Remediation plan and Natural and Community Resource Augmentation plan along with digital mapping, latitude, longitude details.
9. The PP shall submit the prosecution details filled by HSPCB in environment court Kurukshetra under EP act, 1986 before the meeting of SEIAA as prosecution has been sanctioned by Chairman, HSPCM vide letter dated 11.08.2021.
10. The PP shall not start construction and development works without getting EC under violation Act/provisions of notification.
11. Sewage shall be treated in the STP based on latest Technology with tertiary treatment i.e.Ultra Filtrationto achieve standards ordered by NGT. The Treated effluent from STP shall be recycled /reused for flushing. DG cooling and Gardening
12. The PP shall spent Rs. 5Lakhs on various wildlife conservation activities like artificial nests on the trees, digging of ponds and construction of feeding platforms through Environment Management Plan
13. The Project Proponent would devise a monitoring plan to the satisfaction of the State Pollution Control Board so as to continuously monitor the treated waste water being used for flushing in terms of faecal coli forms and other pathogenic bacteria.
14. The Project Proponents would commission a third party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
15. Separate wet and dry bins must be provided in each unit and at ground level for facilitating segregation of waste. Solid Waste shall be segregated into wet garbage and inert materials. Wet Garbage shall be composted in Organic waste convertor. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The Inert waste from the project will be sent to dumping site.
16. Traffic management plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is marinated and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habilitation being carried out or purpose to be carried out by the project or other agencies in this 05kms radius of the site in different scenarios of space and time
17. The PP is required to plant 10 times trees at the project site and compensatory tree plantation will be done @1:10. No tree cutting has been proposed in the instant project. A minimum of 1 tree for every 80sqm of land should be planted and maintained. The Existing trees will be counted for this purpose. The landscape planning should include plantation of native species.

The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed **2447.35 Sqm (20.37%)** shall be provided for green area development.

18. The PP shall not carry any construction below the 220KV HT Line passing through the project
19. The Project Proponent shall obtain all necessary clearance/permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
20. The PP shall install the Eco Friendly Green Transformer based on ester oil to reduce the carbon footprint. The PP shall shift to gas based generator set when the gas is available. The PP shall install APCM for the DG set. The PP shall reduce the SO_2 load by 30% if HSD is used
21. Consent to establish/operate for the expansion project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of pollution) Act, 1981 and the Water (Prevention and control of pollution) Act, 1974.
22. The Approval of the Competent Authority shall be obtained for structural safety of building code due to earthquakes, adequacy of fire fighting equipments etc. as per National Building Code including protection measures from lightening etc.
23. The PP shall not carry any construction above or below the Revenue Rasta, if any
24. The PP shall not carry any construction below the HT Line passing through the project, if any.
25. The PP shall obtain the Fire NOC from the Competent Authority before taking occupation of the building.
26. The PP shall not give occupation or possession before the water supply and sewage connection permitted by the competent authority.
27. The PP shall not give occupation or possession before the electricity connection permitted by the competent Authority.
28. The PP shall obtain the permission regarding withdrawal of ground water from CGWA before the start of the project and also obtained the CTO from HSPCB after the approval from CGWA.
29. The PP shall carry out the quarterly awareness programs for the stakeholders of the commercial colony/project.
30. **03 Rain Water Harvesting pits** shall be provided for rainwater usages as per the CGWB norms.
31. The PP shall install Digital water level recorder for monitoring the water recharge and carry out quarterly maintenance and cleaning of 02 RWH pits
32. The PP shall ensure the compliance of provisions of Plastic Waste Management (Amendment) Rules, 2022 relevant for the project.
33. The PP may provide electric charging stations to facilitate electric vehicle commuters.
34. The PP shall take all preventive measures including water sprinkles to control dust during construction and operational phase.
35. The State Government/SPCB to take action against the project proponent under the provisions of the Section 15 read with Section 19 of the Environment (Protection) Act, 1986, and no OC, Consent to Operate or Consent to Establish shall be granted for violation part of the project.
36. The Project Proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant EC. The quantum shall be recommended by the SEAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority.
37. Detailed SoP dated 07.07.2021 regarding grant of EC to violation cases to be considered the action on merits. The action may be initiated under Section 15 read with Section 19 of the EP Act, 1986 against all violations.
38. The PP should submit compliance report of existing building from the Competent Authority.
39. Any change in stipulations of EC will lead to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance.

B. <u>Statutory compliance:</u>

[1] The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority for ground coverage, FAR and should be in accordance with zoning plan approved by Competent Authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

[2] The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

[3] The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

[4] The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

[5] The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the Haryana State Pollution Control Board.

[6] The project proponent shall obtain the necessary permission for drawl of ground water /surface water required for the project from the competent authority.

[7] A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

[8] All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

[9] The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

[10] The project proponent shall follow the ECBC Act/ECBC-Rulesprescribed by Bureau of Energy Efficiency, Ministry of Power strictly in addition of bylaws of the State Government.

I Air Quality Monitoring and Preservation

i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.

ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25) covering upwind and downwind directions during the construction period.

iv. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of ultra low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board

v. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

vi. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

vii. Wet jet shall be provided for grinding and stone cutting.

viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

ix. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.

x. The diesel generator sets to be used during construction phase shall be ultra low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise

pollution. Ultra low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

xii. For indoor air quality the ventilation provisions as per National Building Code of India.

II Water Quality Monitoring and Preservation

i. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details. The per capita supply should adhere to NBC 2016 and CGWA Notification dated 12.12.2018.

iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

v. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

vi. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

vii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

viii. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.

ix. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xi. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain Water Harvesting pits shall be provided for ground water recharging as per the CGWB norms.

xii. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

xiii. All recharge should be limited to shallow aquifer.

xiv. No ground water shall be used during construction phase of the project.

xv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

xvi. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

xvii. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.

xviii. No sewage or untreated effluent water would be discharged through storm water drains.

xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

xxi. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

III Noise Monitoring and Prevention

i. Ambient noise levels shall conform to residential area/commercial area both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

ii. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

IV Energy Conservation Measures

i. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency as per ECBC Act, 2017 read with ECBC Rules, 2018 shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC also which is in no case should be less than 25% as prescribed.

ii. Outdoor and common area lighting shall be LED.

iii. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof R & U-values shall be as per ECBC specifications.

iv. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

v. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.

vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

vii. The PP will submit report indicating compliance of each parameter of ECBC requirement and submit quantification saving report for each component.

V Waste Management

i. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
ii. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
iii. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
iv. Organic Waste Converter within the premises with a minimum capacity of 0.5 kg /person/day must be installed. Leaves to be put in earmarked pits for converting them into compost to be used as manure.
v. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
vi. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
vii. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
viii. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016.Ready mixed concrete must be used in building construction.
ix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
x. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VI Green Cover

i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
ii. A minimum of 1 tree (5' tall) for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
iv. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VII Transport

i. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
    i. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
    ii. Traffic calming measures.

iii. Proper design of entry and exit points.
iv. Parking norms as per local regulation.

ii. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

iii. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

VIII Human Health Issues

i. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
ii. For indoor air quality the ventilation provisions as per National Building Code of India.
iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
iv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
v. Occupational health surveillance of the workers shall be done on a regular basis.
vi. A First Aid Room shall be provided in the project both during construction and operations of the project.

IX Corporate Environment Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/ conditions. The company shall have defined system of reporting infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/ conditions and/ or shareholders/ stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

X Miscellaneous

i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

viii. The project proponent shall abide by all the commitments and recommendations made in the form-IA, Conceptual Plan and also that during their presentation to the Expert Appraisal Committee.

ix. No further expansion or modifications in the plan shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC)/SEIAA, Haryana. The project proponent shall seek fresh environmental clearance under EIA notification 2006 if at any stage there is change of area of this project.

x. Any change in planning of the approved plan will leads to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance

xi. The PP should give unambiguous affidavit giving land promoters in accordance with your ownership and possession of land legal the case referred for Environment Clearance to SEIAA.

xii. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

xiii. The Ministry/SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiv. The Ministry/SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

xvi. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

256.16 Environment Clearance for Expansion of Commercial Office Complex "Signature Tower-III" at Sector-15, Gurugram by M/s Unitech Limited

Project Proponent : Sh. Jitender Nagar
Consultant : Perfact Enviro Solutions Pvt. Ltd.

BACKGROUND

- This is a Category, 8(a) Building and Construction Project
- Type of project- Environment Clearance for Expansion of Commercial Office Complex
- The requisite fee is deposited vide DD No. 883970 dated 10.11.2021 Amount 2,00,000/-
- The case was taken up 197th meeting of SEAC held on 26.02.2020 and committee decided to recommend the case to SEIAA for verification of letter dated 17.01.2018 and approval that the project falls under violation Notification No. S.O. 804 (E), dated the 14th March, 2017 and subsequent Notification No. S.O. 1030(E) dated 08thMarch, 2018, OM dated 9th September 2019.
- The case was taken up 124th meeting of SEIAA held on 22.07.2020 and decided to refer the case to SEAC to appraise in view of O.M of MoEF&CC, GoI, F. No.22-10/2019-1A.III dated 9th septemeber2019.
- The case was taken up 202th meeting of SEAC held on 31.08.2020 and recommended to SEIAA for approval of ToR under violation category.
- The case was taken up 125th meeting of SEIAA held on 07.10.2020 and approved of ToR under violation category dated 28.10.2020.
- EIA application submitted on 01.09.2021.
- The case was taken up 228th meeting of SEAC held on 01.12.2021 and decided to defer this case
- The case was taken up 231st meeting of SEC held on 29.12.2021 and decided to recommend the case to SEAC for granting of EC under violation category.
- The case was taken up in the 134th meeting of SEIAA held on 18.01.2022 and the Authority decided to refer back the case to SEAC to submit recommendations as per the notification of MoEF &CC dated 7th july 2021recalculating the penalty and damage assessment and clearly mentioning the methodology used in arriving at the final figure.
- The case was taken up 234th meeting of SEAC. The PP submitted the reply raised in 134th meeting of SEIAA and committee again recommended the case to SEIAA for g ranting of EC
- The case was taken up 137th meeting of SEIAA held on 24.03.2022 and decided to refer back this case to SEAC with an advice to relook into this aspect and recalculate amount strictly with reference to guidelines provided in SOP vide F. No.22-21/2020-IA.III dated 07.07.2021 issued by MoEF&CC , GoI being case of violation
- The case was taken up 243rd meeting of SEAC held and recommend the case to SEAC for grant of EC
- The case was taken up 143rd meeting of SEIAA held on 14.07.2022 and authority decided to refer the case to LR Haryana for seeking legal opinion a guidance as to whether the SOP guidelines dated 07.07.2021 issued by the MoEF & CC, Government of India, shall apply on the proposals, applied for grant of EC under the violation window, prior to the issue of the said SOPs". (Meaning thereby, whether violation cases, pending prior to 07.07.2021 will attract SOPs dated 07.07.2021 or not).

This was being initiated to obtain more clarity and to further ensure compliance of certain observations made by Hon'ble Supreme Court (Civil Appeal Nos. 7576, 7577 of 2021) vide Order dated 09.12.2021, in the Case of Electro Steels Limited versus Union of India and others.

The matter was again taken up in 147th Meeting of SEIAA, Haryana held on 10.10.2022 and the Authority held detailed discussions/deliberations on the legal opinion dated 04.10.2022 received from Learned Legal Remembrancer, Haryana through AD, (Environment & Climate Change Department, Haryana).

Accordingly, The Authority referred back this case to SEAC with the directions that the Members of Appraisal Committee will follow the methodology and uniformity adopted in the matter of M/s G.P. Realtors Pvt. Ltd. (in the matter of O.A. No. 976 of 2019 titled as Gurinder Singh & Ors V/s Union of India & Ors.); while examining/appraising the violation cases within the purview and scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The case was taken up in 254th meeting held on 31.10.2022. The PP and consultant appeared before the committee and presented their case. During presentation, they submitted the following details of the case:

- The project is the development of Commercial Office Complex Project "Signature Tower-III" located at **Sector 15, Gurugram, Haryana** developed by **M/s. Unitech Ltd.**
- The project has already been granted Environmental Clearance vide letter no. SEIAA/HR/2012/128 dated 11th July, 2012 for plot area 30958.45 m2 (7.65 Acres) and built-up area 86802.00 m2
- TOR was granted on 28.10.2020 under violation category and the EIA Report was submitted to SEIAA on 01.09.2021.
- The project was appraised in 228th meeting of SEAC on 01.12.2021. Certain observations were raised, reply to them were submitted.
- The reply was considered in the 231st meeting of SEAC on 29.12.2021. SEAC recommended the case to SEIAA for grant of EC under Violation Category.
- The case was considered in 134th SEIAA meeting on 18.01.2022 and SEIAA decided to refer back the case to SEAC to submit recommendations as per the notification of MoEF & CC dated 7th July, 2021. **Reply for the same has been submitted on 03.03.2022.**
- **The case was considered in the 234th** meeting of SEAC on 09.03.2022 **and** SEAC recommend the case to SEIAA for EC under violation.
- The project was considered in 137th SEIAA Meeting on 24.03.2022 and SEIAA decided to refer back this case to SEAC and the committee is advised to re-look into this aspect and re-calculate amount strictly with reference to guidelines provided in SOP vide F.No.22-21/2020-IA.III dated 07.07.2021 issued by MoEF & CC, GoI being a case of violation
- The project was again considered in 243rd SEAC Meeting on 30.06.2022 and SEAC recommend the case to SEIAA for EC under violation
- The project was again listed in 143rd SEIAA meeting on 17.07.2022 and After due deliberations and perusal of relevant record, the Authority refer the case to Learned L.R., Haryana for seeking legal opinion and guidance as to whether the SOP guidelines dated 07.07.2021
- The project was again considered in 147th SEIAA Meeting on 10.10.2022 and Authority refer back the case to SEAC
- The project was listed in 254th SEAC meeting on 31.10.2022. Thereafter, the project was considered in the 254th SEAC meeting on 31.10.2022, SEAC deferred the case stating "PP has not submitted complete documents and details of the project as required such as tangible Remediation Plan and Natural Resource & Community Resource Augmentation Plan.
- Therefore, it was decided that the PP may be directed to submit the complete documents/information" as per SOP of MoEF & CC for violation cases dated 07.07.2021 and deferred the case.

The case is taken up in 256th meeting of SEAC on 01.12.2022. The PP alongwith consultant appeared before the committee and presented their case as under:

- The PP submitted the Undertaking stating that "The Case of M/s G.P. Realtors Pvt. Ltd is a legal case. The project falls under violation of EIA Notification 2006 and also National Board for Wild life (NBWL). The same shall not be applicable to our project" and "We have revised all the calculations as per the Standard Operating Procedures (SOPs) for violation cases dated 07.07.2021 issued by MOEFCC and we undertake to abide by the same"
- **As per SOP dated 7th July 2021: Penalty provisions for Violation cases and its applicability is as given below:**

Type of project	Type	Category	Percentage	Example
New projects:	a.	Where operation has not commenced	1 % of the total project cost incurred up to the date of filing of application along with EIA report	Ex: Rs.1 lakh for project cost of Rs.1 Cr
	b.	Where operations have commenced without EC	1 % of the total project cost incurred up to the date of filing of application along with EIA report PLUS 0.25% of the total turnover during the period of violation	For Rs.100 Cr project cost and Rs.100 Cr total turnover, the penalty shall be Rs. l Cr + Rs. 0.25 Cr = Rs.1.25 Cr)
Expansion projects	a.	Where operation/production with expanded capacity has not commenced	1 % of the project cost, attributable to the expansion, incurred up to the date of filing of application along with EIA/EMP report	
	b.	Where operation/ production with expanded capacity have commenced	1% of the project cost (attributable to the expansion activity) incurred upto the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover (attributable to the expanded activity/ capacity) involved during the period of violation.	

The Methodology of Damage Assessment is as follows:

To assess the overall damage, two matrices have been used, Type A & Type B.

Damage Assessment Type A: To assess the parameters, a team is deputed to assess preliminary assessment of damage to the environment. Based on site inspection and the documentary evidence the environmental aspects vs activity has been filled.

Damage Assessment Type B: It assumes random damages that would have taken place due to the interaction of different environmental components, i.e. the overall end to end assessment being done in a subjective matrix manner.

Using the above mentioned Damage matrices we have given scoring to each of environmental components taken into consideration.

The component wise Percent Contribution and scoring of Damage on Environment

S.No.	Environmental Component/Aspect	Weightage	Rating Scoring (A)	Weighted score (A)	Rating Scoring (B)	Weighted score (B)	Final Score (A+B)	% contribution
1	Air Environment/ Emissions to Air	*25%*	2	0.5	3	0.75	1.25	23.15%
2	Water Environment/ Releases to Water	20%	5	1	1	0.2	1.2	22.22%
3	Waste Management and Generation	5%	4	0.2	2	0.1	0.3	5.56%

4	Land Environment and contamination/land use	5%	1	0.05	2	0.1	0.15	2.78%
5	Use of natural resources and raw materials	10%	5	0.5	3	0.3	0.8	14.81%
6	Transport Issues	5%	3	0.15	2	0.1	0.25	4.63%
7	Effects on Ecology Biodiversity	5%	1	0.05	1	0.05	0.1	1.85%
8	Noise Pollution	10%	5	0.5	3	0.3	0.8	14.81%
9	Soil Quality and Management	5%	5	0.25	2	0.1	0.35	6.48%
10	Local Issues, Community welfare & Socio-economic scenario	5%	1	0.05	1	0.05	0.1	1.85%
11	Environmental Accidents	5%	1	0.05	1	0.05	0.1	1.85%
	Total	**100%**		**3.3**		**2.1**	**5.4**	**100%**

Remediation Plan and Cost

Remediation Plan and Cost									
S. No.	**Environmental Component**	**Remediation Proposed**	**Further Remarks**	**Rate**	**Quantity**	**Total Cost**	**Year I**	**Year II**	**Year III**
1	Air Environment	Installation of Antismog Gun consultation with local municipality for dust suppression in the on NH 8 (Delhi Gurgaon expressway) or Mehrauli Road (16 M wide)	will be used to reduce the air pollution in near by area in peak pollution time	₹300,000	4	₹12,00,000	₹600,000	₹600,000	₹0
		Installation of Sprinkler system in Saini Khera village in consultation with Panchayat	Sprinkler- 2 no. @ Rs. 1500/per pc	₹1,500	2	₹3,000	₹3,000	₹0	₹0
			TOTAL COST	-		**₹1203,000**	**₹603,000**	**₹600,000**	**₹0**
2	Water Environment	Procurement RO Plant & installation in Govt. Primary school sector 14 in consultation with Panchayat	RO Plant-1 no. (1000 LPH) @ 2,00,000/ per unit	₹200,000	1	₹200,000	₹0	₹200,000	₹0
			Installation of Rs. 5000/ per plant	₹5,000	1	₹5,000	₹0	₹5,000	₹0
		Adaptation of Pond near Kherki Majra UID: 01HRGGMGGM0052 KHER376	Cleaning, beautification and maintenance of the pond	₹700,000		₹700,000	₹350,000	₹350,000	₹0
			TOTAL COST			**₹905,000**	**₹350,000**	**₹555,000**	**₹0**
3	Soil Environment	Land reclamation of nearby area	Park Development in consideration with Municipal Corporation Gurgaon in Silokhera Village	₹300,000	1	₹300,000	₹0	₹150,000	₹150,000
			TOTAL COST			**₹300,000**	**₹0**	**₹150,000**	**₹150,000**
4	Waste Management	Organic Waste Converter	OWC installation of capacity 300 kg/day in consideration with Municipal Corporation Gurgaon	₹300,000	1	₹300,000	₹0	₹300,000	₹0
			TOTAL COST			**₹300,000**	**₹0**	**₹300,000**	**₹0**

5	Noise Environment	Awareness program for Noise in Silohera & Saini Khera village	-	100,000	-	₹100,000	₹0	₹50,000	₹50,000
		Distribution of PPE kits to nearby construction workers or labours	-	200,000	-	₹200,000	₹0	₹100,000	₹100,000
			TOTAL COST			**₹300,000**	**₹0**	**₹150,000**	**₹150,000**
6	Ecological Environment	Miyawaki Plantation in consultation with Municipal Corporation of Gurgaon	A dense forest patch will be developed	₹750,000	-	₹750,000	₹250,000	₹250,000	₹250,000
			TOTAL COST			**₹750,000**	**₹250,000**	**₹250,000**	**₹250,000**
COST OF REMEDIATION						**₹3,758,000**	**₹1,203,000**	**₹2,005,000**	**₹550,000**

Natural Resource & Community Resource Augmentation Plan & Budgetary Provision

S.No.	Component	Activity Proposed	Further Remarks	Rate	Quantity	Total Cost	Year I	Year II	Year III
1	Natural Augmentation	Providing Solar Lighting in the village area	Solar Provision	₹100,000	5	₹500,000	₹200,000	₹150,000	₹150,000
			TOTAL COST			**₹500,000**	**₹200,000**	**₹150,000**	**₹150,000**
2	Community Welfare (Final score: 0.1) i.e. 5% of total damage	Construction of sanitation facilities	2 number of toilets will be provided (in schools and road side)	₹50,000	2	₹100,000	₹50,000	₹25,000	₹25,000
			TOTAL COST			**₹1,00,000**	**₹50,000**	**₹25,000**	**₹25,000**
	COST OF NATURAL AUGMENTATION AND COMMUNITY					**₹600,000**	**₹250,000**	**₹175,000**	**₹175,000**

Cost Summary

S.No.	ITEM	Total cost (in Lakhs)	Total Cost	Year I	Year II	Year III
1	Cost on remediation plan based on damage assessment due to violation	**₹37.58**	**₹3,758,000**	**₹1,203,000**	**₹2,005,000**	**₹550,000**
2	Natural Resource	**₹5.00**	**₹500,000**	**₹200,000**	**₹150,000**	**₹150,000**
3	Community Resources Augmentation plan	**₹1.00**	**₹100,000**	**₹50,000**	**₹25,000**	**₹25,000**
TOTAL COST TO BE SPENT		**₹43.58**	**₹4,358,000**	**₹1,453,000**	**₹2,180,000**	**₹725,000**

Total Summarised Cost on Environmental Damage, Natural resource, community augmentation (% contribution w.r.t. Project cost for violation area)

S.No.	Particular	Cost in INR (lacs)	% of total project cost	Timeline
	Total Project Cost	19000		
	Project Cost for Violation area	2400	100.00	
1	Cost on Remediation of Environmental damages	37.58	1.57	In 3 years
2	Cost towards Natural Resource augmentation	5.00	0.21	In 3 years
3	Cost towards Community Resource augmentation	1.00	0.04	In 3 years
Total Cost		**43.58**	1.82	
Penalty as per SOP dated 07.07.21- B		**24.0**	1.00	
Total Cost (A+B)		**₹ 67.58**		

Environment Management Cost

Capital cost:

S No.	Description	Cost Already spent (Rs. in Lacs)	Cost To be spend (Rs. in Lacs)	Total Cost (Rs. in Lacs)
1	Landscaping	10	40	50
2	Water Management (STP)	80	20	100
3	Rainwater management	12	0	12
4	Air Management	18	2	20
5	Solid Waste Management	5	35	40
6	Miscellaneous	3	2	5
7	Social activities	-	15	15
	Total	128	99	227

Recurring cost:

S No.	Description	Total Recurring Cost (Rs In Lacs/ year)
1	Landscaping	3
2	Water Management	2.5
3	Air Management	2
4	Environment Monitoring	1.75
5	Solid Waste Management	3.5
6	Miscellaneous	1
	Total	**13.75**

It is submitted by PP that the order passed in project M/s G.P. Realtors Pvt. Ltd. by NGT is not related to their project in any way as the above mentioned case was an individual legal case decided by NGT on NBWL issue, so their project does not come within purview of said order. The PP

also submitted that no Notification/Office Memorandums/Guidelines has been issued by MoEF&CC to follow directions issued in M/s G.P. Realtors Pvt. Ltd. It is further submitted by PP that they agreed to follow the scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The committee discussed on the given information and Cumulative Budget for Remediation, Natural & Community Resource Augmentation Plan submitted by PP. After detailed discussion, the committee found the information in order and decided to recommend the case to SEIAA to grant Environment Clearance (**under violation category**) as recommended vide 243rd MoM of SEAC Meeting held on 30.06.2022.

256.17 EC under violation notification dated 14.03.2017 for Integrate d Residential Colony (Plotted & Group Housing) "Sushant City/Royale" at Sector-35/36, Karnal, Haryana by M/s Ansal Landmark (Karnal) Township Pvt. Ltd

Project Proponent : Sh. Arun Malhotra
Consultant : Ind Tech House Consult

BACKGROUND

- This is a Category, 8(b) Township and area development project
- Type of project- Environment Clearance for Expansion of Commercial Office Complex
- The requisite fee is deposited vide DD No. 883970 dated 10.11.2021 Amount 2,00,000/-
- ToR granted on 07.08.2018
- EIA application submitted on 25.09.2020
- The case was taken up 143rd meeting of the SEAC held on 27.10.2016. The Project proponent requested for adjournment and the same was discussed in the meeting. The Committee acceded to the request and decided to issue 30 days' notice to the PP.The observations of 143rd meeting were conveyed to the PP vide letter No. 1582 dated 08.11.2016. The PP submitted the request on dated 27.06.2017.
- The case was taken up 155th meeting of SEAC and decided to issue a show cause notice to the Project Proponent for not submitting the reply as per the MoEF&CC guidelines No. J-11 013/5/2009-IA-II (Part) dated 30.10.2012.
- The case was taken up 206th and 211th meeting of SEAC and defer this case on request of PP.
- The case was taken up in 215th meeting of SEAC held on 18.06.2021 but the PP/Consultant requested to defer the case for submitting the prosecution details filled in the special Environment court Kurukshetra. PP and consultant failed to reply.
- The case was taken up 219th meeting of SEAC and recommended to SEIAA for granting of EC.
- The case was taken up 129th meeting of SEIAA and decided to refer back this case to SEAC with some observations
- The case was taken up 225th meeting of SEAC. The PP submitted the reply of observations raised in 129th meeting of SEIAA and committee again recommended the case to SEIAA for grant of EC
- The case was taken up 131st meeting of SEIAA and decided to defer this case till the legal opinion from LR Haryana.
- The case was taken up 137th meeting of SEIAA held on 24.03.2022 and decided to refer back this case to SEAC with an advice to relook into this aspect and recalculate amount strictly with reference to guidelines provided in SOP vide F.

No.22-21/2020-IA.III dated 07.07.2021 issued by MoEF&CC, GoI being case of violation.

- The case was taken up 241st meeting of SEAC and committee asked to PP to submit the self contained note along with penalty to be deposited as per SOP 07.07.2021.
- Thereafter, PP submitted self contained note along with penalty provision of Rs.5.4 Lakh and decided to recommend this case to SEIAA for grant of EC
- The case was taken up 141st meeting of SEIAA held on 26.05.2022 and authority decided to call a report from concerned RO, HSPCB to verify the latest construction status and the case was deferred.
- The case was taken up 143rd meeting of SEIAA held on 14.07.2022 and authority decided to refer the case to LR Haryana for seeking legal opinion an guidance as to whether the SOP guidelines dated 07.07.2021, issued by the MoEF & CC, Government of India, shall apply on the proposals, applied for grant of EC under the violation window, prior to the issue of the said SOPs". (Meaning thereby, whether violation cases, pending prior to 07.07.2021 will attract SOPs dated 07.07.2021 or not).

This was being initiated to obtain more clarity and to further ensure compliance of certain observations made by Hon'ble Supreme Court (Civil Appeal Nos.7576, 7577 of 2021) vide Order dated 09.12.2021, in the Case of Electro Steels Limited versus Union of India and others.

The matter was again taken up in 147th Meeting of SEIAA, Haryana held on 10.10.2022 and the Authority held detailed discussions/deliberations on the legal opinion dated 04.10.2022 received from Learned Legal Remembrance, Haryana through AD, (Environment & Climate Change Department, Haryana).

Accordingly, The Authority referred back this case to SEAC with the directions that the Members of Appraisal Committee will follow the methodology and uniformity adopted in the matter of M/s G.P. Realtors Pvt. Ltd. (in the matter of O.A. No. 976 of 2019 titled as Gurinder Singh & Ors V/s Union of India & Ors.); while examining/appraising the violation cases within the purview and scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The case was taken up in 254th meeting held on 31.10.2022. A detailed discussion was held on the documents and information submitted by the PP but the committee observed that the PP has not submitted complete documents and details of the project as required such as tangible Remediation Plan and Natural Resource & Community Resource Augmentation Plan. Therefore, it was decided that the PP may be directed to submit the complete documents/information and deferred the case.

The case was taken up in 256th meeting held on 01.12.2022. The PP as well as consultant appeared before the committee and submitted that:

- We have not achieved the sanctioned level of construction under the granted "EC", ***"No Actual Pollution"*** has occurred. The Penalty is to be imposed as per the "Principle of Proportionality" and a thorough "Resource & Community Augmentation Plan" has to be drawn.
- "Office Memorandum for SoP dated. 7th July, 2021' issued by MoEF & CC for identification and handling of violation cases.
- The basic premise of the SoP is based on the Principles of "Polluter pays" and "Proportionality", defined clearly in SoP.
- And the cases of non-compliance/violation approaching State Env. Impact Assessment Authority, the quantum of penalty would be 0.5% of the total project

cost & if the expansion is in operation then the additional penalty of 0.25% of the revenue generated through the expanded part is to be imposed.

- The proponent in the case approached the Authorities & informed Authority regarding the expiry of "EC". Therefore, a penalty of 0.5% is to be imposed for the "Expanded" part or the built-up area perceived to be built after the expiry of "EC". An undertaking regarding the penalty of Rs 5.4 lacs (0.5 % of total violation cost 10.81 Cr.) was submitted on 26/04/2022.
- We would further like to draw your kind attention towards the out-come of the case no.10 of 2021, Central Government/Union of India/MoEF v/s M/s Ansal landmark (Karnal) Township Pvt. Ltd. in the Special Environment Court, Kurukshetra.
- The Hon'ble Environment Court in the particular case, where the construction has been carried out even after the expiry of the validity of "EC" but the project has not achieved the sanctioned built-up area; we draw the inference that not applying for the "Extension in Validity" is a "***Procedural flaw/Technical Irregularity***" which even court stated as "***Technical Illegality***" and in such cases where some construction has been carried out during the period of non-existent of "EC" provided project has not achieved the quantum of built-up area as sanctioned in previously granted "EC", ***"No Actual Pollution"*** has occurred.
- An inference could be drawn from the above judgment that when "No Actual Pollution" has occurred, no damage assessment is needed. Therefore, in similar cases along with the prosecution or fine imposed to Proponents, the Penalty is to be imposed as per the "Principle of Proportionality" and a thorough "Resource & Community Augmentation Plan" has to be drawn.An undertaking regarding the penalty of Rs.5.4 lacs (0.5 % of total violation cost 10.81 Cr.) was submitted on 26/04/2022 has already been submitted.
- Further, we submit that we have chalked out "Remediation and Resource Augmentation Plan" and submitted to SEAC too.
- The total revised budgetary provision with respect to the Remediation plan and Natural & Community Resource Augmentation plan is rupees 23,88,300/. Breakup is provided as under:

S. No.	**Particulars**	**Cost (in Rs.)**
1	Remediation plan	2,00,000
2	Natural Resource Augmentation plan	16,88,300
3	Community Augmentation plan	5,00,000
	Total	**23,88,300**

- Our submission is considering the judgment of Hon'ble Environment Court in the case, where the construction has been carried out even after the expiry of validity of "EC" but project has not achieved the sanctioned built-up area; we draw the inference that not applying for the "Extension in Validity" is a "***Procedural flaw/Technical Irregularity***" which even court stated as "***Technical Illegality***" and in such cases where some construction has been carried out during the period of non-existent of "EC" provided project has not achieved the quantum of built-up area as sanctioned in previously granted "EC", ***"No Actual Pollution"*** has occurred.
- An inference could be drawn from the above written statement that when ***"No Actual Pollution"*** has occurred, no damage assessment is needed. Therefore, in similar cases along with the prosecution or fine imposed to Proponents, the Penalty is to be imposed as per the "Principle of Proportionality" and a thorough "Resource & Community Augmentation Plan" has to be drawn.

- The order passed in project M/s G.P. Realtors Pvt. Ltd. by NGT is not related to their project in any way as the above mentioned case was an individual legal case decided by NGT on NBWL issue, so their project does not come within purview of said order and they are agreed to follow the scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.
- The PP also submitted CA certificate

The committee discussed on the submissions as well as information given by PP. The PP has submitted that their case is different from the case M/s G.P. Realtors Pvt. Ltd. as it was an individual case in which NBWL issue was there and their project does not come within purview of order passed in M/s G. P. Realtors, however, they are agree to follow the SoP dated 07.07.2021.

After detailed discussion, the committee decided to recommend the case to SEIAA to grant Environment Clearance (**under violation category**) as recommended vide MoM of 219th meeting along with additional recommendations conveyed vide 225th and 241st MoM of SEAC.

256.18 EC under violation notification dated 14.03.2017 for an Institutional "Office Building" Project at Plot No. 6, Sector –32, Gurgaon, (Haryana) by M/s Focus Energy Ltd

Project Proponent : Sh. Mukesh Rana
Consultant : Perfact Enviro Solutions Pvt. Ltd.

BACKGROUND

- This is a Category, 8(b) Township and area development project
- Type of project- EC under violation notification dated 14.03.2017 for Warehouse Project
- The requisite fee is deposited vide DD No. 524780 dated 30.11.2021 Amount 2,00,000/-
- ToR granted under violation category on 07.08.2018
- The case was taken up 193rd meeting of SEAC and recommended for the amendment in ToR
- The amended ToR was granted dated 24.06.2020 in 123rd meeting of SEIAA
- PP submitted EIA application on 12.01.2021
- The case was recommend to SEIAA for grant of EC in 215th meeting of SEAC.
- The case was taken up 129th meeting of SEIAA and decided to refer back this case to SEAC with some observations
- The case was taken up 225th meeting of SEAC and again recommend the case to SEIAA
- The case was taken up 131st meeting of SEIAA and decided seek clarifications from MoEF&CC, GoI in regards to the aid project and defer this case
- The case was taken up 137th meeting of SEIAA held on 24.03.2022 and decided to refer back this case to SEAC with an advice to relook into this aspect and recalculate amount strictly with reference to guidelines provided in SOP vide F. No.22-21/2020-IA.III dated 07.07.2021 issued by MoEF&CC , GoI being case of violation.
- The case was taken up 241st meeting of SEAC and committee asked to PP to submit the self contained note along with penalty to be deposited as per SOP 07.07.2021.
- The case was taken up 242nd meeting of SEAC. The PP submitted self contained note and recommend the case to SEIAA for granting EC.
- The case was taken up 143rd meeting of SEIAA held on 14.07.2022 and authority decided to refer the case to LR Haryana for seeking legal opinion an guidance as

to whether the SOP guidelines dated 07.07.2021, issued by the MoEF & CC, Government of India, shall apply on the proposals, applied for grant of EC under the violation window, prior to the issue of the said SOPs". (Meaning thereby, whether violation cases, pending prior to 07.07.2021 will attract SOPs dated 07.07.2021 or not).

This was being initiated to obtain more clarity and to further ensure compliance of certain observations made by Hon'ble Supreme Court (Civil Appeal Nos. 7576, 7577 of 2021) vide Order dated 09.12.2021, in the Case of Electro Steels Limited versus Union of India and others.

The matter was again taken up in 147th Meeting of SEIAA, Haryana held on 10.10.2022 and the Authority held detailed discussions/deliberations on the legal opinion dated 04.10.2022 received from Learned Legal Remembrancer, Haryana through AD, (Environment & Climate Change Department, Haryana).

Accordingly, The Authority referred back this case to SEAC with the directions that the Members of Appraisal Committee will follow the methodology and uniformity adopted in the matter of M/s G.P. Realtors Pvt. Ltd. (in the matter of O.A. No. 976 of 2019 titled as Gurinder Singh & Ors V/s Union of India & Ors.); while examining/appraising the violation cases within the purview and scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The case was taken up in 254th meeting held on 31.10.2022. The PP and consultant appeared before the committee and presented their case. During presentation, they submitted the following details of the case:

- The project is a development of an **Institutional Office Building located** at **Plot No. 6, Sector 32, Gurugram, Haryana** developed by **M/s. Focus Energy Ltd.**
- The ToR was granted vide: TOR Letter No. : SEIAA/HR/2018/862 dated 07.08.2018 and subsequently got an amendment vide: Amended TOR Letter No: SEIAA(123)/HR/2020/272 dated 24th June 2020.
- **EIA report was submitted with TOR Compliance and the project was appraised in** 211th SEAC **on** 26.02.2021 and Few observations were raised and reply of the same was submitted on 29.05.2021.
- The reply was considered in 215th SEAC on 18.06.2021 and **SEAC recommended the proposal to SEIAA for grant of Environmental Clearance.**
- **The recommendation of SEAC was considered in** 129th SEIAA **on** 08.10.2021 and SEIAA refer back the case to SEAC with few observations. Reply to the same was submitted.
- The project was again considered in 225th SEAC on 10.11.2021 and **SEAC again recommended the proposal to SEIAA for grant of Environmental Clearance.**
- The project was again considered in 131st SEIAA on 02.12.2021 and After deliberations, **SEIAA decided to defer** this case till the legal opinion from Ld. LR, Haryana is received.
- The project was again considered in 137th SEIAA on 25.03.2022 and SEIAA after due deliberations **decided to refer back case to SEAC** for appraisal in the light of SOP vide F.No.22-21/2020-IA.III dated 07.07.2021 issued by MoEF & CC, GoI being a case of violation.
- The project was again considered in 241st SEAC on 26.04.2022 and SEAC after deliberation asked the PP to submit the self contained note along with penalty to be deposited as per SOP 07.07.2021. **The case will be taken up after receipt of reply.**
- The project was again considered in 242nd SEAC on 25.06.2022 and **SEAC again recommended the proposal to SEIAA for grant of Environmental Clearance.**
- The project was again considered in 143rd SEIAA on 16.07.2022 and the case was

referred to LR Department of Haryana.

- The project was again considered in 147th SEIAA on 10.10.2022 and the case was refer back to SEAC
- The project was again considered in the 254th SEAC meeting on 31.10.2022. The PP presented the case before the committee.
- The PP submitted the Chronology and Undertaking stating that "That Standard Operating Procedures (SOPs) for violation cases dated 07.07.2021 issued by MOEF & CC, GOI has been followed."
- The Summarized cost of Damage Assessment as per SOP dated 07.07.2021 is below:

S.No.	Particular	Cost in INR (lacs)
	Project Cost	₹8100
1	Cost on Remediation of Environmental damages	₹70.95
2	Cost towards Natural Resource augmentation	₹5.67
3	Cost towards Community Resource augmentation	₹4.86
Total damage cost proposed-A		**₹81.48**
Total penalty cost required as per SOP dated 07.07.2021-B		**₹40.5**
Total Cost (A+B)		**₹121.98**

PP also submitted an undertaking mentioning therein that Standard Operating Procedures (SOPs) for violation cases dated 07.07.2021 issued by MOEF & CC, GOI has been followed.

A detailed discussion was held on the documents and information submitted by the PP but the committee observed that the PP has not submitted complete documents and details of the project as required such as tangible Remediation Plan and Natural Resource & Community Resource Augmentation Plan. Therefore, it was decided that the PP may be directed to submit the complete documents/ information and deferred the case.

The case was taken up in 256th meeting held on 01.12.2022. The case is taken up in 256th meeting of SEAC on 01.12.2022. The PP alongwith consultant appeared before the committee and presented their case as under:

- The PP submitted the Undertaking stating that "The Case of M/s G.P. Realtors Pvt. Ltd is a legal case. The project falls under violation of EIA Notification 2006 and also National Board for Wild life (NBWL). The same shall not be applicable to our project" and "We have revised all the calculations as per the Standard Operating Procedures (SOPs) for violation cases dated 07.07.2021 issued by MOEFCC and we undertake to abide by the same"
- PP also submitted CA certificate mentioning therein that "The Project Cost expended till date is Rs.81 Crores (Without Depreciation) including Land and Construction cost".
- **As per SOP dated 7th July 2021: Penalty provisions for Violation cases and its applicability is as given below:**

Type of project	Type	Category	Percentage	Example
New projects:	a.	Where operation has not commenced	1 % of the total project cost incurred up to the date of filing of application along with EIA report	Ex: Rs.1 lakh for project cost of Rs.1 Cr
	b.	Where operations have commenced without EC	1 % of the total project cost incurred up to the date of filing of application along with EIA report PLUS 0.25% of the total turnover during the period of violation	For Rs.100 Cr project cost and Rs.100 Cr total turnover, the penalty shall be Rs. l Cr + Rs. 0.25 Cr = Rs.1.25 Cr)
Expansion projects	a.	Where operation/production with expanded capacity has not commenced	1 % of the project cost, attributable to the expansion, incurred up to the date of filing of application along with EIA/EMP report	
	b.	Where operation/ production with expanded capacity have commenced	1% of the project cost (attributable to the expansion activity) incurred upto the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover (attributable to the expanded activity/ capacity) involved during the period of violation.	

The Methodology of Damage Assessment is as follows:

To assess the overall damage, two matrices have been used, Type A & Type B.

Damage Assessment Type A: To assess the parameters, a team is deputed to assess preliminary assessment of damage to the environment. Based on site inspection and the documentary evidence the environmental aspects vs activity has been filled.

Damage Assessment Type B: It assumes random damages that would have taken place due to the interaction of different environmental components, i.e. the overall end to end assessment being done in a subjective matrix manner.

Using the above mentioned Damage matrices we have given scoring to each of environmental components taken into consideration.

The component wise Percent Contribution and scoring of Damage on Environment:

S.No	Environmental Component/ Aspect	Weightage	Rating Scoring (A)	Weighted score (A)	Rating Scoring (B) shown in Appendix I	Weighted score (B)	Final Score (A+B)	% contribution
1	Air Environment/ Emissions to Air	20%	5	1	3	0.6	1.6	26%
2	Water Environment/ Releases to Water	25%	5	1.25	1	0.25	1.5	25%
3	Waste Management and Generation	5%	4	0.2	2	0.1	0.3	5%
4	Land Environment and contamination/l and use	5%	1	0.05	2	0.1	0.15	2%
5	Use of natural resources and raw materials	10%	5	0.5	3	0.3	0.8	13%
6	Transport Issues	5%	4	0.2	2	0.1	0.3	5%

7	Effects on Ecology Biodiversity	5%	1	0.05	1	0.05	0.1	2%
8	Noise Pollution	10%	5	0.5	3	0.3	0.8	13%
9	Soil Quality and Management	5%	5	0.25	2	0.1	0.35	6%
10	Local Issues, Community welfare & Socio-economic scenario	5%	1	0.05	1	0.05	0.1	2%
11	Environmental Accidents	5%	1	0.05	1	0.05	0.1	2%
	Total	**100%**		**4.1**		**2**	**6.1**	**100%**

The Tangible Cost for Remediation Plan and Natural and Community Resource Augmentation Plan is given below:

REMEDIATION PLAN AND COST

Remediation Plan and Cost

S. No.	Environmental Component	Remediation Proposed	Further Remarks	Rate	Quantity	Total Cost	Year I	Year II	Year III	Year IV	Year V
1	Air Environment	Distribution of Air purifier in consultation with local municipality for dust suppression in the on sector 32 road (8 M wide) & CH Baktawar Road near Medanta hospital	Air Purifier (Wayu Purifier with Clean Air Dispersion Rate 600 m/hr)	₹60,000	1	₹60,000	₹30,000	₹30,000	₹0	₹0	₹0
		Maintenance of Air purifier	Maintenance - 4 year @ 1500/month (48 months, 1nos.)	₹1,500	48	₹72,000	₹0	₹24,000	₹24,000	₹24,000	₹0
		Plantation on Road from Bani Square Chaunk to Golf Course extension road in consultation with MCG	Plant -200 @ 2000 (including Maintenance)	₹2,000	198	₹396,000	₹100,000	₹100,000	₹100,000	₹96,000	₹0
		Installation of Anti Smog Gun on sector 32 road (8 m wide) & CH Baktawar Road near Medanta hospital (16 m wide)	will be used to reduce the air pollution in near by area in peak pollution time	₹800,000	2	₹1,600,000	₹1,600,000	₹0	₹0	₹0	₹0
			TOTAL COST	-		**₹2,128,000**	**₹1,730,000**	**₹154,000**	**₹124,000**	**₹120,000**	**₹0**
2	Water Environment	Pond Adoption at Sarhaul Village UID: 02HRGGMGUR0005SHUL001	Cleaning beautification and maintenance of the pond	₹1,800,000	1	**₹1,800,000**	₹600,000	₹300,000	₹300,000	₹300,000	₹300,000

3	Soil Environment	Land reclamation of nearby area	Park Development in consideration with Municipal Corporation Gurgaon in Tikri Village	₹500,000	1	**₹500,000**	₹0	₹0	₹250,000	₹250,000	₹0
4	Waste Management	Organic Waste Converter	OWC installation of capacity 300 kg/day in consideration with Municipal Corporation Gurgaon	₹800,000	1	**₹800,000**	₹800,000	₹0	₹0	₹0	₹0
5	Noise Environment	Distribution of Personnel protection equipments to the health department for construction workers in near by sites	300,000	-	-	₹300,000	₹150,000	₹150,000	₹0	₹0	₹0
		Awareness program for Noise in Jharsa & Tikri village	100,000	₹3.00	-	₹300,000	₹0	₹150,000	₹150,000	₹0	₹0
			TOTAL COST			**₹600,000**	**₹150,000**	**₹300,000**	**₹150,000**	**₹0**	**₹0**
6	Ecological Environment	Plantation in on CH Baktawar singh Road which is 16 m wide in consultation with Municipal Corporation of Gurgaon	100 trees @ Rs. 2000/tree	₹2,000	100	₹200,000	₹50,000	₹50,000	₹50,000	₹50,000	₹0
		Development of sector 46 & radha krishan park	In consideration with Municipal Corporation	-	-	₹400,000	₹0	₹0	₹0	₹400,000	₹0
			TOTAL COST			**₹600,000**	**₹50,000**	**₹50,000**	**₹50,000**	**₹450,000**	**₹0**
COST OF REMEDIATION						**₹6,428,000**	**₹3,330,000**	**₹804,000**	**₹874,000**	**₹1,120,000**	**₹300,000**

NATURAL RESOURCE & COMMUNITY RESOURCE AUGMENTATION PLAN & BUDGETARY PROVISION

S. No.	Component	Activity Proposed	Further Remarks	Rate	Quantity	Total Cost	Year I	Year II	Year III	Year IV	Year V
1	Natural Augmentation	Providing Solar Lighting in the jharsa village in consultation with	Solar Provision	₹100,000	10	₹1,000,000	₹200,000	₹200,000	₹200,000	₹200,000	₹200,000

		Panchayat	**TOTAL COST**			**₹1,000,000**	**₹200,000**	**₹200,000**	**₹200,000**	**₹200,000**	**₹200,000**
2	Community Welfare (Final score: 0.1) i.e. 5% of total damage	Construction of sanitation facilities in Govt. Senior Secondary School, Darbaripur, Gurgaon	6 number of toilets will be provided	₹70,000	6	₹420,000	₹100,000	₹100,000	₹100,000	₹100,000	₹20,000
		Providing Computers in the Govt. Senior Secondary School, Darbaripur, Gurgaon	6 computers @ Rs 50,000 per Pc	₹50,000	6	₹300,000	₹60,000	₹60,000	₹60,000	₹60,000	₹60,000
			TOTAL COST			**₹720,000**	**₹160,000**	**₹160,000**	**₹160,000**	**₹160,000**	**₹80,000**
COST OF NATURAL AUGMENTATION AND COMMUNITY						**₹1,720,000**	**₹360,000**	**₹360,000**	**₹360,000**	**₹360,000**	**₹280,000**

COST SUMMARY WITH YEAR WISE DISTRIBUTION

S.No.	ITEM	Total Cost	Year I	Year II	Year III	Year IV	Year V
1	Cost on remediation plan based on damage assessment due to violation	**₹6,428,000**	₹3,330,000	₹804,000	₹874,000	₹1,120,000	₹300,000
2	Natural Resource	**₹1,000,000**	₹200,000	₹200,000	₹200,000	₹200,000	₹200,000
3	Community Resources Augmentation plan	**₹720,000**	₹160,000	₹160,000	₹160,000	₹160,000	₹80,000
TOTAL COST TO BE SPENT		**₹8,148,000**	**₹3,690,000**	**₹1,164,000**	**₹1,234,000**	**₹1,480,000**	**₹580,000**

Total Summarized Cost on Environmental Damage, Natural resource, community augmentation & Environment Management Plan:

S. No.	Particular	Cost in INR (in Rs.)	% of total project cost	Timeline
	Project Cost	810000000	100	-
	Cost on Remediation of Environmental damages	**₹6,428,000**	0.79	In 5 years
	Cost towards Natural Resource augmentation	**₹1,000,000**	0.12	In 5 years
	Cost towards Community Resource augmentation	**₹720,000**	0.09	In 5 years
	Total damage cost proposed-A	**8,148,000**	1.01	
	Total penalty cost required as per SOP-B	**4,050,000**	**0.5**	
	Total Cost (A+B)	**12,198,000**		

Environment Management Cost

Capital cost:

S. No	Description	Already Spent Cost (Rs. in Lakhs)	Proposed Cost (Rs. in Lakhs)	Total Cost (Rs. in Lakhs)
1	Landscaping/ Plantation	8	0	8
2	STP/ Waste Water Treatment	15	10	25
3	Rain Water Harvesting Pits	6	0	6
4	Stack height of DG set	2	0	2
5	Solid Waste Management	5	10	15
6	Solar Panel/Installation	100	0	100
7	Misc.	3	1	4
8	**Total cost towards Social activities (CER)**	**0**	**16**	**16**
	Providing 2 Water Coolers in govt school of Islampur village in consultation with Panchayat	0	1	1
	Providing 5 Bio-toilets in govt school of Islampur village in consultation with Panchayat	0	15	15
9	Cost of Wild life Activity Plan	0	5	5
	Total	**139**	**42**	**181**

Recurring cost:

S. No	Description	Proposed Cost (Rs. in Lakhs/Year)
1	Landscaping/ Plantation	2
2	Water management	3
3	Air & Noise Management	0.5
4	Environmental Monitoring	1.5
5	Solid Waste Management	3
6	Misc.	1
	Total	**Rs 11 Lakhs/Year**

It is submitted by PP that the order passed in project M/s G.P. Realtors Pvt. Ltd. by NGT is not related to their project in any way as the above mentioned case was an individual legal case decided by NGT on NBWL issue, so their project does not come within purview of said order. An undertaking has also been submitted by PP, in this regard. The PP also submitted that no Notification/Office Memorandums/Guidelines has been issued by MoEF&CC to follow directions issued in M/s G.P. Realtors Pvt. Ltd. It is further submitted by PP that they are agree to follow the scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The committee discussed on the given information submitted by PP. After detailed discussion, the committee decided to recommend the case to SEIAA to granted Environment Clearance (**under violation category**) as recommended vide MoM of 215th meeting alongwith additional recommendations conveyed vide 242ndMoM of SEAC.

256.19 EC for the Project "Corporate Office" at Plot No. 13, Sector-32, Urban Estate Gurugram-II, Haryana by M/s Padmini Technologies Ltd

Project Proponent : Sh. P.K. Garg
Consultant : Perfact Enviro Solutions Pvt. Ltd.

BACKGROUND

- This is a Category, 8(a) Building and Construction
- Type of project- EC for the Project "Corporate Office"
- The requisite fee is deposited vide DD No.000294 dated 24.11.2021 Amount 2,00,000/-
- ToR granted under violation category on 28.04.2022
- EIA Submitted on 17.06.2022
- The case was recommended to SEIAA in 244th meeting of SEAC for grant of EC under violation.
- The case was taken up 144th meeting of SEIAA with some observations
- PP submitted reply to the observation of SEIAA in 247th meeting of SEAC and again recommended the case to SEIAA to grant EC
- Case was taken up in 146th meeting of SEIAA but case was referred to Learned L.R., Haryana, for seeking legal opinion and guidance as to whether "The SOPs guidelines dated 07.07.2021, issued by the MoEF & CC, Government of India, shall apply on the proposals, applied for grant of EC under the violation window, prior to the issue of the said SOPs". (Meaning thereby, whether violation cases, pending prior to 07.07.2021 will attract SOPs dated 07.07.2021 or not).

This was being initiated to obtain more clarity and to further ensure compliance of certain observations made by Hon'ble Supreme Court (Civil Appeal Nos. 7576, 7577 of 2021) vide Order dated 09.12.2021, in the Case of Electro Steels Limited versus Union of India and others.

The matter was again taken up in 147th Meeting of SEIAA, Haryana held on 10.10.2022 and the Authority held detailed discussions/deliberations on the legal opinion dated 04.10.2022 received from Learned Legal Remembrancer, Haryana through AD, (Environment & Climate Change Department, Haryana).

Accordingly, the Authority referred back this case to SEAC with the directions that the Members of Appraisal Committee will follow the methodology and uniformity adopted in the matter of M/s G.P. Realtors Pvt. Ltd. (in the matter of O.A. No. 976 of 2019 titled as Gurinder Singh & Ors V/s Union of India & Ors.); while examining/appraising the violation cases within the purview and scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The case was taken up in 254th meeting held on 31.10.2022. The PP and consultant appeared before the committee and presented their case. During presentation, they submitted the following details of the case:

- The project is "Corporate Office Complex" which is located at Plot No. 13, Urban Estate Gurugram-II, Haryana developed by M/s Padmini Technologies Ltd.
- The project was granted Terms of Reference vide SEIAA(139)/HR/2022/849 dated 28.04.2022
- The EIA report along with compliance to the Terms of Reference was submitted online on 17.06.2022.
- The case was considered in the 244th meeting of SEAC, Haryana on 09.07.2022 and SEAC recommended the project to SEIAA for grant of Environment Clearance.
- The recommendation of SEAC was considered in the 144th SEIAA Meeting on 09.08.2022 and few observations were raised and the project was referred back to

SEAC.

- The Reply of 144th SEIAA meeting was considered in 247th SEAC meeting on 31.08.2022 and SEAC recommended the case to SEIAA.
- Case was considered in the 146th SEIAA meeting on 21.09.2022 and the case was referred to the LR Department of Haryana.
- Again the case was considered in the 147th SEIAA meeting on 10.10.2022 and authority referred the case to SEAC Meeting .
- Case considered in 254th SEAC on 31.10.2022.The PP presented the case before the committee.
- The PP submitted the Chronology and Undertaking stating that "That Standard Operating Procedures (SOPs) for violation cases dated 07.07.2021 issued by MOEF & CC, GOI has been followed."

Total Summarized Cost on Environmental Damage, Natural resource, community augmentation (% contribution w.r.t. total project cost)

S.No.	Particular	Cost in INR (lacs)
	Project Cost	₹6,013.4
1	Cost on Remediation of Environmental damages	₹52.32
2	Cost towards Natural Resource augmentation	4.2
3	Cost towards Community Resource augmentation	3.62
Total Damage Cost Proposed- A		**₹60.14**
4	**1% penalty as per SOP 7th July 2021, Clause no 12.a(ii)**	60.13
	0.25 % of Total Turnover as per SOP 7th July 2021, Clause no 12.a(ii)	25.3512
Total Penalty as per SOP 7th July 2021-B		**85.49**
	Total cost-(A+B)	**145.63**

PP also submitted an undertaking mentioning therein that Standard Operating Procedures (SOPs) for violation cases dated 07.07.2021 issued by MOEF&CC, GOI has been followed.

A detailed discussion was held on the documents and information submitted by the PP but the committee observed that the PP has not submitted complete documents and details of the project as required such as tangible Remediation Plan and Natural Resource & Community Resource Augmentation Plan. Therefore, it was decided that the PP may be directed to submit the complete documents/ information and deferred the case.

The case was taken up in 256th meeting held on 01.12.2022. The case is taken up in 256th meeting of SEAC on 01.12.2022. The PP alongwith consultant appeared before the committee and presented their case as under:

- The PP submitted the Undertaking stating that "The Case of M/s G.P. Realtors Pvt. Ltd is a legal case. The project falls under violation of EIA Notification 2006 and also National Board for Wild life (NBWL). The same shall not be applicable to our project" and "We have revised all the calculations as per the Standard Operating Procedures (SOPs) for violation cases dated 07.07.2021 issued by MOEFCC and we undertake to abide by the same"
- The PP also submitted CA certificate to the effect of expenditure of Rs.6013.47 lacs.
- **As per SOP dated 7th July 2021: Penalty provisions for Violation cases and its**

applicability is as given below:

Type of project	Type	Category	Percentage	Example
New projects:	a.	Where operation has not commenced	1 % of the total project cost incurred up to the date of filing of application along with EIA report	Ex: Rs.1 lakh for project cost of Rs.1 Cr
	b.	Where operations have commenced without EC	1 % of the total project cost incurred up to the date of filing of application along with EIA report PLUS 0.25% of the total turnover during the period of violation	For Rs.100 Cr project cost and Rs.100 Cr total turnover, the penalty shall be Rs. l Cr + Rs. 0.25 Cr = Rs.1.25 Cr)
Expansion projects	a.	Where operation/production with expanded capacity has not commenced	1 % of the project cost, attributable to the expansion, incurred up to the date of filing of application along with EIA/EMP report	
	b.	Where operation/ production with expanded capacity have commenced	1% of the project cost (attributable to the expansion activity) incurred upto the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover (attributable to the expanded activity/ capacity) involved during the period of violation.	

<u>The Methodology of Damage Assessment is as follows:</u>

To assess the overall damage, two matrices have been used, Type A & Type B.

Damage Assessment Type A: To assess the parameters, a team is deputed to assess preliminary assessment of damage to the environment. Based on site inspection and the documentary evidence the environmental aspects vs activity has been filled.

Damage Assessment Type B: It assumes random damages that would have taken place due to the interaction of different environmental components, i.e. the overall end to end assessment being done in a subjective matrix manner.

Using the above mentioned Damage matrices we have given scoring to each of environmental components taken into consideration.

The component wise Percent Contribution and scoring of Damage on Environment:

S. No.	Environmental Component/Aspect	Weightage	Rating Scoring (A)	Weighted score (A)	Rating Scoring (B)	Weighted score (B)	Final Score (A+B)	% contribution
1	Air Environment/ Emissions to Air	*20%*	2	0.4	3	0.6	1	22.2%
2	Water Environment/ Releases to Water	25%	3	0.75	1	0.25	1	22.2%
3	Waste Management and Generation	5%	4	0.2	2	0.1	0.3	6.7%
4	Land Environment and contamination/land use	5%	1	0.05	2	0.1	0.15	3.3%
5	Use of natural resources and raw materials	10%	1	0.1	3	0.3	0.4	8.9%
6	Transport Issues	5%	3	0.15	2	0.1	0.25	5.6%

7	Effects on Ecology Biodiversity	5%	1	0.05	1	0.05	0.1	2.2%
8	Noise Pollution	10%	5	0.5	3	0.3	0.8	17.8%
9	Soil Quality and Management	5%	3	0.15	2	0.1	0.25	5.6%
10	Local Issues, Community welfare & Socio-economic scenario	5%	2	0.1	1	0.05	0.15	3.3%
11	Environmental Accidents	5%	1	0.05	1	0.05	0.1	2.2%
	Total	**100%**		**2.5**		**2**	**4.5**	**100.0%**

The Tangible Cost for Remediation Plan and Natural and Community Resource Augmentation Plan is given below:

REMEDIATION PLAN AND COST

Remediation Plan and Cost									
S. No.	**Environmental Component**	**Remediation Proposed**	**Further Remarks**	**Rate**	**Quantity**	**Total Cost**	**Year I**	**Year II**	**Year III**
1	Air Environment	Distribution of Air purifier in consultation with local municipality for dust suppression in the on Delhi - Jaipur Expressway(72 M wide) & CH Baktawar Road near Medanta hospital	Air Purifier (Wayu Purifier with Clean Air Dispersion Rate 600 m/hr) along with Maintenance cost - 5 year @ 2000/month	₹180,000	1	₹180,000	₹60,000	₹60,000	₹60,000
		Installation of 3 Sprinkler system in Islampurvillage(1 km)and 3 in Jharsa villagein consultation with Panchayat	Sprinkler- 5 no. @ Rs. 1000/per pc (velocity :4.6 m/sec Flow rate:3.11 GPM)	₹1,000	5	₹5,000	₹5,000	₹0	₹0
			Twin Filtration system - @ Rs. 15000/pc	₹15,000	3	₹45,000	₹45,000	₹0	₹0
			Pump -@ Rs. 15000/pc	₹15,000	2	₹30,000	₹30,000	₹0	₹0
			Water Distributing Pipeline - 500 m@ Rs 220/m	₹220	500	₹110,000	₹110,000	₹0	₹0
		Health Check-up	Health Check-up camp in jharsa and Islampur village	₹200,000	1	₹200,000	₹66,667	₹66,667	₹66,667
		Plantation in Nearby on sector 32 road (8 M wide) in consultation with MCG	Plant -100 @ 2000 (including Maintenance)	₹2,000	100	₹200,000	₹66,667	₹66,667	₹66,667

		Installation of Anti Smog Gun on Delhi - Jaipur Expressway (72 m wide) & CH Baktawar Road near Medanta hospital (32 m wide)	will be used to reduce the air pollution in near by area in peak pollution time	₹800,000	1	₹800,000	₹800,000	₹0	₹0
			TOTAL COST	**-**		**₹1,570,000**	**₹1,183,333**	**₹193,333**	**₹193,333**
2	Water Environment	Adoption of Pond at Village Behrampur UID: 02HRGGMGUR0025BEHR001	Cleaning, beautification and maintenance of the pond	₹1,300,000	1	₹1,300,000	₹650,000	₹0	₹650,000
3	Soil Environment	Land reclamation of nearby area	Park Development in consideration with Municipal Corporation Gurgaon in Islampur Village	₹350,000	1	₹350,000	₹150,000	₹100,000	₹100,000
4	Waste Management	Organic Waste Converter	1 OWC installation of capacity 300 kg/day in consideration with Municipal Corporation Gurgaon	₹800,000	1	₹800,000	₹800,000	₹0	₹0
5	Noise Environment	Distribution of Personnel protection equipments to the health department for construction workers in nearby sites	500,000	-	-	₹500,000	₹250,000	₹250,000	₹0
		Awareness program for Noise in Jharsa & Islampur village	200,000	-	-	₹200,000	₹0	₹100,000	₹100,000
			TOTAL COST			**₹700,000**	**₹250,000**	**₹350,000**	**₹100,000**
6	Ecological Environment	Plantation in on CH Baktawar singh Road which is 32 m wide and Delhi - Jaipur Expressway which is 72 m wide in consultation with Municipal Corporation of Gurgaon	106 trees @ Rs. 2000/tree	₹2,000	106	₹212,000	₹70,667	₹70,667	₹70,667
		Development of sector 39 public park	In consideration with Municipal Corporation of Gurgaon.	-	-	₹300,000	₹300,000	₹0	₹0

			TOTAL COST			**₹512,000**	**₹370,667**	**₹70,667**	**₹70,667**
COST OF REMEDIATION						**₹5,232,000**	**₹3,404,000**	**₹714,000**	**₹1,114,000**

NATURAL RESOURCE & COMMUNITY RESOURCE AUGMENTATION PLAN & BUDGETARY PROVISION

S.No.	Component	Activity Proposed	Further Remarks	Rate	Quantity	Total Cost	Year I	Year II	Year III
1	Natural Augmentation	Providing Solar Lighting in the Islampur village	Solar Provision	₹105,000	4	₹420,000	₹140,000	₹140,000	₹140,000
			TOTAL COST			**₹420,000**	**₹140,000**	**₹140,000**	**₹140,000**
2	Community Welfare (Final score: 0.1) i.e. 5% of total damage	Infrastructure Development in Govt. Senior Secondary School, Jharsa village, sec-39 Gurgaon	Distribution of computers, books, digital tools etc.	₹362,000	1	₹362,000	₹120,667	₹120,667	₹120,667
TOTAL COST						**₹362,000**	**₹120,667**	**₹120,667**	**₹120,667**
COST OF NATURAL AUGMENTATION AND COMMUNITY						**₹782,000**	**₹260,667**	**₹260,667**	**₹260,667**

COST SUMMARY WITH YEAR WISE DISTRIBUTION

Total Cost Summary					
S.No.	**ITEM**	**Total Cost**	**Year I**	**Year II**	**Year III**
1	Cost on remediation plan based on damage assessment due to violation	**₹5,232,000**	**₹3,404,000**	**₹714,000**	**₹1,114,000**
2	Natural Resource	**₹420,000**	**₹140,000**	**₹140,000**	**₹140,000**
3	Community Resources Augmentation plan	**₹362,000**	**₹120,667**	**₹120,667**	**₹120,667**
TOTAL COST TO BE SPENT		**₹6,014,000**	**₹3,664,667**	**₹974,667**	**₹1,374,667**

Total Summarized Cost on Environmental Damage, Natural resource, community augmentation & Environment Management Plan:

S.No.	Particular	Cost in INR (lacs)	% of total project cost	Timeline
	Total Project Cost	6,013.4		
1	**Capital Cost on EMP**	**124.00**	2.06	Yearly
2	Recurring expenditure on EMP	**14.70**		-
3	Cost on Remediation of Environmental damages	52.32	0.87	In 3 years
4	Cost towards Natural Resource augmentation	4.20	0.07	In 3 years
5	Cost towards Community Resource augmentation	3.62	0.06	In 3 years
6	**Total Damage Cost Proposed**	**60.14**	1.00	
7	**1% penalty as per SOP 7th July 2021**	60.13	1.00	
8	0.25 % of Total Turnover	25.3512		
9	**Total Penalty as per SOP 7th July 2021**	**85.49**		
	Total cost	**145.63**		

Environment Management Cost

Capital Cost:

Sr No	Description	Already Spent Cost (Rs. in Lakhs)	Proposed Cost (Rs. in Lakhs)	Total Cost (Rs. in Lakhs)
1	Landscaping	10	-	10
2	Sewage Treatment Plant	40	-	40
3	DG Stack & Acoustic Treatment	15	-	15
4	Solid Waste Management	02	16	18
5	RWH	4	-	4
6	Solar	20	-	20
7	Miscellaneous	2	-	2
8	Social Activities	-	10	10
9	Wildlife activity Plan	-	5	5
	Total	**93**	**31**	**124**

Recurring Cost:

S No.	Description	Total Recurring Cost (Rs In Lakhs/ year)
1	Landscaping	3
2	Water Management	4
3	Air Management	1.2
4	Environment Monitoring	2
5	Solid Waste Management	2.5
6	Solar Power	0.5
7	Miscellaneous	1.5
	Total	**14.7**

It is submitted by PP that the order passed in project M/s G.P. Realtors Pvt. Ltd. by NGT is not related to their project in any way as the above mentioned case was an individual legal case decided by NGT on NBWL issue, so their project does not come within purview of said order. The PP also submitted that no Notification/Office Memorandums/Guidelines has been issued by MoEF&CC to follow directions issued in M/s G.P. Realtors Pvt. Ltd. It is further submitted by PP that they are agree to follow the scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The committee discussed on the given information and Cumulative Budget for Remediation, Natural & Community Resource Augmentation Plan submitted by PP. After detailed discussion, the committee found the information in order and decided to recommend the case to SEIAA to grant Environment Clearance (**under violation category**) as recommended vide 244th and 247thMoM of SEAC Meeting.

256.20 EC for the project "Auria"Group Housing Colony measuring land area of 11.925 Acres at Sector 88, Faridabad, Haryana by M/s RPS Infrastructure Ltd

Project Proponent : Sh. R.P. Niralas
Consultant : Perfact Enviro Solutions Pvt. Ltd.

The case was previously taken up in the 137th meeting of SEIAA held on 26.03.2022 and the Authority decided to carry out the spot inspection to get the current status of project by constituting a team comprising of Dr. Rajbir Singh Bondwal, IFS (Retd.) Member SEAC, Prof R. Baskar, FGS (Ind), (IGNOU), Member, SEIAA & Sh. Vinay Gautam (JD Tech., SEIAA) and concerned RO, HSPCB (who will assist members of SEIAA/SEAC) to be nominated by Member Secretary, HSPCB and the team will submit report at the earliest. Accordingly, the case was deferred till the receipt of the report. The site inspection report of sub-committee has been received and as per the report construction of 6 towers, commercial market, swimming pool, boundary works, foundation works, excavation works, brickworks, etc., in 818 days does not seem to be feasible and from the field evidences it was apparent that the work had been continuing even till date.

Thereafter, the case was again taken up in the 143rd meeting of SEIAA held on 14.07.2022 and observed that the validity of EC granted vide letter dated 04.05.2009 to the Project Proponent expired on 04.05.2016. Later, project proponent applied for fresh EC on 16.08.2021 after a gap of 5 years of the expiry of validity of earlier EC for (Plot Area 48250.89 sqm) at the same site.

In view of above, the Authority decided to refer the case back to SEAC forclarifications/comments on the points listed below:

1- Whether any construction was carried out between 2016 to 2021 (No EC Period) after expiry of EC dated 04.05.2016-till 2021).
2- Water calculation needs clarifications i.e. 616 KLD Vs 427 KLD.
3- Being a Group Housing project, the sewer connection is necessary for such a huge quantum of effluent likely to be generated project does not provide any detail regarding sewer connection and this aspect may be relooked by SEAC.
4- Expert committee may examine the report of Sub-Committee with special focus on the satellite images of the year 2016 and 2022 further examine the content of email received on 13.07.2022 at 11.34 pm.
5- SEAC needs to relook into the compliance of the conditions as stipulated in the earlier Environment Clearance granted on 04.05.2009.
6- Whether any Court proceedings relating to the Project are pending?

The case was taken up in 246th meeting of SEAC, Haryana held on 22.08.2022. The consultant appeared before the committee and submitted a letter dated 21.08.2022 vide which PP has requested to defer the case as the technical experts related to the project was not available on the date of meeting. The committee accepted the request of PP and meanwhile report of Sub Committee constituted by SEIAA be circulated to all Members and PP.

The case was taken up in 256th meeting held on 01.12.2022.The PP alongwith consultant appeared before the committee for presenting their case.

In this case, the sub-committee visited the site on dated 14.05.2022, the copy of the report was circulated to all members as well as to the PP/consultants for scrutiny and comments. Instead of that, the PP has made an application to Chairman, SEIAA. Copy of the same is circulated to

all the members as well as consultant for scrutiny and comments. The PP has submitted that when EC was expired on 03.05.2016 and not extended, some construction was done between 2016-2019. The PP has worked out the quantum of work done/construction during non compliance period of EC.

The consultant should also work out the quantum of work done/construction in non compliance period of EC based on satellite imaginary and sub-committee already visited the site**will also work out the quantum of work done/construction**.

The case is deferred and shall be taken up as and when comments of all the members as well as consultant are received.

256.21 EC for proposed Expansion of Plotted Colony on 23.2999 acres land under DDJAY Scheme at Village Behrampur & Ullawas, Sector-61, Gurugram, Haryana by M/s Commander Realtors Private Limited and others

Project Proponent : Sh. Satya Pal Singh
Consultant : Ind Tech House Consult

The project was submitted to the SEIAA, Haryana vide online proposal No. SIA/HR/NCP/57972/2020 on 07.06.2022 for obtaining Environmental Clearance under Category 8(b) of EIA Notification 14.09.2006. The Project Proponent has deposited Scrutiny fees of Rs.2,00,000/- vide DD No. 701380 dated 06.01.2022 (in compliance of Haryana Government, Environment & Climate Change Department Notification No. DE&CCH/3060 dated 14.10.2021) on the cost of the Project i.e. Rs. 466 Crore (as disclosed by the PP).

Earlier, the said case was listed/ taken up in 251st meeting of SEAC held on 10.10.2022 and SEAC recommended the Project to SEIAA for Grant of Expansion in existing EC (Environment Clearance) dated 11.05.2021.

The recommendations of SEAC were taken up in the 149th meeting of SEIAA held on 08.11.2022.

After having gone through the details & record placed on the file and upon considering the recommendations of SEAC, the Authority observed that RoW (Right of Way) in regard to the Revenue Rasta passing through the Project area is without NOC/ **RoW Permission** from the Competent Authority. The request of Project Proponent regarding laying of separate utility services across the Revenue Rasta can't be considered at this stage without having permission from the Competent Authority (as the ownership of the land of revenue rasta vest in Govt. Departments). Further, in view of the Govt. Notification No. 08/04/2021-ICI dated 01.06.2021 issued by Department of Urban Local Bodies, Haryana and subsequently Notification No. 391-ARIC-I-2021/6273 dated 25.11.2021 issued by Revenue & Disaster Management Department, Haryana; RoW is required to be obtained by the PP from the Competent Authority for use of the same in the Project.

Accordingly, the case is referred back to SEAC with the advice that in future, SEAC will bear reference and relevance of the Notifications mentioned above with regard to issue (revenue rasta) of RoW, invariably, in making recommendations to the Authority.

The case was taken up in 256th meeting held on 01.12.2022. PP alongwith consultant appeared before the committee and presented their case. PP submitted the reply of observations raised by SEIAA vide letter dated 25.11.2022 as below:

Sr.No.	Query	Reply
	The Authority observed that RoW (Right of Way) in regard to the Revenue Rasta passing through the Project area is without NOC/**RoW Permission** from the Competent Authority. The request of Project Proponent regarding laying of separate utility services across the Revenue Rasta can't be considered at this stage without having permission from the Competent Authority (as the ownership of the land of revenue rasta vest in Govt. Departments). Further, in view of the Govt. Notification No. 08/04/2021-ICI dated 01.06.2021 issued by Department of Urban Local Bodies, Haryana and subsequently Notification No. 391-ARIC-I-2021/6273 dated 25.11.2021 issued by Revenue & Disaster Management Department, Haryana; RoW is required to be obtained by the PP from the Competent Authority for use of the same in the Project	PP has applied ROW permission from competent authority on 15.11.2022. Copy of the receipt is attached herewith for your reference. We will submit ROW permission in your esteemed office in next six monthly compliance report.

The committee discussed the reply in detail. The PP has submitted a copy of letter dated 15.11.2022 vide which they have requested to competent authority for granting permission of construction of 10 mt. wide culverts along with services A & B (2 Nos.) crossing through the MCG land and 10 mtrs wide culverts alognwith services C & D (2 Nos.) and 10 mtrs. wide culverts alongwith services F (1 No.) crossing through the MCG land and services E (1 no.) crossing over the revenue rasa falling in Sector 61 in the revenue estate of Village Ullawas, Tehsil Sohna, District Gurgram.

After detailed deliberation, the committee found the reply of PP in order and reiterated the previous recommendation conveyed to SEIAA vide MoM of 244th alongwith additional recommendations conveyed vide 247th and 251st SEAC meeting for granting EC (Environment Clearance) to the project.

256.22 EC for Expansion of Residential plotted colony at Village Kabri, Faridpur, Ratipur and Mehmadpur, Sector 36-39, Panipat, Haryana by M/s TDI Infratech Limited

Project Proponent : Sh. Subulle Saxena
Consultant : Perfact Enviro Solutions Pvt. Ltd.

The project was submitted to the SEIAA, Haryana vide online proposal No. SIA/HR/MIS/80813/2021 dated 16.07.2021 for obtaining Environmental Clearance under Category 8(b) of EIA Notification 14.09.2006. The Project Proponent has deposited Scrutiny fees of Rs.2,00,000/- bearing No. 980763 dated 27.05.2022 (in compliance of Haryana Government, Environment & Climate

Change Department Notification No. DE&CCH/3060 dated 14.10.2021) on the cost of the Project i.e. Rs. 152.00 Crore (as disclosed by the PP).

The brief of the case are as under:

- The project has already been granted the Environmental Clearance vide letter no. 21-577/2007-IA.III for a plot area of 16,10,646.30 m2 (398 Acres) on 07/01/2008 by MoEF&CC. However, for an existing land area of 896123.39 m2 (221.446 Acre) development work of infrastructure facilities have already been done on licence no. 63-87 and 89-105 of 2006 dated 11-02-2007 & obtained part completion certificate for an area 221.446 acres dated 10.02.2014.
- The proposed Residential Plotted Colony will be developed by M/s TDI Infratech Limited (earlier known as M/s Taneja Developers & Infrastructure Ltd.) which is a Limited Company duly incorporated under the Companies Act 1956, & is involved in Real estate activities with own or leased property. Now, the name has changed from M/s Taneja Developers & Infrastructure Ltd. to M/s TDI Infratech limited vide letter No. 55-102277
- The project was granted Terms of Reference from SEIAA (Haryana) vide letter no. SEIAA(129)/HR/2021/971 dated 26.10.2021
- The Certified Compliance Report was issued by MOEF on 04.07.2022 and Action Taken Report for the query letter was submitted on 05.07.2022.
- The case was enlisted in 246th SEAC Haryana meeting held on 23.08.2022 in which case was recommended to SEIAA.
- Thereafter the case was enlisted in 145th SEIAA Haryana Meeting held on 09.09.2022 in which case was referred back to the SEAC.
- The said case was listed in 251st meeting of SEAC held on 10.10.2022 and SEAC recommended the Project to SEIAA for Grant of Revision and Expansion in existing EC (Environment Clearance).
- The recommendations of SEAC were taken up in the 149th meeting of SEIAA held on 08.11.2022.
- After having gone through the details & record placed on the file and upon considering the recommendations of SEAC, the Authority gathered that the PP has reduced total plot area from the existing plot area i.e. 16,10,646.30 sqm to 11,80,696.387 sqm (- 4,29,949.913 sqm); whereas not clear cut status/details have been provided for reducing the same. Further, it is also observed that the status of the Licenses been granted in favour of Project Proponent by DTCP is also not clear (with regard to its validity); whereas, the PP has merely submitted applied copy for renewal of Licenses.
- The Authority deemed it appropriate that without clear cut status on the aforesaid issues, it is not possible to proceed further in the matter, hence, this case was referred back to the Appraisal Committee to re-look into all the aspects including Certified Compliance Report (CCR).

The case was taken up in 256th meeting held on 01.12.2022. The PP as well as consultant appeared before the committee and presented their case and further submitted reply of as under. The project was considered in the 256th SEAC meeting on 01.12.2022 and the reply submitted by PP was discussed in detail. The points discussed are mentioned below:

1. **The land area details and reason for deduction in total land area was discussed and the PP submitted the following details w.r.t. the land area deduction.**

The reduction in area is due to the license available/granted by DTCP Haryana to the Company.

S. No	License no.	Area (acres)	Remarks if any
1	EC granted on 398 Acres	398.0	In January 2008, based on concept planning Environmental clearance was granted by MOEF. **(as layout plan was not approved at the time, although we were holding the possession of land as per the proposal of EC).**
2	License no- 63-87 & 89-105 of 2007 dated 11.02.2007	221.446	Completion received vide Memo no LC-805-JE(BR)-2014/3114 dated 10.02.2014
3	License no-121 of 2012 dated 13.12.2012	27.918	Earlier with this area (221.446 + 27.918 = 249.364 acre) PP applied for Expansion
4	License no-05 of 2017 dated 07.02.2017	42.415	Now, the proposed project is for Expansion of area (249.364+42.415 = 291.77 acres)
	Total area in acres	**291.77**	

2. The status and validity of license granted to the project was discussed in detail and the details are mentioned below:

EC was granted to the project for 398 Acres on Concept planning (as layout plan was not approved at the time, although we were holding the possession of land as per the proposal of EC) on 07.01.2008 by MoEF&CC.

- The license no. 63-87 and 89-105 of 2007 dated 11.02.2007 for 221.44 Acres has been obtained and Part Completion Certificate has also been obtained vide Memo No. LC-805-JE-(BR)-2014/3114 dated 10.02.2014. License no-121 of 2012 dated 13.12.2012 for 27.918 acres and License no-05 of 2017 dated 07.02.2017 for 42.415 acres was granted.

S.No.	License No.	Dated	Land area granted in License (Acres)	Total area under license (Acres)
A. Details of status of License under part Completion				
i	63 of 2007	11.02.2007	6.494	**221.45**
ii	64 of 2007	11.02.2007	5.031	
iii	65 of 2007	11.02.2007	6.475	
iv	66 of 2007	11.02.2007	2.243	
v	67 of 2007	11.02.2007	0.838	
vi	68 of 2007	11.02.2007	2.00	
vii	69 of 2007	11.02.2007	1.737	
viii	70 of 2007	11.02.2007	3.75	
ix	71 of 2007	11.02.2007	1.888	
x	72 of 2007	11.02.2007	1.4	
xi	73 of 2007	11.02.2007	1.00	
xii	74 of 2007	11.02.2007	4.937	
xiii	75 of 2007	11.02.2007	2.694	
xiv	76 of 2007	11.02.2007	2.056	

xv	77 of 2007	11.02.2007	1.475	
xvi	78 of 2007	11.02.2007	2.206	
xvii	79 of 2007	11.02.2007	0.537	
xviii	80 of 2007	11.02.2007	3.9	
xix	81 of 2007	11.02.2007	1.606	
xx	82 of 2007	11.02.2007	0.543	
xxi	83 of 2007	11.02.2007	0.54	
xxii	84 of 2007	11.02.2007	4.512	
xxiii	85 of 2007	11.02.2007	5.562	
xxiv	86 of 2007	11.02.2007	5.325	
xxv	87 of 2007	11.02.2007	3.388	
xxvi	89 of 2007	11.02.2007	5.494	
xxvii	90 of 2007	11.02.2007	10.212	
xxviii	91 of 2007	11.02.2007	16.375	
xxix	92 of 2007	11.02.2007	5.05	
xxx	93 of 2007	11.02.2007	2.169	
xxxi	94 of 2007	11.02.2007	1.919	
xxxii	95 of 2007	11.02.2007	4.388	
xxxiii	96 of 2007	11.02.2007	6.356	
xxxiv	97 of 2007	11.02.2007	8.588	
xxxv	98 of 2007	11.02.2007	30.494	
xxxvi	99 of 2007	11.02.2007	2.975	
xxxvii	100 of 2007	11.02.2007	2.306	
xxxviii	101 of 2007	11.02.2007	20.106	
xxxix	102 of 2007	11.02.2007	15.925	
xxxx	103 of 2007	11.02.2007	4.181	
xxxxi	104 of 2007	11.02.2007	1.831	
xxxxii	105 of 2007	11.02.2007	10.94	
B. Details of status of License for which development work is still under process				
i	121 of 2012	13.12.2012	27.918	**27.918**
ii	05 of 2017	07.02.2017	42.4125	**42.4125**
	Total Area	**A+B**	**221.45+27.918+42.4125**	**291.77 Acres**

The license no. 63-87 and 89-105 of 2007 dated 11.02.2007 for 221.44 Acres- Completion has been obtained. Hence renewal for the same is not required.

- The Renewal for License no-121 of 2012 dated 13.12.2012 for 27.918 acres has been applied on 31.11.2022 and fees have also been submitted. Renewal for License no-05 of 2017 dated 07.02.2017 for 42.415 acres has been already applied dated on 30.05.2022 and fees have been submitted.

3. The Non Complied point and Action Taken Report w.r.t. the Certified Compliance Report were discussed and the details are given below:

a) The status of NOC for drawl of groundwater from HWRA was discussed and PP submitted that they have NOC from Central Ground Water Authority dated 17.10.2016 for 9 tubewells. Now after the formation of The Haryana Water Resources (Conservation, Regulation and Management) Authority(HWRA), we have applied for renewal of ground Water permission from HWRA vide application No. HWRA/INF/N/2022/237 dated 24.06.2022**.**
b) The soil quality of test results were submitted by PP and Further, the particulate Matter PM10 concentration is higher due to high background concentration of particulate matter at the project location and also Faridpur road is passing adjacent to our project location due to which heavy vehicular movement is also going on.
c) No Construction work has been going at site by project proponent. Construction activity is being undertaken by individual plot owners for which every individual has to take their own PUC.
d) An agreement for collection of garbage/Solid waste has been done with M/s Mohit Contractors. The same has been submitted by PP. The Hazardous waste, i.e. Used Oil generated from the DG sets will be given to authorized recycler. Agreement for Used Oil has been done with M/s Pal Automobile.
e) The PP also conveyed that they are regularly submitting a six-monthly compliance report and they will continue to do the same in future.
f) Discussion was also done on STP and adequacy report, the PP conveyed that At present a module of 550 KLD STP has been installed out of 4200 KLD. Adequacy report of STP will be done, once STP of full capacity will be installed and the same shall be submitted with compliance report. The STP outlet test report was submitted by PP and the same was found in order.
g) Total no. of 115 No. of pits are proposed at the said project, out of which 85 pits are already constructed and 30 pits are yet to be installed. Fund earmarked for RWH pit maintenance is Rs. 14.2 lakhs/year.
h) Environmental Clearance was granted via EC letter No. 21-577/2007-IA-III dated 07.01.2008. For area development projects (township) the validity of EC is till development activities (like road, sewer, electricity) which was valid upto 07.01.2018 and We have applied for EC extension cum expansion on 10.05.2017 due to Additional license has been granted in addition to the area granted in EC. We are in the process of getting the Environmental Clearance for expansion of the project. TOR for expansion of EC has been granted vide letter no. SEIAA(129)/HR/2021/971 dated 26.10.2021. Consent to operate will be obtained after EC is obtained. The earlier EC was granted in the year of 2008. The newspaper advertisements of EC of the earlier EC are not traceable. The Newspaper Advertisement will be done once the new EC will be granted to us.

A detailed discussion was held on the point wise reply and information submitted by the PP. After due deliberation, the committee was of the unanimous view that the project shall be sent to SEIAA for granting EC to the project and further reiterated the recommendations conveyed to SEIAA vide MoM of 246th meeting of SEAC.

256.23 EC for Expansion of Proposed Group Housing Project at Sector 36A, Gurgaon, Manesar Urban Complex, Haryana by M/s Krisumi Corporation Private Limited

Project Proponent : Lipika Jain
Consultant : Ind Tech House Consult

The Project was submitted to the SEIAA, Haryana vide online Proposal No. SIA/HR/INFRA2/402959/2022 dated 12.10.2022 for obtaining Environmental Clearance under Category 8(b) of EIA Notification 14.09.2006. The Project Proponent has deposited Scrutiny fees of

Rs.2,00,000/- vide DD No. 907042 dated 26.05.2022(in compliance of Haryana Government, Environment & Climate Change Department Notification No. DE&CCH/3060 dated 14.10.2021) on the cost of the Project i.e. Rs. 275.24 Crore (as disclosed by the PP).

The said case was taken up in 253rd meeting of SEAC held on 21.10.2022 and SEAC recommended the Project to SEIAA for Grant of Expansion in existing EC (Environment Clearance) dated 30.01.2018.

The recommendations of SEAC were taken up in the 149th meeting of SEIAA held on 08.11.2022.

After having gone through the details & record placed on the file and upon considering the recommendations of SEAC, the Authority decided to refer back this case to Appraisal Committee with the following observations:

1. Status of Sewerage Permission from the Competent Authority
2. Status of Storm drainage Permission from the Competent Authority
3. Clarity with regard to **Height** of building before the Expansion and post Expansion Proposal at Page No. 9 (Column No. 7).
4. Appraisal Committee's Comments on the RO's report and Action Taken Report by the PP.

The case was taken up in 256th meeting held on 01.12.2022

PP along with consultant appeared before the committee and presented their case. The PP submitted the reply dated 18.11.2022 to the observations raised by SEIAA as following:

S. No.	Observations	Reply
1	Status of Sewerage Permission from the Competent Authority.	Sewer assurance has been obtained vide letter no. GMDA/SEW/2022/1282 dated 16/11/2022. Copy of the same is attached as **Annexure 1.**
2	Status of Storm drainage Permission from the Competent Authority.	In operation phase entire rain water runoff from the project will be recharged through RWH pits. The project has considered 90 mm peak hour rain fall and storage volume for 20 minutes. However as per direction of SEIAA, Haryana, Storm water drainage permission from GMDAhas been obtained vide memo no. GMDA/Drainage/2022/782 dated 16/11/2022. Copy of the same is attached as **Annexure2.**
3	Clarity with regard to **Height** of building before the Expansion and post Expansion Proposal at Page No. 9 (Column No. 7).	In phase 1 maximum height of the tallest tower is 119.1m with G+34 which is same as per previous EC granted. In phase 2 the maximum height of the proposed tallest tower would be 117.45m with G+35, as the height has been decreased in comparison with phase I tower due to decrease in floor wise height although height of each floor is within the norms of Haryana building bye laws. However we have NOC from AAI vide NOC ID no.PALM/NORTH/B/032017/202234 dated 22/03/2017 for 121.8 m. AAI NOC and section of tallest tower in phase 1 and phase 2 are attached as **Annexure 3** and **Annexure 4**
4	Appraisal Committee's Comments on the RO's report and Action Taken Report by the PP.	Copy of certified compliance report has been submitted by the PP and the observations has also been complied with by the PP vide letter dated 23.07.2022 alongwith documents and affidavit with seems to be in order.

The committee discussed the reply in detail and after deliberation, the committee decided to recommend the case to SEIAA and reiterated the previous recommendation conveyed to SEIAA vide MoM of 253rd SEAC meeting for granting EC (Environment Clearance) to the project.

256.24 Addendum to Environment Impact Assessment Report for Modification and Expansion of Group Housing Project "Atharva at Sector 109, Village Pawala Khusrupur, Gurugram,Haryana by M/s Raheja Developers Limited

Project Proponent : Not present
Consultant : Ind Tech House Consult

The case was taken up for appraisal in the 170th meeting of the SEAC held on 07.06.2018 for approval of Terms of Reference under violation Notification dated 14.03.2017 and 08.03.2018 respectively.

The Term of References were approved by SEIAA in its 115th Meeting, conveyed vide letter dated 07.08.2018. The Project Proponent submitted the EIA Report on 04.04.2019 and the case was taken up in 180th meeting in SEAC and PP presented his project but unable to produce any evidence about the prosecution launched by any competent authority as recommended by the SEAC in its earlier 170th meeting.

Thereafter, the SEAC decided that the PP shall produce the evidence of prosecution launched by the competent authority before appraisal and file was sent back to SEIAA for taking the action as per the minutes of 170th meeting.

Thereafter, the case was taken up in 118th meeting of SEIAA, Haryana held on 12.06.2019 and Public consultation was exempted.

Thereafter, the case was taken up in 202nd meeting of the SEAC held on 30.08.2020 and recommended to SEIAA for grant of EC under Violation Category with an amount of Rs.26,70,400/- towards Remediation plan and Natural and Community Resource Augmentation plan to be spend within a span of three years.

The recommendation of SEAC was considered in 125th meeting of SEIAA held on 07.10.2020 and It was observed that the budgetary amount of Rs.26,70,400/- seems to be very less & certain activities mentioned under the Plan is on the periphery or inside the project which is not allowed as per guidelines. PP is under statutory obligation to provide the Budget of Augmentation and Remediation Plan outside area of Project to preserve Environment. The Budget for the Remediation Plan & Resource Augmentation Plan of the Project is to be as per the guidelines of "CPCB" given in this regard.

Further, the project proponent should submit a bank guarantee equivalent to the amount of remediation plan and Natural and Community Resource Augmentation Plan with the State Pollution Control Board and the quantification finalized by Regulatory Authority and the bank guarantee shall be deposited prior to the grant of environmental clearance and will be released after successful implementation of the remediation plan and Natural and Community Resource

Augmentation Plan, and after the recommendation by regional office of the Ministry, State Expert Appraisal Committee and approval of the Authority.

After detailed discussions; the Authority decided to approve in principle on the submission of Re-calculated Budget for the "Remediation Plan, Natural & Community Resource Augmentation Plan.

The Case was again taken up in the 129th meeting of SEIAA held on 12.10.2021; the Authority decided to issue a Show-Cause Notice to the PP to submit bank guarantee within next 15 days failing which action under the various provisions of Environment (Protection) Act, 1986 would be taken.

The matter was again considered in the 135th meeting of SEIAA held on 25.01.2022 and the Authority observed that PP has not submitted the reply to "Show cause notice" nor submitted any bank-guarantee.

After detailed deliberations; the Authority decided to send the case to SEAC to recalculate the "Damage Assessment" & "Penalty" as per the provisions of SOP dated 07.07.2021 issued by MoEF& CC in regard to violation cases.

The case was taken up in 235th meeting, the PP requested vide letter dated 28.03.2022 for deferment which is considered and acceded by SEAC after discussion.

Now, the case was again taken up in 242nd Meeting of SEAC held on 24.06.2022. The reply of the Show Cause notice still not submitted by the PP nor submitted any Bank Guarantee. Further, neither PP nor consultant has appeared before the Committee and it has been decided that the case be deferred for submission of reply by PP and be taken up in next meeting.

The case taken up in 251st meeting of SEAC, Haryana held on 11.10.2022. During scrutiny of documents, it was observed that the prescribed scrutiny fee has not been deposited by the PP in this case. During the meeting, consultant appeared before the committee but PP has not attended. The committee after deliberation decided to send the case to SEIAA for directing project proponent to deposit prescribed scrutiny fees and reply of the Show Cause Notice issued by the SEIAA for submission of Bank Guarantee.

The recommendations of SEAC were taken up in the 149th meeting of SEIAA held on 08.11.2022.

The Authority after examination relevant record and due deliberations; observed that the **PP has not submitted required Scrutiny fee** in compliance of Haryana Government, Environment & Climate Change Department Notification No. DE&CCH/3060 dated 14.10.2021, besides this, PP has also not complied with the directions made in regard to submission of Bank Guarantee in the earlier sequence of proceedings in this case. The Authority unanimously feels that PP has not only shown scant concern, but utter defiance to the ongoing proceedings, despite adequate opportunity in this case. Therefore, the Authority decided to refer this case back to calculate the violations and damage caused to Environment by working out the remedial compensation and penalties within norms & scope of SoPs dated 07.07.2021 in the manner and methodology as employed in the case of M/s G.P.

Realtors Pvt. Ltd in OA No. 976 of 2019, besides other relevant action as may be applicable and due in this case.

The case was taken up in 256th meeting held on 01.12.2022. PP has not come present before the committee. The committee took it seriously and directed PP through their consultant to submit the reply of observations raised by SEIAA in 149th meeting. The PP shall also submit **scrutiny fee** as prescribed in Haryana Government, Environment & Climate Change Department Notification No. DE&CCH/3060 dated 14.10.2021. The PP is directed to submit reply within 15 days, thereafter, the case shall be taken as and when reply of PP is received.

256.25 Extension of EC validity for Mining of Boulder, Gravel and Sand Minor Mineral at Mandewala Block/ YNR B-38" Village Mandewala, Tehsil Chhachhrauli, District Yamunanagar, Haryana over an area 15.00 Ha with total production capacity of 2,40,000 TPA by M/s Saharanpur Mines Management Services Pvt. Ltd.

Project Proponent : Sh. Veer Bhan
Consultant : Vardan EnviroNet

The Project Proponent submitted the case to the SEIAA vide online Proposal No. SIA/HR/MIS/217849/2021 on 16.08.2021 for obtaining Extension in EC under category 1(a) EIA Notification dated14.09.2006.

The case was considered in 222nd meeting of SEAC held on 12.10.2021 and it was intimated in the meeting that a complaint regarding the project has been received in the office with the copy marked to the ACS Environment & Climate Change Department and copy endorsed to Chairman HSPCB, Chairman SEIAA, Member Secretary SEIAA, and Chairman SEAC. The complaint was discussed in the Committee wherein issues raised that mining is not being carried out as per approved mining plan and Hydal Channel Tazewal is approximately 150 meters and regarding replenishment study.

After discussion on the complaint, it was decided that the case along with complaint dated 04.10.2021 be sent back to SEIAA to seek the comments from DG Mining, Irrigation and concerned departments.

The recommendation of SEAC was considered in the 130th Meeting of SEIAA held on 15.11.2021 and the Authority decided to seek the comments from DG Mining, Irrigation, Forest and concerned Departments.

The case was taken up in the 137th meeting of SEIAA held on 26.03.2022 after due deliberations, Authority decided to issue reminder letters to the concerned departments and further, Authority decided to refer back this case to SEAC for recommendations based on the comments received from concerned departments.

The case was taken up in 243rd meeting of SEAC but was deferred on request of PP.

Thereafter, the case was taken up in 245th meeting of SEAC, Haryana held on 25.07.2022. The PP and Consultant appeared before the committee but requested vide letter dated

22.07.2022 to defer the case on the ground that status report in the case, as sought by the SEIAA in its 137th meeting not received and request to take up the case after receipt of the status report.

The case taken up in 251stmeeting of SEAC, Haryana held on 11.10.2022. During scrutiny of documents, it was observed that the prescribed scrutiny fee has not been deposited by the PP in this case. The consultant requested through email vide letter dated 08.10.2022 to defer the case due to some unavoidable circumstances. The committee after deliberation decided to send the case to SEIAA for directing project proponent to deposit prescribed scrutiny fees.

The recommendations of SEAC were taken up in the 149th meeting of SEIAA held on 08.11.2022.

The Authority after due deliberations; gathered that the Project Proponent **has submitted required Scrutiny fee** of Rs 1,50,000/- vide DD No. 000542 dated 27.10.2022.

Therefore, the Authority decided to refer back this case to the SEAC for further appraisal on the relevant issues involved in this case.

The case was taken up in 256th meeting held on 01.12.2022. PP alongwith consultant appeared before the committee and presented the case and provided followings information about the project during the presentation:

- The scrutiny fee deposited by PP vide DD no.000542 dated 27.10.2022 amounting to Rs.1,50,000/-.
- The mining lease has been granted by Director, Mines and Geology Department, Chandigarh, Haryana, Memo No. DMG/Hy /Cont/MandewalaBlock/YNR B 38/2015/3937 dated 19.06.2015.
- Environment Clearance for the project has been granted by SEIAA Haryana videletter no SEIAA/HR/2016/500 dated 27.06.2016for mining of boulder, gravel & sand.
- District Survey report of Yamuna Nagar District was prepared and approved byDC Yamuna nagar on 10.08.2017. Our case of "MandewalaYNR B-38" withproduction capacity of 22.80MTPA has been mentioned at point no. 7, page no.28of DSR Report.
- Mining Plan along with the Progressive Mine Closure Plan is approvedbythe DMG Haryana on dated 10.03.2016 vide letter No.DMG/HY/YNR-38/2015/1533, with production capacity of 2,40,000Tons/Annum and as per the DMG letter issued vide memo no.DMG/HY/Mplan/Mandewala Block/YNR B-38/2015/7097 dated 30.11.2022,mining plan is valid till 18.06.2024.
- Addition of minor mineral not applicable as LOI already has been granted forboulder, gravel & sand.
- Replenishment study is not applicable as it non-riverbed mining.
- Report on Status of EC Compliance not applicable as mine activity is not startedyet.
- Complaint regarding the project was filed on 04.10.2021 and outcome of the complaint is submitted.
- A case in NGT is pending vide case no OA 306/2022 dated 30.05.2022 regardingthe "high water level at project site" and next hearing is scheduled on 01.12.2022.

A detailed discussion was held on the documents, affidavit regarding status of court case as well as details submitted by the PP and after discussion, the committee found the details given as well as documents submitted by the PP, in order and decided to recommend the case to SEIAA for granting extension in EC issued to PP till the validity of mining plan i. e. 18.06.2024 for mining of Boulder, Gravel and Sand Minor Mineral at Mandewala Block/ YNR B-38" Village Mandewala, Tehsil Chhachhrauli, District Yamunanagar, Haryana over an area 15.00 Ha with total production capacity of 2,40,000 TPA by M/s Saharanpur Mines Management Services Pvt. Ltd.

256.26 Approval of District Survey Report (Musnota Mines) for EC of Proposed Mine ML Area 79.32 ha at Satish Kumar Garg and company Village Musnota.

Project Proponent : Not present
Consultant : Not present

The file was received offline from SEIAA for approval of District Survey Report. The file was taken up in 256th meeting held on 01.12.2022 and discussed. The file be sent separately to SEIAA with comments of the Committee.

256.27 Corrigendum in EC of Proposed Residential Plotted Colony over an area measuring of 34.229 Acres in village Bhagwanpur, Sector-3, Pinjore Kalka Urban Complex, Panchkula, Haryana by M/s DLF Homes Panchkula Pvt. Ltd.

Project Proponent : Sh.R. C. Bakshi
Consultant : Vardan Environet

The Project Proponent submitted the case to SEIAA vide online Proposal SIA/HR/MIS/293395/2022 dated 31.10.2022 for obtaining Corrigendum in Environmental Clearance under category 8(b) of EIA Notification dated 14.09.2006. The PP submitted the scrutiny fee vide DD No. 520619 dated 19.4.2022 of Rs.2,00,000/-

The case was taken up in 256th meeting held on 30.11.2022. The PP alongwith consultant appeared before the committee and presented their case. During presentation PP submitted the chronology of the project as following:

- We have applied for Terms of Reference (ToR) though proposal no.SIA/HR/MIS/77517/2022 on dated 31.05.2022 for the Proposed Residential Plotted Colony over land measuring **34.229 acres** in the Revenue Estate of Village Bhagwanpur, Sector3, Pinjore Kalka Urban Complex, District Panchkula, Haryana by M/sDLF Homes Panchkula Pvt. Ltd. 31.05.2022 **(Attached as Annexure– I)** In the acknowledgement of TOR application, the area mentioned for the project is **34.229 acres.**
- ToR has been granted by SEIAA, Haryana vide Memo no: SEIAA/HR/2022/194 on dated 06.06.2022 area is mentioned in **34.229 acres** 06.06.2022 **(Attached as Annexure– II)**
- Accordingly, we have submitted EIA and, area mentioned in the acknowledgement vide application no. SIA/HR/MIS/77517/2022 dated 09.07.2022 is **34.229 acres** 09.07.2022 **(Attached as Annexure– III)**

- EIA report and presentation circulated during appraisalofthe project held on 06.09.2022. We have mentioned area as **34.229 acres.** 06.09.2022 **(Attached as Annexure– IV)**
- In the 248th MoM of SEACdated 06.09.2022 area mentioned is **34.229 acres** 06.09.2022 **(Attached as Annexure– V)**
- But, as per granted EC letter vide letter no. EC-22-B-039-HR-139137 dated 19.09.202 at page no.1, S.No.6 in Name of project it is mentioned that "Proposed Residential Plotted Colony" over an area measuring **34.0104 acres** in the revenue estate of Village-Bhagwanpur, Sector-3, Pinjore Kalka Urban Complex, District Panchkula Haryana is being developed by M/s DLF Homes Panchkula Pvt. Ltd." and in the same EC letter at page no.2, Area of **34.229Acres** is mentioned19.09.2022 **(Attached as Annexure– VI)**

A detailed discussion was held on the submission as well as information provided by PP during the presentation. The EC letter no. EC-22-B-039-HR-139137 dated 19.09.202 has also been discussed. At page no.1, S.No.6 in Name of project it is mentioned that "Proposed Residential Plotted Colony" over an area measuring **34.0104 acres** in the revenue estate of Village-Bhagwanpur, Sector-3, Pinjore Kalka Urban Complex, District Panchkula Haryana is being developed by M/s DLF Homes Panchkula Pvt. Ltd." However, at page no.2 of EC in the title of the project, area of **34.229 Acres** is mentioned. In the table of details at Sr. No.4 the plot area is mentioned as 1,38,519.8 m^2 /34.229 Acres. The PP also relied upon the copy of zoning plan dated 04.07.2022 wherein also the plot area is mentioned as 34.229 acres. Thus, the committee found the documents produced by PP in their contention, in order and after due deliberation, the committee decided to recommend the case to SEIAA for issuing **Corrigendum in EC of Proposed Residential Plotted Colony over an area measuring of 34.229 Acres.**

256.28 EC for Commercial Colony Project Revenue Estate of Village Anaugpur, Sector 27D, District Faridabad, Haryana by M/s Kajaria Ceramics Limited

Project Proponent : Rajesh Sethi
Consultant : Vardan Environet

The Project Proponent submitted the case to SEIAA vide online Proposal SIA/HR/INFRA2 /403099/2022 dated 15.10.2022 for obtaining Environmental Clearance under 8(a)category (B) of EIA Notification dated 14.09.2006. The PP submitted the scrutiny fee vide DD No.836918 dated 22.09.2022 of Rs.2,00,000 /-

The case was taken up in 256th meeting held on 30.11.2022. The PP and consultant presented the case before the committee. The brief of the project as submitted by the PP during presentation is as under:

- The total plot area of the project is 11,761.16 sqm (2.90625 acres) having built-up 21,672.57sqm. The net plot area of the project is 10,366.21 m^2 since an area of 1,394.95 m^2 from the total plot will be a part of 30 m wide green belt.
- The Land License has been issued by DTCP, Haryana for an area measuring 2.90625 acres in favour of M/s Kajaria Ceramics Ltd. vide License no. 1 of 2022 dated 06.01.2022
- The development of a corporate office is proposed and project consists of two Blocks; Block 1 and Block 2 interconnected with each other via bridge and will achieve built-up area of

21,672.57sq.m.

- A factory was present at the said land parcel under the ownership of M/s Super Seals India Limited. A dilapidated structure with built-up area of approx. 6,038.70 sq. m existed at the site which was demolished by the seller before the grant of land license.
- At present, the site consists of a temporary site office (Portable cabin) and old structures of the previous factory that is unoccupied labour hutments.
- The previous electrical connection of the factory as obtained from DHBVN is transferred to M/s Kajaria Ceramics Ltd.
- Asola Bhati Wildlife Sanctuary and Okhla Bird Sanctuary lie at about 3.5 Km (WWN) and 6.8 Km (NNE) distance respectively. A budget under wildlife protection has been allocated for each of the Sanctuaries.

The discussion was held on the rainwater harvesting pits, wildlife protection activities, energy savings, water requirement, EMP, approvals and others. After detailed deliberations, the committee raised following observations:

1. PP shall submit the status of all the statutory NOC's and approvals of the project as obtained from the concerned departments and authorities.
2. PP shall increase the number of RWH pits considering 1 pit per acre of plot area.
3. PP shall submit revised storm water plan.
4. PP shall propose an area of about 500 sqm for development of Miyawaki plantation at project site within the proposed green area of project (area of 2073.24 sq. m that is 20 % of net plot area).
5. PP shall meet 87 KW i.e. 5% of total power requirement through solar power. Also, PP will achieve 20% of energy saving through the ECBC compliance.
6. PP shall submit the revised tangible wildlife protection plan.
7. PP shall submit Forest NoC from competent authority.
8. PP shall achieve zero liquid discharge during summer season while in rainy and winter season excess treated water will be discharged in the sewerage line after taking the necessary approvals; assurance for the same has been obtained from the competent authority and is submitted to SEAC/SEIAA, Haryana.

The PP shall submit reply to the above mentioned observations within 15 days. The case is deferred and shall be taken up as and when reply to the above mentioned observations is received.

256.29 EC for Project 1197 acres "Township Development Project" at village Banmola, Ladpur, Munimpur, Nimana, Pelpa and Sondhi, District Jhajjar, Haryana by M/s Model Economic Township Limited Formerly Known as Reliance Haryana Sez Limited

Project Proponent : Sh. Preeti Saxena
Consultant : EQMS India Pvt. Ltd.

The project was submitted to the SEIAA, Haryana vide online application/proposal no. **SIA/HR/MIS/76470/2022** dated 03.05.2022 for seeking ToR under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is covered under Category 8(b) of the schedule of EIA Notification, 2006. The scrutiny fee has been deposited vide DD No. 840112 of Rs.2,00,000/- dated 11.05.2022 at the time of filing application for approval of ToR. The ToR granted by SEIAA, Haryana vide letter dated 24.05.2022.

Now, the EIA report has been submitted for granting Environment Clearance (EC) to the project vide online application/proposal no. **SIA/HR/MIS/81379/2022** dated 10.08.2022

The case was taken up in 248th meeting of SEAC held on 06.09.2022. The PP along with consultant appeared before the Committee and presented the case.

The PP has submitted copy of valid license dated 10.08.2022 issued by Director, Town and Country Planning Department, Haryana for 92.54375 acres out of total area of 1197 acres. The PP has stated that they have not applied for licence of the balance area to the Director, Town and Country Planning Department, Haryana, therefore, PP will submit revised documents and revised Form-1, Form 1A for license area 92.54375 acres for which ADS be generated.

The committee discussed at length the documents submitted by PP. In addition to this, following observations were also conveyed:-

1. That separate environmental clearance shall be obtained by individual plot owner if built up area of any plotting development exceeded above 20,000 sqms within the project site facility
2. That, individual industries or other development area will take prior CTE/CTO from SPCB, wherever applicable.
3. That PP shall give an affidavit to the effect that ETP/STP water shall not be discharged in to drain no. 8.
4. That PP shall install modular STPs/ETPs till tertiary level to achieve norms of HSPCB/MoEF&CC/CPCB.
5. That individual industry shall discharge their effluent within the prescribed inlet limit of METL.
6. That PP shall plant hydrophilic trees/shrubs/plants in the area as water level is high at the project site.
7. The PP shall submit breakup/detail of green area and time line
8. That PP shall provide 15% of organized green as per Miyawaki method in consultation with competent authority.
9. That PP shall install MBBR/tertiary treatment for STPs/ETPs.
10. That PP shall obtain NOC from AAI
11. That PP shall separate the ETP and STP.
12. The PP shall enhance solar power capacity upto 3% of total power demand.
13. That PP shall submit tangible EMP and also define the activities with names of related department.
14. That PP shall submit time line of the completion of construction of RWH, ETP and STP

The case was deferred on request of PP and ADS was also generated in the present case to enable PP to submit revised Form I and Form IA etc. through PARIVESH portal. ADS was generated which was closed by PP after submitting revised details in Form I, Form IA etc. through PARIVESH portal. PP also submitted the reply of above mentioned observations alongwith an Affidavit mentioning therein:

1. That, if area of any plotting development exceeded above 20,000 sqm, separate environment clearance shall be obtained by individual plot owner.
2. That, we shall plant hydrophilic trees/shrubs/plants in the area, as feasible to the project
3. That, if any individual industry is not meeting inlet parameter of modular ETPs/STPs defined by METL, then individual industry will install appropriate treatment schemes.
4. That, we shall discharge STPs/ETPs treated water or rainwater to drain no.8 only after getting prior approval from concern authorities.
5. That, they shall do Miyawaki plantation for at least 15% of organized green area.

6. That, water table in the area is high, therefore retention pond and trenches are proposed within the proposed area.
7. That, industries, or other development area will take prior CTE/CTO from SPCB, wherever applicable.

PP also submitted an undertaking mentioning therein:

1. Modular STPs/ETPs with MBBR/tertiary level treatment technique will be installed to achieve norms of HSPCB/MoEF&CC/CPCB
2. The proposed development is 27 km from IGI Airport and proposed height of industrial units' may not exceed 30 mt. Hence NOC from the Airport Authority of India (AAI) is not applicable/ required as per Notification no. GSR 751 € Dt: 30.09.2015

Thereafter, the case was taken up in 249th meeting of SEAC, Haryana. The PP presented the detailed reply of observations during the meeting. The committee after discussion raised the following observations:

1. The PP shall submit the salient features of the project as per Performa
2. The PP shall submit the tangible EMP detail
3. The PP shall submit the affidavit regarding separate services of ETP and STP
4. The PP shall submit the complete list of species of plants
5. The PP shall submit the CA certificate regarding actual cost of project
6. The PP shall bifurcate the roadside green area percentage of all categories of plots
7. The PP shall comply the amended guidelines of HAREDA norms regarding solar power
8. The PP shall develop a nearby pond and furnish the details thereof in EMP
9. The PP shall submit the proper water balance details.

The case was taken up in 256th meeting held on 01.12.2022. The PP submitted the reply of observations raised in 249th SEAC meeting. During the presentation the PP was asked to submit an affidavit. PP submitted therein as under:

1. That we Model Economic Township Limited are proposing an Industrial Township of approximately 92.54 Acres at village Banmola, Ladpur, Munimpur, Nimana Pelpa and Sondhi - Distt. Jhajjar, Haryana.
2. That as per the prevailing norms, out of 92.54 acres, 55.295 acres are under Industrial development, 1.935 acres under Public utilities, 6.748 acres under UD and 6.785 acres under organised green.
3. That industrial plots ranges from 0.10 Ha to 1.23 Ha and as per URDPFI guidelines, 2015 the proposed industrial population is calculated @ 120 pph (person per hectare) i.e. 2670 nos. approximately and maximum domestic wastewater from individual industrial unit is envisaged upto 5.3 KLD.
4. That total water requirement for domestic purpose is 120 KLD @ 45 litre per person and wastewater generation is envisaged upto97 KLD.
5. That, the industrial units will dispose their domestic wastewater in their own soak pit/septic tank for the domestic wastewater generation $\leq$ 5 KLD and STP for > 5KLD wastewater generation as per the prevailing norms and only the overflow with industrial process wastewater will be discharged into the proposed disposal line of METL. Hence the domestic wastewater will not directly mix with the industrial process wastewater.
6. That the total water requirement (industrial process) for the proposed industrial area is calculated as per the standard practice of 15 KLD/acrei.e., 1268 KLD.
7. That estimated wastewater generation from industrial process 633 KLD.
8. That to treat the generated wastewater proposed CETPs of total capacity of 800 KLD (modular CETPs 200KLD x 04nos.) will be installed in phase wise manner. We

have proposed the CETPs of total capacity 800 KLD to cater the above load in worst case scenario taking the domestic sewage into account as an act of dilution for the effluent generated from the industrial process.

9. That, no category A or Category B industries as per EIA notification 2006 and amended till date shall be setup within the project area.
10. That, If any A or B category industries shall come in later stages, they shall obtain their individual regulatory clearances (including public hearing) as per prevailing norms
11. That, If any individual industrial plot exceeds the BUA of 20,000 Sq.m, individual industrial unit shall obtain the Environmental Clearance under EIA notification 2006.
12. That, every industry shall obtain their own Consent to Establish and Consent to Operate from Haryana State Pollution Control Board as applicable as per the prevailing norms.
13. That, every industry shall meet the CETP inlet design parameters before discharging the effluent in the proposed disposal line of METL. In case not meeting CETP inlet parameters the individual Industries shall provide their own treatment system to achieve the inlet parameters of CETP.
14. That, the prescribed inlet parameter for individual units will be:

S.No.	Parameter	Unit	Prescribed effluentParameters
1.	pH	-	8.5
2.	BOD	ppm	250-350
3.	COD	ppm	500-700
4.	TSS	ppm	200
6.	Oil and Grease	ppm	50

15. That the Inlet and outlet parameters for which the proposed modular CETPs will be designed:

S.No.	Parameter	Unit	RaweffluentParameters	TreatedEffluentParameters with Ultra Filtration
1.	pH	-	8.5	6.5-9.0
2.	BOD	ppm	450-500	<10
3.	COD	ppm	900-1100	<50
4.	TSS	ppm	200	<10
6.	Oil and Grease	ppm	50	<10

16. The proposed CETPs is based on the MBBR technique with additional treatment provisions in case of any eventualities like:
    - Online monitoring system to check the inlet & outlet parameters of proposed CETPs.
    - The provision of **Flocculation** and **Coagulation** during the Physico Chemical Treatment and Primary Clarification will take care the removal of industrial heavy metal/domestic impurities in case of any bypass from the industrial unit discharge without pretreatment.
    - Provision of **Ozonator** will help in the removal of hazardous residual chemicals remaining in the wastewater effluent. Ozone has a higher oxidation potential than chlorine. Ozone is more effective at disinfecting both bacteria and viruses from the wastewater.

- **Ultrafiltration (UF)** will remove essentially all colloidal particles (0.01 to 1.0 microns) from water and some of the largest dissolved contaminants and the received resultant treated water will be perfectly used for the Flushing, landscaping and other non-portable purpose.
- By using the above additional features, the proposed CETPs of total capacity 0.8 MLD will efficiently treat the mixed waste water load.
- It will also reduce the water demand requirement as the treated water can be conveniently use for Flushing, landscaping and other non-portable purpose.

17. That the generated treated water will be reused and recycle for flushing, Landscaping and other miscellaneous non portable purpose. The excess treated water will be discharged in to Drain no.8 in case of emergency overflow and during the monsoon season with due permission of concern authorities.

The PP submitted basic detail and EMP details as following:

Table 1 – Basic Details

Name of the Project: 37.45116 Ha (92.54375 Acres) "Industrial Township Development Project" at Village –Sondhi, Distt. Jhajjar, Haryana by M/s Model Economic Township Ltd (METL)		
Sr. No.	**Particulars**	**Licensed area of 92.54 Acres**
1.	Plot Area	374511.3 Sq.mt (92.54375 Acres)
2.	Net Plot Area	374511.3 Sq.mt (92.54375 Acres)
3.	Proposed Ground Coverage	132793.3 Sq.mt
4.	Proposed FAR	276652.8 Sq.mt
5.	Non FAR Area	27665.3 Sqmt.
6.	Total Built Up area	335480.2 Sqmt
7.	Total Green Area with Percentage	104803.42 (28%)
8.	Rainwater Harvesting Pits	RWH trenches / Retention Ponds
9.	Total CETPs Capacity	800 KLD (Modular)
10.	Total Parking	1014 Nos
11.	Power Requirement	6.75 MVA
12.	Power Backup	250 KVA x 1 Nos
13.	Total Water Requirement	1965 KLD
14.	Domestic Water Requirement	1388 KLD
15.	Fresh Water Requirement	1335 KLD
16.	Treated Water	657 KLD
17.	Waste Water Generated	730 KLD
18.	Solid Waste Generated	807 kg/day
19.	Biodegradable Waste	326 kg/day
20.	Basement	1
21.	No. of Plots	52
22.	Total Cost of the project:	138.81 Crores
23.	Total EMP (Capital Cost + Recurring)	695 lacs

Table 2: EMP Budget

Sr. No	Activities	Capital Cost	Regular Cost
		Rs. In Lakhs	Rs in Lakh
1	STP & Sewerage Network	116	23
2	Landscaping & planting trees	40	5
3	Solid waste Management	20	2
4	Environmental Monitoring*	4	2
5	CER Cost	98	385
Total		**278**	**417**

CER Activities

For betterment of society, METL has planned to carry out the activities for welfare of society in accordance to the applicable rules. The activities are given below

- Pond shall be adopted in the nearby village in consultation with local villagers and gram panchayat.
- Skill Development by organizing training courses through it is and development of ITI's in consultation with local villagers and gram panchayat.
- Infrastructure improvement of government schools and library in consultation with nearby villages.
- Improvement of drinking water infrastructure in government schools and PHC in consultation with nearby villages.
- Landscaping development and improvement in the roadside and, government schools, Health Centre in consultation with local villagers and gram panchayats.
- Preparation of Retention ponds in nearby village for recharging Ground water in consultation with concern local body.
- Provision of solar streetlights on roads outside the project sites and in Government schools, parks and library in consultation with gram panchayats.

A detailed discussion was held on the submission as well as presentation made by the PP before the committee. After discussion, the committee considered the submission of PP and rated this project with **"Gold Rating"** and was of the unanimous view that this case should be recommended to the SEIAA for granting Environmental Clearance under EIA Notification dated 14.9.2006 issued by the Ministry of Environment and Forest, Government of India alongwith the following specific and general stipulations:

A. Specific conditions:-

1. Sewage shall be treated in the STP based on latest Technology with tertiary treatment i.e. Ultra Filtration to achieve standards ordered by NGT. The treated effluent from STP shall be recycled /reused for flushing. DG cooling and Gardening. The dimension of each component of STP should be properly designed as per Norms.
2. The Project Proponent would devise a monitoring plan to the satisfaction of the State Pollution Control Board so as to continuously monitor the treated waste water being used for flushing in terms of faecal coli forms and other pathogenic bacteria.
3. The Project Proponents would commission a third party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
4. Separate wet and dry bins must be provided in each unit and at ground level for facilitating segregation of waste. Solid Waste shall be segregated into wet garbage and inert materials.

Wet Garbage shall be composted in Organic waste convertor. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The Inert waste from the project will be sent to dumping site.

5. Traffic management plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is marinated and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habilitation being carried out or purpose to be carried out by the project or other agencies in this 05kms radius of the site in different scenarios of space and time
6. The PP is required to plant 10 times trees at the project site and compensatory tree plantation will be done @1:10. No tree cutting has been proposed in the instant project. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The Existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed **104803.42 (28%)** area shall be provided for green area development.
7. The Project Proponent shall obtain all necessary clearance/permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
8. The PP shall install the Eco Friendly Green Transformer based on ester oil to reduce the carbon foot print. The PP shall shift to gas based generator set when the gas is available. The PP shall install APCM for the DG set. The PP shall reduce the SO_2 load by 30% if HSD is used
9. Consent to establish/operate for the expansion project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of pollution) Act, 1981 and the Water (Prevention and control of pollution) Act, 1974.
10. The Approval of the Competent Authority shall be obtained for structural safety of building code due to earthquakes, adequacy of fire fighting equipments etc. as per National Building Code including protection measures from lightening etc.
11. The PP shall not carry any construction above or below the Revenue Rasta, if any
12. The PP shall not carry any construction below the HT Line passing through the project, if any.
13. The PP shall obtain the Fire NOC from the Competent Authority before taking occupation of the building.
14. The PP shall not give occupation or possession before the water supply and sewage connection permitted by the competent authority.
15. The PP shall not give occupation or possession before the electricity connection permitted by the competent Authority.
16. The PP shall obtain the permission regarding withdrawal of ground water from CGWA before the start of the project and also obtained the CTO from HSPCB after the approval from CGWA.
17. The PP shall carry out the quarterly awareness programs for the stakeholders of the commercial colony/project.
18. The PP shall ensure the compliance of provisions of Plastic Waste Management (Amendment) Rules, 2022 relevant for the project.
19. The PP may provide electric charging stations to facilitate electric vehicle commuters.
20. The PP shall submit the time schedule of Green Area Development, plantation, STP, OWC, RWH.
21. The PP shall install Digital water level recorder for monitoring the water recharge and carry out quarterly maintenance and cleaning of RWH pits.
22. The PP shall take all preventive measures including water sprinkles to control dust during construction and operational phase.
23. Any change in stipulations of EC will lead to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance.

B. <u>Statutory Compliance:</u>

[1] The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority for ground coverage, FAR and should be in

accordance with zoning plan approved by Competent Authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

[2] The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc as per National Building Code including protection measures from lightening etc.

[3] The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

[4] The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

[5] The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the Haryana State Pollution Control Board.

[6] The project proponent shall obtain the necessary permission for drawl of ground water /surface water required for the project from the competent authority.

[7] A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

[8] All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

[9] The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

[10] The project proponent shall follow the ECBC Act/ECBC-Rules prescribed by Bureau of Energy Efficiency, Ministry of Power strictly in addition of bylaws of the State Government.

I Air Quality Monitoring and Preservation

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
3. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25) covering upwind and downwind directions during the construction period.
4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of ultra low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board
5. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
6. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
7. Wet jet shall be provided for grinding and stone cutting.
8. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
9. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
10. The diesel generator sets to be used during construction phase shall be ultra low

sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

11. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Ultra low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
12. For indoor air quality the ventilation provisions as per National Building Code of India.

II Water Quality Monitoring and Preservation

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3. Total fresh water use shall not exceed the proposed requirement as provided in the project details. The per capita supply should adhere to NBC 2016 and CGWA Notification dated 12.12.2018.
4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain Water Harvesting pits shall be provided for ground water recharging as per the CGWB norms.
12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharge should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken

from the CGWA for any ground water abstraction or dewatering.

16. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

III Noise Monitoring and Prevention

1. Ambient noise levels shall conform to residential area/commercial area both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

IV Energy Conservation Measures

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency as per ECBC Act, 2017 read with ECBC Rules, 2018 shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC also which is in no case should be less than 25% as prescribed.
2. Outdoor and common area lighting shall be LED.
3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof R & U-values shall be as per ECBC specifications.
4. Energy conservation measures like installation of CFLs/LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional

building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

7. The PP will submit report indicating compliance of each parameter of ECBC requirement and submit quantification saving report for each component.

V Waste Management

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
3. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
4. Organic Waste Converter within the premises with a minimum capacity of 0.5 kg /person/day must be installed. Leaves to be put in earmarked pits for converting them into compost to be used as manure.
5. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
6. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
7. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
8. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016.Ready mixed concrete must be used in building construction.
9. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
10. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VI Green Cover

1. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
2. A minimum of 1 tree (5’ tall) for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
3. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VII Transport

1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
    a) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
    b) Traffic calming measures.
    c) Proper design of entry and exit points.
    d) Parking norms as per local regulation.
2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

VIII Human Health Issues

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
2. For indoor air quality the ventilation provisions as per National Building Code of India.
3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
5. Occupational health surveillance of the workers shall be done on a regular basis.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.

IX Corporate Environment Responsibility

1. The project proponent shall comply with the provisions as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/ conditions. The company shall have defined system of reporting infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/ conditions and/ or shareholders/ stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the

Ministry/Regional Office along with the Six Monthly Compliance Report.

X Miscellaneous:

1. The PP has submitted concept planning as such PP will have to obtain fresh environment clearance in case there is change in the planning.
2. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
3. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
4. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
5. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
6. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
7. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
8. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
9. The project proponent shall abide by all the commitments and recommendations made in the Form-IA, Conceptual Plan and also that during their presentation to the Expert Appraisal Committee.
10. No further expansion or modifications in the plan shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC)/SEIAA, Haryana. The project proponent shall seek fresh environmental clearance under EIA notification 2006 if at any stage there is change of area of this project.
11. Any change in planning of the approved plan will leads to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance
12. The PP should give unambiguous affidavit giving land promoters in accordance with your ownership and possession of land legal the case referred for Environment Clearance to SEIAA.
13. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
14. The Ministry/SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
15. The Ministry/SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
16. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
17. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders

passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter

256.30 EC under Violation Notification dated 14.03.2017 for Expansion of Group Housing Project "Parsvnath Exotica Phase-II" (under violation) at Village Wazirabad, Sector 53, Gurugram, Haryana by M/s Parsvnath Developers Ltd

Project Proponent : Sh. Rashmi Jha
Consultant : Ind Tech House Consult

BACKGROUND:

1. This is a Category, 8(b) project
2. Type of project- EC under Violation Notification dated 14.03.2017 for Expansion of Group Housing Project
3. The requisite fee is deposited vide DD No.12914 dated 11.01.2022 Rs.2,00,000/-
4. The case was taken up 169th meeting of SEAC and recommended to SEIAA grant of ToR under violation category.
5. ToR under violation category granted on 07.08.2018

The Project was applied under violation category within the violation window and approved the Terms of Reference. Thereafter, the PP submitted EIA/EMP report through PARIVESH web Portal but did not submit hard copy of the same. Expert Appraisal Committee sent this case back through PARIVESH web Portal to SEIAA with the comments that hard copy of the case has not been received. Now, the project proponent has submitted hard copy of the documents,

The case was taken up in the 139th meeting of SEIAA held on 19.04.2022 and after due deliberations; Authority decided referred back this case to SEAC through PARIVESH portal for appraisal of the project in the light of SOP vide F.No.22-21/2020-IA.III dated 07.07.2021 issued by MoEF& CC, GoI being a case of violation.

The case is taken up in 243rd Meeting of SEAC. The PP not present, however, consultant appeared before the committee. A request to defer the case has been made by consultant. The Committee acceded with the request and decided to defer the case. The case be taken up in next meeting. However, following observations were raised and conveyed to PP/Consultant for submission of reply at the time of appraisal alongwith conditions of ToR:

1. The details of the project with brief background will be submitted in chronological order w.e.f. the date of obtaining EC.
2. The status of OC obtained for first phase shall also be given.
3. The layout plan and site plan must be legible and in the scale of 1:10000
4. The co-ordinates of the area be given and also be marked on the plan alongwith KML file.
5. The status of existing green area/land scape be also submitted.
6. The detail and status of the licence from DTCP be provided.
7. Forest NOC and Aravali NOC is also required.
8. The EIA study must be corresponding to the ToR granted in violation category.
9. The photographs to be submitted for appraisal must be geo-tagged with stamp of date.

The case was taken up in 256th meeting held on 01.12.2022. The PP submitted the reply of above mentioned observations raised in 243rd meeting of SEAC vide letter dated 29.10.2022.

During meeting 254th meeting Dr.Sandeep Gupta, Member, SEAC raised some observations to which PP has submitted point wise reply as below:

S. No.	Query	Reply
i.	The site visit report of Year 2014 should be taken into consideration (for e.g. 500 KLD of STP in EC, while 400 KLD of STP installed etc.)	At the time of EC appraisal water calculation was done on 135 lpcd on that basis capacity of STP was 500 KLD. We have considered water reduction strategies in our project and reduced the water requirement to 86 lpcd due to which required capacity of STP is less than 500 kld. However at present our project is not fully occupied and entire waste water generated from the project is being treated on site STP of 400 KLD and no waste water is discharge outside of the project. However 100 kld additional STP will be installed as and when full project will be under operations.
ii.	The said project "M/s Puri Constructions Pvt. Ltd." is Land Owner and "Parsvnath Developers Ltd." is developer and there is a MoU and agreement between the two for a part of the total land of the land owner.	Total Area of 27.765 acre as: Part 1: 23.815 acre (EC granted) Part 2: 3.95 acre (EC under violation) Yes, collaboration agreement between Puri Construction Ltd. and Parsvnath Developers Ltd. is in place which was submitted earlier and also enclosed along with reply as Annexure 1.
iii.	The 1st EC granted on 05.12.2006 for a plot area of 96375 sqm and built up area 168377.91 sqm which already got expired.	1st EC for phase 1 was obtained for plot area of 96375 sqm and built up area 168377.91 sqm and construction of the project was completed within validity period and OC was obtained. Copy of OC is submitted with reply letter as Annexure 2 and same is shown in next slide. CTO for trial run obtained from HSPCB on 3.01.2012 and thereafter we received CTO Renewal. Copy of the same submitted with reply letter as Annexure 3 and same is shown in next slide. For phase 2 revised building plan was approved on 10.04.2009 for a plot area of 112335.77 sqm (additional 3.944 acres land (15960.77 sqm) for which we have applied for environment clearance under violation.
iv.	The building plan was revised and approved on 10.04.2009 for a plot area of 112335.77 sqm and built up area of 196570.91 sqm	Details are covered in point 3.
v.	As per the google earth satellite images observed, the construction started well before the revised building plan approved on 10.04.2009 in the extension part of the project/built up area.	Environment Clearance for expansion part under violation category as the construction was done without EC as far as building plans are concerned, the DTCP approved the building plans. The project Chronology under phase 2 is as follows: • 17.01.2012- EC applied to MoEF. • By the time the project was to be appraised by MoEF, SEAC/SEIAA, Haryana got formed and case was being transferred to SEAC, Haryana. • 26.06.2012: SEAC Letter received to submit Forest NOC, Aravali NOC & License • 16.10.2012: Replied to SEAC requesting time to submit the above documents. • 21.01.2013 : SEAC letter received for first Presentation scheduled on 11.02.2013 • 04.02.2013: SEAC was requested to defer the project for next meeting as License not renewed and in the non-availability of other documents. • 03.06.2013: SEAC final notice to submit the documents. • 28.11.2013: SEAC recommended to SEIAA to delist the case. • 04.01.2014: SEIAA delisted the project with a request to SEAC for site visit.

		• 13.10.2014: On the basis of site inspection report, SEIAA ordered legal action to be initiated. • 07.11.2014: SEIAA wrote to Principal Secretary to prosecute PDL • 19.03.2015 : Letter received from RO,HSPCB for prosecution against violation. • 21.09.2015: Request letter sent to HSPCB to drop legal action. • In Compliant to MoEF&CC notification dated 14th March, 2017 for taking up the cases of violation, case was uploaded on the website of MoEF&CC for approval of TOR. • TOR has been obtained vide Memo No. SEIAA/HR/2018/855 dated 07.08.2018. • After submission of EIA report the case was taken up in 221st, 243rd, 245th , 251st and 255th SEAC Haryana.
vi.	The NOC for Aravali and Forest is submitted only for extension part which is dated 05.05.2015 and 10.02.2015 respectively.	We have applied for environment clearance (under violation) for expansion part only for which Aravali and forest NOC have been submitted. Other part of the project phase 1 is in operation phase CTO and OC copy is attached as **Annexure 2 and 3.**

The PP also submitted the following background note:

- Proposed group housing project "Parsvnath Exotica (Phase-II)" at village Wazirabad, Sector-53, Gurgaon of 3.944 acre is an Expansion project of 23.8 acre of project area.
- Earlier, Environment clearance has been obtained vide No. 21-186/2006-IA.III dated 05.12.2006 for total plot area 96,375 sqm, builtup area 1,68,377.91 sqm& DU's were 783 Nos.
- Revised building plan approval 112335.77 Sqm plot area (additional 3.944 acres land (15960.77 sqm)) was sanctioned on 10.04.2009.
- Environmental Clearance was applied to MoEF on 17.01.2012.
- By the time the project was to be appraised by MoEF; SEAC/SEIAA, Haryana got formed and case was being transferred to SEAC, Haryana.
- The only non-compliance is continuing the construction assuming that the deemed EC has been granted
- In Compliance to MoEF&CC notification dated 14th March, 2017 for taking up the cases of violation, case was uploaded on the website of MoEF&CC before EAC for approval of ToR.
- TOR has been obtained vide Memo No. SEIAA/HR/2018/855 dated 07.08.2018.
- Cost of project is Rs. 154.27 Crores (including 22 Cr. Expansion)
- Certified Compliance Report has been obtained vide F. No. 4-231/2006-IROENV-II dated 24.08.2022 and ATR was submitted on 24.08.2022.

Summary of Penalty and Damage Assessment Cost:

As per SOP 07.07.2021 section No. 12.2 *the percentage rates, as above, shall be halved If the project proponent suo-moto reports such via/at/ans without such violations coming to the knowledge of the Government either on Inquiry or complaint*."

Penalty= 0.5 % of Rs.22 cr (Cost of Construction of towers under Violation) = Rs.11 Lacs Cost of Damage Assessment= Rs.42.08 Lacs i.e. 1.9% of Rs.22 Cr. (inclusive of Rs.11 lacs penalty) Section 12 a. ii of SOP dated 07.07.2021 is not applicable as the towers are not under operation.

We have devised following method to calculate the "Damage incurred" while carrying out the construction or due to the construction. There is no set rule for calculating the same, therefore, we presumed that the amount proponent had to spent to control the fugitive

emissions/for treating the effluent/might have caused noise pollution etc., equivalent to that amount would be the "Budget under Damage Assessment".

Secondly, for "Sustainable Development" a responsible entrepreneur has to take certain measures to "Sustain the Environment", the cost of that measures has been presumed to be the budget under "Damage Assessment".

The following table depicts to sustain a particular "Environment Attribute" what activity should have been carried out, for how long and how many times a day along with the cost of that activity. The cumulative cost of all these activities helps us in determining, in "Monetary Terms" the cost of the "Damage to the Environment".

Damage Assessment: Considering 84 Months i.e. 7 years. Please also note that Environment clearance for built-up area 168377.91 sqm has already been granted and same mitigation measures and Environmental management plan had already been followed in the expansion project also.

Revised Damage Assessment Calculation

Environment Attributes	Activities	Measures	Unit Rate	Nos.	Cost
Air Environment	Dust Suppression / Sprinkling	Sprinkling two times a day through tanker	Rs. 200 per tanker	5040 tanker	10,08,000
	Wind breakers / barricades in the periphery of project site	Barricading around the villa, group housing block & club	Rs 300 per sq m	-	7,00,000
		Green Netting	Rs 50 per sq m	15,960sq m	7,98,000
	Ambient air quality monitoring in sensitive areas	1 Location for duration of construction	5,000	14	70,000
	Antismog Gun as per HSPCB Directives	Sprinkling to minimize concentration of PM10 and PM2.5	6,50,000	1	6,50,000
	Total Air Environment				***25,76,000***
	Green Area Development	2395 sq.m. of green area and200 nos. trees will be planted in the expansion area of the project	Lumpsum	-	3,00,000
	Total Ecological Environment				***3,00,000***
Water Environment	Water Quality	Water sampling and monitoring	4000	14	56,000
	Sanitation	Portable toilet at site (1 for maleand 1 for female).	-	-	50,000
		Wastewater Management	Lumpsum	-	50,000

		Frequent cleaning of the vicinity of site before monsoon	10,000	(6 existing + 3 RWH proposed)	90,000
	Total Water Environment				***1,96,000***
Land Environment	Erosion Control	Creating barriers to avoid erosion and to maintain its integrity so as to use it further for landscaping			20,000
	Top Soil Conservation	Topsoil Loss / Soil Quality (20 cm)	Rs 250 per cum	3192.154	7,98,039
	Excavation	Basement	Rs 500 per cum		Has been complied
		Solid Waste Bins (Blue and Green)	3000	10	30,000
	Solid Waste	Secured intermediate leachate proof facility for storage of material and waste	Lumpsum		5,00,000
	Total Land Environment				***13,48,039***
Noise Environment	***Total Noise Environment***	Providing Personnel Protective equipment's (PPE)	2,500	20	**50,000**
Socio-economic Environment	Health	Providing first aid kits to the construction sites	5000	20	1,00,000
	Labour Welfare	Health Care to Labour	Rs 2000 per labour	20	40,000
	Total Socio-Economic				***1,40,000***
GRAND TOTAL (A)					***46,10,039***

Revised Remediation Plan

S. No	Activities	Total Budgeted	1st Year	2nd Year	3rd Year
1	Tree Plantation under miyawaki	2 Lacs	0.75 Lacs	0.75 Lacs	0.5 Lacs
	Total	**2 Lacs**	0.75 Lacs	0.75 Lacs	0.5 Lacs

As the construction of the project has already been completed so we will provide tree Plantation under miyawaki Method as remediation plan.

Revised Community Resource Augmentation Plan

S. No	Activities	Total Budgeted	1st Year	2nd Year	3rd Year

1	Air Environment: Installation of Anti Smog guns in Wazirabad Area	6.5 Lacs	6.5 Lacs		
2	Water Environment Adaptation of Pond in Ullawas Village (Pond ID No. 02HRGGMSHN0083ULHA388)	27 Lacs	-	27 Lacs	-
3	Socio Environment: Arrangement of Drinking water and Toilet facilities in Primary school of Wazirabad	2 Lacs	0.75 Lacs	0.75 Lacs	0.5 Lacs
	Total	**35.5 Lacs**	**7.25 Lacs**	**27.75 Lacs**	**0.5 Lacs**

NATURAL RESOURCE AUGMENTATION PLAN

S. No	Activities	Total Budgeted	1st Year	2nd Year	3rd Year
1	Remediation measures on Noise Environment: Tree plantation will be done in Sector 53, Gurugram	3 Lacs	1 Lacs	1 Lacs	1 Lacs
2	Solar PV plant installation in Samaspur Area	6 Lacs	2 Lacs	2 Lacs	2 Lacs
	Total	**9 Lacs**	**3 Lacs**	**3 Lacs**	**3 Lacs**

It is submitted by PP that the order passed in project M/s G.P. Realtors Pvt. Ltd. by NGT is not related to their project in any way as the above mentioned case was an individual legal case decided by NGT on NBWL issue, so their project does not come within purview of said order. The PP also submitted that no Notification/Office Memorandums/Guidelines has been issued by MoEF&CC to follow directions issued in M/s G.P. Realtors Pvt. Ltd. It is further submitted by PP that they are agree to follow the scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The PP further submitted basic details of the project as well as EMP budget (operation phase) as under:

Name of the Project:Expansion of Group Housing Project "Parsvnath Exotica Phase-II" at village Wazirabad, Sector-53, Gurugram by M/s Parsvnath Developers Ltd.		
Sr. No.	**Particulars**	
1.	Online Proposal Number	SIA/HR/MIS/212482/2021
2.	Latitude	28^0 26'36.45"N
3.	Longitude	77^0 05' 55.84"E
4.	Plot Area	15960.77 Sqm
5.	Proposed Built Up Area	28193 sqm
6.	Cost of Project	22 Cr.
7.	Total Green Area	2395sqm
8.	Rain Water Harvesting Pits (with size)	3 Nos.
9.	STP Capacity	55 KLD
10.	Total Parking	110ECS
11.	Organic Waste Converter	0.19 TPD
12.	Power Requirement	600 KW
13.	Power Backup	1250 KVA (2x625)
14.	Total Water Requirement	68 KLD
15.	Fresh Water Requirement	39 KLD
16.	Treated Water	29 KLD

17.	Waste Water Generated		45KLD
18.	Solid Waste Generated		0.31 TPD
19.	Biodegradable Waste		0.19 TPD
20.	EMP Budget	i) Capital Cost	1.09 Cr Capital Cost
		ii) Recurring Cost	0.10 Cr Recurring Cost

Environment Budget (Operation Phase)		
COMPONENT	**CAPITAL COST (Rs in Lacs)**	**RECURRING COST (Rs in Lacs)/Annum**
SEWAGE TREATMENT PLANT (55 KLD)	11	2.97
RAIN WATER HARVESTING SYSTEM (03 Nos)	10.5	1.58
SOLID WASTE STORAGE BINS & COMPOSTER (Organic Waste Converter 0.31 tpd)	5.27	3.48
HORTICULTURE DEVELOPMENT (TREE PLANTATION & LANDSCAPING)	2.79	0.70
ROOF TOP SPV PLANT (100 KWp)	80	0.00
ENVIRONMENT MONITORING & 6 MONTHLY COMPLIANCES OF ENVIRONMENT CLEARANCE CONDITIONS		2.00
TOTAL	**109.56**	**10.72**

The committee discussed on the given information and Cumulative Budget for Remediation, Natural & Community Resource Augmentation Plan submitted by PP. After detailed deliberations, the Committee decided to recommend the case to SEIAA for grant of Environmental Clearance **under violation category** of EIA Notification dated 14.09.2006 issued by the Ministry of Environment and Forest, Government of India subject to the following specific conditions in addition to all standard conditions applicable for such projects:

A. Specific conditions:-

1. SEAC recommended for an amount of Rs.***46,10,039***/- towards Remediation plan and Natural and Community Resource Augmentation plan to be spend within a span of three years.
2. The PP shall deposit **Rs.22 lakhs** with SEIAA for 1% penalty as per SOP 7th July 2021, Clause no 12.a(i).
3. Total budgetary provision with respect to Remediation plan and Natural & Community Resource Augmentation plan is rupees **46,10,039/-**Therefore, project proponent shall be required to submit a bank guarantee of an amount of Rupees ₹**46,10,039**/- towards Remediation plan and Natural and Community Resource Augmentation plan with the Haryana State Pollution Control Board prior to the grant of EC.
4. Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority/SEIAA.
5. Approval/permission of the CGWA/SGWA shall be obtained, if applicable 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.
6. The PP shall also submit the details of status of development of Green plan, species planted, survival status along with existing trees species wise and also maintain the record date wise along with digital mapping.
7. The PP shall also maintain the record of trees/plants to be planted as per the Remediation plan and Natural and Community Resource Augmentation plan along with digital mapping, latitude, longitude details.
8. The PP shall not start construction/ development works without getting EC under violation Act/provisions of notification.

9. Sewage shall be treated in the STP based on latest Technology with tertiary treatment i.e.Ultra Filtration to achieve standards ordered by NGT. The Treated effluent from STP shall be recycled /reused for flushing. DG cooling and Gardening.
10. The Project Proponent would devise a monitoring plan to the satisfaction of the State Pollution Control Board so as to continuously monitor the treated waste water being used for flushing in terms of faecal coli forms and other pathogenic bacteria.
11. The Project Proponents would commission a third party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
12. Separate wet and dry bins must be provided in each unit and at ground level for facilitating segregation of waste. Solid Waste shall be segregated into wet garbage and inert materials. Wet Garbage shall be composted in Organic waste convertor. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The Inert waste from the project will be sent to dumping site.
13. Traffic management plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is marinated and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habilitation being carried out or purpose to be carried out by the project or other agencies in this 05kms radius of the site in different scenarios of space and time
14. The PP is required to plant 10 times trees at the project site and compensatory tree plantation will be done @1:10. No tree cutting has been proposed in the instant project. A minimum of 1 tree for every 80sqm of land should be planted and maintained. The Existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed 2**395 (15 % the plot area)** shall be provided for green area development.
15. The Project Proponent shall obtain all necessary clearance/permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
16. The PP shall install the Eco Friendly Green Transformer based on ester oil to reduce the carbon footprint. The PP shall shift to gas based generator set when the gas is available. The PP shall install APCM for the DG set. The PP shall reduce the SO_2 load by 30% if HSD is used
17. Consent to establish/operate for the expansion project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of pollution) Act, 1981 and the Water (Prevention and control of pollution) Act, 1974.
18. The Approval of the Competent Authority shall be obtained for structural safety of building code due to earthquakes, adequacy of fire fighting equipments etc. as per National Building Code including protection measures from lightening etc.
19. The PP shall not carry any construction above or below the Revenue Rasta, if any
20. The PP shall not carry any construction below the HT Line passing through the project, if any.
21. The PP shall obtain the Fire NOC from the Competent Authority before taking occupation of the building.
22. The PP shall not give occupation or possession before the water supply and sewage connection permitted by the competent authority.
23. The PP shall not give occupation or possession before the electricity connection permitted by the competent Authority.
24. The PP shall obtain the permission regarding withdrawal of ground water from CGWA before the start of the project and also obtained the CTO from HSPCB after the approval from CGWA.
25. The PP shall carry out the quarterly awareness programs for the stakeholders of the commercial colony/project.
26. **03 Rain Water Harvesting pits** shall be provided for rainwater usages as per the CGWB norms.
27. The PP shall install Digital water level recorder for monitoring the water recharge and carry out quarterly maintenance and cleaning of RWH pits

28. The PP shall ensure the compliance of provisions of Plastic Waste Management (Amendment) Rules, 2022 relevant for the project.
29. The PP may provide electric charging stations to facilitate electric vehicle commuters.
30. The PP shall take all preventive measures including water sprinkles to control dust during construction and operational phase.
31. The State Government/SPCB to take action against the project proponent under the provisions of the Section 15 read with Section 19 of the Environment (Protection) Act, 1986, and no OC, Consent to Operate or Consent to Establish shall be granted for violation part of the project.
32. The Project Proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant EC. The quantum shall be recommended by the SEAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority.
33. Detailed SoP dated 07.07.2021 regarding grant of EC to violation cases to be considered the action on merits. The action may be initiated under Section 15 read with Section 19 of the EP Act, 1986 against all violations.
34. The PP should submit compliance report of existing building from the Competent Authority.
35. Any change in stipulations of EC will lead to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance.

B. <u>Statutory compliance:</u>

[1] The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority for ground coverage, FAR and should be in accordance with zoning plan approved by Competent Authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

[2] The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc as per National Building Code including protection measures from lightening etc.

[3] The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

[4] The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

[5] The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the Haryana State Pollution Control Board.

[6] The project proponent shall obtain the necessary permission for drawl of ground water /surface water required for the project from the competent authority.

[7] A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

[8] All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

[9] The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

[10] The project proponent shall follow the ECBC Act/ECBC-Rulesprescribed by Bureau of Energy Efficiency, Ministry of Power strictly in addition of bylaws of the State Government.

I Air Quality Monitoring and Preservation

i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.

ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and

PM25) covering upwind and downwind directions during the construction period.

iv. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of ultra low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board

v. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

vi. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

vii. Wet jet shall be provided for grinding and stone cutting.

viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

ix. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.

x. The diesel generator sets to be used during construction phase shall be ultra low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Ultra low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

xii. For indoor air quality the ventilation provisions as per National Building Code of India.

II Water Quality Monitoring and Preservation

i. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details. The per capita supply should adhere to NBC 2016 and CGWA Notification dated 12.12.2018.

iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

v. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

vi. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

vii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

viii. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets

tap aerators etc) for water conservation shall be incorporated in the building plan.

ix. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xi. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain Water Harvesting pits shall be provided for ground water recharging as per the CGWB norms.

xii. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

xiii. All recharge should be limited to shallow aquifer.

xiv. No ground water shall be used during construction phase of the project.

xv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

xvi. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

xvii. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.

xviii. No sewage or untreated effluent water would be discharged through storm water drains.

xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

xxi. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

III Noise Monitoring and Prevention

i. Ambient noise levels shall conform to residential area/commercial area both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

ii. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

IV Energy Conservation Measures

i. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency as per ECBC Act, 2017 read with ECBC Rules, 2018 shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC also which is in no case should be less than 25% as prescribed.

ii. Outdoor and common area lighting shall be LED.

iii. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof R & U-values shall be as per ECBC specifications.

iv. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

v. Solar, wind or other Renewable Energy shall be provided as per HAREDA Norms.

vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

vii. The PP will submit report indicating compliance of each parameter of ECBC requirement and submit quantification saving report for each component.

V Waste Management

i. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.

ii. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

iii. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.

iv. Organic Waste Converter within the premises with a minimum capacity of 0.5 kg /person/day must be installed. Leaves to be put in earmarked pits for converting them into compost to be used as manure.

v. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

vi. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

vii. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.

viii. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016.Ready mixed concrete must be used in building construction.

ix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

x. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VI Green Cover

i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary,

tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

ii. A minimum of 1 tree (5' tall) for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.

iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.

iv. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VII Transport

i. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
    i. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
    ii. Traffic calming measures.
    iii. Proper design of entry and exit points.
    iv. Parking norms as per local regulation.

ii. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

iii. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

VIII Human Health Issues

i. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

ii. For indoor air quality the ventilation provisions as per National Building Code of India.

iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

iv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

v. Occupational health surveillance of the workers shall be done on a regular basis.

vi. A First Aid Room shall be provided in the project both during construction and operations of the project.

IX Corporate Environment Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate

Environment Responsibility.

ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/ conditions. The company shall have defined system of reporting infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/ conditions and/ or shareholders/ stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

X Miscellaneous

i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

viii. The project proponent shall abide by all the commitments and recommendations made in the form-IA, Conceptual Plan and also that during their presentation to the Expert Appraisal Committee.

ix. No further expansion or modifications in the plan shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC)/SEIAA, Haryana. The project proponent shall seek fresh environmental clearance under EIA notification 2006 if at any stage there is change of area of this project.

x. Any change in planning of the approved plan will leads to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance

xi. The PP should give unambiguous affidavit giving land promoters in accordance with your ownership and possession of land legal the case referred for Environment Clearance to SEIAA.

xii. Concealing factual data or submission of false/fabricated data may result in revocation

of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

xiii. The Ministry/SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiv. The Ministry/SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

xvi. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

256.31 Modification of EC for expansion of warehouse for storage of non agro produce (Logistic) project Revenue Estate of Village Jamuvas, Tehsil Taoru, Mewat, Haryana by Sh.Mahipal Singh and Others

Project Proponent : Not present
Consultant : Ind Tech House Consult

The Project was submitted to the SEIAA, Haryana vide online Proposal No. SIA/HR/MIS/275628/2022 dated 30.05.2022 for obtaining Modification in the existing Environmental Clearance granted vide letter No. SEIAA/HR/2019/422 dated 06.11.2019, under Category 8(a) of EIA Notification 14.09.2006. On the disclosed cost of the Project i.e. Rs.36 Crore, Project Proponent has deposited Scrutiny fees of Rs.1,50,000/- vide DD No. 500398 dated 30.05.2022 in compliance of Haryana Govt. Notification dated 14.10.2021.

The said case was taken up in 249th meeting of SEAC held on 22.09.2022 and SEAC recommended the Project to SEIAA for grant of Modification in existing EC (Environment Clearance).

The recommendations of SEAC were taken up in the 148th meeting of SEIAA held on 27.10.2022. After examining/perusal of the relevant records, the Authority observed that recommendations made by SEAC do not reflect comments and views on the following:

1. Aravali NOC, which was required to be submitted at the time of grant of EC to the Project Proponent is still not visible/available.
2. No comments/views have been expressed by the SEAC on the report of Regional Officer, MOEF & CC, GOI and action taken report submitted by the Project Proponent, where compliance with regard to certain issues has been left un-attended i.e. issues like setting up and operation of STP, Green Belt etc.

SEAC, being an Expert and August Body is expected to give a detailed/comprehensive appraisal and inputs in respect of each case and to further assist SEIAA in quick and timely disposal of case(s).

Under these circumstances, the Authority decided to refer back the said case to the Appraisal Committee (SEAC) to re-look into the omissions and violations made by the Project Proponent in the existing EC.

The case was taken up in 255th meeting held on 14.11.2022. However, PP requested vide letter dated 14.11.2022 to defer the case due to unavoidable circumstances. The committee acceded with the request of PP and deferred the case.

The case was taken up in 256th meeting held on 01.12.2022. PP submitted the reply of observation raised by SEIAA vide letter dated 24.11.2022 as below:

Sr. No.	Query	Reply
1	Aravali NOC, which was required to be submitted at the time of grant of EC to the Project Proponent, is still not visible/available.	Aravali NOC has already been obtained vide letter no. 1061 dated 18.09.2019 and Copy of the NOC is attached as **Annexure 1**.
2	No comments/views have been expressed by the SEAC on the report of Regional Officer, MOEF & CC, GOI and action taken report submitted by the Project Proponent, where compliance with regard to certain issues has been left un-attended i.e. issues like setting up and operation of STP, Green Belt etc.	We request to Hon'ble SEAC to address the same issue however during the appraisal the same was discussed in detail and time schedule for completion of remaining environmental features was submitted on the same day. ATR copy is attached as **Annexure 2.**

The PP further submitted that they have already obtained "EC"SEIAA/HR/2019/422 dated 06/11/2019, present proposal was for amendment due to increase inpopulation. As per the O.M dated. 04/10/2022, Clarification regarding Gazette Notification No.S.O.3252(E) dated 22/12/2014 clause 6 & 7, the Industrial shed mentioned in Notification S.O. 3252 (E) dated 22/12/2014 implies buildings/warehouses/ sheds (whether RCC or otherwise), need not to have prior-EC provided the built-up area is less than 1,50,000 mt2.The PP further stated that the area being built-up in our project is only 23,480.943 mt2, therefore as per Notification S.O. 3252 (E) dated 22/12/2014 and subsequent clarification in form of O.M dated 04/10/2022, our project does not need to have "Environmental Clearance".

Considering above mentioned facts, PP has requested to exempt them from submitting the compliances under the EC taken vide letter no. SEIAA/HR/2019/422 dated 06/11/2019.

The committee after deliberation unanimously decided to recommend the case to SEIAA for exemption and delisting.

256.32 EC under violation notification dated 14.03.2017 for Group Housing Project "EDGE TOWER" at Ramprastha City, Sector-37 D, District-Gurgaon, Haryana by M/s Ramprastha Promoters & Developers Pvt Ltd

Project Proponent : Not present.
Consultant : Vardan EnviroNet

BACKGROUND:

- This is a Category, 8(b)
- Type of project- EC for Proposed Group Housing Project- EDGE Towers Ghaduli kalan, sector-37D, District Gurgaon, Haryana.
- PP deposited requisite scrutiny fee of Rs.2,00,000/- vide DD no.009591 dated 25.05.2022.
- The case was transferred to MoEF&CC and vide Notification dated 08.03.2018 MoEF&CC transferred category B cases to SEIAA to consider proposals.
- Whereas the case was taken up in the 172st meeting of the SEAC held on 07.04.2012 for approval of ToR vide Notification dated 14.03.2017 and 08.03.2018 but PP did not appear.
- The project was submitted to SEIAA on 16.04.2018 received in the SEAC on 27.04.2018.
- ToR was granted by SEIAA under violation category vide letter no. SEIAA/HR/18/ dated 07.08.2018
- PP submitted EIA/ EMP report on basis of approved ToR on 11.10.2019. Whereas the case was taken up in the 192st and 195th meeting of the SEAC held on 03.12.2019 and the case was deferred in both meetings.
- The case was taken up in the 197th meeting of the SEAC held on 26.02.2020 and recommended to SEIAA for grant of EC under category 8B under violation category.
- The case was taken up in the 124th meeting of the SEIAA held on 22.07.2020 and the case was deferred back to SEAC.
- The case was taken up in the 202th meeting of the SEAC held on 30.08.2020 and recommended to SEIAA for grant of EC under category 8B under violation category.
- The case was taken up in the 125th meeting of the SEIAA held on 07.10.2020 in principle approval.
- The case was taken up in the 129th meeting of the SEIAA held on 12.10.2020 and authority issued show cause notice.
- The case was taken up in the 129th meeting of the SEIAA held on 12.10.2020 and the case was deferred back to SEAC in the light of recent Hon'ble Supreme Court judgement dated 09.12.2021 in Civil appeal no. 7576-7577.
- The case was taken up in the 234th meeting of the SEAC held on 10.03.2022 but PP requested for deferment.
- The case was taken up in the 241th meeting of the SEAC held on 25.04.2022 and forwarded the case to SEIAA for taking further action on the representation of PP.
- The case was taken up in the 141st meeting of the SEIAA held on 26.05.2022 and SEIAA decided to call a report from concerned RO, HSPCB to verify latest construction.
- The case was taken up in the 142th meeting of the SEIAA held on 07.06.2022 and SEIAA deferred case till next meeting to evolve and arrive more clarity in the issue.
- The case was taken up in the 143th meeting of the SEIAA held on 14.07.2022 and referred the case to Learned L.R of Haryana for seeking legal opinion and guidance as to whether the SOP guidelines dated 07.07.2021 issued by the MoEF&CC, GoI shall apply on the proposals, applied for grant of EC under violation window, prior to the issue of the said SOPs. (Meaning thereby, whether

violation cases, pending prior to 07.07.2021 will attract SOPs dated 07.07.2021 or not).

This was being initiated to obtain more clarity and to further ensure compliance of certain observations made by Hon'ble Supreme Court (Civil Appeal Nos. 7576, 7577 of 2021) vide Order dated 09.12.2021, in the Case of Electro Steels Limited versus Union of India and others.

The matter was again taken up in 147th Meeting of SEIAA, Haryana held on 10.10.2022 and the Authority held detailed discussions/deliberations on the legal opinion dated 04.10.2022 received from Learned Legal Remembrancer, Haryana through AD, (Environment & Climate Change Department, Haryana).

Accordingly, The Authority referred back this case to SEAC with the directions that the Members of Appraisal Committee will follow the methodology and uniformity adopted in the matter of M/s G.P. Realtors Pvt. Ltd. (in the matter of O.A. No. 976 of 2019 titled as Gurinder Singh & Ors V/s Union of India & Ors.); while examining/appraising the violation cases within the purview and scope of Standard Operating Procedures (SOPs) dated 07.07.2021 issued by MOEF & CC, GOI.

The case was taken up in 254th meeting held on 31.10.2022 however PP requested vide letter dated 31.10.2022 to defer the case.

The case was taken up in 256th meeting held on 01.12.2022. The PP alongwith consultant appeared before the Committee and presented their case.

It is submitted by PP that after submission of Augmentation & Remedial Plan of Rs.3.80 Crores with SEAC in 197th and 202nd meeting, the authority (SEIAA) approved the environmental clearance in principle subject to submission of Bank Guarantee of required amount with Haryana State Pollution Control Board. The PP was asked to submit Bank Guarantee vide letter dated 24.12.2020. The PP further submitted that due to COVID period of almost two years, and slowdown in Real Estate Sector, could not arrange the huge amount of Rs.3.80 Crores. The PP has submitted that the Bank Guarantee dated 09.02.2022 of required amount has been submitted with HSPCB. The PP also enclosed receipt dated of depositing the Bank Guarantee.

The PP further submitted that they came to know vide 143rd meeting of SEIAA that their case was forwarded to LR for opinion which were received on 04.10.2022.

The PP also submitted that their case is different from G. P. Realtors and also in this case the final remediation budget has already been decided by SEIAA in the month of October 2020 much before the SoP dated 07.07.2021 issued by MoEF&CC and EC has also been approved in principle subject to submission of Bank Guarantee of Rs.3.80 Crore which has also been deposited with HSPCB.

The Committee held a discussion on the submission made by the PP. After due deliberation, it was decided that since required Bank Guarantee has been deposited by PP in this case, therefore, the case shall be sent to SEIAA for further consideration to grant EC under violation category.

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ANNEXURE R8/13

List of Agenda Items/ Cases to be taken up in the 151st Meeting of State Environment Impact Assessment Authority (SEIAA), Haryana scheduled to be held on 16th & 17th December, 2022 under the Chairmanship of Shri Sameer Pal Srow, IAS (Retd.), Chairman, SEIAA at Bays No.55-58, First Floor, Paryatan Bhawan, Sector-2, Panchkula.

Date of Meeting: 16.12.2022

Sr. No.	Name and Address of the Project with Proposal No.	Location of the Project	Status of the Project/Case
1.	**M/s P.S. Buildtech.** **Regd. Office:** 34, Vishal Nagar, Yamuna Nagar, Haryana 135001 **Email :** kulvinder2004singh@gmail.com **SIA/HR/MIN/293365/2022**	Corrigendum in Environmental Clearance (EC) for "Addition of (minor mineral) Boulder and Gravel" as per the DMG letter at Kanalsi Block/YNR B-5, over an area of 44.14 Hectares in Village Kanalsi, Tehsil Chhachhrauli, District Yamunanagar, Haryana.	Recommended by SEAC to SEIAA for issuance of Corrigendum in EC issued to PP for mining of Boulder, Gravel in addition to Sand Minor mineral mining of "Kanalsi Block/ YNR B-5" Village Kanalsi, Tehsil Chhachhrauli, District Yamunanagar, over an area of 44.14 Hectares proposed by M/s P. S. Buildtech Amendment/modification of EC with same quantity of production as mentioned in earlier EC.
2.	**M/s ITPG Developers Pvt. Ltd.** **Regd. Office:** International Tech Park Gurgaon, IT/ITES SEZ village Behrampur, Near Sector-59, Gurugram Haryana 122101 **Email :** itpg1@yandex.com	Amendment/Modification of EC for Expansion of International Tech Park (ITPG), IT/ITES, SEZ (63.25 Acres), Village Behrampur, Near Sector 59, Gurugram, Haryana.	Recommended by SEAC to SEIAA for modification of earlier EC granted on 22.11.2021.

3.	**M/s Victory Infraedge Private Limited,** **Address**: 302, Third Floor, D Mall, Plot A-1, NSP, Pitampura, Delhi **Email :** info.vg48gurgaon@gmail.com **SIA/HR/MIS/82897/2022**	ToR for Project Commercial Colony at Village Fazilpur Jharsa, Sector 48, Gurgaon, Haryana	The SEAC decided to send the case to SEIAA alongwith site visit report (in original) and also reiterated its recommendations conveyed to SEIAA vide MoM of 250thSEAC meeting for granting **Terms of Reference to the project (under Violation Category).**
4.	**M/s Global Horizon Holdings Private Limited,** Address: P 903-905,c-Wing, 9th floor, JMD Megapolis, Sector-48, Sohna Road Gurugram Haryana Email: harshit.singla@breezbuilders.com **SIA/HR/MIS/279337/2022**	EC for proposed expansion of Affordable Residential Plotted Colony Project under DDJAY-2016 located at Village Dhunela, Sector-33, Tehsil Sohna & District Gurugram Haryana.	The SEAC decided to send the case to SEIAA alongwith site visit report (in original) and reiterated the previous recommendations conveyed to SEIAA vide MoM of 244th SEAC meeting for granting EC
5.	**M/s VSR Infratech Pvt. Ltd.** Address: Plot No. 14, Ground Floor, Sector 44, Institutional Area, Gurgaon, Haryana 122003 **SIA/HR/MIS/290750/2022**	EC for VSR Mall Retail cum Office Complex Sec 114 Village Bajghera, Gurgaon, Haryana-122017 by Sh. Puran Das M/s VSR Mall Retail	Recommended by SEAC to SEIAA for grant of EC under **Violation Category**
6.	**M/s Unitech Limited,** 1306-1308, Signature Tower B, South City-1, Gurugram, Haryana-122007 **SIA/HR/MIS/226633/2021**	Environment Clearance for Expansion of Commercial Office Complex “Signature Tower-III” at Sector-15, Gurugram.	Recommended by SEAC to SEIAA for grant of Environment Clearance **(under Violation Category**) as recommended vide 243rd MoM of SEAC Meeting held on 30.06.2022.

7.	**M/s Ansal Landmark (Karnal) Township Pvt. Ltd,** 11th Floor, Narain Manzil Building 23, Barakhambha Road, New Delhi-110001 **SIA/HR/MIS/56727/2017**	EC under violation notification dated 14.03.2017 for Integrated Residential Colony (Plotted & Group Housing) "Sushant City/Royale" at Sector-35/36, Karnal, Haryana.	Recommended by SEAC to SEIAA for grant of Environment Clearance **(under Violation Category)** as recommended vide MoM of 219th meeting along with additional recommendations conveyed vide 225th and 241st MoM of SEAC.
8.	**M/s Focus Energy Ltd,** 3rd Floor, Gopala Tower, 25, Rajendra Place, New Delhi-110008. **SIA//HR/MIS/189290/2020**	EC under violation notification dated 14.03.2017 for an Institutional "Office Building" Project at Plot No. 6, Sector – 32, Gurgaon, (Haryana) by M/s Focus Energy Ltd	Recommended by SEAC to SEIAA for grant of Environment Clearance **(under violation category**) as recommended vide MoM of 215th meeting alongwith additional recommendations conveyed vide 242 nd MoM of SEAC
9.	**M/s Padmini Technologies Ltd.** Address: 101- C, 1st Floor, Kundan Niwas, Hari Nagar Ashram, New Delhi- 110014 Email Id: padminitechnologies.com **SIA/HR/MIS/278481/2022**	EC for the Project "Corporate Office" at Plot No. 13, Sector-32, Urban Estate Gurugram-II, Haryana.	Recommended by SEAC to SEIAA for grant of Environment Clearance **(under violation category**) as recommended vide 244th and 247th MoM of SEAC Meeting.
10.	**M/s Commander Realtors Private Limited and others**, C-4, 1st floor , Malviya Nagar, New Delhi, South Delhi 110017 Email: comandereia@gmail.com **SIA/HR/NCP/57972/2020**	EC for proposed Expansion of Plotted Colony on 23.2999 acres land under DDJAY Scheme at Village Behrampur & Ullawas, Sector-61, Gurugram, Haryana.	The SEAC reiterated the previous recommendation conveyed to SEIAA vide MoM of 244th alongwith additional recommendations conveyed vide 247th and 251st SEAC meeting for granting EC (Environment Clearance) to the project.

	Date of Meeting: 17.12.2022		
11.	**M/s TDI Infrastructure Limited,** Address: 10, Shaheed Bhagat Singh Marg, Gole Market, New Delhi Email Id: subodh.saxena@tdiinfracorp.com **SIA/HR/MIS/80813/2021**	EC for Expansion of Residential plotted colony at Village Kabri, Faridpur, Ratipur and Mehmadpur, Sector 36-39, Panipat, Haryana.	The SEAC recommended to SEIAA for granting EC to the project and further reiterated the recommendations conveyed to SEIAA vide MoM of 246th meeting of SEAC.
12.	**M/s Krisumi Corporation Private Limited.** **Address:** 3rd Floor, Central Plaza Mall, Golf Course Road, Sector -53, Gurgaon-122001, Haryana India Email Id: eiakrisumi@gmail.com **SIA/HR/INFRA2/402959/2022**	EC for Expansion of Proposed Group Housing Project at Sector 36 A, Gurgaon, Manesar Urban Complex, Haryana.	The SEAC decided to recommend the case to SEIAA and reiterated the previous recommendation conveyed to SEIAA vide MoM of 253rd SEAC meeting for granting EC (Environment Clearance) to the project.
13.	**M/s Saharanpur Mines Management Services Pvt. Ltd.,** Shop No. 12, Mukund Market, Janakpur Chowk, Saharanpur-247121 (UP) **SIA/HR/MIN/217849/2021**	Extension of EC validity for Mining of Boulder, Gravel and Sand Minor Mineral at Mandewala Block/ YNR B-38" Village Mandewala, Tehsil Chhachhrauli, District Yamunanagar, Haryana over an area 15.00 Ha with total production capacity of 2,40,000 TPA.	Recommended by SEAC to SEIAA for granting extension in EC issued to PP till the validity of Mining Plan i. e. 18.06.2024 for mining of Boulder, Gravel and Sand Minor Mineral.

14.	**M/s DLF Homes Panchkula Pvt. Ltd.** **Regd. Office:** 2nd Floor, DLF Gateway Tower, DLF City Phase III, NH-8, Gurugram-122002 **Email :** dlfvalley2022@gmail.com **SIA/HR/MIS/293395/2022**	Corrigendum in EC of Proposed Residential Plotted Colony over an area measuring of 34.229 Acres in village Bhagwanpur, Sector-3, Pinjore Kalka Urban Complex, Panchkula, Haryana.	Recommended by SEAC to SEIAA for issuing Corrigendum in EC of Proposed Residential Plotted Colony over an area measuring of 34.229 Acres.
15.	**M/s Model Economic Township Limited.** Address: Third Floor, 77B, Sector 18, IFFCO road, Gurugram- 122015. **SIA/HR/MIS/81379/2022**	EC for Project 1197 acres "Township Development Project" at village Banmola, Ladpur, Munimpur, Nimana, Pelpa and Sondhi, District Jhajjar, Haryana by M/s Model Economic Township Limited Formerly Known as Reliance Haryana Sez Limited	Recommended by SEAC to SEIAA for grant of EC
16.	**M/s Parsvnath Developers Ltd**, 6th floor, Arunachal Building, 19, Barakhamba Road, New Delhi-110001 **SIA/HR/MIS/212482/2021**	EC under Violation Notification dated 14.03.2017 for Expansion of Group Housing Project "Parsvnath Exotica Phase-II" (under violation) at Village Wazirabad, Sector 53, Gurugram, Haryana.	Recommended by SEAC to SEIAA for grant of EC Under **Violation Category**
17.	**Sh. Mahipal Singh & Others,** Warehouse Project, Main Pataudi Road, Ward no 2, Village Jhamuwas Tehsil Taoru Nuh Haryana Email: mahipalsinghothers@gmail.com **SIA/HR/MIS/275628/2022**	Modification of EC for expansion of warehouse for storage of non agro produce (Logistic) project Revenue Estate of Village Jamuvas, Tehsil Taoru, Mewat, Haryana by	Recommended by SEAC to SEIAA for exemption and delisting.

18.	**M/s Ramprastha Promoters & Developers Pvt. Ltd**, Plot No. 114, Sector-44, District-Gurgaon, Haryana **SIA/HR/MIS/43144/2017**	EC under violation notification dated 14.03.2017 for Group Housing Project "EDGE TOWER" at Ramprastha City, Sector-37 D, District-Gurgaon, Haryana.	Recommended by SEAC to SEIAA for further consideration to grant EC **under Violation Category.**
19.	**M/s Conmin Projects India Private Limited,** H-38, Ground Floor, M2K White House, Sector-57, Gurugram, Haryana-122001 **SIA/HR/MIS/219795/2021**	EC for Proposed Affordable Group Housing Colony, Village-Badha & Sikanderpur Badha, Sec-85, Gurugram, Haryana	The recommendations of SEAC were taken up in the 149th meeting of SEIAA held on 08.11.2022. The Authority after due deliberations; decided to defer this case and further to request the Member Secretary, HSPCB to further direct concerned Regional Officer, HSPCB to submit its report within 10 days, positively. **Note: Site visit report received.**

All the Project Proponent are hereby directed to **submit scrutiny fee as applicable in accordance to the project cost in compliance of Haryana Government, Environment & Climate Change Department Notification No. DE&CCH/3060 dated 14.10.2021 in the shape of Demand Draft in the name of Member Secretary, SEIAA payable at Panchkula.**

Note: -

1. Names and addresses of the Chairman, Member and Member Secretary are given below. Please avoid delivery of documents by hand and separate meeting with Chairman/Members, in this regard.

Sr. No	Name and Address	Designation
1.	**Shri Sameer Pal, Srow, IAS (Retd,)** Bay's No. 55-58, Ist Floor, Prayatan Bhawan, Sector-2, Panchkula, Haryana **Email Id**:ps2cmnseiaa2225@gmail.com	Chairman
2.	**Dr. R. Baskar, FGS (Ind),** FGGS School of Sciences, Indira Gandhi National Open University (IGNOU) MaidanGarhi, New Delhi-110068 **Email:** rbaskar@ignou.ac.in	Member
3.	**Shri Pardeep Kumar, IAS** Bay's No. 55-58, Ist Floor, PrayatanBhawan, Sector-2, Panchkula, Haryana **Email Id:** seiaa-21.env@hry.gov.in	Member Secretary

2. Project Proponents are requested to provide soft copies of the documents at E-mail Id i.e. immediately and the hard copy of the same may also be provided at the address mentioned above against their name i.e**. Chairman, Member and Member Secretary, SEIAA on urgent basis.**

State Environment Impact Assessment Authority, Haryana,
Bays No.55-58, Prayatan Bhawan, Sector-2 Panchkula.

Tel: 0172-2565232, 4043956
E-mail Id: seiaa-21.env@hry.gov.in

Memo No. SEIAA/HR/2023/ 28 Date: 17/01/2023

To

M/s P.S. Buildtech
Regd. Office: 34, Vishal Nagar,
Yamuna Nagar, Haryana 135001
Email : kulvinder2004singh@gmail.com

Subject: Corrigendum in Environmental Clearance (EC) for "Addition of (minor mineral) Boulder and Gravel" as per the DMG letter at Kanalsi Block/YNR B-5, over an area of 44.14 Hectares in Village Kanalsi, Tehsil Chhachhrauli, District Yamunanagar, Haryana by M/s P S Buildtech.

The Project was submitted to the SEIAA, Haryana vide **online Proposal No. SIA/HR/MIN/293365/2022 dated 28.10.2022,** praying for Corrigendum in the communication dated 07.10.2022 of Environmental Clearance dated 15.09.2016, under category 1(a) of EIA Notification dated 14.09.2006. The Project Proponent has deposited due Scrutiny fee (as applicable) of ₹ 1,50,000/- vide DD No. 505444 dated 28.10.2022 (in compliance of Haryana Government, Environment & Climate Change, Department Notification No. DE&CCH/3060 dated 14.10.2021). Cost of the Project as mentioned in the APPLICATION FORM is at ₹ 5.0 Crore by the Project Proponent.

The case was taken up during 256th meeting of SEAC, Haryana held on 30.11.2022 and recommended the case to SEIAA for issuance of Corrigendum with same quantity of production as mentioned in earlier EC issuedto PP for mining of Boulder, Gravel in addition to Sand Minor mineral mining of "Kanalsi Block/YNR B-5" Village Kanalsi, Tehsil Chhachhrauli, District Yamunanagar, over an area of 44.14 Hectares proposed by M/s P. S. Buildtech.

The recommendations of SEAC were taken up during **151st meeting of SEIAA held on 16.12.2022.** After having gone through the details & record placed on the file & further considering the recommendations of the Appraisal Committee, the Authority observed that major issue in the present proposal, pertains to variations, reflected, due to a communication dated 07.10.2022 in the scope & activities to be allowed for operations to the Project Proponent.

Variations reflected in the content as communicated vide letter dated 15.09.2016 (Grant of EC) & subsequent communication dated 07.10.2022 regarding extension of validity of EC as detailed below:

Communication dated 15.09.2016 (Environment Clearance letter)

Subject: Environmental Clearance for proposed Boulder, Gravel and Sand Minor Mineral Mines of "Kanalsi Block/YNR B-5" over an area of 44.14 Ha. In Tehsil Jagadhri, District-Yamuna Nagar by M/s P.S. Buildtech.

Communication dated 07.10.2022 regarding extension of validity of Environment Clearance dated 15.09.2016

Subject: Extension of Validity of EC for proposed project Mining of sand minor mineral from the riverbed Yamuna river with 19,50,000 MT production capacity over an area of 44.14 hectare located at Village Kanalsi, Tehsil Chhachhrauli, District Yamuna Nagar, Haryana.

In view of the above, the Authority understood that some activities (i.e. Boulder & Gravel), which were allowed earlier also, along with Sand Mining as per the original EC dated 15.09.2016, got missed out (appears to be a typographical miss), while considering the proposal for the grant of extension of validity of EC dated 15.09.2016 during 146th Meeting of SEIAA held on 20.09.2022 as well as in the communication dated 07.10.2022 later, issued by the Authority.

Therefore, the Authority decided to restore the original scope of activities for the operations to be allowed to carry out by the Project Proponent as mentioned in the EC letter dated 15.09.2016, by considering the proposal of corrigendum and accordingly, amending the contents of communication dated 07.10.2022 with the directions for ***strict compliance of Enforcement & Monitoring Guidelines-2020, for Sand Mining issued by Ministry of Environment, Forest and Climate Change, Government of India.***

The Authority further deemed it appropriate & necessary to direct and re-emphasized that there is no change accorded / considered in terms of earlier & original location i.e. (Longitude - 30°08'09''N to 30°08'31''N & Latitude - 77°24'00''E to 77°24'46''E) with total area 44.14 hactares, Production Capacity – 19,50,000 TPA (as per EC dated 15.09.2016).

Project Proponent shall also comply with the directions of Hon"ble Punjab & Haryana High Court issued, vide Order dated 13.09.2022 (CWP No. 10588 of 2022, titled as M/s Ganaga Yamuna Mining Company V/s State of Haryana & CWP No. 10595 of 2022 titled as Ram Pal V/s State of Haryana & Ors.) without any exception.

Accordingly, case is disposed of.

Member Secretary,
SEIAA, Haryana

ANNEXURE R8/15

1210

M/S P S BUILDTECH

MINING SITE- VILLAGE KANALSI, TEHSIL JAGADHRI, YAMUNA NAGAR (HR)

Date 06.06.2022

To,

The Chairman

HWRA

Sector 6 Panchkula (HR) 134109

Subject: Reply of Notice.

Reference: Notice via Email dated 28.03.2022

Respected Sir,

With above reference to your notice dated 28.03.2022 regarding obtaining permission/NOC for abstraction of ground water used in mining activity for Kanalsi Block YNR/B-5, Tehsil Jagadhri, Yamuna Nagar. As per Environment clearance (Copy enclosed) issued by State Environment Impact Assessment Authority, Haryana (SEIAA) on dated 15.09.2016 we are required 40 KLD Water for three different activities mentioned in environment clearance. Also clearly mentioned in copy of environment clearance we have to obtained respective water through Tankers only. As followed by the conditions of EC we have hired tankers for obtaining water. We are not using Borewell for obtaining water. As per E Form by your department we have to fill maximum information regarding Borewell so what we can filled in this form.

We hereby request you to please issue a NOC as soon as possible.

Thanking You

For P S Buildtech

Prop./Authorized Signatory

Sumitra
06-06-22