

**BEFORE THE NATIONAL GREEN TRIBUNAL
SITTING AT NEW DELHI**

MEMORANDUM OF APPLICATION

I.A. NO. OF 2025

IN

ORIGINAL APPLICATION NO. 974 OF 2024

IN THE MATTER OF:

Jitendra Nishad

..... APPLICANT

VERSUS

State of Uttar Pradesh & Others

..... RESPONDENTS

AND IN THE MATTER OF:

Surendra Kumar,
Son of Shivmurthy Bharti,
Resident of Village Berui, Post,
PS line Bazaar, District Jaunpur, UP

.....Applicant/Respondent No. 10

NDOH: 07.04.2025

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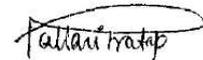
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Dated: 04.04.2025
New Delhi

Respondent no. 10

Through



PALLAVI PRATAP

Advocate for the Respondent No. 10

ENROL NO. UP/1246/2010

A-90, LGF South Ex-II, New Delhi

Mob: 9999990078

Email: pallavipratap@hotmail.com

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.....Applicant/Respondent No. 10

**COMPLIANCE REPORT FILED ON BEHALF OF RESPONDENT
NO. 10**

MOST RESPECTFULLY SHOWETH

1. This compliance report is submitted in response to the Hon'ble Tribunal's order dated 19.03.2025 and further in reply to the Joint Committee Report regarding compliance of the conditions of environmental clearance dated 29.05.2023 and CTO dated 24.04.2023.

2. That as per Joint Committee Report, Point – 13, PTZ Cameras and Pillars have been installed and further weighbridge is also installed and functional. True copy of the photographs of the PTZ Cameras and Pillars are filed herewith as **Annexure No. A-1(colly.)**.
3. That as per Point 13(c), the answering respondent has carried out plantation. True copy of the photographs of plantation is filed herewith as **Annexure No. A-2**.
4. That the answering respondent have also purchased Tankers for Sprinkling of water. True copy of the photographs of the Tankers are filed herewith as **Annexure No. A-3**.
5. That Septic Tank /Soakpit for treatment of domestic effluent in the temporary toilet made at the site. True copy of the photographs of Septic Tank /Soakpit are filed herewith as **Annexure No. A-4**.
6. That the First Aid Box has been kept at the mining site which have been temporarily constructed. True copy of the photograph of First Aid Box is filed herewith as **Annexure No. A-5**.
7. That Handpump has been installed. True copy of the photograph of Handpump is filed herewith as **Annexure No. A-6**.
8. That Six Monthly Compliance Report has been submitted. True copy of the Six Monthly Compliance Report is filed herewith as **Annexure No. A-7**.

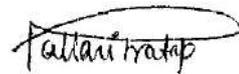
9. That third party monitoring for Ambient Air Quality Report has also been done. True copy of the Ambient Air Quality Report is filed herewith as **Annexure No. A-8**.
10. That Corporate Social Responsibility Report has been submitted. True copy of the Corporate Social Responsibility Report is filed herewith as **Annexure No. A-9**.
11. That the answering respondent has got the Hydro Geological Study done in compliance of the environmental clearance. True copy of the Hydro Geological Study is filed herewith as **Annexure No. A-10**
12. That action plan to be adopted by the answering respondent/project proponent in respect of its mining lease are as under:-
 - (i) Every month site may be visited and inspected by a team of Uttar Pradesh Pollution Control Board and SEIAA, U.P.
 - (ii) Project Proponent shall regularly submit Six Monthly Compliance Report to the Regional Office, SEIAA, U.P.
 - (iii) Project Proponent will deposit the amount for plantation work (including its maintenance and security) to the Forest Department.
 - (iv) Project Proponent shall timely comply with all the conditions of the environmental clearance for sustainable development.

13. That the answering respondent has not violated any conditions of environmental clearance or the CTO issued to him.
14. That it is submitted that the applicant/answering respondent has not carried out any illegal mining as alleged by the joint inspection committee.
15. That at this juncture, it is pertinent to mention here that the lease holders apart from depositing monthly installments are also bound to deposit an amount towards District Mineral Fund which is generally used for preservation of areas surrounding mining site as provided under the Uttar Pradesh District Mineral Foundation Trust Rules, 2017.
16. That this report is submitted in adherence to the directives of this Hon'ble Tribunal.

Dated: 04.04.2025
New Delhi


Respondent no. 10

Through



PALLAVI PRATAP

Advocate for the Respondent No. 10

ENROL NO. UP/1246/2010

A-90, LGF South Ex-II, New Delhi

Mob: 9999990078

Email: pallavipratap@hotmail.com



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AFFIDAVIT IN SUPPORT OF COMPLIANCE REPORT

I, Surendra Kumar, aged about 51years, Son of Shri Shiv Murti Bhartiya, Resident of Village Berui, Post Garapur, Allahabad, Uttar Pradesh – 221507, presently at Lucknow, do hereby solemnly affirm and declare as under:-



1. That I am the Respondent No. 10 as such I am conversant with the facts of the case and thus competent to affirm this affidavit.
2. That I have read the contents of the accompanying application including facts in brief, grounds etc. from pages 1 to 7... and have understood the same.
3. That the facts stated therein are true and correct to the best of my knowledge and belief and nothing material has been suppressed.
4. That I have instructed by Advocate and the Application has been prepared by my Advocate on my instructions as stated above.
5. That the Annexures filed herewith are true and correct copies/ English translations of their respective originals.

Verified at Lucknow on ^{NOTARY} 20th day of April 2025




DEPONENT

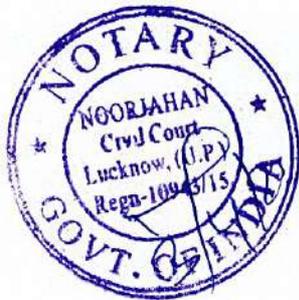
VERIFICATION



I above named deponent do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge and belief and nothing material has been concealed there from.

Verified at Lucknow on ^{NOORJAHAN} 3^{only} day of April 2025


DEPONENT



Sworn and Verified before me


NOORJAHAN
Advocate & Notary
Civil Court, Lucknow
Registration No. 10043/15


I know & identify the deponent / Executid who has signed / put his T.I. before me

1342

8



9RM3+PPC, Mohabatganj
Uparhar, Prayagraj, Uttar

Lat: 25.383881, Long: 81.805868

31 Mar, 25, 01:49 PM, Monday



37.9° 152 SE



CR23+55J, Baksi Moda, Uttar Pradesh 211012, India,

Lat: 25.400601, Long: 81.802452

31 Mar, 25, 01:20 PM, Monday



37.9°



86 E



Karehada Uparhar, Uttar Pradesh, India,



37.85° 119 SE

Lat: 25.374739, Long: 81.793568

31 Mar, 25, 01:11 PM, Monday



9RM3+PPC, Mohabatganj
Uparhar, Prayagraj, Uttar

Lat: 25.383881, Long: 81.805868

31 Mar, 25, 01:37 PM, Monday



37.9° 247 SW



Prayagraj, Uttar Pradesh, India

**Unnamed Road, Saeedpur Khas,
Prayagraj, Uttar Pradesh 211007, India**

Lat 25.383799° Long 81.800391°

30/03/25 12:41:52 PM





Prayagraj, Uttar Pradesh, India

**Unnamed Road, Saeedpur Khas,
Prayagraj, Uttar Pradesh 211007,
India**

**Lat 25.386176° Long 81.803718°
30/03/25 01:05:34 PM**



Kumar



Google



Prayagraj, Uttar Pradesh, India

**Unnamed Road, Saeedpur Khas,
Prayagraj, Uttar Pradesh 211007, India**

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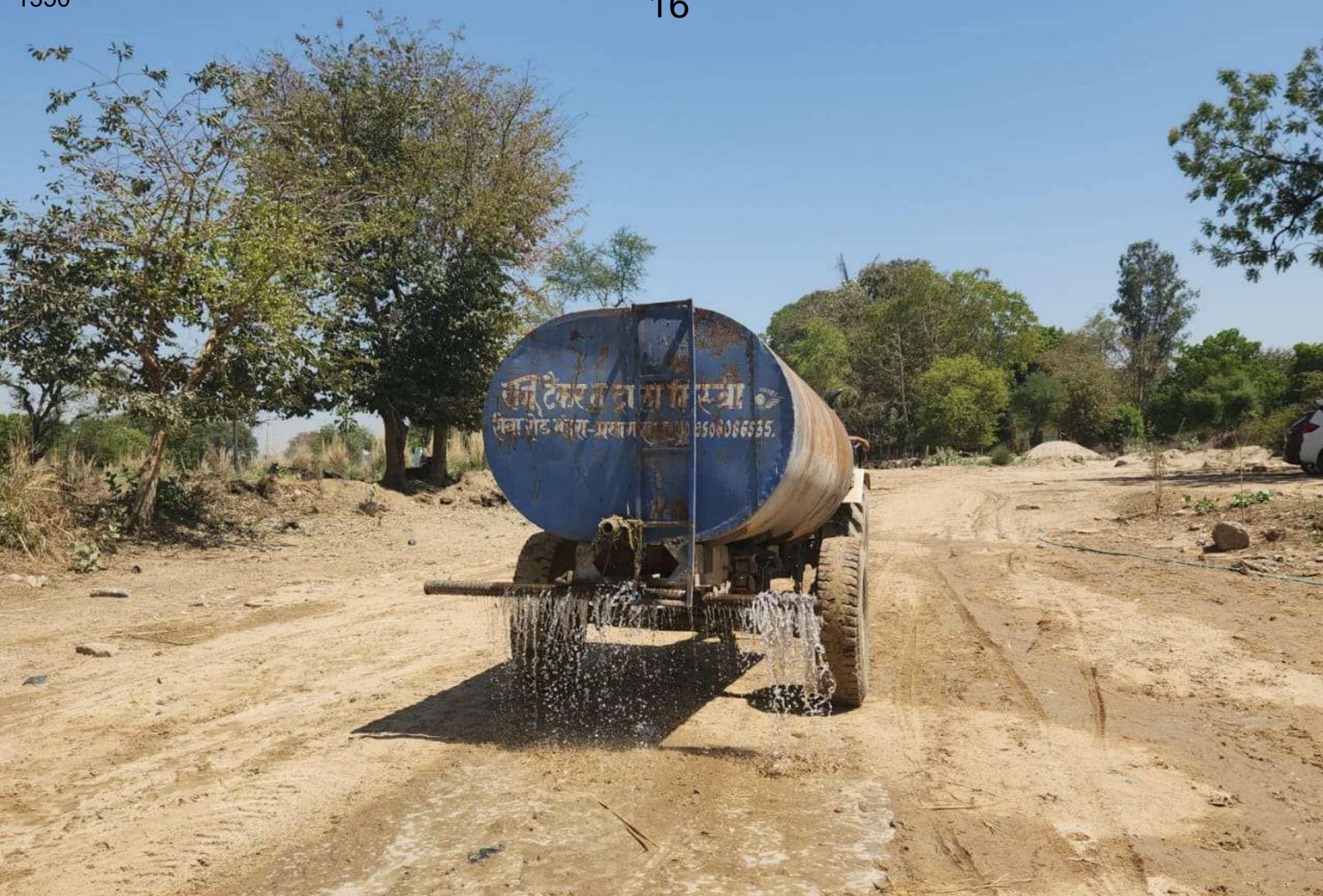
Prayagraj, Uttar Pradesh, India

Unnamed Road, Saeedpur Khas,
Prayagraj, Uttar Pradesh 211007, India

Lat 25.386165° Long 81.803413°

30/03/25 01:12:14 PM





Prayagraj, Uttar Pradesh, India

Unnamed Road, Saeedpur Khas,
Prayagraj, Uttar Pradesh 211007, India

Lat 25.38614° Long 81.803402°

30/03/25 01:11:06 PM



शौचालय
(केवल श्रमिकों के लिये)
सौजन्य से - सुरेन्द्र कुमार
बालू खनन पट्टे धारक
(बसवार बालूघाट)

Unnamed Road, Prayagraj, Saeedpur Khas, Uttar Pradesh
211007, India,

Lat: 25.384479, Long: 81.803041

30 Mar, 25, 01:01 pm, Sunday



35.42°



300 NE

शुद्ध पीने का
पानी
सौजन्य से - सुरेन्द्र कुमार
बालू खनन पट्टेधारक
(बसवार बालूघाट)

Unnamed Road, Saeedpur Khas,
Prayagraj, Uttar Pradesh 211007,

Lat: 25.386064, Long: 81.803201

29 Mar, 25, 06:19 pm, Saturday



30.01° 180 S



Prayagraj, Uttar Pradesh, India

Unnamed Road, Saeedpur Khas,
Prayagraj, Uttar Pradesh 211007, India

Lat 25.386025° Long 81.802972°

30/03/25 12:57:04 PM



PROJECT: Environment clearance for ordinary sand mining from river bed of Yamuna, at Khand No. 14, Area – 4.69 ha at Village – Baswaar, Tehsil – Karchhana, District – Prayagraj, Uttar Pradesh of Shri Surendra Kumar

Environment Clearance Compliance

Post Monsoon December 2024

CLIENT: Shri Surendra Kumar

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

| | |
|------------------------------------|---|
| Name of the Project | Environment clearance for ordinary sand mining from river bed of Yamuna, at Khand No. 14, Area – 4.69 ha at Village – Baswaar, Tehsil – Karchhana, District – Prayagraj, Uttar Pradesh of Shri Surendra Kumar |
| Name of Client | Shri Surendra Kumar |
| EC Identification No. | SIA/UP/MIN/293074/2022 |
| Period of Compliance Report | Post-Monsoon December 2024 |
| File No. | 3989 |

| S.No. | Environmental Conditions | Remarks |
|----------------------------|--|--|
| General Conditions: | | |
| 1. | This environmental clearance is subject to allotment of mining lease in favour of project proponent by District Administration / Mining Department. | The Mining Lease is allotted in favour of Shri Surendra Kumar for ordinary sand mining from river bed of Yamuna, at Khand No. 14, Area – 4.69 ha at Village – Baswaar, Tehsil – Karchhana, District – Prayagraj, Uttar Pradesh |
| 2. | Forest clearance shall be taken by the proponent as necessary under law. | Noted. |
| 3. | Any change in mining area. khasra numbers. entailing capacity addition with change in process and or mining technology. modernization and scope of working shall again require prior Environmental Clearance as per the provisions of EIA Notification, 2006 (as amended). | There are no any such changes required regarding mining area, khasra number or mining technology. All the mining activities are being carried out according to Letter of intent and approved mine plan and Sustainable Sand Management Guidelines (SSMG), 2016. Copy of approved mine plan letter enclosed. |
| 4. | Precise mining area will be jointly demarcated at site by project proponent and officials of Mining / Revenue department prior to starting of mining operations. Such site plan. duly verified by competent authority along-with copy of the Environmental Clearance letter will be displayed on a hoarding/board at the site. A copy of site plan will also be submitted to SEIAA within a period of 02 months. | <p>Mining area has already been demarcated at site by project proponent and officials of Mining/Revenue department prior to starting of mining operations as per geo-coordinates mentioned in lease map is appended as annexure 3.</p> <p>The Site/Khasra map duly verified by Mining Officer, Sonbhadra, indicates the demarcated mining lease area.</p> <p>The copy of Environmental Clearance (EC) letter shall be displayed on the board at site during the time of mining. The copy of Khasra/site map has already been submitted at SEIAA.</p> |
| 5. | Mining and loading shall be done only | Noted. All the mining activities including |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| | within day hours time. | loading is being carried out during day time. |
| 6. | No mining shall be carried out in the safety zone of any bridge and/or embankment. | Noted. Approx 7.5 m area shall be left as safety zone around the allotted mining lease area. All the mining activities are completely restricted within this safety zone. |
| 7. | It shall be ensured that standards related to ambient air quality / effluent as prescribed by the Ministry of Environment & Forests are strictly complied with. Water sprinklers and other dust control majors should be applied to take-care of dust generated during mining operation. Sprinkling of water on haul roads to control dust will be ensured by the project proponent. | All the standards prescribed by MoEF&CC for ambient air quality/effluent are strictly complied. Water sprinkling is being done two times a day on haulage road for ensuring the proper dust control as prescribed by the MoEF&CC. |
| 8. | All necessary statutory clearances shall be obtained before start of mining operations. If this condition is violated, the clearance shall be automatically deemed to have been cancelled. | Noted. All relevant clearances have been obtained prior to commencement of the mining operations. |
| 9. | Parking of Vehicles should not be made on public places. | Agreed to comply. |
| 10. | No tree-felling will be done in the leased area, except only with the permission of Forest Department. | No tree felling is involved in the project. |
| 11. | No wildlife habitat will be infringed. | Noted. No wildlife habitat shall be infringed because of the operation of the mining activities. |
| 12. | It shall be ensured that excavation of minor mineral does not disturb or Change the underlying soil characteristics of the river bed / basin, where mining is carried out. | Noted. |
| 13. | It shall be ensured that mining operation of Sand / Moram will not In any way disturb the, velocity and flow pattern of the river water significantly. | Noted. Mining activities is being done only in allotted lease area hence there is no disturbance in velocity and flow pattern of the river system. |
| 14. | It shall be ensured that there is no fauna dependant on the river bed or areas cllose to mining for its nesting. A report on the same, vetted by the competent authority shall be submitted to the RO, PCB and SEIAA within 02 months. | Noted. |
| 15. | Primary Survey of flora and fauna shall be carried out and data shall be submitted to the RO, PCB and SEIAA | Noted. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| | within six months. | |
| 16. | Hydro-geological study shall be carried out by a reputed organization/institute within six months and establish that mining in the said area will not adversely affect the ground water regime. The report shall be submitted to the RO, PCB and SEIAA within six months. In case adverse impact is observed /anticipated mining shall not be carried out. | The working depth of mining will be 3.00 m bgl in river bed. So, mining depth will be not intersecting the ground water table. Hence there is no required any permission from Ground water department. |
| 17. | Adequate protection against dust and other environmental pollution due to mining shall be made so that the habitations (if any) close by the lease area are not adversely affected. The status of implementation of measures taken shall be reported to the RO, UPPCB and SEIAA and this activity should be completed before the start of sand mining. | Noted and following measures are undertaken for dust and other environmental pollution: <ul style="list-style-type: none"> ▪ Water spray on mineral material prior to Excavation and loading. ▪ Provision of water spray by tankers system on haulage road. ▪ Covering of the transported material with tarpaulin. ▪ Green belt of trees with good canopy on both side of haulage road. Allow only pollution under control certificate (PUC) be obtained Vehicle. |
| 18. | Need-based assessment for the nearby villages shall be conducted to study economic measures which can help in improving the quality of life of economically weaker section of society. Income generating projects/tools such as development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. The project proponent shall provide separate budget for community development activities and income generating programmes. | Complied. We have carried out CER activities in Village. Activities carried out by us are: <ul style="list-style-type: none"> • Employment to over 100 people of the village. • Regular water sprinkling through private tankers for dust suppression. • Provision of fresh drinking water for school children • We have installed solar panels in the schools • Provision of medical supplies • Tree plantation has also been done by us in the village. |
| 19. | Green cover development shall be carried out following CPCB guidelines including selection of plant species and in consultation with the local DFO/Horticulture Officer. | Noted and Plantation will mainly be done along the road side /gram panchayat land and along the river bank (in Gram Panchayat land). |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

| | | Common Name | | Botanical Name | |
|-----|--|---|----------------|--------------------------|----------------|
| | | Common Name | Botanical Name | Common Name | Botanical Name |
| | | Gulmohar | | <i>Delonix regia</i> | |
| | | Jamun | | <i>Syzygiumcumini</i> | |
| | | Arjun | | <i>Terminalia arjuna</i> | |
| | | Pipal | | <i>Ficus religiosa</i> | |
| | | Neem | | <i>Azadirectaindica</i> | |
| 20. | Separate stock piles shall be maintained for excavated top soil, if any, and the top soil should be utilized for green cover/tree plantation. | No top soil excavation is involved. | | | |
| 21. | Dispensary facilities for first-aid shall be provided at site. | Noted and being complied. Dispensary facilities for first aid kit have been provided at the site. | | | |
| 22. | An Environmental Audit should be annually carried out during the operational phase and submitted to the SEIAA. | Noted. | | | |
| 23. | The District Mining Officer should quarterly monitor compliance of the stipulated conditions. The project proponent will extend full cooperation to the District Mining Officer by furnishing the requisite data /information /monitoring reports. In case of any violations of stipulated conditions, the District Mining Officer will report to SEIAA. | Noted. Full support will be extended to the District Mining officer and all requisite reports/data/information sought by him shall be readily provided by us. | | | |
| 24. | The project proponent shall submit six-monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard & soft copies) to the SEIAA, the District Officer and the respective Regional Office of the State Pollution Control Board by 1st June and 1st December every year. | Noted and being complied. Six-Monthly compliance of the Stipulated environmental clearance conditions including results of monitored data shall be submitted at the prescribed dates. | | | |
| 25. | A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation and Urban Local Body. | Noted. | | | |
| 26. | Transportation of materials shall be done by covering the trucks/tractors with tarpaulin or other suitable | Noted and being complied. All the transportation materials are covered byTarpaulin during transportation. Therefore, | | | |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| | mechanisms to avoid fugitive emissions and spillage of mineral/dust. | dispersion of sand particles at significant distance will be negligible and overloading of the trucks/trolleys will be prohibited. |
| 27. | Wastewater from temporary habitation campuses shall be properly collected and treated before discharging into water bodies. The treated effluent should conform to the standards prescribed by MoEF/CPCB. | Noted. |
| 28. | Measures shall be taken for control of noise levels to the limits prescribed by CPCB. | The following measures shall be taken for control of noise level: <ul style="list-style-type: none"> ▪ All machineries will be maintained as per maintenance schedule. ▪ Hearing protection devices (Ear plugs and ear muffs) will be provided during mining activities ▪ Mining activities will be restricted to Nighttime. We will strictly follow the standards as prescribed by CPCB. |
| 29. | Special measures shall be adopted to protect the nearby settlements from the impacts of mining activities. Maintenance of village roads through which transportation of minor minerals is to be undertaken shall be carried out by the project proponent regularly at their own expense. | Noted. We will adopt the best Environment Management plan to protect the nearby settlements from the impact of mining activities. The maintenance of transportation route shall be carried out regularly. |
| 30. | Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion, if any, shall be carried out with geo-textile matting or other suitable materials. | Noted and appropriate Measure for prevention & control of soil erosion and management of silt shall be undertaken. |
| 31. | Under corporate social responsibility (CSR), a sum of 5% of the total project cost or total income, whichever is higher, is to be earmarked for the total lease period. Its budget is to be separately maintained. The CSR component shall be prepared based on the needs of local inhabitants. Income-generating measures consistent with the traditional skills of the people, which can uplift the poor sections of society, shall be identified. The program can | Noted. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| | include activities such as developing fodder farms, fruit-bearing orchards, free distribution of smokeless chulhas, etc. | |
| 32. | The possibility of adopting the nearest three villages shall be explored, and details of civic amenities such as roads and drinking water proposed to be provided at the project proponent's expense shall be submitted within two months from the issuance of the Environmental Clearance. | Noted and shall be complied. |
| 33. | The funds earmarked for environmental protection measures should be kept in a separate account and should not be diverted for other purposes. Yearly expenditure should be reported to the Ministry of Environment and Forests, its Regional Office in Lucknow, SEIAA, U.P., and UPPCB. | Noted. Separate EMP budget has already been planned and submitted to SEIAA at the time of EC Application. |
| 34. | An action plan with respect to the suggestions, improvements, and recommendations made and agreed upon during the Public Hearing shall be submitted to the District Mines Officer, the concerned Regional Officer of UPPCB, and SEIAA within two months. | Noted. |
| 35. | Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972, from the competent authority, if applicable to this project. | Noted. |
| 36. | The proponent shall observe every 15 day for nesting of any turtle in the area. Based on the observations so made, if turtle nesting is observed, necessary safeguard measures shall be taken in consultation with the State Wildlife Department. For the purpose, awareness shall be created amongst the workers about the nesting sites so that such sites, if any, are identified by the workers during operations of the mine for taking required safeguard measures. In this regards the safety notified zone | Noted and shall be complied. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| | should be left so that the habitat/nesting area is undisturbed. | |
| 37. | The project proponent shall undertake adequate safeguard measures during extraction of river bed material and ensure that due to this activity the hydro geological regime of the surrounding area shall not be affected. | Noted and shall be ensured that during extraction of river bed material there is no adverse impact on hydro-geological regime of the surrounding area. |
| 38. | The project proponent shall obtain necessary prior permission of the competent Authorities for withdrawal of requisite quantity of water (surface water and groundwater), required for the project. | There is no need of withdrawal of surface/ground water. The source of water supply for drinking purposes and dust control measures is private water tankers. |
| 39. | Appropriate mitigative measures shall be taken to prevent pollution of the river in consultation with the State Pollution Control Board. It shall be ensured that there is no leakage of oil and grease in the river from the vehicles used for transportation. | Noted and shall be complied. |
| 40. | Vehicular emissions shall be kept under control and regularly monitored. The vehicles carrying the mineral shall not be overloaded. | Noted and shall be complied. |
| 41. | Provision shall be made for the housing of construction labor 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. (MoEF circular dated: 22-09-2008 regarding stipulation of conditions to improve the living conditions of construction labor at site). | All the labour working at the site is from local populace only hence there is no need for provision of housing facilities. However, mobile toilets have been provided at site to ensure proper sanitary facilities. |
| 42. | Personnel working in dusty areas should wear protective respiratory devices and be provided with adequate training on safety and health aspects. Occupational health surveillance programs should be conducted periodically to monitor health impacts due to dust exposure and to take corrective measures if needed. | We have provided the following facilities to the personal working in mining area. The measures are as follows: <ul style="list-style-type: none"> ▪ Personal Protective Equipment (PPE) will be provided to the workers. ▪ Quarterly training programmes on safety shall be conducted for awareness among the workers. ▪ Safe and hygienic working conditions for the workers will be provided. |

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ENVIRONMENT CLEARANCE COMPLIANCE**

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| | | <ul style="list-style-type: none"> ▪ Drinking water and sanitary facilities in the form of portable toilets. ▪ First aid facilities and ambulance will be maintained at readily accessible place where necessary appliances including sterilized cotton, wool, etc. shall be available. <p>Dustbins shall be made available at site for management of MSW.</p> |
| 43. | A copy of the clearance letter should be sent to the concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body, and Local NGO. Suggestions or representations made during proposal processing should also be included. The clearance letter should be published on the company website. | Noted. |
| 44. | The environmental statement for the financial year ending March 31 (in Form-V) must be submitted to the State Pollution Control Board as mandated by the Environment (Protection) Rules, 1986. Compliance statuses regarding environmental clearance conditions should also be posted online and sent to the Regional Office of the Ministry of Environment and Forests, Lucknow, via email | Noted. |
| 45. | Green cover development/tree plantation should occupy 20% of the total leased area, either along the riverbank or roadside for Avenue Plantation. | Noted and shall be complied. |
| 46. | Riverbed debris should be securely collected and may be utilized to strengthen the embankment. | Noted. |
| 47. | Safety measures should include provisions for treating bites from poisonous reptiles or insects, such as snakes, for workers at the mine lease area. | Noted. Adequate safety measures at site are being ensured. |
| 48. | Workers should undergo periodic and annual medical checkups as per the Mines Act, and they must be covered under the Employee State Insurance (ESI) rules. | Noted. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

| Specific Conditions | | |
|----------------------------|--|--|
| 1. | If the project area falls within the eco-sensitive zone of a National Park or Sanctuary, prior permission from the statutory committee of the National Board for Wildlife must be obtained, as per the Wildlife (Protection) Act, 1972. | Noted. |
| 2. | The survival of tree saplings must be ensured, and any instances of mortality must be addressed with timely replacements. | Survival of tree saplings must be ensured, and any instances of mortality shall be immediately addressed with timely replacements. |
| 3. | Photographs of the site, with date and time stamps, should be submitted within 15 days. | Noted. |
| 4. | One-month monitoring reports on air quality, water quality, noise levels, and flora and fauna must be conducted biweekly and submitted within 45 days. | Noted. |
| 5. | Cooking provisions should include cylinders for workers. | Agreed to comply. |
| 6. | The capacity of loading trucks or tractors must align with the Transport Department's norms and standards established by the government. | Noted. |
| 7. | Workers must be provided with suitable masks. | suitable masks shall be provided to the workers during mining time. |
| 8. | Roads that are currently non-motorable should be improved, and tree saplings should be planted along both sides of the approach roads. | Tree saplings shall be planted along both sides of the approach roads and roads have been improved. |
| 9. | Indigenous plants should be planted in accordance with Central Pollution Control Board (CPCB) guidelines, in consultation with the local Divisional Forest Officer. | Noted. Indigenous plant species has been planted according to CPCB guidelines. |
| 10. | The project proponent must, within two years, conduct a detailed replenishment study. This study, authenticated by a QCI-NABET accredited consultant and the District Mines Officer, will serve as the basis for a midterm review of Environmental Clearance conditions. | Noted. |
| 11. | There should be provisions for two toilets and hand pumps at the mining | Noted. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

| | | |
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| | site. | |
| 12 | Drinking water for workers should be supplied via tankers. | Noted and being complied. Drinking water requirement is sourced through private tankers. |
| 13. | Mining should utilize bar scalping or skimming methods (with depths typically 0.3 - 0.6 meters or 1 - 2 feet) in alignment with the Sustainable Sand Mining Management Guidelines-2016. | Noted and being complied. |
| 14. | A buffer or safe zone must be maintained from habitations as per the mining guidelines. | A buffer zone has been maintained as per the SSMMG guidelines 2016 and all mining activities are being carried out as per the approved mining plan. |
| 15. | Total Project Cost is estimated at Rs. 1 crore. A CSR plan of at least Rs. 5 lakh is to be executed, including installing five hand pumps for drinking water, solar streetlights in villages, and constructing two toilets at the primary school. These works should display the beneficiary's name, address, and Gram Pradhan contact details. Photographic evidence must be submitted to the Directorate and District Magistrate/Chief Development Officer, Allahabad, U.P. | Noted and agreed to comply. |
| 16. | Details of the above CSR activities must be submitted with an affidavit to the Directorate and District Magistrate/Chief Development Officer, Allahabad, U.P. | Noted and agreed to comply. |
| 17. | Provisions for health/insurance cards, medical claims, and regular health check-up camps must be made for all workers. Receipts of these provisions should be included in compliance reports submitted to the Directorate of Environment. | Noted and being provided. |
| 18. | Measures for water conservation, including rainwater harvesting and cleaning and maintaining nearby natural water bodies, should be considered as CSR activities. | Noted. |
| 19. | The transportation of excavated mining material must be managed to avoid obstruction of water flow. Relevant | Noted. No obstruction to the free flow of water takes places while transportation of excavated mining material. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| | details should be provided to the concerned department. | |
| 20. | The width of the haul road must be at least 6 meters. | Noted. |
| 21. | Submit an annual replenishment report certified by an authorized agency. If the replenishment is lower than the approved rate of production, mining activities or production levels should be decreased or halted accordingly until replenishment is completed. | Noted and shall be complied. |
| 22. | The environmental clearance will align with the duration of the mining lease period. | The environmental clearance shall be aligned with the duration of the mining lease period. |
| 23. | Projects located within a 10 km radius of a Wildlife Sanctuary must obtain clearance from the National Board for Wildlife (NBWL), even if the eco-sensitive zone is not explicitly defined. | Not applicable. |
| 24. | To avoid ponding effects or adverse environmental conditions, progressive mining should be conducted following the Sustainable Sand Mining Management Guidelines (2016). | Noted. Progressive mining is being done as per the SSMMG 2016 guidelines. |
| 25. | Geo-coordinates should be verified by relevant authorities, including the Director, DGM/District Magistrate, Regional Mining Officer, or NHAI, and promptly submitted to SEIAA/SEAC Secretariat. | Noted and agreed to comply. |
| 26. | If environmental clearance is obtained using incorrect information—such as claiming a distance greater than 500 meters between adjoining mines, when it is factually less than that, or claiming an area below 25 ha when it exceeds this—then the clearance will stand revoked. | Noted. |
| 27. | Within two years, the project proponent must conduct a detailed replenishment study, verified by a QCI-NABET accredited consultant and the District Mines Officer. This study will form the basis for a mid-term review of the conditions set out in the environmental clearance. | Noted and shall be duly carried out. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| 28. | The mining work should be open-cast and manual/semi-mechanized (subject to the orders of Hon'ble NGT or Hon'ble Court(s)). Heavy machinery such as excavators or scoopers should not be used for mining purposes. There should be no drilling or blasting at any stage. | Noted. There is no drilling/blasting involved at any stage. No heavy machine such as excavator, scooper etc. shall be employed for mining purpose. The mining method employed is open cast. |
| 29. | A buffer of 3 meters, or 10% of the river's width—whichever is less—should be left on both sides of the riverbank to avoid erosion. Mining is restricted to the riverbed and should not extend to banks. | Noted. |
| 30. | The proponent must undertake measures during mining activities to ensure the hydro-geological regime of the surrounding area is not adversely affected. | Noted. Mining activity is being carried out in such a way that the hydro-geological regime of the surrounding area shall not be affected. |
| 31. | The leaseholder shall ensure all mining is aligned to the submitted mining plan and regulations, clearly marking unmined safety zones from riverbanks or structures like bridges. Mining should cease during the monsoon season. | All mining activities are in conformity with the approved mining plan. It shall be ensured by us that no mining is carried in the Monsoon season. |
| 32. | Safety and labor conditions stipulated under the Mines Act must be strictly adhered to when employing workers. | Noted. |
| 33. | Workers should be provided with proper personal protective equipment (PPE) and training on occupational health and safety. Periodic medical examinations must be conducted. The workers engaged in the project shall be carried out, and records maintained. For the purpose, a schedule of health examination of the workers should be drawn and followed accordingly. | Noted and being complied. Personal protective equipment (PPE), training about health & safety are provided to worker. Worker records are maintained and medical checkups are regularly carried out. |
| 34. | Critical parameters such as PM10, PM2.5, SO ₂ , and NO _x within the ambient air in the impact zone must be monitored periodically. Additionally, any discharged water quality should also be checked for metrics like TDS, DO, pH, fecal coliform, and total | Noted. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| | suspended solids (TSS). | |
| 35. | Effective safeguards like regular water sprinkling must be applied in areas prone to air pollution, especially those with high levels of particulate matter, such as loading/unloading spots and transfer points. Extensive water sprinkling should be done on haul roads. | Noted. Water sprinkling is being carried out on regular basis on haul road twice a day to mitigate the dust generation. |
| 36. | Ensure ambient air quality parameters conform to the norms set by the Central Pollution Control Board. | Noted. |
| 37. | The proponent must submit an extended mining scheme prior to the expiry of the current mining plan. | Noted. |
| 38. | Four ambient air quality monitoring stations should be established in both core and buffer zones. These locations must be determined based on meteorological data, topographical features, ecological sensitivity, and consultation with the State Pollution Control Board. | Noted and agreed to comply. |
| 39. | Maintenance costs of common roads used for mineral transportation should be collectively shared by users based on lease area proportions. | Noted and agreed to comply. |
| 40. | Mobile toilets must be provided for laborers engaged in the project work. | Being complied. |
| 41. | Solid waste material like gutkha pouches, plastic bags, glasses generated during project activities must be stored separately in bins and managed per Solid Waste Management rules. | Being complied. Solid waste have been managed per Solid Waste Management rules. |
| 42. | A green area or belt should be developed along the haulage road in consultation with Gram Sabha or Panchayat. | Noted. |
| 43. | Natural or customary paths used by villagers must remain unobstructed throughout the project's operations. | Noted and agreed to comply. |
| 44. | Digital processing of the lease area using remote sensing technology must be conducted every three years to monitor changes in the river course. | Noted and shall be complied. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| | The findings must be recorded and submitted to the Regional office of MoEF, SEIAA, U.P., and UPPCB. | |
| 45. | A copy of the clearance letter must be shared with the concerned Panchayat or local NGO involved during proposal processing. The clearance letter should also be published on the company website. | Noted. |
| 46. | The State Pollution Control Board must display the clearance letter at regional offices, the District Industry Centre, and the Collector's or Tehsildar's office for 30 days. | Noted. |
| 47. | The project authorities must advertise in at least two local newspapers widely circulated—one in the vernacular language of the locality—within 7 days of receiving environmental clearance. This notice should include details that the project has been cleared, with a copy of the clearance letter available through the State Pollution Control Board and the SEIAA website. | Noted. |
| 48. | The Ministry of Environment and Forests (MoEF)/State Environmental Impact Assessment Authority (SEIAA) or other competent bodies can modify or impose new conditions for better environmental protection. | Noted and agreed to comply all rules and conditions imposed by the authority for better environmental protection. |
| 49. | Providing false information or failing to meet any condition may lead to revocation of the clearance, along with legal action under the Environment (Protection) Act, 1986. | Noted. |
| 50. | Appeals against the environmental clearance must be made to the National Green Tribunal within 30 days, as stipulated by the National Environment Appellate Authority Act, 1997. | Noted. |
| 51. | Wastewater from potable use should be collected and reused for sprinkling purposes. | There is no generation of wastewater. The water for drinking purpose shall be supply through private tankers. |
| 52. | Vehicle movement should be restricted during school opening and closing times to ensure safety. | During school opening and closing times to ensure safety Vehicle movement should be restricted. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

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| 53. | A width of not less than 50 meters or 10% width of the river can be restricted for mining activities from the river bank. A condition can be imposed that mining will be done within these restrictions. | Noted. |
| Additional Conditions | | |
| 1. | The Environmental Clearance (EC) will remain valid for five years or until the expiration of the current mine plan/lease period, whichever is earlier. Post this duration, the EC becomes null and void. | Noted. |
| 2. | In the absence of a replenishment study, and in line with the National Green Tribunal's (NGT) order dated May 6, 2022, the EC will initially be valid until December 31, 2022. Mining activities must adhere strictly to the approved limits in the Letter of Intent (LoI) or mining plan, with mineable depth capped as approved. | Noted and agreed to comply. |
| 3. | For subsequent years, project proponents must submit annual replenishment studies to SEIAA, UP for amending EC conditions. These studies will be reviewed by SEAC for three years to determine trends in replenishment rates, influencing adjustments to mining depth or capacity. | Noted. |
| 4. | Certification from the Forest Department must confirm that no forest land is utilized for mining or transit. If such land is involved, prior forest clearance and relevant permissions are required. | Noted. |
| 5. | After ceasing operations, mining lease holders are obligated to re-grass affected areas, restoring them to conditions suitable for the growth of fodder, flora, and fauna. | Restoring suitable conditions for the growth of fodder, flora, and fauna shall be done after ceasing operations. |
| 6. | If the project is in a restricted groundwater extraction zone, where creating new wells is prohibited, fresh water must be sourced legally from | Noted. |

**POST MONSOON DECEMBER 2024
ENVIRONMENT CLEARANCE COMPLIANCE**

| | | |
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| | alternatives other than groundwater, with appropriate permissions obtained. | |
| 7. | The project proponent should submit an action plan for plantation at a rate of at least 1,000 plants per hectare of lease area. A plan for planting 5,000 plants within a 5 km radius, approved by the Forest or Horticulture Department, is required. Maintenance and survival rates must meet standards set by the Uttar Pradesh Forest Department to avoid non-compliance. | Noted. |
| 8. | Rejuvenation and management of water bodies covering 25+ hectares must be planned in consultation with the District Environment Authority, with compliance reports submitted every six months. | Noted. |
| 9. | Before releasing the security deposit, the compliance of EC (Environmental Clearance) conditions by the proponent must be verified by relevant authorities. Non-compliance will prompt legal and compensatory actions via the Uttar Pradesh Pollution Control Board (UPPCB). | Noted. |
| 10. | During the EC's validity, any transfer application must include compliance status certified by MoEFCC, Lucknow. | Noted. |
| 11. | Mining should cease if air quality deteriorates below prescribed standards, and operations may resume only once restored. | Noted and agreed to comply. |



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TC-8198

TEST REPORT

Ambient Air Quality Analysis

Discipline/Group-Chemical/Atmospheric Pollution

Report Code: AAQ-24052024-02

Issue Date :30/05/2024

ISSUED TO

: SHRI SURENDRA KUMAR S/O LATE SHRI SHIVMURTI BHARTI
VILLAGE- BERUI, POST-GARAPUR, TEHSIL-PHOOLPUR,
DISTRICT- PRAYAGRAJ (U.P.)

Project Name

Ordinary Sand Mining From River Bed Of Yamuna Area-4.69 Ha at Khand

: No.-14, at Village-Baswaas,

Tehsil-Karchana, District- Prayagraj

Sample Drawn On

: 21/05/2024 To 22/05/2024

Sample Drawn By

: UTL

Sample Description

: Ambient Air

Sampling Procedure

: UTRL/LAB/SAMPLING/AIR/SOP/01

Sampling Duration

: 24 hrs.

Sampling Location

: Near Project Site

Analysis Duration

: 24/05/2024 To 30/05/2024

Meteorological Condition During Sampling

: Clear

TEST RESULT

| S.No | Parameters | Test Method | Result | Units | Limits as per NAAQS |
|------|---|-------------------------|--------|--------------------|---------------------|
| 1 | Particulate Matter (PM ₁₀) | IS:5182 (Part-23):2006 | 82.45 | µg /m ³ | 100.0 |
| 2 | Particulate Matter (PM _{2.5}) | IS:5182 (Part-24):2019 | 47.23 | µg /m ³ | 60.0 |
| 3 | Sulphur Dioxide (as SO ₂) | IS:5182 (Part-02):2018 | 13.56 | µg /m ³ | 80.0 |
| 4 | Nitrogen Dioxide (as NO ₂) | IS:5182(Part-06):2006 | 25.89 | µg /m ³ | 80.0 |

End Of Report

NAAQS-National Ambient Air Quality Standards,Central Pollution Control Board

Note:-

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- This test report will not be used for any publicity/legal purpose.
- The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- The Report can not be used as evidence in a court of law without the written approval of the lab.

Checked By



For ULTRATEST LABORATORY PRIVATE LIMITED

(Authorized Signatory)





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TEST REPORT

Ambient Noise Report

Discipline/Group-Chemical/Atmospheric Pollution

Report Code: N-24052024-02
ISSUED TO

Issue Date: 30/05/2024

SHRI SURENDRA KUMAR S/O LATE SHRI SHIVMURTI BHARTI
VILLAGE- BERUI, POST-GARAPUR, TEHSIL-PHOOLPUR,
DISTRICT- PRAYAGRAJ (U.P.)

Project Name : Ordinary Sand Mining From River Bed Of Yamuna Area-4.69 Ha at Khand
:No.-14, at Village-Baswaas,
Tehsil-Karchana, District- Prayagraj
Date of Monitoring : 21/05/2024 To 22/05/2024
Monitoring Done By : UTL
Monitoring Location : Project Site
Description : Ambient Noise
Monitoring Duration : 24 hrs
Monitoring Procedure : IS 9989:2008
Weather Condition : Clear

TEST RESULT

| S.No | Parameter | Unit | Observed Value | Day Time | Night Time | Standard (Ambient Noise)** |
|------|---|-------|----------------|----------|------------|----------------------------|
| 1 | Equivalent Noise Level, Leq (Day Time*) | dB(A) | 63.6 | 75.0 | 70.0 | Industrial Area |
| | | | | 65.0 | 55.0 | Commercial Area |
| 2 | Equivalent Noise Level, Leq (Night Time*) | dB(A) | 52.8 | 55.0 | 45.0 | Residential Area |
| | | | | 50.0 | 40.0 | Silence Zone |

End Of Report

**The Noise Pollution (Regulation and Control) Rules, 2000

- * Day time shall mean from 6.00 a.m. to 10.00 p.m.
- *Night time shall mean from 10.00 p.m. to 6.00 a.m
- Silence Zone is an Area comprising not less than 100 metres around Hospitals, Educational Institutions, Courts, Religious places.or any other area which is declared as such by the competent authority
- Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

Note:-

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Vijay
Checked By



For ULTRATEST LABORATORY PRIVATE LIMITED
Technical Manager
(Authorized Signatory)





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TEST REPORT

Soil Sample Analysis

Discipline/Group-Chemical/ Pollution & Environment

Report Code: SS-24052024-02
 ISSUED TO

Issue Date: 30/05/2024

: SHRI SURENDRA KUMAR S/O LATE SHRI SHIVMURTI BHARTI
 VILLAGE- BERUI, POST-GARAPUR, TEHSIL-PHOOLPUR,
 DISTRICT- PRAYAGRAJ (U.P.)

Project Name : Ordinary Sand Mining From River Bed Of Yamuna Area-4.69 Ha at Khand No.-14, at Village-Baswaas, Tehsil-Karchana, District- Prayagraj

Sample Drawn On : 21/05/2024

Sample Drawn By : UTL

Sample Description : Soil

Sample Quantity : 3.0 kg

Sampling Location : Sample Collected from Near Project Site

Sampling Procedure : UTRL/SAMPLING/SOP/04

Analysis Duration : 24/05/2024 To 30/05/2024

RESULTS

| S.No | Parameter | Units | Result | Test Method |
|------|-------------------------|----------|---------|-------------------------|
| 1 | pH(1:2.5 Suspension) | - | 7.12 | IS: 2720 (Part-26),1987 |
| 2 | Electrical Conductivity | µmhos/cm | 425.7 | IS14767:2000 |
| 3 | Potassium (as K) | mg/kg | 177.21 | UTRL/LAB/SOIL/SOP/07 |
| 4 | Sodium (as Na) | mg/kg | 265.86 | UTRL/LAB/SOIL/SOP/06 |
| 5 | Calcium (as Ca) | mg/kg | 3899.37 | UTRL/LAB/SOIL/SOP/08 |
| 6 | Magnesium (as Mg) | mg/kg | 1185.22 | UTRL/LAB/SOIL/SOP/08 |
| 7 | Sodium Absorption Ratio | - | 0.96 | UTRL/LAB/SOIL/SOP/14 |
| 8 | Water Holding Capacity | % | 31.80 | UTRL/LAB/SOIL/SOP/11 |
| 9 | Total Kjeldahl Nitrogen | % | 0.062 | UTRL/LAB/SOIL/SOP/15 |
| 10 | Phosphorous | mg/kg | 46.18 | UTRL/LAB/SOIL/SOP/09 |
| 11 | Bulk Density | gm/cc | 1.41 | UTRL/LAB/SOIL/SOP/10 |
| 12 | Organic Matter | % | 1.19 | IS: 2720 (Part-22):1972 |

End Of Report

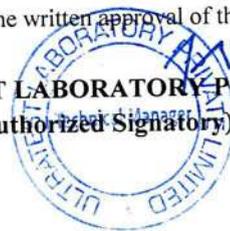
Note:-

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Vijay
 Checked By



For ULTRATEST LABORATORY PRIVATE LIMITED
 (Authorized Signatory)





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TEST REPORT

Water Sample Analysis Discipline/Group-Chemical/Water

Report Code : W-24052024-02
ISSUED TO

Issue Date : 30/05/2024

: SHRI SURENDRA KUMAR S/O LATE SHRI SHIVMURTI BHARTI
VILLAGE- BERUI, POST-GARAPUR, TEHSIL-PHOOLPUR,
DISTRICT- PRAYAGRAJ (U.P.)

Project Name : Ordinary Sand Mining From River Bed Of Yamuna Area-4.69 Ha at Khand No.-
: 14, at Village-Baswaas,
Tehsil-Karchana, District- Prayagraj
Sample Description : Ground Water
Sampling Location : Sample Collected from Near Project Site
Sample Drawn On : 21/05/2024
Sample Drawn By : UTL
Sampling Procedure : IS:13969 (Part-11)
Sample Quantity : 1.0 Litre
Analysis Duration : 24/05/2024 To 30/05/2024

RESULTS

As per IS 10500:2012

| S.No | Parameter | Test Method | Results | Units | Acceptable Limit | Permissible Limit in the Absence of Alternate Source |
|------|--|-------------------------------|-----------|-------|------------------|--|
| 1 | pH | IS 3025 (Part -11): 2022 | 7.18 | - | 6.5-8.5 | - |
| 2 | Colour | IS:3025(Part-04):2021 | <5.0 | Hazen | 5 | 15 |
| 3 | Odour | IS-3025(Part-05):2018 | Agreeable | - | Agreeable | Agreeable |
| 4 | Taste | IS:3025(Part-07):2017 | Agreeable | - | Agreeable | Agreeable |
| 5 | Turbidity | IS3025(Part-10):2023 | <0.5 | NTU | 1 | 5 |
| 6 | Total Hardness (as CaCO ₃) | IS:3025(Part-21):2009 | 300.00 | mg/l | 200 | 600 |
| 7 | Calcium(as Ca) | IS:3025(Part-40):2024 | 60.00 | mg/l | 75 | 200 |
| 8 | Magnesium (as Mg) | APHA 3500-Mg-B | 36.45 | mg/l | 30 | 100 |
| 9 | Chloride(as Cl) | IS:3025(Part-32):1988 | 50.88 | mg/l | 250 | 1000 |
| 10 | Iron(as Fe) | IS:3025(Part-53):2024 | <0.05 | mg/l | 1 | No Relaxation |
| 11 | Fluoride(as F) | APHA 4500 F(D) 24th Ed.: 2023 | 0.26 | mg/l | 1 | 1.5 |
| 12 | Sulphate (as SO ₄) | IS:3025(Part-24):2022 | 15.04 | mg/l | 200 | 400 |
| 13 | Nitrate (as NO ₃) | IS:3025(Part-34):2023 | 1.62 | mg/l | 45 | No Relaxation |
| 14 | Total Dissolved Solid | IS:3025(Part-16):2023 | 529 | mg/l | 500 | 2000 |

End Of Report

Note:-

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For ULTRATEST LABORATORY PRIVATE LIMITED

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TEST REPORT**Bacteriological Quality of Drinking Water**

Report Code : W-24052024-02 **Issue Date : 30/05/2024**
Issued To : SHRI SURENDRA KUMAR S/O LATE SHRI SHIVMURTI BHARTI
 VILLAGE- BERUI, POST-GARAPUR, TEHSIL-PHOOLPUR,
 DISTRICT- PRAYAGRAJ (U.P.)

Project Name : Ordinary Sand Mining From River Bed Of Yamuna Area-4.69 Ha
 at Khand No.-14, at Village-Baswaas,
 Tehsil-Karchana, District- Prayagraj
Sample Description : Ground Water
Sampling Location : Sample Collected from Near Project Site
Sample Drawn On : 21/05/2024
Sample Drawn By : UTL
Analysis Duration : 24/05/2024 To 30/05/2024

RESULTS
As per IS 10500:2012

| S.No | Parameter | Test Method | Results | Units | Requirements |
|------|----------------|-------------|---------|-----------|--|
| 1 | E.coli | IS-1622 | Absent | MPN/100ml | Shall not be detectable in 100 ml sample |
| 2 | Total Coliform | IS-1622 | Absent | MPN/100ml | Shall not be detectable in 100 ml sample |

End Of Report

Note:-

- The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
- This test report will not be used for any publicity/legal purpose.
- The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- The Report can not be used as evidence in a court of law without the written approval of the Lab.

Vijay
 Checked By

For ULTRATEST LABORATORY PRIVATE LIMITED

(Authorized Signatory)





ULTRATEST LABORATORY PRIVATE LIMITED

1377

C-43, Sector-88, Phase-II, Noida-201305, (U.P.)

(An ISO 9001:2015, ISO 45001:2018, ISO 14001:2015 Certified)

Contact No.:+91-9971912476, 9350952231

E-mail: ultraresearchlab@gmail.com

Website: http://www.ultralabnoida.com



TC-8198

TEST REPORT

Surface Water Sample Analysis Discipline/Group-Chemical/Water

Report Code: WW-24052024-02

Issue Date: 30/05/2024

ISSUED TO

: SHRI SURENDRA KUMAR S/O LATE SHRI SHIVMURTI BHARTI
VILLAGE- BERUI, POST-GARAPUR, TEHSIL-PHOOLPUR,
DISTRICT- PRAYAGRAJ (U.P.)

Project Name

: Ordinary Sand Mining From River Bed Of Yamuna Area-4.69 Ha at Khand No.-
14, at Village-Baswaas,
Tehsil-Karchana, District- Prayagraj

Sample Drawn On

: 21/05/2024

Sample Drawn By

: UTL

Sample Description

: Surface Water

Sampling Location

: Sample Collected from Project site (Yamuna River)

Sampling Procedure

: IS:17614 (Part-06)

Sample Quantity

: 2.0 Litre

Analysis Duration

: 24/05/2024 To 30/05/2024

RESULTS

| S.No | Parameter | Test Method | Results | Units | Tolerance Limit as per IS:2296 | | | | |
|------|---|---------------------------------|---------|--------|--------------------------------|---------|---------|---------|---------|
| | | | | | Class A | Class B | Class C | Class D | Class E |
| 1 | pH | IS:3025(Part-11):2022 | 8.86 | - | 6.5-8.5 | 6.5-8.5 | 6.5-8.5 | 6.5-8.5 | 6.5-8.5 |
| 2 | Conductivity @25°C | IS:3025(Part-14):2013 | 836.6 | µs/cm. | - | - | - | 1000 | 2250 |
| 3 | Total Suspended Solid | IS:3025(Part-17):2022 | 59 | mg/l | - | - | - | - | - |
| 4 | Total Alkalinity (as CaCO ₃) | IS:3025(Part-23):2023 | 204 | mg/l | - | - | - | - | - |
| 5 | Biological Oxygen Demand (Max.) (at 27 ⁰ C for 3 days) | IS:3025(Part-44):2023 | 8.00 | mg/l | 2 | 3 | 3 | - | - |
| 6 | Dissolved Oxygen (as O ₂) Min. | IS:3025(Part-38):1989 | 5.3 | mg/l | 6 | 5 | 4 | 4 | - |
| 7 | Calcium(as Ca) | IS:3025(Part-40):1991 | 52.80 | mg/l | 80 | - | - | - | - |
| 8 | Magnesium(as Mg) | APHA 3500-Mg-B 24rd Ed 2023 | 25.27 | mg/l | 24 | - | - | - | - |
| 9 | Chloride(as Cl),Max | IS:3025(Part-32):1988 | 97.84 | mg/l | 250 | - | - | - | 600 |
| 10 | Iron(as Fe),Max | IS:3025(Part-53):2024 | 0.26 | mg/l | 0.3 | - | 50 | - | - |
| 11 | Fluoride(as F),Max | APHA 4500 F(D) 24rd Ed. 2023 | 0.13 | mg/l | 1.5 | 1.5 | 1.5 | - | - |
| 12 | Total Dissolved Solid | IS:3025(Part-16):2023 | 544 | mg/l | 500 | - | 1500 | - | 2100 |

Contd. To report Code: WW-24052024-02



Contd. To report Code: WW-24052024-02

| | | | | | | | | | |
|----|---|-----------------------|--------|------|-----|---|-----|---|------|
| 13 | Total Hardness (as CaCO ₃) | IS:3025(Part-21):2009 | 236.00 | mg/l | 300 | - | - | - | - |
| 14 | Sulphate (as SO ₄)Max | IS:3025(Part-24):2022 | 72.68 | mg/l | 400 | - | 400 | - | 1000 |
| 15 | Sodium (as Na) | IS:3025(Part-45):1993 | 58.71 | mg/l | - | - | - | - | - |
| 16 | Potassium (as K) | IS:3025(Part-45):1993 | 14.68 | mg/l | - | - | - | - | - |
| 17 | Nitrate (as NO ₃),Max | APHA 4500-NO3-B | 2.51 | mg/l | 20 | - | 50 | - | - |
| 18 | Chemical Oxygen Demand (asO ₂) | IS-3025(Part-58):2023 | 28.00 | mg/l | - | - | - | - | - |

End Of Report

Remarks:-

Class A-Drinking water without conventional treatment but after disinfection.

Class B-Water for outdoor bathing.

Class C-Drinking water with conventional treatment followed by disinfection.

Class D-Water for fish culture and wild life propagation.

Class E-Water for irrigation, industrial cooling and control waste disposal.

Note:-

- 1 The results given above are related to the tested sample, for various parameters, as observed at the time of sampling.
The customer asked for the above tests only.
- 2 This test report will not be used for any publicity/legal purpose.
- 3 The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- 4 The Report can not be used as evidence in a court of law without the written approval of the lab.

Vijay
Checked By



For ULTRATEST LABORATORY PRIVATE LIMITED

Technical Manager
[Signature]
(Authorized Signatory)



ULTRATEST LABORATORY PRIVATE LIMITED

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 C-43, Sector-88, Phase-II, Noida-201305, (U.P.)
 (An ISO 9001:2015, ISO 45001:2018, ISO 14001:2015 Certified)
 Contact No.:+91-9971912476, 9350952231
 E-mail: ultraresearchlab@gmail.com
 Website: http://www.ultralabnoida.com

TEST REPORT

Surface Water Sample Analysis

Report Code: WW-24052024-02
 ISSUED TO

Issue Date: 30/05/2024

: SHRI SURENDRA KUMAR S/O LATE SHRI SHIVMURTI BHARTI
 VILLAGE- BERUI, POST-GARAPUR, TEHSIL-PHOOLPUR,
 DISTRICT- PRAYAGRAJ (U.P.)

Project Name

: Ordinary Sand Mining From River Bed Of Yamuna Area-4.69 Ha at Khand No.-
 14, at Village-Baswaas,
 Tehsil-Karchana, District- Prayagraj

Sample Drawn On

: 21/05/2024

Sample Drawn By

: UTL

Sample Description

: Surface Water

Sampling Location

: Sample Collected from Project site (Yamuna River)

Analysis Duration

: 24/05/2024 To 30/05/2024

RESULTS

| S.No | Parameter | Test Method | Results | Units | Tolerance Limit as per IS:2296 | | | | |
|------|----------------|-------------|-------------------|----------|--------------------------------|---------|---------|---------|---------|
| | | | | | Class A | Class B | Class C | Class D | Class E |
| 1 | Total Coliform | IS:1622 | 3.9×10^3 | MPN/100m | 50 | 500 | 5000 | - | - |

End Of Report

Remarks:-

Class A-Drinking water without conventional treatment but after disinfection.

Class B-Water for outdoor bathing.

Class C-Drinking water with conventional treatment followed by disinfection.

Class D-Water for fish culture and wild life propagation.

Class E-Water for irrigation, industrial cooling and control waste disposal.

Note:-

- The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
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Vijay
 Checked By

For ULTRATEST LABORATORY PRIVATE LIMITED

Technical Manager
 (Authorized Signatory)



①

सेवा में

श्रीमान सदस्य /सचिव एस0ई0आईए0ए0

पर्यावरण निदेशालय उत्तर प्रदेश विनीत खंड 1

गोमतीनगर लखनऊ- 226010

महोदय जी

सादर निवेदन के साथ अवगत कराना है जी प्रार्थी के पक्ष में यमुना नदी के खंड संख्या 14 ग्राम बसवार तहसील करछना जनपद प्रयागराज में 4.69 एकड़ का साधारण बालू खनन पट्टा 70435 घन मीटर प्रार्थी के पक्ष में आवंटित किया गया है प्रार्थी ने पर्यावरण स्वच्छता प्रमाण पत्र में दिए गए निर्देशों के क्रम में अपने स्वीकृत क्षेत्र के आने-जाने वाले रास्ते पर लगभग 100 पेड़ों का रोपण कराया है साथ ही कर्मचारी एवं मजदूर को शुद्ध पानी पीने के लिए समरसेबल एवं नल लगवाया है। तथा सोच के लिए शौचालय का निर्माण कार्य कराया है प्रार्थी के द्वारा साधारण बालू के खनन एवं परिवहन से किसी भी प्रकार का पर्यावरण क्षति ना हो जिसके लिए प्रार्थी परिवहन कर रही वाहनों पर तिरपाल से ढक कर ही परिवहन करने की अनुमति दी जाती है और कच्चे रास्ते में टैंकर के माध्यम से पानी का छिड़काव कराया जाता है। इस तरह ई0सी0 में दी गई शर्तों का पूरी तरह पालन कर रहा है। और भविष्य में ई0सी0 में दी गई शर्तों का पालन करता रहेगा।

अतः महोदय जी को प्रार्थना पत्र देकर अनुरोध करता हूं कि प्रार्थी ने पर्यावरण स्वच्छता प्रमाण पत्र में दी गई शर्तों का पूरी तरह से पालन कर रहा है और भविष्य में भी करता रहेगा।

संलग्न विभिन्न रूप से लिए गये सामग्री की रशीद

प्रार्थी

सुरेंद्र कुमार पुत्र स्वर्गीय शिव मूर्ति भारतीय

निवासी ग्राम बेरूई तहसील फूलपुर
जनपद प्रयागराज

GSTIN No. 09BOWPJ9128M1ZW

TAX INVOICE

Mob. : 8858066316

जायसवाल एजेन्सी

धूरपुर, प्रयागराज 212107

Recipient

Name: Sunder Kumar

Address: Mohabalganj, Madhwa

GST IN/Unique ID

State: U.P. State Code: 09

Invoice No.:

1200

Date:

25-3-2025

Mobile No.

9415645074

| S. No. | Description of Goods | HSN Code | Qty | Rate | Amount |
|--------|---|-------------|-------------------------|-------------|--------------|
| | | | | | Rs. P. |
| | <u>4RS/RK</u> <u>1HP Aroma</u> <u>10 stage W/F</u> <u>Subsible</u> | <u>8413</u> | <u>1set</u> | <u>2204</u> | <u>2204</u> |
| | <u>Aggregrate PVC cable</u> <u>PEPE 15mm 21/12</u> | <u>3917</u> | <u>240</u> <u>kg</u> | <u>67</u> | <u>16080</u> |
| | <u>40 mm cable 15mm</u> <u>3 core subsible</u> <u>Stand max</u> | <u>8544</u> | <u>40</u> <u>mts</u> | <u>30</u> | <u>1200</u> |
| | <u>HD PE 40mm 1.25mm (11)</u> | <u>2917</u> | <u>30</u> <u>mts</u> | <u>30</u> | <u>900</u> |

Rs. in Words: Twenty five thousand
nine hundred fifty three

Bank Detail:
Bank Name:
A/C No.:
IFSC Code:

| | |
|---------------|-----------------|
| TAXABLE VALUE | <u>25384</u> |
| CGST@ 9% | <u>2283.56</u> |
| SGST@ 9% | <u>2283.56</u> |
| Round off | <u>0.12</u> |
| Grand Total | <u>29951.24</u> |

Terms & Conditions:
All Disputes subject to Allahabad Jurisdiction
Transit risk are at customer's Account
Interest @ 12% p.a. will be charged from the 16th day of the date of Invoice

Certified that the particulars given above are true and correct.

प्राप्ति : जायसवाल एजेन्सी

TUSHY
Authorized Signatory

LAXMI PAUDH SHALA

Spl. In:- Decorate Plants, All Fruits Plants, Indoor - Outdoor Plants

Landscaping, Timber Trees & Farm Development Etc.

Add.: Dabhaon Chaka Block - Prayagraj

Ref: सुरेन्द्र कुमार, पदरिधारक, बसवार चार

Date: 7/10/2024

| क्र. | पौधा | संख्या | दर | धनराशि |
|------|-------|------------|-----|--------------|
| 1 | फाइकस | 67 | 170 | 11390 |
| 2 | चितवन | 30 | 90 | 2700 |
| 3 | आम | 2 | 300 | 600 |
| 4 | अमरुद | 1 | 120 | 120 |
| | | <u>100</u> | | <u>14810</u> |

राजेश कुमार
7-10-2024

**Hydro-geological Report
of River bed of Yamuna at
Khand No. 14, at Village – Baswar, Tehsil-
Karchhana, District- Allahabad, Uttar Pradesh**

APPLICANT

**Shri Surendra Kumar S/o Late Shivmurti Bhartiya
R/o: Village- Berui, Tehsil – Phoolpur, District –
Allahabad, Uttar Pradesh**

March 2025

1 | Page



True copy

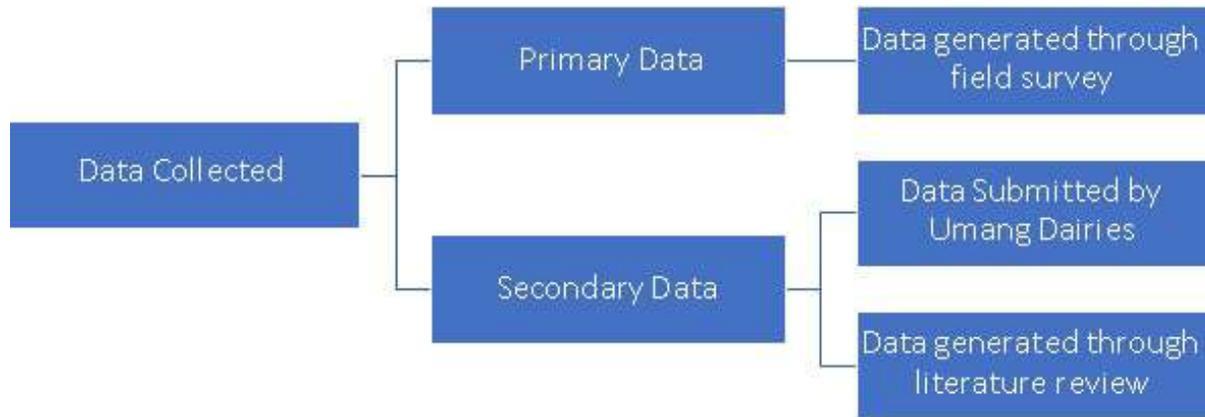
1.0 Introduction

1.1 The Changing Ground Water Resources

The groundwater is one of the most precious natural resources that has played a significant role in the maintenance of economic development of the region. Water is the most essential resource for the existence of life on the earth, second to air. In Indian context, the country faces grave water related challenges in terms of water quality and quantity that impede continued economic growth, as well as social and economic development. In central government's Twelfth Five-Year Plan, it was estimated that the total demand for water by 2031 is likely to be 50 per cent higher than 2013 level. Almost 20 percent of this gap is estimated to be bridged by augmenting available supply through additional water harvesting, surface and sub-surface storage, and groundwater retention. The expert opinion that majority (say around 80%) of the deficit water demand must be bridged through greater water use efficiency including multiple water reuse and wastewater treatment.

1.2 Data Used

Data collected for the proposed report has been classified as primary data and secondary data which is shown in below flowchart.



2.2 Important features around the site

The important features in the vicinity of the proposed project, including the nature of industries in the surrounding area, availability of mode of conveyance, geophysical parameters are shown in Table 1.

Table 1: Important features from the project site

| Particulars (Distances) | Details |
|---|--|
| Nearest Rail or Road Bridge | Naini – 6.35* km (E) |
| Infrastructural facilities | |
| National Highway | NH-76 about 4.02* km (E), NH-2 about 7.16* km (N) NH-27 about 7.83* km (NE) |
| Protected areas | None in 10 Km radius |
| Eco- sensitive areas (Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests) | Yamuna River 0.21* Km (N) Ganga River 10.61* Km (NE) |
| Densely Populated Area (Villages) | Baswar is about 0.73 Km (S) |

| | |
|-------------------------------------|---|
| Sensitive man-made land uses | Primary Health Centre is at Baswar. |
| Hospitals | Govt. Hospitals & Nursing homes are at Allahabad about- 8.29* Km (NE) |
| Schools | Places of worship- Sangam is about- 10.42 Km (NE) |
| Places of worship | |
| Seismic zone | Seismic Zone III |

| | |
|----------------------------|--|
| Method of mining | <i>Open cast/semi-mechanized (Scraper, Loader, truck & tractors will be used)</i> |
| Ultimate maximum depth | <i>2.5 m</i> |
| Max. & Min. mRL | <i>Highest mRL is 80.00*</i> |
| Within lease area | <i>Lowest mRL is 75.00*</i> |
| Elevation Difference | <i>5.0 m</i> |
| Zero Level | <i>74.0 mRL</i> |
| Geological Sand Reserve | <i>4,48,000 m³</i> |
| Mineable Reserve | <i>2,68,000 m³</i> |
| LoI sanctioned quantity | <i>2,40,000 m³</i> |
| Production (per year) | <i>2,40,000 m³/annum</i> |
| No. of working days | <i>250</i> |
| Per day production | <i>640 m³/ day</i> |
| No. of trucks movement/day | <i>60 trucks per day</i> |
| Water requirement | <i>Drinking & others 2.0 KLD</i> |
| | <i>Suppression of dust 2.4 KLD</i> |
| | <i>Plantation 2.0 KLD = Total 6.4 KLD</i> |
| No. of workers | <i>63 workers (Including Mines Manager, Foreman, Supervisor & EHS Personnel)</i> |

2.3 Land Use Land Cover

Remote sensing satellite imageries were collected and interpreted for the study area within radius of 5.0 km of project site for analysing the land use pattern of the study area based on the satellite data, land use / land cover map have been prepared.

2.3.1 LULC Source Data Information

2.3.2 Data Requirement

IRS-P6 Geo -Coded FCC of LISS-III was acquired for 2014 - 2015 and was used for the mapping and interpretation. Besides, other collateral data as available in the form of maps, charts, census records, other reports and especially topographical survey of India maps are used. In addition to this, ground truth survey was also conducted to verify and confirm the ground features. The methodology adopted for preparation of land use/ land cover thematic map is mono scope visual interpretation of geo coded scenes of IRS-P6 satellite LISS-III and field observations are taken. The various steps involved in the study are preparatory field work, field survey and post field work.

2.3.3 LULC Classes

The present land use / land cover maps were prepared based on the classification system of National standards. The details attached to each class, salient features and visual characteristics of each class are listed in Table 2 below.

Table 2 LU/LC Classification

| Sl. | Description-1 | Description-2 | NRC LULC Classes |
|-----|---------------|---------------|------------------|
| | | | |

| | | | |
|---|------------------|---|---|
| 1 | Built-up | Urban, Rural, Mining | Residential (compact or sparse), commercial, industrial, active, or close mines, rural areas |
| 2 | Agriculture | Crop and Fallow land, Plantation | Agricultural land, plantation (compact or pattern), shifting cultivation, seasonal crops |
| 3 | Forest | Evergreen (dense), Deciduous (open), Scrub, Swamp | Open, dense, desert, swamp, mangroves, abandoned cultivation |
| 4 | Barren Land | Land without Scrub, Land with Scrub, Wastelands | Scrub, Salt affected, Gullied or Ravines, Sandy, Rocky, Desert or Rann, Coastal Beaches |
| 5 | Water Bodies | Ocean, River, Canal, Glacier, Dam | Sea, Perennial or non-perennial river, stream, drain, canal, or distributor line, seasonal or non-seasonal lake or pond, reservoir or tanks, snow |
| 6 | Wetland | Inland Natural | Ox-bow Lake, cut-off meander, waterlogged, saltpans, lagoon, mudflats, creeks |
| 7 | Vegetation Cover | Open, Dense | Scrub, Open, Dense |

The Land Use/ Land Cover map of the study area and around 5-km radius is shown in Figure 6. The final output would be the land-use/land cover map and numerals were given different colour code for each category as shown in Figure 6. Area estimation of all features of Land use/Land cover categories was noted. The land use pattern is shows that agricultural land use cover 60 % of total study area mean major part of rainwater is directly recharge through the farmland by natural percolation. Hence rainwater recharge rate by natural mean is found good in the study area.

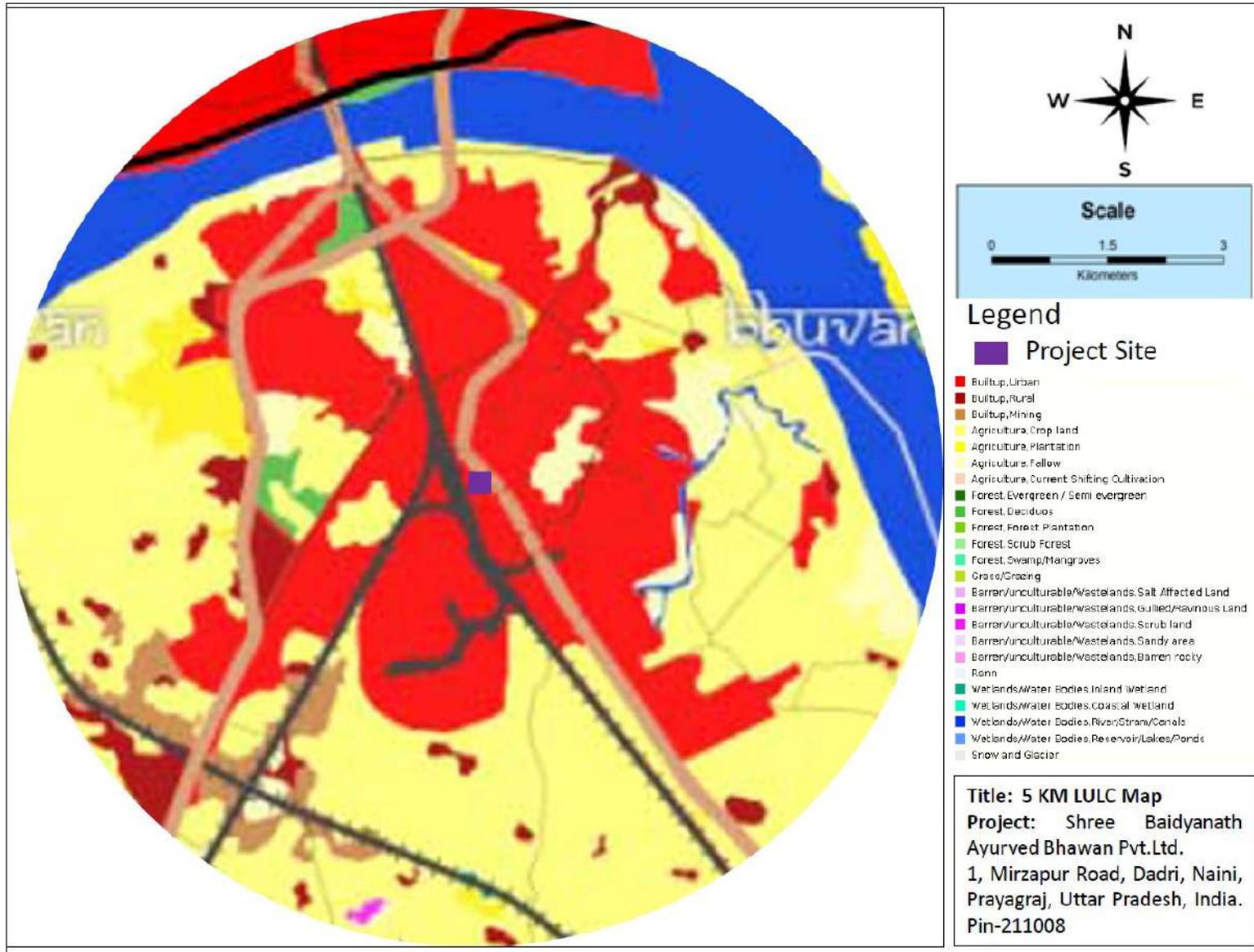


Figure 6: Land use / Landcover Map of Study Are

2.4 Topography and Drainage

2.4.1 Topography

The district may be divided in the three distinct Physical parts the trans-ganga or the Gangapar Plain, the doab and trans-Yamuna or the Yamuna par tract are formed by the Ganga and its tributary, the Yamuna, the latter joining the former at Allahabad, the confluence being known as sangam. Trans Ganga tract comprises poor sandy soil (full of kankar) with stretches of sodic lands popularly known as 'USAR'. In tehsil Handia, the water table is high and the water in excess, collecting in numerous lakes which form the most noticeable feature of the area, especially in northern part. The Trans Yamuna tract forms a part of Bundel khand region. The district is mainly characterized with Ganga, Yamuna alluvial plain and Vindhyan Plateau. G.S.I. (2001) has identified the following geomorphic features.

1. Active Flood Plain: It is quite localized and confined only to the river system.
2. Older Alluvial Plain: It is characterized by depositional and erosional terraces found in patches along the active plain.
3. Rocky Surface (Denudational hills): These are prominent in trans-Yamuna area formed mainly of quartzitic nature.

The master slope of Trans Ganga is towards east or south east, with the altitude ranging from 89.30 mamsl-93.57 masl. Rivers of the district namely Yamuna, Tons, Sai and Varuna belongs to main drainage system of the Ganga. Dendritic drainage pattern is the most common features in the district which is the structurally controlled. Streams up to the fifth order are encountered in the district.

The district area represents alluvial, as well as hard rock. District is bifurcated by river Yamuna, Vindhyan hills. Physiographically district is characterized with Ganga and Yamuna plain and Vindhyan plateau. It can be divided into three natural subdivisions; i) Active Flood Plain ii) Older Alluvial Plain and Rock Surface (Denudational Hills). The Active Alluvial Plain is of low relief characterized by thick deposition of clay, kankar, sand and gravel. Older Alluvial Plain lies along river Ganga. It is less pronounced in Trans Yamuna area. The Denudational hills are quite prominent in Trans Yamuna area and in Shankargarh, Koraon, Meja and Manda in particular.

A Digital Elevation Model (DEM) is a digital representation of ground surface topography of terrain. It is also widely known as Digital Terrain Model (DTM). Digital Elevation Model consists of raster grid of regularly spaced elevation values produced by USGS. A much higher quality DEM from the Shuttle Radar Topography Mission (SRTM) is also freely available for most of the globe and represents elevation at a 3 arc-second resolution (around 30 m). The quality of a DEM is a measure of how accurate elevation is at each pixel (absolute accuracy) and how accurately is the morphology presented (relative accuracy).

Several factors play an important role for quality of DEM-derived products:

- Terrain roughness
- Sampling density (elevation data collection method)
- Grid resolution or pixel size
- Interpolation algorithm
- Vertical resolution

- Terrain analysis algorithms

The topography data of the study area is based on SRTM Digital Elevation Model data which is available at the USGS website. The vector polygon boundary file of the study area was used to clip the SRTM DEM to yield elevation data within the boundaries of the study area as shown in Figure-10. The DEM shows that altitude varies from **72.0 to 111.0** m above mean sea level (AMSL). The area exhibits a gentle slope toward North West and North East part from the project where the elevation ranges between 95 m AMSL to 72 m AMSL. In general, areas adjacent to older flood plain exhibit higher elevations which gently slope towards the river courses, In Block Chala higher elevation found in North and gentle slope from South to North.

Drainage

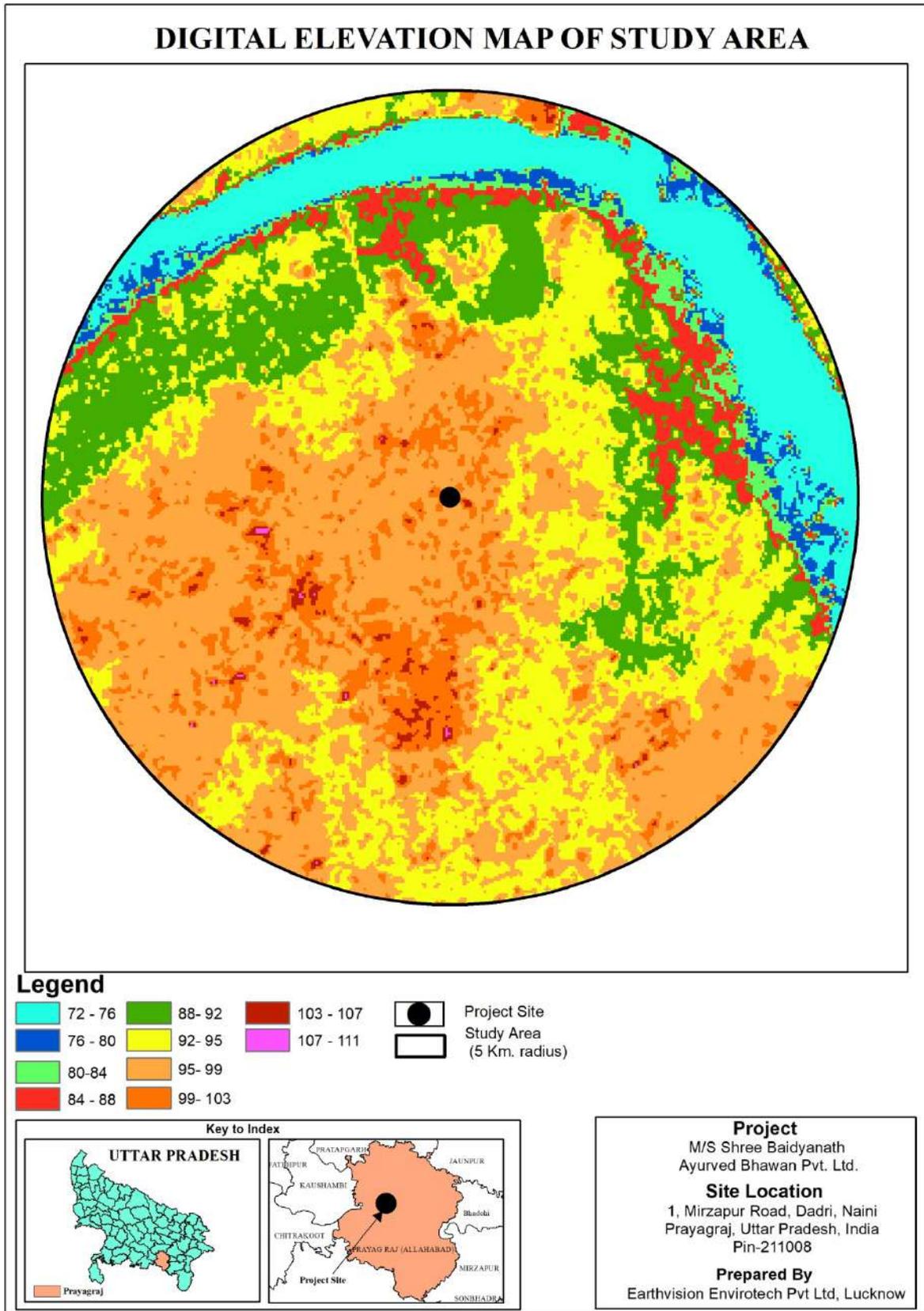
The area north of the river Yamuna is almost a flat country, whereas the southern part is slightly undulating. The minimum and maximum altitudes attained in the area are 90.22 m. (296 ft.) near the confluence of the rivers Ganga and Yamuna and 187.45 m. (615 ft.) at Bagala (25°14'9": 81°36'44"), respectively, above the mean sea level. The average topographical slope of the area is from W.N.W. to E.S.E. direction. The Ganga and Yamuna together with the rivers Tons and Belan form the main drainage system of the area. In addition to this the Sasur Khaderinadi and Kilnahninadi collect the run-off water from the central part of the Doab, and take it to the Yamuna. In the southern part, the Jhagrabarianadi taken the run-off to the Yamuna; the Loni and Lapri rivers to the river Tons.

Table3: Drainage System with description of Main River

| S. No. | Name of River | Area Covered (sqkm) | % Area Covered |
|--------|---------------|---------------------|----------------|
| 1 | Ganga | 105.3 | 1.9 |
| 2 | Yamuna | 63.75 | 1.17 |
| 3 | Tons | 55.3 | 1.01 |
| 4 | Belan | 5.85 | 0.11 |

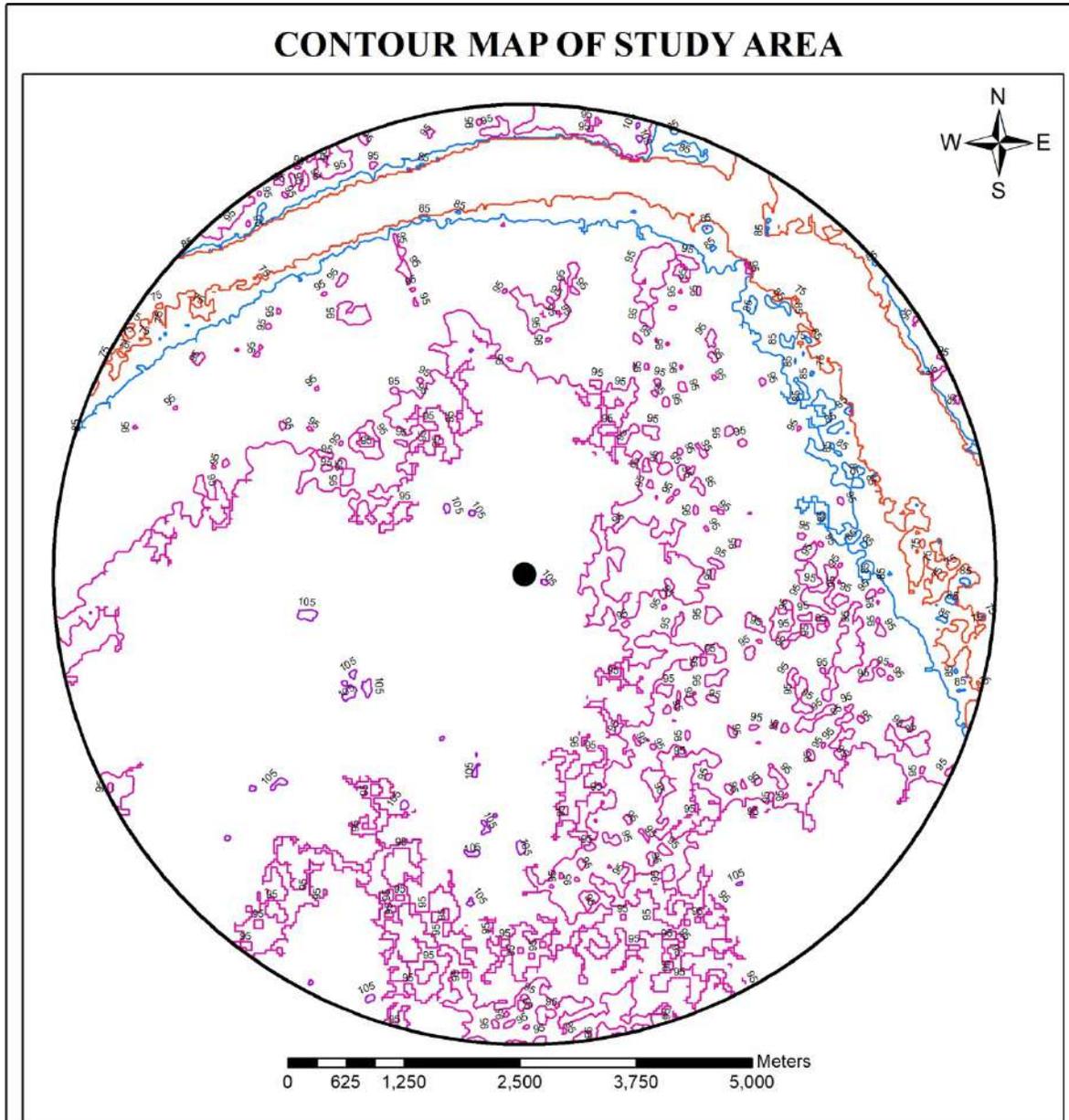
Table 4: Salient features of Important River and stream

| S. No. | Name of River | Total Length in the district (in Km) | Place of Origin | Altitude at origin (M) |
|--------|---------------|--------------------------------------|---|------------------------|
| 1 | Ganga | 117 | Gangotri Glacier | 4100 |
| 2 | Yamuna | 51 | Yamunotri glacier near Banderpoonch peaks in the Mussourie range of the lower Himalayas | 6387 |
| 3 | Tons | 79 | Satna, M.P. | 90 |
| 4 | Belan | 39 | Sonbhadra, U.P. | 6316 |



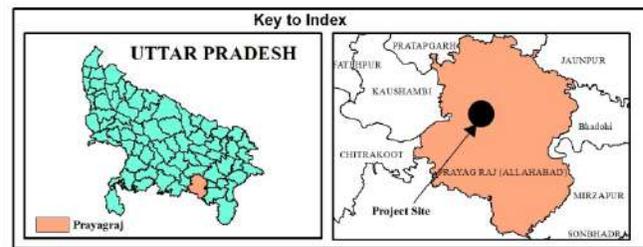
Fig

re 7: Digital Elevation Model of the study area



Legend

- | | | | |
|---------|------|--|------------------------------|
| Contour | | | |
| | 75 m | | 95 m |
| | 85 m | | 105 m |
| | | | Project Site |
| | | | Study Area (5 Km. radius) |



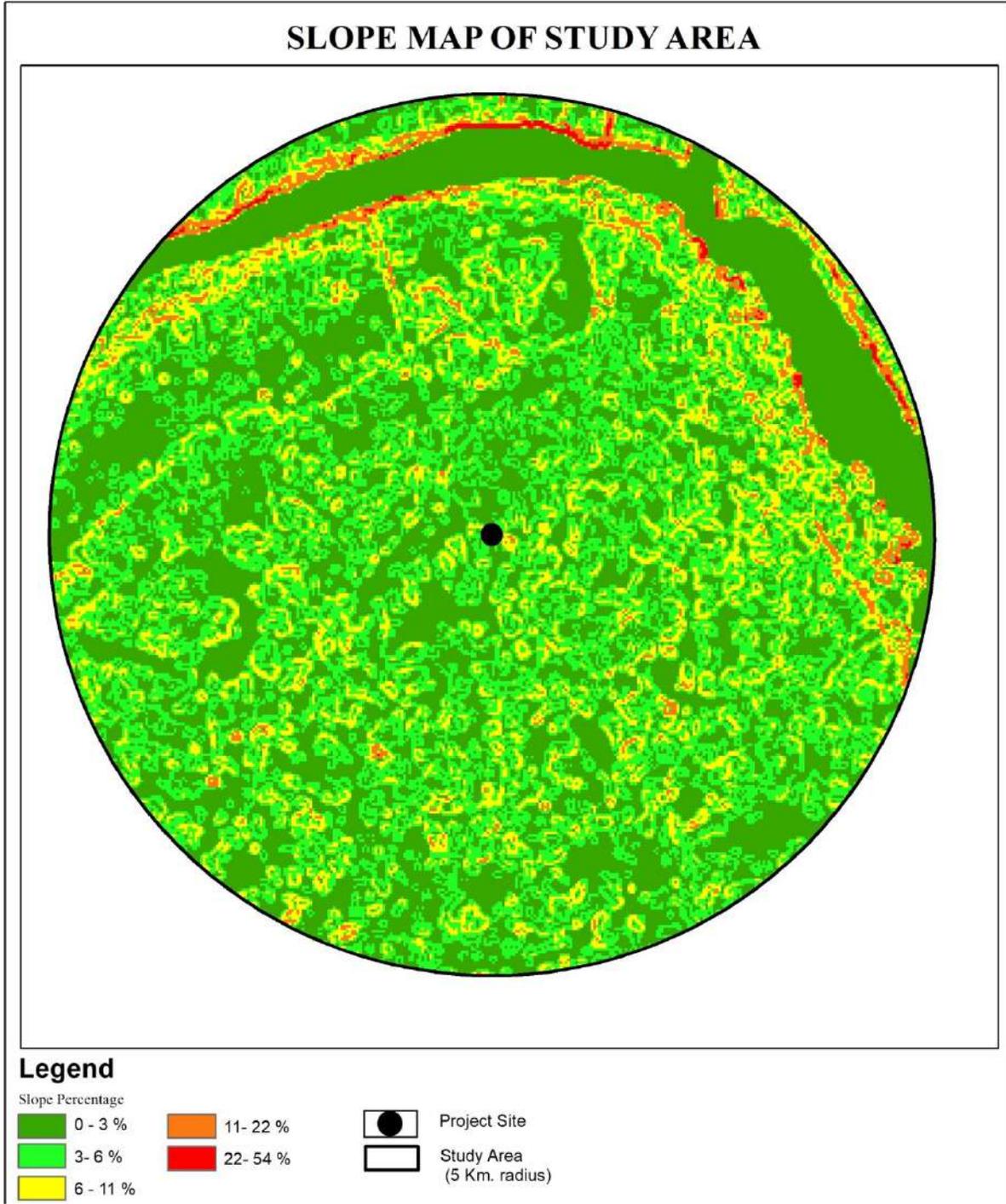
Project
M/S Shree Baidyanath
Ayurved Bhawan Pvt. Ltd.

Site Location
1, Mirzapur Road, Dadri, Naini
Prayagraj, Uttar Pradesh, India
Pin-211008

Prepared By
Earthvision Envirotech Pvt Ltd, Lucknow

Fig

re 8: Contour Map of the Project Area



F

Figure 9: slop Map of Project Area

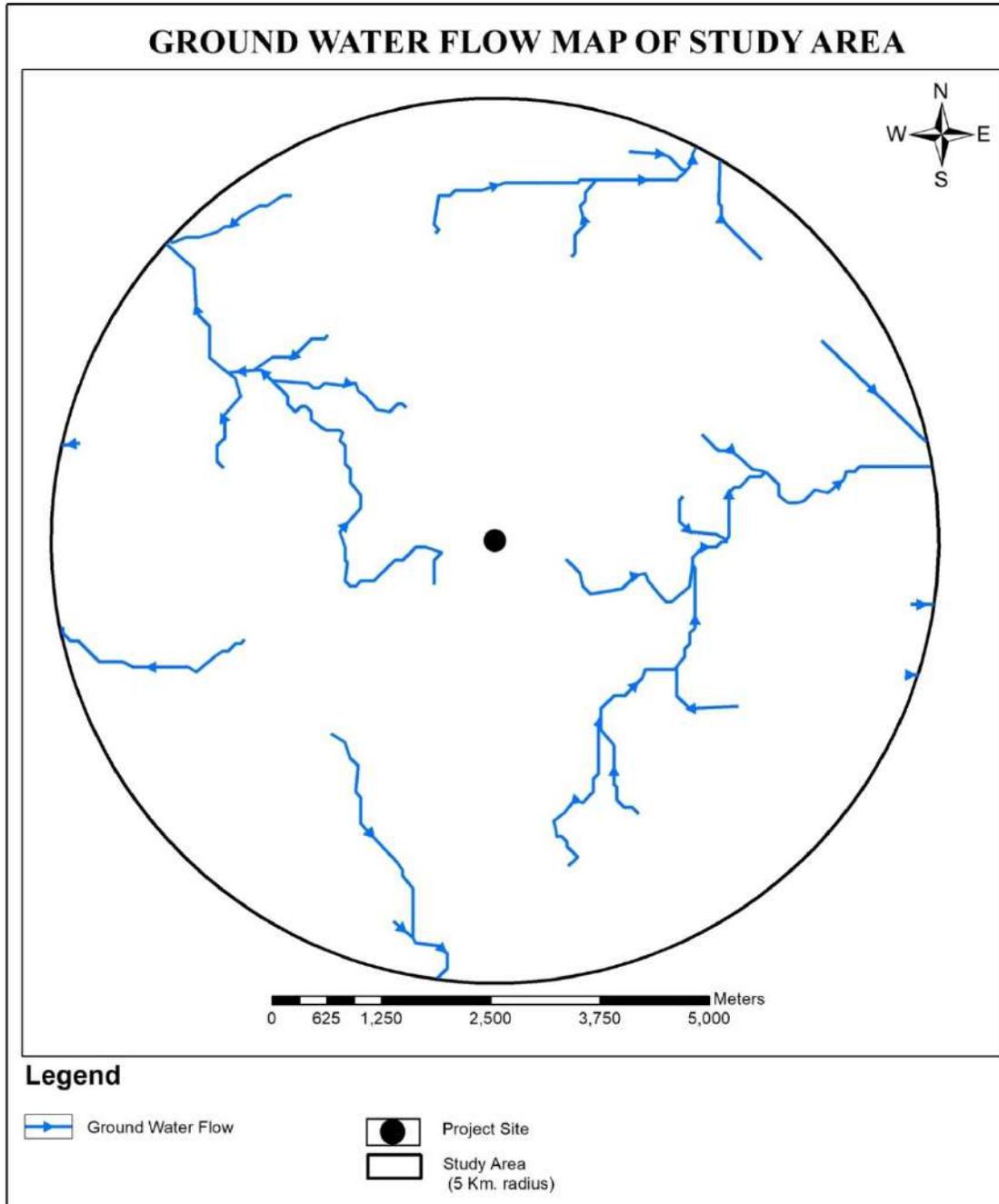


Figure 10: Drainage Map of the Project Area

1 Geology & Hydrogeology

3.1 Geology of the Area

Geologically the district is characterized by Vindhyan system and it is overlain by Quaternary alluvium. The geological succession is given below:

| Group | Formation | Lithology | Age | Thickness (In Mtr.) |
|----------------------|--------------------|--|---------------------------|------------------------|
| Quaternary | (1) Newer Alluvium | Clay Silt and Sand | Holocene | 130.50 |
| | (2) Older Alluvium | Polycyclic sequence of silt, clay, sand and kankar | Early to late Pleistocene | |
| Vindhayan Supergroup | Rewa Group | Shale and sandstone | Meso to Neoproterozoic | 15 |
| | Kaimur Group | Quartzite | Meso to Neoproterozoic | 76 |
| | | | | 18 |

Alluvial detritus of the Vindhyan is found in the southern part of the Doab. The Trans-Yamuna tract, the Vindhyan detritus merges in the gangetic sand and silt. The gangetic alluvium consists of alterations of fluvial deposition of sand silt and clay. The thickness of alluvium increases from south to north. The mineral products that are commonly found in the district are glass sand, building stone, kankar, brickearth and reh. Glass sands deposits are found in the neighborhood of Shankargarh (Tehsil Bara) and the requirements of most of the glass factories in northern India are drawn from these deposits. Building stone (sandstone) is extracted either by blasting or by splitting the chief quarries. Bricks and pottery, earth-material is available in the alluvial

tract of the district and is locally used for the manufacture of bricks and earthenware. 'Reh' is found as white encrustations in the 'usar' land especially in trans-Ganga tract. Soda ash, which is extracted from it, is used in making of soap and glass, in the dyeing industry and for the treatment of hard water.

3.2 Geological set up:

Geological set up of the district comprises rocky of Vindhyan Supergroup and Quaternary sediments, classified into Older and Newer Alluvium. The Vindhyan Supergroup is represented by Kamir Group of rocks comprising quartzite, and Rewa Group of rocks consisting of shale and sandstone. The rocks in general are undisturbed, horizontally disposed with very shallow dips of 20 to 50 towards south, and well jointed. Laterite cappings are occasionally seen over quartzite.

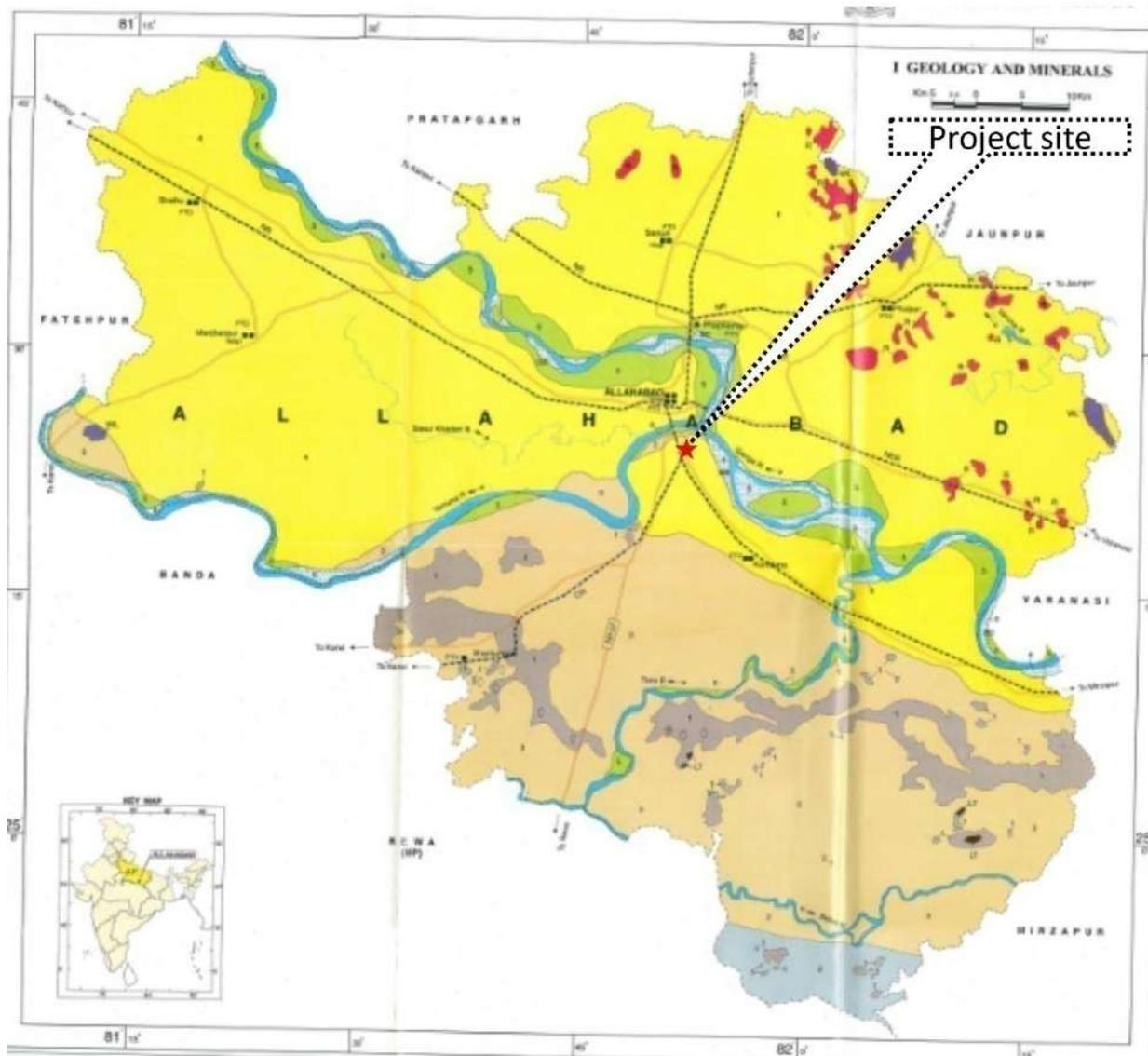
Quaternary sediments over Vindhyan Supergroup have been divided into two broad units of Older and Newer Alluvium. The Older Alluvium is classified into Banda and Varanasi Alluvium and the Newer Alluvium into Terrace and Channel Alluvium. The Banda Older Alluvium developed over Kaimur and Rawa Group of rocks is residual-cum-fluvial sediment and is exposed in the areas south of Yamuna. It comprises yellowish brown variegated silt-clay with ubiquitous kankar at the base and coarse to fine sand and reddish brown silt in the upper part. The Varanasi Older Alluvium, a polycyclic sequence of yellowish brown clay-silt and fine sand with dissemination of kankar, is exposed in the north of Yamuna.

The Newer Alluvium is characterized by unoxidised khaki and grey coloured sediments which consists predominantly of micaceous sand, silt and clay. It has been divided into Terrace and Channel Alluvium. The Terrace Alluvium of both Ganga and Yamuna are developed on a cut and eroded platform of Varanasi Older Alluvium. The Terrace Alluvium of Ganga consists of multiple

fill sequence of greyish sand, silt and clay while that of Yamuna consists of medium of fine grained quartzo-feldspathic and grey micaceous sand. The Channel Alluvium of Ganga/Yamuna and Tons rivers is confined to their present day channel and includes point bar, channel bar, lateral bar and sand flats. The sediments comprise grey micaceous fine to medium grained sand with thin layers of silt and clay.

Older sedimentaries, regolith and Older Alluvium are the three-geotechnical provinces of Allahabad district. The Vindhyan rocks have low permeability with medium to high bearing capacity. Regolith and Older Alluvium show cumulative high permeability and low bearing capacity.

Intermittent floods, soil alkalization and water logging are major natural hazards. Bad land has developed in the southern part. The district falls in seismic zone II and III suggesting that the area is seismically stable.



3.3 Hydrogeology of the area

The study of ground water is known as hydrogeology. Rainfall is the main source of water on the earth. A portion of rainfall, which percolates through the earth surface, forms ground water. All underground water cannot be termed as ground water, ground water must have a pressure greater than an atmospheric pressure otherwise water will not flow. Non-flowing underground water may create soil moisture but cannot be termed as ground water.

The importance of groundwater to serve as a clean and dependable source of water is widely recognized. With increasing demands of water, dependence on groundwater has grown leading to water scarcity at places and dried wells. Burdened with the pollution of water sources we have entered a regime of fresh water crises. Ground and surface water are linked together by a series of interactions, interactions that help to replenish the groundwater but which may also be a source of pollution. Renewal of groundwater is faster at the surface than deep down. Near the water table itself renewal may taken as little as a year but in deep aquifers renewal may take thousands of years.

Flood is one of the major natural hazards in the district submerging the areas along terraces of the main rivers. In addition, seasonal water logging occurs frequently in tals, paleo-channels along canals. Brick kilns causing land degradation, river bank erosion, sheet erosion, and soil alkalization (reh infestation) leading to infertility of land are few other important forms of hazards in the district.

The amount of the water to be absorbed by the earth depends upon the nature of the rocks or sediments for the purpose of ground water, the rocks or sediments that can hold, transmit and yield water are called aquifers. Accumulation of water in a particular place will depend upon the presence of water bearing horizons or aquifer at that particular place. Based upon permeability of the covering layers, aquifers can be particularly divided into two types, semi-confined and confined aquifers. Apart from these two types, aquifer bounded above by a semi-pervious layer is known as semi confined or leaky aquifer.

The occurrence of ground water in a formation is largely governed by the hydro geological settings of the formation, including the degree of cementation and compaction. Unconsolidated formations are generally capable of storing and transmitting large quantity of ground water, thus forming extremely good aquifers.

3.4 Regional Hydrogeology

On the basis of hydrogeological information a three tier aquifer system has noticed in the area.

i) Uper 1st Aquifer Group

It generally occurs between the depth range of 25.00 & 130.00 mbgl and constitutes the most potential aquifer group covering almost the entire area below the soil capping. The aquifer material is fine to medium sand, kankar variably occurs with clay formations. Ground water occurs under unconfined to confined conditions. The quality of the formation water is fresh and potable.

ii) The Middle / Second Aquifer Group

This aquifer group is separated with the overlying shallow aquifer group by thick clay and occurs between the depth range of 80 & 240 mbgl. Geoelectrical logging down to 450 mbgl in boreholes reveals in general, that upper fresh aquifer over lies a saline / brackish aquifer which in turn is underlain by a fresh confined ground water system. The source of saline ground water might be the result of sea water intrusion into the aquifer in the geological past. Ground water in this aquifer generally occurs under confined condition, the confining layers being thick impermeable clay layers. The clay content in this zone varies between

70% & 88%. This zone is not being tapped by tubewell construction due to its enrichment in salt content in water

iii) The Lower / Deep Aquifer Group

This fresh aquifer system occurring below the saline counterpart, has been tapped in the deeper exploratory tubewell structures constructed by CGWB. Depth limit of this potential aquifer system from land surface is 180 m to 410 mbgl. The aquifer material is fine to medium sand

13. Ground Water Regime

Groundwater is simply the subsurface water that fully saturates pores in soil. Groundwater is replenished by precipitation and depending on the local climate and geology, is unevenly distributed in both quantity and quality. When rain falls, some of the water evaporates, some is transpired by plants, some flow overland and collects in streams and some infiltrates into the pores or cracks. After the water requirements for plant and soil are satisfied, excess water will infiltrate to the water table the top of the zone below which the opening saturated.

Depth to water level varies widely depending upon topography, drainage system, geology and depth to bedrock etc. In order to study the ground water regime condition of the study area the data from CGWB has been collected and processed for depicting spatial and seasonal variations. In order to study the spatial variations in ground water level the point water level data has been analyzed and the pre-monsoon and post-monsoon maps have been generated.

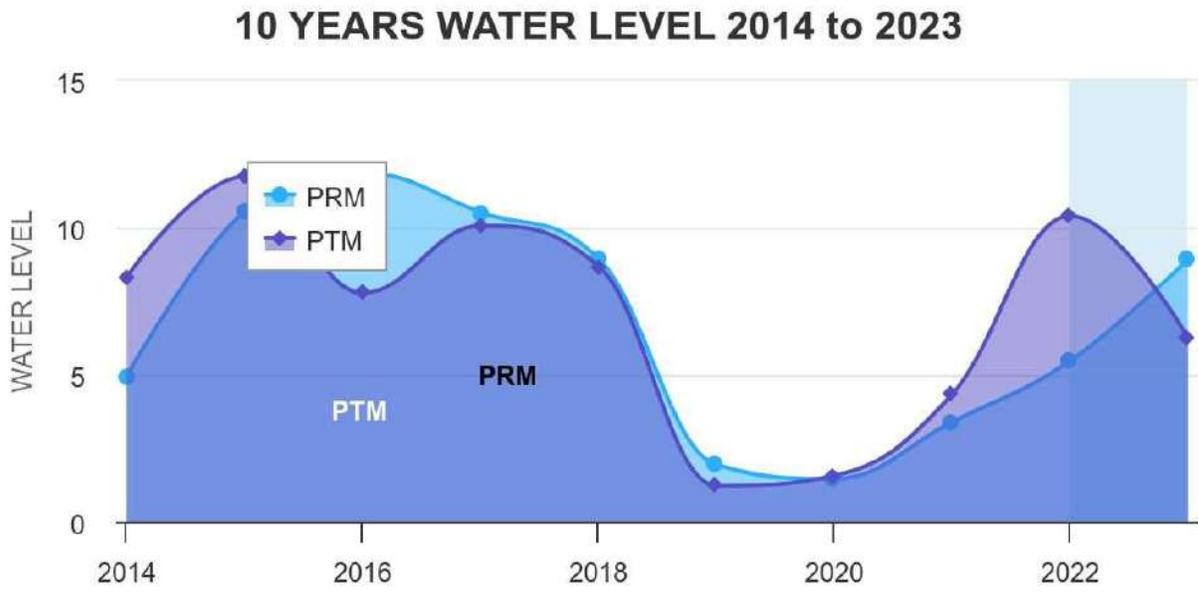
Last seven year data of water level for GWD well near project site given below in Table 3. The areas having comparatively deeper water level lie in of Southeastern part where population density is very high and therefore water abstraction for general requirement is

also high. The seasonal fluctuation between pre and post monsoon water level indicates fall in water level.

3.5 Ground Water Level

Ground water is mainly controlled by drainage, topography and lithological behavior; it occurs underground water condition at shallow depths and under confined condition at deeper depths. Depth to water in pre monsoon ranges between 3.0 to 15.0 mbgl and average water level is 6.0 to 7.0 mbgl in Trans Ganga area. Post monsoon water level varies between 1.45 to 13.00 mbgl in Trans Ganga area. Water level varies 5.00 to 6.00 mbgl in Trans Yamuna area.





**DEPTH TO WATER LEVEL OF GROUND WATER MONITORING WELLS
(GWMW), U.P.**

| Sl.No | District | Well | May-2021 | Aug-2021 | Nov-2021 | Jan-2022 |
|-------|-----------|----------------|----------|----------|----------|----------|
| 1 | Allahabad | Aandwa | 18.39 | 16.13 | 14.39 | 14.38 |
| 2 | | Allahabad | | 5.72 | 7.13 | 9.99 |
| 3 | | Kasarua | | 11.9 | | 8.48 |
| 4 | | Mau-Aima | 6.39 | 3.1 | 1.76 | 2.04 |
| 5 | | Naini | 13.77 | 9.02 | 8.19 | 9.97 |
| 6 | | Imamganj | 7.03 | 1.36 | 2.07 | 3.48 |
| 7 | | Baraut1 | 1.81 | 0.97 | 1.15 | 1.25 |
| 8 | | Handia | 2.18 | | 0.42 | 0.77 |
| 9 | | Holagarh | 5.12 | 2.2 | 2.04 | 3.36 |
| 10 | | Bara | 4 | 1.05 | 1.63 | 1.97 |
| 11 | | Chilla | 12.52 | 7.01 | 5.82 | 7.79 |
| 12 | | Gauhania | 5.84 | 1.34 | 1.82 | 2.13 |
| 13 | | Lalpur | 4.23 | 1.48 | 2.59 | 2.72 |
| 14 | | Barokhar | | 5.75 | 6.68 | 8.09 |
| 15 | | Koraon | 4.52 | 9.8 | 0.98 | 1.48 |
| 16 | | Ladiri Bazar | 4.43 | 1.49 | 1.98 | 3.02 |
| 17 | | Pasna | 4.47 | 0.98 | 1.09 | 2.37 |
| 18 | | Karchanna | 12.32 | 7.48 | 4.88 | 7.41 |
| 19 | | Meja Road | 15.25 | 8.14 | 5.12 | 8.08 |
| 20 | | Akodha | 9.46 | 2.28 | 2.2 | 4 |
| 21 | | Saraon | 6.92 | 2.54 | 2.37 | 3.09 |
| 22 | | Atrampur | 7.46 | 3.83 | 1.19 | 2.86 |
| 23 | | Bawarikalaan | 4.41 | 1.13 | 1.29 | 2.39 |
| 24 | | Rampur tulapur | 4.94 | 1.08 | 4.72 | 5.24 |
| 25 | | Meja | 4.94 | 1.35 | 3.86 | 3.69 |
| 26 | | Mallhan | 6.61 | 3.29 | 2.06 | 2.64 |
| 27 | | Phulpur2 | 5.94 | 2.22 | 2.53 | 3.21 |
| 28 | | Sikandra1 | 11.06 | 10.32 | 9.26 | 9.01 |
| 29 | | Bairi | 2.65 | 0.15 | 0.95 | 1.12 |
| 30 | | Gadwa Fort | 3.59 | 2.69 | 3.22 | 3.44 |

3.6 Ground water quality status

The chemical analysis of shallow ground water consists of pH, E.C., Na, K, Ca, Mg, HCO₃, CL, SO₄, NO₃, F and TH as CaCO₃ reflects that there is no contamination of the shallow ground water in the district and all the constituents are well within the range. The chemical data of shallow aquifers reveals that the ground water quality is more deteriorated in canal command area the map of E.C. and Chloride show that in most of the area E.C. varies from 200-2080 μ Siemens/cm at 25°C. It is interesting to find that different radicals in the shallow ground water have not changed over the year's in spite of upcoming canal irrigation and use of fertilizers.

The hydro-geological study of the project area as well as surroundings has examined through observations about geology, aquifer pattern, surface drainage system, geobotanical guides & existing groundwater structures. These studies also been used in selecting sites for geo-electric survey.

3.7 Ground water flow direction within study area

Groundwater-flow systems are characterized by the boundary conditions imposed by their physiographic framework and by the distribution of recharge. The physiographic framework incorporates the topographic and geological conditions of a region, while recharge distribution is controlled by climate.

Regional-flow systems are recharged at regional water divides and discharge into regional (higher order) streams, while local-flow systems are recharged at local water divides and

discharge into local (lower order) streams. Flow systems do not develop under extensive flat areas due to low hydraulic gradients. Increasing local topographic slopes increases the depth and intensity of local-flow systems, whereas increasing regional slopes increases the depth and intensity of regional-flow systems with a concomitant degeneration of local-flow systems. The hydrological response to recharge, and the water flux through the flow system diminish with increasing flow system scale, while the depth of penetration and residence time of groundwater increase with increasing flow system scale.

Thus regional-flow systems tend to be deep, steady, slow (low flux), and more mineralized, while local-flow systems are shallow, unsteady (high variability), fast (greater flux), and less mineralized.

The interaction of groundwater and surface water on regional to local scales is dependent on the following:

1. Position of the surface water body with respect to the groundwater flow systems.
2. Anisotropy and hydraulic conductivity contrasts of the groundwater system.

Groundwater-surface water connectivity refers to the direction and magnitude of flow between water resources located above and below ground. Factors such as topography, geology and climate can change the direction and magnitude of these flows. Surface water (including rivers, lakes, reservoirs, wetlands, estuaries, etc.) interacts with groundwater almost everywhere on Earth. This interaction takes place through the loss of surface water to groundwater, seepage of groundwater to surface water body, or a combination of both. The development or contamination of surface water or groundwater resources typically influences each other. Therefore, a basic understanding of the interactions between surface

water and groundwater is crucial for better management and sound policy making related to water-resource problems

Knowledge of groundwater-surface water interactions is essential to address the following water-resource issues:

1. Conjunctive use of groundwater and surface water resources.
2. Water rights issues, especially accounting for the groundwater flows to and from surface water bodies, which can be difficult and controversial.
3. Assessment and minimization of losses and delays of water released from surface water reservoirs.
4. Assessment and control of contamination of surface water caused by groundwater and vice versa.
5. Integration of groundwater flows in watershed planning and management.

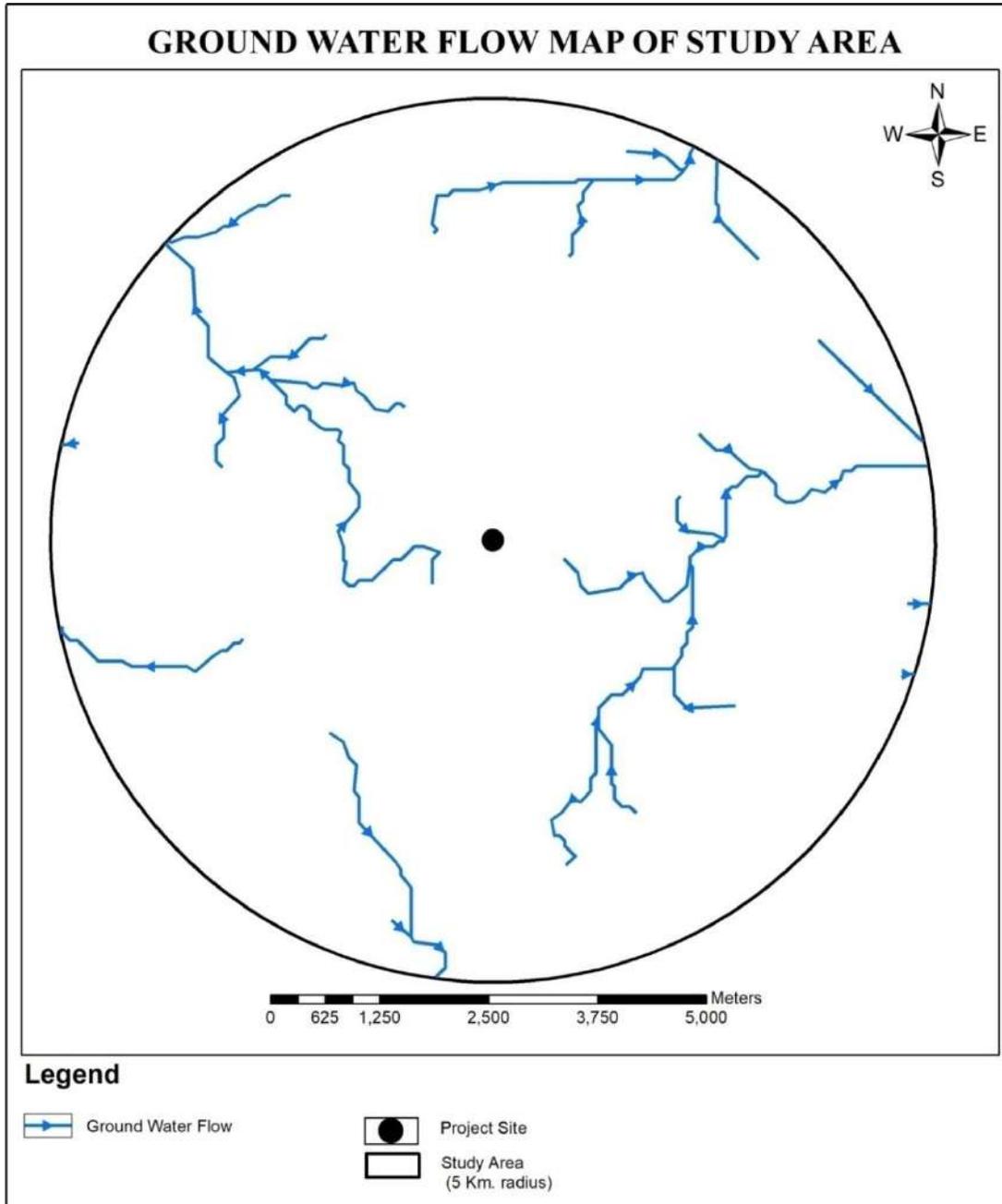


Figure 12: Ground water flow map of study area

Table 5: Ground water level trend analysis for pre – monsoon and post – monsoon for 10 years

| DISTRICT | BLOCK | HYDROGRAPH STATION | RL | Year - 2008 | | Year - 2009 | | Year - 2010 | | Year - 2011 | | Year - 2012 | | Year - 2013 | | Year - 2014 | | Year - 2015 | | Year - 2016 | | Year - 2017 | |
|-----------|----------|----------------------|-------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|
| | | | | Pre Mn | Post Mn |
| ALLAHABAD | Karchana | BarhaBhar | 0.000 | | | | | | | | | | | | | 8.90 | 7.50 | 13.30 | 18.00 | 14.25 | 10.80 | 12.85 | 12.25 |
| ALLAHABAD | Karchana | BAGWANA | 0.000 | | | | | | | | | | | | | 8.45 | 6.45 | closed | closed | closed | closed | closed | Closed |
| ALLAHABAD | Karchana | DANDUPUR Post Office | 0.000 | | | 10.55 | 8.60 | 10.40 | 7.85 | 9.00 | 7.55 | 8.85 | 6.60 | | | | | 5.70 | 5.65 | closed | closed | closed | Closed |
| ALLAHABAD | Karchana | DHANUWA | 0.000 | | | 21.65 | 21.00 | 21.60 | 18.15 | 19.80 | 17.25 | 18.55 | 11.60 | 21.40 | 16.30 | 17.80 | 16.35 | 17.60 | 17.85 | 23.20 | 16.05 | 14.15 | 14.05 |
| ALLAHABAD | Karchana | DHANUWA | 0.000 | 19.15 | 15.25 | 18.45 | 15.45 | | | | | | | | | | | closed | closed | closed | closed | closed | Closed |
| ALLAHABAD | Karchana | GHOORPUR | 0.000 | 8.30 | 5.15 | 7.05 | 7.00 | 7.75 | 7.17 | 8.45 | 6.50 | 8.80 | 5.90 | 7.90 | 5.70 | 6.65 | 5.35 | 8.40 | 8.45 | 9.40 | 6.35 | 9.20 | Closed |
| ALLAHABAD | Karchana | HATHIGAWAN | 0.000 | 7.45 | 2.50 | 8.65 | 8.55 | 9.20 | | | 7.05 | 11.00 | 7.25 | Dry | Dry |

Depth to water level varies widely depending upon topography, drainage system, geology and depth to bed rock etc. In order to study the ground water regime condition of the study area the data from CGWB has been collected and processed for depicting spatial and seasonal variations.

In order to study the spatial variations in ground water level the point water level data has been analyzed and the pre-monsoon and post-monsoon maps have been generated. The pre-monsoon as well as post monsoon depth to water level in the area ranges from 2.40 – 20.85 m bgl. The areas having comparatively deeper water level lie in parts of eastern and northern around the project area.

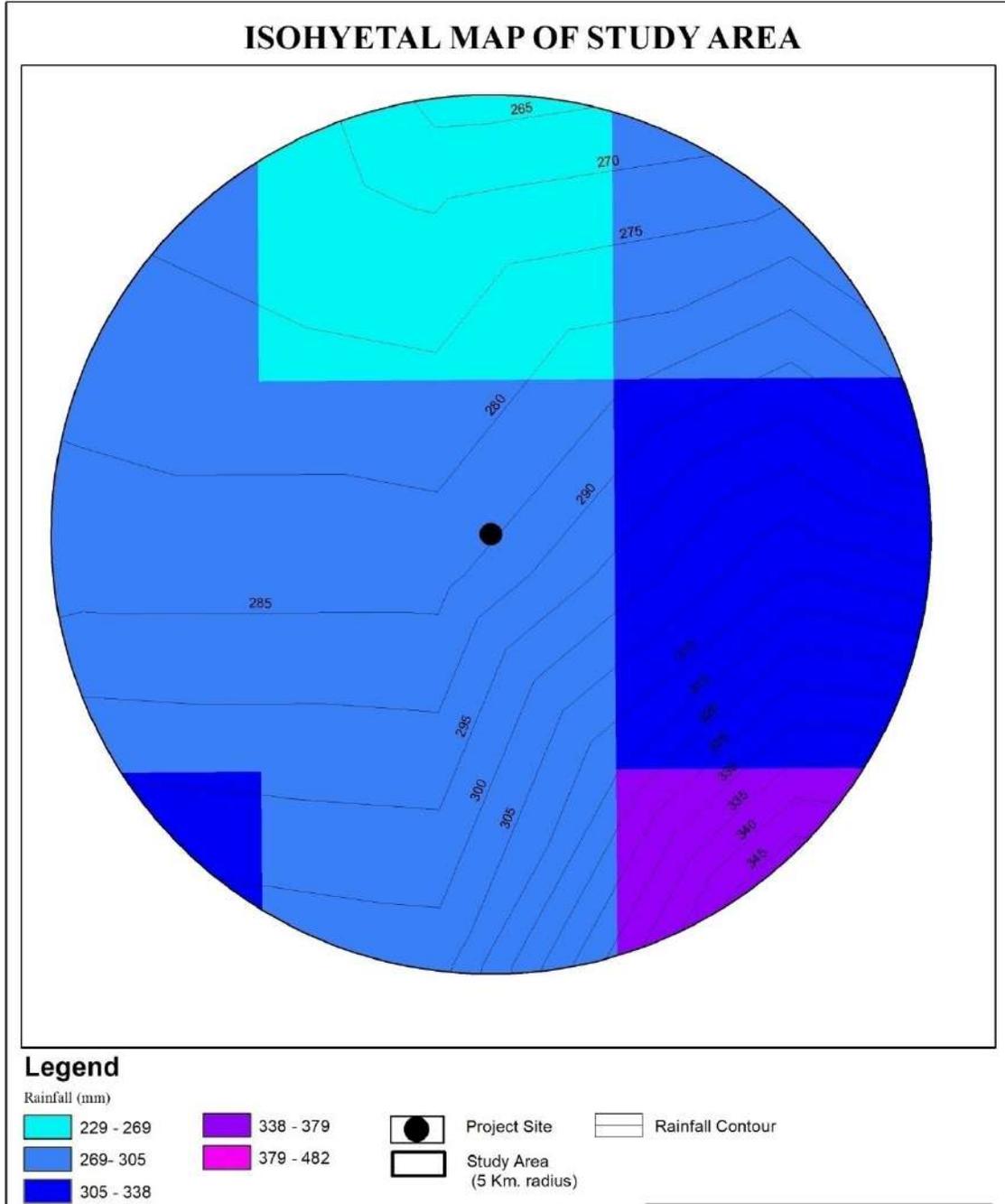


Figure 13: Rainfall contour Map

3.8 Rainfall Trend Analysis

The annual average normal rainfall of Allahabad district is is 947.00 mm considering the long term 50-year average rainfall. The annual average rainfall of Allahabad district during

last 5-year is 836.8 mm. The statistical analysis of rainfall data of last 5 years is shown in Table 6.

Table 6: Statistical Analysis of Rainfall Data Last 5 Years for Prayagraj

| Statistical Analysis of Rainfall Data Last 10 Years for Prayagraj (Avg Rainfall 818.96mm) | | | |
|---|-------------|---------------|----------------|
| Year | Average(mm) | Departure (%) | Remarks |
| 2016 | 910 | -288 | No Drought |
| 2017 | 692.2 | -793 | Normal Drought |
| 2018 | 700.4 | -11 | Normal Drought |
| 2019 | 1098.8 | -2 | No Drought |
| 2020 | 855.8 | 735 | No Drought |

3.9 Ground Water Quality Data

Data collected from secondary data sources in and around the ste for water quality parameters is given below. The total hardness data shows decreasing trend for areas where groundwater is being stored and groundwater flow is towards those regions

Groundwater is the water present beneath Earth's surface in soil pore spaces and in the fractures of rock formations. Groundwater is the water found underground in the cracks and spaces in soil, sand and rock. It is stored in and moves slowly through geologic formations of soil, sand and rocks called aquifers.

The water samples were examined for physico-chemical parameters Samples for chemical analyses were collected in polyethylene carboys. The details of sampling locations with are presented in Table 7.

Table 8: Ground Water Quality

| S. No. | Parameters | Test Method | Desirable | Permissible | Dandi Village | Project Site Integrated Township |
|--------|---|-----------------|-----------|---------------|---------------|----------------------------------|
| 1 | Colour, Hazen units | IS 3025 Part 4 | Agreeable | Agreeable | < 1 | < 1 |
| 2 | Odour | IS 3025 Part 5 | | No Relaxation | Agreeable | Agree able |
| 3 | pH Value at 25°C | IS 3025 Part 11 | 6.5 – 8.5 | - | 7.33 | 7.29 |
| 4 | Conductivity at 25°C, μ S/cm | IS 3025 Part 14 | - | - | 551 | 497 |
| 5 | Temperature, °C | - | - | - | 25.8 | 23.4 |
| 6 | Total Dissolve Solids, mg/l | IS 3025 Part 16 | 500 Max | 2000 Max | 358 | 320 |
| 7 | Boron (as B), mg/L | IS 3025 Part 57 | 0.5Max | 1.0 Max | 0.01 | 0.01 |
| 8 | Calcium (as Ca),mg/l | IS 3025 Part 40 | 75 Max | 200 Max | 28.7 | 26.5 |
| 9 | Chloride (as Cl),mg/l | IS 3025 Part 32 | 250Max | 1000 Max | 72 | 66 |
| 10 | Fluoride (as F),mg/l | IS 3025 Part 60 | 1 Max | 1.5 Max | 0.16 | 0.14 |
| 11 | Magnesium (as Mg), mg/l | IS 3025 Part 46 | 30 Max | 100 Max | 18.2 | 18.8 |
| 12 | Nitrate (as NO ₃),mg/l | IS 3025 Part 34 | 45 | - | 28.1 | 20 |
| 13 | Nitrite (as NO ₂),mg/l | IS 3025 Part 34 | - | - | 0.15 | 0.17 |
| 14 | Dissolve Phosphate (as PO ₄),mg/l | IS 3025 Part 31 | - | - | 2.0 | 1.5 |
| 15 | Potassium (as K),mg/l | IS 3025 Part 45 | - | - | 30 | 38 |
| 16 | Sodium (as Na),mg/l | IS 3025 Part 45 | 200 Max | 400 Max | 53 | 56 |
| 17 | Sulphate (as SO ₄),mg/l | IS 3025 Part 24 | 200 Max | 400 Max | 47 | 74 |
| 18 | Alkalinity (as HCO ₃),mg/l | IS 3025 Part 23 | 200 Max | 600 Max | 58 | 65 |
| 19 | Total Hardness (as | IS 3025 Part 21 | 200 | 600 | 76 | 82 |

| | | | | | | |
|----|------------------------------|-----------------|-----------|-----------|---|----|
| | CaCO ₃ , mg/l | | Max | Max | | |
| 20 | Chemical Oxygen Demand, mg/l | IS 3025 Part 58 | Agreeable | Agreeable | 8 | 16 |

(Source: EIA of Environment Clearance of proposed Integrated Township at Naini, Allahabad, U. P.)

3.10 Water quality of nearby water bodies

Two surface water samples were collected Yamuna River (SW1) and Ganga River (SW2) as per the standard method. Samples for bacteriological analyses were collected in sterilized bottles. The water samples were examined for physico-chemical parameters and bacteriological parameters. Samples were analyzed for various parameters using the CPCB's BDU Criteria. The analysis results of surface water are presented in Table 9.

Surface Water Sampling Locations

- Yamuna River
- Ganga River

Table 9: Surface Water Quality

| S. No. | Parameter(S) | Test Method | Acceptable Limit | Permissible Limit | SW1 | SW2 |
|--------|------------------------------|-----------------|------------------|-------------------|-----------|-----------|
| 1 | Colour, Hazen units | IS 3025 Part 4 | 5 Max | 15 Max | < 1 | < 1 |
| 2 | Odour | IS 3025 Part 5 | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | pH Value at 25°C | IS 3025 Part 11 | 6.5 – 8.5 | No Relaxation | 7.58 | 7.68 |
| 4 | Conductivity at 25°C, µS/cm | IS 3025 Part 14 | - | - | 360 | 329 |
| 5 | Temperature, °C | | - | - | 22.1 | 22.2 |
| 6 | Total Dissolve Solids, mg/l | IS 3025 Part 16 | 500 Max | 2000 Max | 234 | 214 |
| 7 | Total Suspended Solids, mg/l | IS 3025 Part 17 | - | - | 14 | 10 |

| | | | | | | |
|----|---|--------------------|------------|------------------|------|------|
| 8 | Total Solids, mg/l | IS 3025 Part 15 | - | - | 248 | 224 |
| 9 | Ammonia (as NH ₃),mg/l | IS 3025 Part 34 | 0.5 Max | No Relaxation | 0.02 | 0.02 |
| 10 | Calcium (as Ca),mg/l | IS 3025 Part 40 | 75 Max | 200 Max | 16.4 | 17.6 |
| 11 | Chloride (as Cl),mg/l | IS 3025 Part 32 | 250 Max | 1000 Max | 31.1 | 32 |
| 12 | Iron (as Fe),mg/l | IS 3025 Part 53 | 0.3 Max | No Relaxation | 0.08 | 0.08 |
| 13 | Magnesium (as Mg) , mg/l | IS 3025 Part 46 | 30 Max | 100 Max | 6.3 | 6.3 |
| 14 | Nitrate (as NO ₃) ,mg/l | IS 3025 Part 34 | 45 Max | No Relaxation | 9.9 | 10 |
| 15 | Dissolve Phosphate (as PO ₄) ,mg/l | IS 3025 Part 31 | - | - | 2.83 | 2.83 |
| 16 | Potassium (as K) ,mg/l | IS 3025 Part 45 | - | - | 18 | 20 |
| 17 | Sodium (as Na) ,mg/l | IS 3025 Part 45 | - | - | 46 | 48 |
| 18 | Sulphate (as SO ₄) ,mg/l | IS 3025 Part 24 | 200 Max | 400 Max | 21.7 | 21.9 |

(Source: EIA of Environment Clearance of proposed Integrated Township at Naini, Allahabad, and U. P.)

The waterlogged area in the district is confined along the river Ganga due to seasonal flood. The declining trend of ground water has been observed in all the blocks due to absence of surface irrigation and below average rainfall in the previous years. There is no quality problem in the entire district.

2 Impact Assessment

1.1 Introduction

As discussed earlier the project area Shree Baidyanath Ayurved Bhawan Pvt.Ltd. falls in1, Mirzapur Road, Dadri, Naini, district Prayagraj of South East Uttar Pradesh which is Critical zone for ground water use. As discussed earlier in section 3 most of the adjoining areas of the project are occupied by major land uses such as agriculture land, human settlements, and industries.

The city of Prayagraj is among the largest cities of Uttar Pradesh and situated at the confluence of three rivers- Ganga, Yamuna and the invisible Saraswati. The meeting point is known as Triveni and is especially sacred to Hindus.

Ground water due to its assured and timely, availability has now become the most dependable source for irrigation, but its overexploitation affects adversely its regime. For a better ground water management, it is necessary to have a constant vigil on its overall reserve and status of utilization. the situation of ground water in the district is alarming. block Karchana and Prayagraj city area categorized Over exploited and Dhanupur block is categorized as critical, due to more than 100% development of ground water. District is required water sharing and artificial recharge schemes to be implemented

It can be inferred that the ground water situation around the project area is under high stress due to various other reasons such as extraction of deep groundwater by farmers, adoption of old farming techniques, abstraction of groundwater by the industry does

have significant impact on the groundwater regime around the project area. Agriculture is the major consumer of ground water.

The strong network of canal as well as ground water is source of irrigation. Total length of canal is 2211 km which irrigates 125568 hectare area under cultivation. There are 1006 number of government tubewells by which 19438 hectare area is irrigated. Irrigation through private tubewells as well as boring with pumpsets is 87963 hectare which reflects 58% of area is being irrigated through groundwater. For drinking purpose 1719 number of villages are under pipe water supply scheme through 111 tubewells and there are 19072 India Mark II handpump.

In the major parts of area, flow irrigation is being used. There is urgent need to promote piped and pressurized irrigation practices which can save 25 to 70% of water use in the agriculture. It is proposed to initiate these measures initially in 10% area of each of the over-exploited and critical blocks.

5.2 Impact on groundwater sources

There is no/any impact on ground water source. Effective management adopted by the factory for the utilization of ground water sources such as constructing a rainwater harvesting system. The elaborated details of these strategies are explained in the further sections.

To overcome impact of withdrawal of 160 m³/ day of water below are the activities done as part of CSR Activities. It is well known that no amount of work can be considered enough for the decreased or change in environment, but we can minimise

the impact, as development and environment protection and conservation should go hand in hand i.e., a sustainable development.

The plant authorities have scheduled to further enhance the socio-economic activities in the surrounding villages such as providing potable drinking water, providing direct and indirect employment opportunities to many villagers, and making them part of sustainability cycle for people residing around the plant.

There are essentially few physical management options which could be possibly implemented. As the Industry have already incorporated the ground water recharge, water harvesting structures in their planning is under construction within the plant premises.

- Increasing recharge
- Proper monitoring of Ground water data
- The periodic maintenance of the recharge structure

5.3 Impact on Environmental Values

The area is under over exploited category and there is need to establish recharge structures around to maintain the water level. To discuss about impact on environmental values we need to identify and describe it which will provide basis for the assessment of potential impacts and formulation of proactive measures and mitigate impacts that may arise due to operation of industry. This has been measured in terms of water quality, water level and socio economic features which have been studied in detail in previous and upcoming chapters.

Environmental risk is essentially considered the risk of irreversible change to natural

ecological processes and community interaction.

5.4 Environment Impact

The industry has already adopted water conservative measures such as rainwater harvesting plant. A ETP is also installed in the industry premises for the treatment of wastewater and the recycled water can be further utilised. In overall there will be less impact on environment as the industry has adopted all the necessary measures.

5.5 Socio-Economic Aspects

The district Allahabad has been a centre of trade, learning, politics and religious festivals through the historical past. It has been associated with the religious beliefs and festivals. The holy river Ganga and the sacred Sangam form an integral part of the Indian culture. The city has witnessed the rise and fall of mighty empires. Being a centre of education, it has also attracted many scholars and had produced many academicians, revolutionaries, politicians and people of national and international repute. Due to its vibrant past and present the district has witnessed considerable change in the demography, economic activities, transport, population and culture over the past decades.

5.5 Settlements and population dynamics

5.5.1 Demography Details

The district of Allahabad is one of the most populous districts of Uttar Pradesh. It supports a population of 59, 59,798 persons. The percentage of male and female

population is 52.58 and 47.42 per cent respectively. The population among the 20 blocks of Allahabad district varies from 1, 51,080 in Kondiyaar to 3, 97,184 in Koarihar.

5.4.2 Demography of Karchana block

Karchana is a Town in Karchana Block in Allahabad District of Uttar Pradesh State, India. It belongs to Allahabad Division. It is located 11 KM towards South from District head quarters Allahabad. It is a Block head quarter. The Block has 87378 Houses

5.4.3 Population of Karchana Block

Karchana's population is 258181. Out of this, 135910 are males while the females count 122271 here. This block has 36885 children in the age bracket of 0-6 years. Out of this 19229 are boys and 17656 are girls.

5.4.4 Literacy rate of Karchana Block

Literacy rate in Karchana block is 72%. 160007 out of total 258181 populations is educated here. In males the literacy rate is 59% as 94490 males out of total 98708 are educated however female literacy ratio is 41% as 65517 out of total 258181 females are educated in this Block.

The dark part is that illiteracy ratio of Karchana block is 38%. Here 98174 out of total 258181 individuals are illiterate. Male illiteracy ratio here is 42% as 41420 males out of total 98174 are uneducated. Among the females the illiteracy rate is 57% and 56754 out of total 98174 females are illiterate in this block.

Table 11: Brief Demographic Details (As per Census 2011)

| Particular | Persons | Males | Females |
|------------|---------|--------|---------|
| Total | 258181 | 135910 | 122271 |

| | | | |
|--------------------------------------|--------|-------|-------|
| In the age group 0-6 years | 36885 | 19229 | 17656 |
| Scheduled Castes (SC) | 55045 | 28756 | 26289 |
| Scheduled Tribes (ST) | 1244 | 657 | 587 |
| Literates | 160007 | 94490 | 65517 |
| Illiterate | 98174 | 41420 | 56754 |
| Total Worker | 81500 | 62347 | 19153 |
| Main Worker | 52579 | 43133 | 9446 |
| Main Worker – Cultivator | 5086 | 4105 | 981 |
| Main Worker - Agricultural Labourers | 5368 | 3712 | 1656 |
| Main Worker - Household Industries | 3817 | 2213 | 1604 |
| Main Worker – Other | 38308 | 33103 | 5205 |
| Marginal Worker | 28921 | 19214 | 9707 |
| Marginal Worker – Cultivator | 1768 | 1084 | 684 |

5.4.5 Economic Activities

Primary survey of the village reveals that most workers are involved with the agriculture activities either as labours or as cultivators. As per the primary field visit, around 40% to 50% people are depending on agriculture as the main source of income, and remaining 60% to 50% working population is involved in various activities such as industrial labouring jobs, animal husbandry, vegetable vendors, daily wages, auto and shared van driving, etc.

5.4.6 Agriculture Activities

The economy of the district is predominantly agriculture. Kharif and Rabi are the two main harvests grown in the district. Wheat occupies the predominant place followed by paddy both in terms of area and production. Sugarcane is the most important commercial crop grown in the district. Other main Kharif crops of the district are Arhar, Urad, Moong. Wheat is the main Rabi crop that is cultivated in the district. The main

non-food crops of the district are sugarcane, oilseed, groundnut, potato, onion, garlic and other vegetable and fruits, sun-hemp and tobacco. Normally all farmers have a private godown within their farms for short term storage of their produces. Even though some parts have developed as an industrial estate, the rural character of the area and their livelihood on agriculture remain.

5.4.7 Social Infrastructure Assessment

Social infrastructure is the basic requirement of human life; therefore, availability and adequacy of infrastructure services have a larger role in the wealth and well-being of citizens; as well as in strengthening economic development in the region. Hence, provision of the social infrastructure is defined as basic services that any developing region requires to sustain its growth and development.

For the provisions of amenities, URDPFI guidelines are considered as the basis for estimation of gaps and additional requirements.

Educational Facilities

The educational facilities for the 4-village ranging from the Pre-Primary school to the college level.

Pre-Primary School (Anganwadi):

Generally, pre-primary schools refer to the Anganwadi. As per URDPFI guidelines, one Anganwadi is required for every 2,500 of population.

Primary + Middle School (Standards I to VIII):

Generally, Primary Middle School refers to the grade of education from 1st to 8th. As per URDPFI guidelines, one school is required for every 5,000 of population. There are

schools available within the area hence, this indicate no one needs to travel to other area for primary school, furthermore, it can be stated as enrolment percentage would be higher and hence access to education is easy.

Secondary and Senior Secondary (Standards IX to XII):

Generally, Secondary School refers to the grade of education from 9th to 12th. As per URDPFI guidelines, one school is required for every 7,500 of population and one senior secondary school is required for every 15,000 of population.

College:

Generally, college refers to graduate-level education. As per URDPFI guidelines, one college served per unit for every 125,000. Ewing Christian College, Hamidia Girls Degree College are nearest educational institute to the project site.

Health Facilities

Available medical facilities in the Study Area are hospitals, dispensaries, health centers, public health Sub centers; maternity homes etc. within a range of 5-10 kms, most of the villages in the study area have medical facility available in one or the other. Some of the important medical facilities in nearby area:

Table 12: Healthcare Facility

| Sr. No. | Hospital Name | Distance |
|----------------|-------------------------------|-----------------|
| 1 | Jain Hospital | 2.8 km (N) |
| 2 | Nazreth hospital | 4.0 km (N) |
| 3 | Parvati hospital | 3.0 km (NE) |
| 4 | MotiLal Nehru Medical College | 4.0 Km (NW) |

5.4.8 Dependency on sources of water

The area is mainly dependent on groundwater water. The plant is depended on ground water sources i.e., on the existing 3 borewell.

As the taluka is already in critical zone and there is decline trend in ground water, it is required to incorporate various water conservation measures in agriculture.

5.4.9 Ground Water Uses

The demand of drinking water is majorly meet by ground water. The water is supply twice in day in almost all the 4 visited villages.

For irrigation groundwater is the major water source and the method followed is flooding, very few farmers have implemented the drip irrigation or sprinkling method. arhar, urad, oilseed, groundnut and wheat are the principal crops.

5.4.10 Impact of local communities

To find the impact of the existing project on the Local communities and stake holders near the project area, selective interactions were carried out from representatives of various levels from villages to assess the impact of the existing project on their livelihood and their professions. As the factory is already constructed and running, covering approx. 128799.94 Sq. M of land, it provides various employment opportunities to residents near their home.

They were also asked whether the existing project has been helpful in improving their livings and profession in general. Based on the interactions with local, following conclusions of impact are made.

There is no significant impact on the working of the tube wells in their farms due to the pumping of water by the Project at safe distance.

To mitigate the possible negative impact of the project and to harness the opportunities created by the project for the benefit of the local community, this CSR roadmap suggests for strategic and focused intervention in the area.

The focus would be to provide increased access to civic amenities, education, public health, and generation of employment for local development and work closely with the women groups, local gram-panchayat, and other community groups right from the planning to implementation of the same.



PROOF OF SERVICE

Office of pallavi pratap <law.pratapandco@gmail.com>

Service in OA 974 of 2024, titled as "Jitender Nishad v. State of UP".

1 message

Office of pallavi pratap <law.pratapandco@gmail.com>

Sat, Apr 5, 2025 at 3:00 PM

To: msseiaaup@gmail.com, ms@uppcb.in, secy-moef@nic.in, dmall@nic.in, mscb.cpcb@nic.in, dgmupexp@gmail.com, cp-pol.ah@up.gov.in

Sir,

Kindly find attached herewith copy of compliance affidavit dated 04.04.2025 on behalf of R-10 in "Jitender Nishad v. State of UP" pending before Hon'ble NGT.

Regards,

Office of Pallavi Pratap

Advocate for R-10

Mob : 9999990078

A-90, LGF, South Extension - II,

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 Surendra Kumar Compliance Affidavit R10 04 04
2025.pdf