

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

**IN
ORIGINAL APPLICATION NO. 13/2025**

IN THE MATTER OF:

RADHESHYAM

.....APPLICANT

Versus

**MINISTRY OF ENVIRONMENT.FOREST
AND CLIMATE CHANGE & ORS**

.....RESPONDENT(S)

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FILED

DATED: - 06.07.2026

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THROUGH

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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
IN**

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THE MATTER OF:

DHESHYAM

**MINISTRY OF ENVIRONMENT, FOREST
AND CLIMATE CHANGE & ORS**

.....RESPONDENT(S)

**ADDITIONAL AFFIDAVIT ON BEHALF OF DISTRICT
MAGISTRATE- JALAUN (RESPONDENT No. 6),**

The Respondent No. 6 herein states as under:

MOST RESPECTFULLY SHOWETH:

I, Sunny Koushal aged about 39 years, S/o Shri Bijay Gupta presently posted as Mines Officer of District Jalaun, the deponent on behalf of District Magistrate Jalaun, (Respondent No.6) do hereby solemnly state and affirm as under:-

1. That I am the above-mentioned authorized officer on behalf of answering Respondent No. 6 and is duly competent to file the present affidavit.

2. That the Deponent is well conversant with the facts and the circumstance of the instant case and is competent to swear this affidavit.



.....APPLICANT



3. That the Deponent has read and understood the contents of the present additional affidavit.

4. That the deponent is posted as Mines Office District Jaalon since 04.11.2025

5. That the present additional affidavit is being filed to bring on record certain necessary facts and averments which could not be placed in the earlier reply affidavit dated 03.03.2025 filed on behalf of Respondent No .06 commencing from page 357.

6. That it is respectfully submitted that the Applicant has filed the instant original application on misconceived facts which is evident from the fact that the Applicant, has placed on record before this Hon'ble Tribunal an incomplete copy of the District Survey Report ("DSR"), District Jalaun, by omitting pages containing material facts, figures, and relevant data. In order to cure the said omission and to bring the true and complete record before this Hon'ble Tribunal, the Respondent herein is filing herewith the complete DSR along with the present Additional Affidavit, including the unpaginated section titled "**Additional Documents.**" It is pertinent to submit



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that the latest version of the DSR, as presently available on the official website, continues to incorporate these pages.

The *Additional Documents* section contains, inter alia, the Minutes of Meeting of the District-level Committee (SDC) dated 16.10.2025, wherein the site verification and assessment of the "mineral potential" of various proposed mining leases were expressly recorded. A copy of the supplementary/revised DSR of District Jalaon of Year 2025 along with Replenishment Study Report of Year 2024 is being annexed herewith and marked as **Annexure No. 1(Colly)** to this Additional Affidavit.

7. That a perusal of Appendix-X of the Notifications issued by the Ministry of Environment, Forest and Climate Change (MoEF & CC), Government of India, dated January 2016 and July 2018, unequivocally demonstrates the following:

- The District Survey Report (DSR), conceived as a planning and regulatory instrument for the identification of mining leases, determination of excavable mineral volume, assessment of environmental sensitivity, prospective planning, and scientific management of riverbed sand mining, was



formally introduced vide Government of India Notification dated 15 January 2016. Its necessity, objectives, and methodological framework stand elaborately prescribed in the *Sand Mining Management Guidelines, 2016*.

- The significance of the DSR was subsequently reaffirmed in the MoEF & CC Notification of July 2018 and further emphasized in the *Enforcement and Monitoring Guidelines for Sand Mining, 2020*, specifically at Point No. 4.1.1 (Pages 13–20), thereby underscoring its mandatory and foundational role in the regulatory regime governing sand mining operations.

8. That notably, the Govt. of India Notification of 2016 (Appendix-X) states the purpose of DSR as follows: -

"The main objective of the preparation of District Survey Report (as per the Sustainable Sand Mining Guideline) is to ensure the following: Identification of areas of aggradations or deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and calculation of annual rate of replenishment and

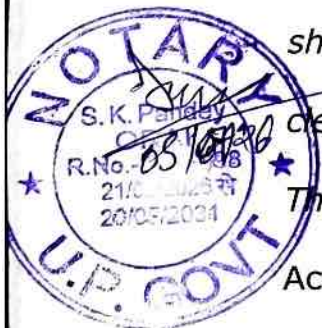


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allowing time for replenishment after mining in that area."

9. That a perusal of the aforesaid objectives, whether examined *per se* or read conjointly with the *Sand Mining Management Guidelines, 2016* and the *Enforcement and Monitoring Guidelines for Sand Mining, 2020*, unequivocally establishes that the processes of lease identification and quantity assessment are mandated to be undertaken individually and distinctly for each proposed mining lease.

10. That the issue concerning the adequacy and sustainability of mineable material within a particular lease area stands comprehensively addressed under the heading "*Methodology adopted for calculation of mineral potential*" in the Notification. The concluding paragraph of Appendix-X categorically stipulates that "*the District Survey Report shall form the basis for application for environmental clearance, preparation of reports and appraisal of projects. The Report shall be updated once every five years.*" Accordingly, the statutory framework itself fortifies the position that the District Survey Report constitutes a foundational and indispensable instrument in the process of environmental assessment.



11. That the *Enforcement and Monitoring Guidelines for Sand Mining, 2020* distinctly demarcate two separate and independent chapters, namely, **Section 4.1.1 (Pages 13 to 20)** dealing with the *Preparation of District Survey Report* and **Section 5 (Pages 27 to 33)** dealing with *Replenishment Study*. It is pertinent to note that within the portion pertaining to DSR, the term "*replenishment*" appears seven times; however, the phrase "*Replenishment Study*" does not find mention even once. Conversely, Section 5, which exclusively concerns the Replenishment Study, contains no reference whatsoever to the District Survey Report. In such circumstances, there exists no statutory, regulatory, or textual basis for the Applicant's assertion that a Replenishment Study constitutes an integral component of the DSR. Such a contention is not only misconceived but also wholly unsustainable, bordering on the implausible.



12. That a bare perusal of the foregoing facts and the relevant statutory framework makes it abundantly clear that neither the Notification nor the applicable guidelines, in any of their material provisions, mandate that the *Annual Replenishment Report*, first conceptualised and discussed independently in the *Monitoring Guidelines for*

Sand Mining, 2020, forms part of or is to be incorporated into the District Survey Report. Any such interpretation sought to be projected by the Applicant is contrary to the express scheme of law and is liable to be rejected.

13. That this interpretation is further fortified by the inherent logic of the statutory scheme, inasmuch as the District Survey Report is required to be prepared and updated only once every five years, whereas the Replenishment Study is conceived as an annual exercise, intended to periodically assess and inform the calculation of mineable mineral quantity for each individual lease during every mining season. The distinct periodicity and purpose of the two documents themselves militate against any presumption that the Replenishment Study forms part of the DSR.



14. That it is pertinent to underscore that even the *Enforcement and Monitoring Guidelines for Sand Mining, 2020* (EMGSM-2020), under Section 4.1.1 titled "*Preparation of District Survey Report*" (Pages 13-20), do not, at any stage, mandate that the Annual Replenishment Report be incorporated as a constituent part of the District Survey Report. Replenishment, by its very nature, is a continuous and annual exercise, intended— as already

demonstrated hereinabove— to guide and regulate the volume of sustainable mining permissible at each individual lease for every mining season. While the DSR is to be prepared on a quinquennial basis, the last comprehensively assessed and scientifically validated mineral volume should form the baseline for determining the mineable quantity recorded therein. Such baseline is thereafter required to be reviewed and recalibrated each year on the strength of annual Replenishment Studies undertaken for that purpose.

15. That it is further relevant to note that the Replenishment Study Year 2024 & 2025, as delineated under Chapter 13.14,15 (Pages 42-92) of the EMGSM-2020, is an exercise that may be undertaken through various permissible methodologies, as detailed in Annexures I, II and III. Such methodologies include empirical techniques such as topographical surveys, DGPS-based surveys, and pit profiling through time-sequenced measurements. Additionally, Replenishment Studies may also be conducted through secondary or remote-sensing methods, including aerial surveys, satellite imagery, drone-based assessments, and other technologically advanced tools. The selection of methodology—as well as



the frequency and temporal sequencing of such studies—must necessarily be determined in accordance with local geographical, topographical, and anthropogenic considerations, including terrain gradient, site accessibility, and the degree of inundation or seasonal flooding prevalent in the concerned mining area. Therefore the applicants effort to Prescribe one Solitary method is to misinform prejudice the court.

16. That with reference to the allegation of the Applicant that leases of identical area have been assigned identical mineable reserves, it is respectfully submitted that such uniformity is neither irregular nor illegal. It is a matter of public policy that the Mining Department maintains consistency in the application of parameters, criteria, and yardsticks, unless there exists a compelling and scientifically justified reason for deviation. In the present case, upon evaluation of the mineral potential, leases of the same size have been allotted similar excavation volumes, which is fully in consonance with established norms and regulatory fairness.



17. That in the Replenishment Study Reports of years 2024 & 2025 for District Jalaun is given which reflects the data

collected during the site visits in Jalaun. There of represents the total volume in cubic meters. In the DSR dated October 2025 for District Jalaun, as contained in Annexure-V, where in the list of potential mining leases, including proposed leases, has been specifically provided.

18. That the DSR is to be prepared for five years and that the Replenishment Studies are to be conducted annually (twice pre and post monsoon).

19. It is respectfully submitted that the supplementary/revised District Survey Report (DSR) year 2025 was prepared during the period from June 2025 to October 2025 and, upon its completion it was submitted to the State Environment Impact Assessment Authority (SEIAA) in 18.10.2025. The said DSR, which incorporated the baseline data of the Replenishment studies Report 2024 and 2025, was duly examined and approved by the SEIAA in February 2026. The Replenishment Study Report of Year 2025 is being annexed as **Annexure No. 2**



20. That subsequently, upon identification and incorporation of additional new areas, the DSR was revised and placed before the SEIAA for fresh consideration. The

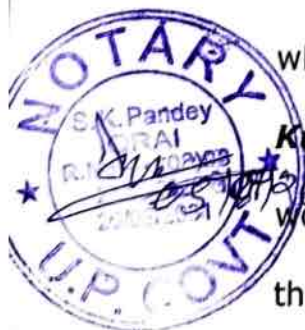
revised DSR was thereafter approved in February 2026, at which stage the SEIAA had the benefit of the post-monsoon Replenishment Studies 2025 as well. Thus, the determination of the excavation volume has been arrived at through a scientific and evidence-based methodology, taking into account both the pre-monsoon and post-monsoon replenishment studies. Replenishment Studies are progressively becoming part of the continuous statutory framework envisaged under the Sand Monitoring Guidelines, based on which excavation volume is established by scientific method. These studies, though independent of the DSR, are to be duly considered alongside the DSR during the process of Environmental Clearance for future mining cycles.

21. That it is respectfully submitted the old/earlier DSR February 2024 of District Jalaun, had total 81 areas of sand/morrum. After that 09 new sand/morrum areas were identified, after which the DSR District Jalaun was updated/modified in October 2025 with added 09 new lease areas. The updated/modified DSR October 2025 which have total 90 areas of sand/morrum was subsequently communicated to SEIAA UP for approval by letter dated 18.10.2025. The updated/modified DSR 2025 was approved by SEIAA in its 961 meeting held on



11.03.2026. The old/earlier DSR Year 2024 has been replaced and overridden by updated/modified DSR 2025 of District Jalaun. The communication dated 18.10.2025 and approval letter of SEIAA dated 17.03.2026 is being annexed as **Annexure No. 03(Colly)**.

22. That the contention of the Applicant that the Replenishment Study was not conducted by any credible Central or State Institution or Agency is wholly untenable and deserves outright rejection. The Sub-Divisional Committee (SDC), which is the statutory body entrusted with this function, comprises Senior Officials drawn from multiple specialised departments and State agencies, all of whom possess the requisite technical expertise, institutional competence, and field experience to undertake Replenishment Studies as well as to prepare the District Survey Report (DSR) in accordance with law. It is rather surprising that the applicant is raising the issue, which the Hon'ble Supreme Court in the matter of **Pawan Kumar vs. State of Bihar** has already laid down that the work of DSR is to be undertaken by the SDC who can take the assistance from any credible agency as also mentioned in the earlier affidavit, filed by the deponent. The SDC



hired the agency for only seeking technical assistance, pursuant to the Government Order dated 17.05.2023.

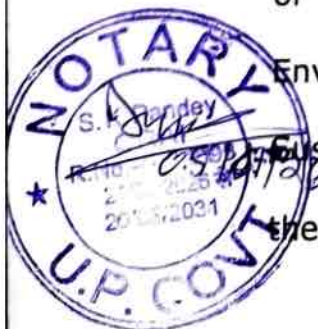
23. That it is further submitted that the EIA Notification dated 25.07.2018 explicitly delineates the structure and contents of the DSR and prescribes that surveys shall be carried out by the DEIAA with the assistance of the Geology Department, Irrigation Department, Forest Department, Public Works Department, Ground Water Board, Remote Sensing Department, Mining Department, *inter alia*, within the district.

24. That additionally, the Standard Operating Procedure (SOP) issued by the SEIAA unequivocally stipulates that it shall be the responsibility of the Sub-Divisional Committee / hired agency to (i) collect primary and secondary data, (ii) draft the DSR along with Annexures I to VII, and (iii) make necessary presentations before SEAC/SEIAA and the Directorate of Geology & Mining (DGM). Accordingly, the DSR prepared in the present case is in complete consonance with the statutory framework, procedural mandates, and guidelines issued by the competent authorities, leaving no room for the unfounded aspersions cast by the Applicant.



25. That it is respectfully submitted that the contention of the applicant, alleging that certain areas advertised as part of the District Survey Report (DSR) are wholly or partially inundated with water, is misconceived and is not accepted in the manner asserted. It is pertinent to note that mining leases located in riverine or semi-riverine regions are naturally susceptible to seasonal inundation during the monsoon period. Such accumulation of water is a transient and recurring geographical phenomenon, and the water invariably recedes upon cessation of the monsoon. A temporary flooding of the lease area cannot, by any stretch, constitute a valid ground to allege either non-conduct of the replenishment study or to contend that the said area is unfit for mining operations.

26. That it is pertinent to submit that the entire process pertaining to the preparation of the Replenishment Study and the District Survey Reports (DSRs) of Jalaun, has been undertaken strictly in consonance with the provisions of the EIA Notifications issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC), the Sustainable Sand Mining Guidelines, 2016 (SSMG-2016), the Enforcement and Monitoring Guidelines for Sand



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Mining, 2020 (EMGSM-2020), as well as the binding directions issued by this Hon'ble Tribunal.

27. That it is respectfully submitted that the District Survey Report (DSR) is prepared for a tenure of five years, and the data incorporated therein is generic in nature, intended to provide an indicative assessment of the approximate mineral availability within a mining lease area over the said period. In contradistinction thereto, the replenishment study is conducted on an annual basis and is designed to determine the precise quantum of mineral replenished during each year.

28. That the annual replenishment study constitutes a mandatory standard condition for all sand mining operations, as prescribed under the Sustainable Sand Mining Guidelines, 2016 (SSMG-2016) and the environmental clearance conditions. For the ready reference of this Hon'ble Tribunal, the relevant standard condition is reproduced herein below:



"To submit annual replenishment report certified by an authorized agency. In case the replenishment is lower than the approved rate of production, then the mining

activity/production levels shall be decreased/stopped accordingly till the replenishment is completed."

29. That it is further submitted that even at the stage of granting approval to the Final District Survey Report, the replenishment studies for the previous years were duly examined and taken into consideration by the Competent Authority (SEIAA, UP).

30. That in view of the foregoing submissions, it is most respectfully asserted that the preparation of the District Survey Reports for Jalaun District, as well as the conduct of the replenishment studies, has been undertaken strictly in accordance with the EIA Notifications issued by the MoEF&CC, the Sustainable Sand Mining Management Guidelines, 2016, the Enforcement and Monitoring Guidelines for Sand Mining, 2020, and the directions of this Hon'ble Tribunal. All allegations levelled by the applicant are misconceived, factually untenable, and contrary to the statutory scheme governing sand mining.



The competent authorities have duly adhered to the prescribed procedure, ensured scientific assessment, and undertaken requisite scrutiny at every stage. It is, therefore, humbly prayed that the unfounded objections

raised by the applicant be rejected, and the actions of the respondent authorities be affirmed as being lawful, justified, and in consonance with the applicable regulatory framework.



DEPONENT

VERIFICATION

Verified at ORAI, on 05/07/26 that the contents of the paras 1 to of this affidavit are true and correct to the best of my knowledge. No part of it is false and nothing material has been concealed therefrom.

DEPONENT



S.N. 1013

born this day at Orai by

Address

in this document who is identified by

and who is personally

known to me. I have received my fees.

S. K. PANDEY

Notary, Orai (U.P.)

Sunny Kaurav

presently residing at

main - abhi

- 500000 of 2000

418



SUPPLEMENTARY
DISTRICT SURVEY REPORT- YEAR 2025
(Revision-01)
for
River Bed Sand/Morrum Mining
DISTRICT- JALAUN, UTTAR PRADESH

As per MoEF&CC Notification No. S.O.141(E) Dated 15-Jan-2016, S.O.3611 (E) dated 25-July-2018, Sustainable Sand Mining Management Guidelines-2016 and Enforcement & Monitoring Guidelines for Sand Mining-2020



[Signature]
M.E.

[Signature]
MO 16/10/25

[Signature]
प्रभासी अधिकारी
भूतल एवं खनिकर्म विभाग उ० प्र०
क्षेत्रीय कार्यालय, जालौन

[Signature]
S.A.

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(इमरान अली)
क्षेत्रीय अधिकारी
उ.प्र. प्रदूषण नियंत्रण बोर्ड, जालौन

[Signature]
S.A.

[Signature]
DHANESH
Executive Engineer
Betwa Canal Division-IORAI

[Signature]
S.A.

[Signature]
16/10/25
S.A.

[Signature]
उप वन संरक्षक
जालौन साठवाठवन प्रभाग
उरई (जालौन)
S.A.

[Signature]
16.10.25

अपर जिलाधिकारी (वि० प्र०)
प्रभासी अधिकारी खनिकर्म

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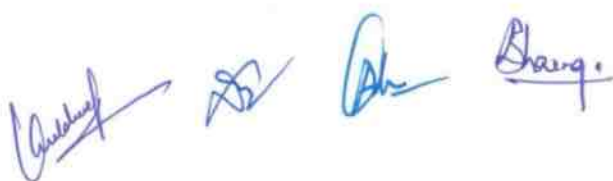
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PREFACE

On January 15th 2016, Ministry of Environment, Forest and Climate Change, Government of India issued a notification and in which Para 7(iii) (a) and Annexure X purpose and structure of District Survey Report has been discussed. District Survey report (DSR) will be prepared in every district for each minor mineral. The District Survey Report will guide systematic and scientific utilization of natural resources, so that present and future generation may be benefitted at large. The purpose of District Survey report (DSR) *“Identification of areas of aggradations or deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining in that area”*. The District Survey report (DSR) will contain mainly data published and endorsed by various departments and websites about Geology of the area. Mineral wealth details of rivers, Details of Lease and Mining activity in the District along with Sand mining and revenue of minerals. This report also contains details of Forest, Rivers, Soil, Agriculture, Road, Transportation and climate etc. MoEF&CC further through a notification dated 25-July-2018 gave detailed guidelines regarding preparation of DSR.

Further, MoEF&CC has issued two Guidelines Sustainable Sand Mining Management Guidelines-2016 (SSMG-2016) and Enforcement & Monitoring Guidelines for Sand Mining-2020 (EMGSM-2020) and guided that EMGSM-2020 and SSMG-2016 shall be read and implemented in sync with each other. In case, any ambiguity or variation between the provision of both these document arises, the provision made in "Enforcement & Monitoring Guidelines for Sand Mining-2020 "shall prevail.

DSR has been prepared in conformity to the SOP issued by SEIAA, UP.

Disclaimer: The data presented here may vary due to flood, heavy rains and other natural calamities. Therefore, it is recommended that SEIAA may take into consideration all its relevant aspects / data while scrutinizing and recommending the application for EC to the concerned Authority.



1.0 INTRODUCTION

District Jalaun forms the most northerly portion of the Trans Yamuna tract of the country. In the north Yamuna divides it from the districts of Etawah, Kanpur Dehat and Auraiya. On the west it adjoins Madhya Pradesh and to the south-east Betwa separates it from Jhansi and Hamirpur. The area is mostly covered by alluvium with exposures of weathered Bundelkhand Granitic Gneisses confined to the southern pail. Two sets of lineaments run along the western boundary of the district trending N-S and NE-SW.

The district is named after town of Jalaun, which was the former headquarters of a Maratha governor, but the administrative headquarters of the district is at Orai. Other large towns in the district are Kalpi, Konch, and Madhogarh. The headquarters of the District is at Orai, a city on the Kanpur-Jhansi NH25. In early times, Jalaun seems to have been the home of two Rajput clans—the Chandelas in the east and the Kachwahs in the west. In 1806 Kalpi was handed over to the British and in 1840, on the death of Nana Gobind Ras, his possessions also lapsed to them. Various interchanges of territory took place and in 1856 the boundaries of the British district were substantially settled, with an area of 1477 square miles. Jalaun was the scene of much violence during the Revolt of 1857. When the news of the rising at Kanpur reached Kalpi, the men of the 53rd Native Infantry deserted their officers, and in June the Jhansi rebels reached the district, and began their murder of Europeans. It was not until September 1858 that the rebels were finally defeated. In the later 19th century, the district suffered much from the invasive kans grass (*Saccharum spontaneum*), owing to the spread of which many villages were abandoned and their land thrown out of cultivation.

The population of the district as per census 2011 was 1,689,974 of which male and female were 906,092 and 783,882 respectively. The two largest town on the basis of population are Orai (3,96,782) and Kalpi (3,69,860) (*Source: Census of India, 2011*).

District Survey Report is a very important step and sustainable sand mining in any part of the country will depends on the quality of District Survey Report. The District Survey Report for Riverbed Sand/Morrum mining of Jalaun District was prepared and came into effect in year 2017 the validity of which was for 5 years. EMGSM-2020 states that, “*District Survey Report for sand mining shall*



be prepared before the auction/e-auction/grant of the mining lease/Letter of Intent (LoI) by Mining department or department dealing the mining activity in respective states."

The Sustainable Sand Mining Management Guidelines-2016 (SSMG-2016) states that, *"The broad principle on which any sustainable sand mining Guidelines / policy can be based is that river/ natural resources must be utilized for the benefit of the present and future generation, so river resources should be prudently managed and developed. The preparation of District Survey Report is an important initial step."*

It further emphasizes that, *"This survey should be conducted and report be prepared for each district. Though it is an acceptable fact that rivers cut across districts and States and every river is an ecosystem in itself. But, keeping in view the fact that the district is the most established unit of administration at which this kind of survey, planning and monitoring can be ensured effectively, it is proposed that every district will prepare this document taking the river stretch in that district as an ecological unit and inventorising other sources of sand in the district."*

The SSMG-2016 also emphasizes the overall scope of the District Survey Report. According to the document about District Survey Report:

"This survey document should be prepared in the district based on direct and indirect benefits of mining and identification of the potential threats to the river / stream beds in the district.

Besides, calculating the carrying capacity of the river / stream beds / other sources to find out maximum quantity available to be allowed for removal each year from the sources, it should also provide various measures to regulate sand and aggregate mining in a systemic way.

It has to provide for environmentally safe depth of mining and safeguards of banks by prescribing safe distance from banks. It is required that there should be a Sub-Divisional Committee which should visit each site and make recommendation. The Committee should comprise of Sub-Divisional Magistrate, Officers from Irrigation department, State Pollution Control Board or Committee, Forest department, Geology or mining officer shall visit each site for which environmental clearance has been applied for and make recommendation on suitability of site for mining or prohibition thereof."

That the Hon'ble Supreme Court in State of Bihar and Others vs Pawan Kumar and Others [(2022) 2 SCC 348] decided on 10.11.2021 that the draft DSRs shall be prepared by the sub-divisional committees consisting of the Sub Divisional Magistrate, Officers from Irrigation Department, State



Pollution Control Board or Committee, Forest Department, Geological or Mining Officer. The same shall be prepared by undertaking site visits and also by using modern technology.

The above order also emphasizes clause 4.1.1 (a), (o) and (p) of EMGSM-2020 which are as under:

- District Survey Report for sand mining shall be prepared before the auction/eauction/grant of the mining lease/Letter of Intent (LoI) by Mining department or department dealing the mining activity in respective states.
- Potential site for mining having its impact on the forest, protected area, habitation, bridges etc, shall be avoided. For this, a subdivisional committee may be formed which after the site visit shall decide its suitability for mining. The list of mining lease after the recommendation of the Committee needs to be defined in the following format given in as **Annexure II**. The SubDivisional Committee after the site visit shall make a recommendation on the site for its suitability of mining and also records the reason for selecting the mining lease in the Patta land. The details regarding cluster and contiguous cluster needs to be provided as in **Annexure III**. The details of the transportation need to be provided as in **Annexure IV**.
- **Public consultation** The Comments of the various stakeholders may be sought on the list of mining lease to be auctioned. The State Government shall give an advertisement in the local and national newspaper for seeking comments of the general public on the list of mining' lease included in the DSR. The DSR should be placed in the public domain for at least one month from the date of publication of the advertisement for obtaining comments of the general public. The comments so received shall be placed before the sub-divisional committee for active consideration. The final list of sand mining areas [leases to be granted on riverbed & Patta land/Khatedari land, desiltation location (ponds/lakes/dams), MSand Plants (alternate source of sand)] after the public hearing needs to be defined in the final DSR in the format as per **Annexure V**. The details regarding cluster and contiguous cluster needs to be provided in **Annexure VI**. The details of the transportation need to be provided in **Annexure VII**."

The above order also emphasizes the requirement of sub-divisional committee for DSR preparation, "It could thus be seen that in accordance with the 2020 guidelines, the DSR is required to be prepared before the auction/eauction/grant of mining lease by Mining Department or Department dealing with mining activity in the respective States. It is further provided that the potential site for



mining having its impact on the forest, protected area, habitation and bridges should be avoided. For this, a subdivisional committee is required to be formed which, after the site visit, is required to decide regarding the suitability of the site for mining. The subdivisional committee is further required to record its reasons for selecting the mining lease in the patta land. Various details are required to be given in the annexures appended to the said policy.”

The DSRs in its final form has to be approved by SEIAA after examined by SEAC. The above order State of Bihar and Others vs Pawan Kumar and Others [(2022) 2 SCC 348] elaborates that:

“The DSR so prepared shall be submitted to the District Magistrate who shall verify the DSR only in respect of the relevant facts pertaining to the physical and geographical features of the district which shall be distinct from the scientific findings based on the parameter prescribed in the SSMMG 2016. After such verification, the District Magistrate shall forward the DSR for examination and evaluation by the State Expert Appraisal Committee (SEAC) having regarding to the fact that the SEIAA comprises of technical/scientific experts. The SEAC after appraisal of the report shall forward it to the SEIAA for consideration and approval if it meets all scientific/technical requirements.”

The Revised District Survey Report (Sand/Morrum Mining) was approved by Member Secretary, SEIAA vide letter dated 28-May-2024 for 81 mining lease areas.

In view of further mineral development activities, 09 new lease areas have been identified and they have been included in this Supplementary DSR for approval.

As per the SOP and minutes of meeting for DSR approval dated 04/04/2024 issued by SEAC, if any lease is identified, its validity will be co-terminus with the validity of current DSR and SDC will follow the entire procedure every time on the basis of existing DSR



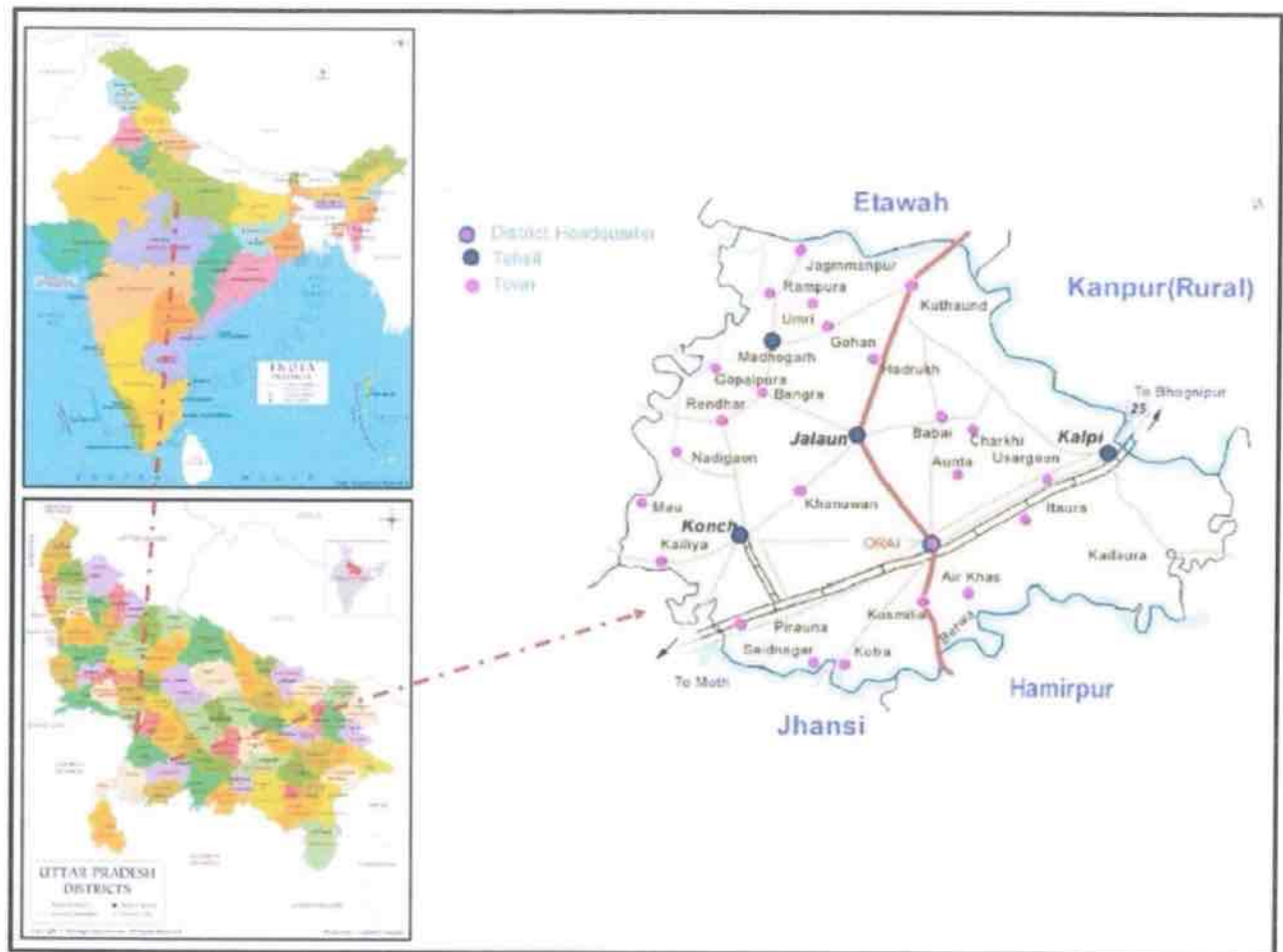


Figure 1: Location map of Jalaun






2.0 OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

District Jalaun is rich in occurrence of natural mineral like road ballast, bajri, boulder, sand and moorum. By the side of major river Betwa & River Yamuna, sand/morum is available in abundance, which is a basic raw material for any civil construction work. The area is mostly covered by alluvium with exposures of weathered Bundelkhand Granitic Gneisses confined to the southern part. Two sets of lineaments run along the western boundary of the district trending N-S and NE-SW.

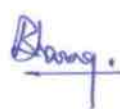
Sand is naturally occurring granular material composed of finely divided rock and mineral particles varying from 150 micron to 4.75 mm in diameter. Sand is formed due to weathering of rocks due to mechanical forces. In the process the weathered rocks forms gravel and then sand. Sand and gravel together known as aggregate, represent the highest volume of raw material used on earth after water.

The mining of aggregate and sand have been continuing for many years in the district. Directorate of Geology & Mining, UP, since its inception in 1955 is actively engaged in search of mineral wealth as well as promotion of scientific development of mineral resources along with conservation and development of mineral based industries in the state.

The sand and gravel are one of the most important construction materials. Ensuring their availability is vital for the development of the infrastructure in the country. There are different sources of sand and gravel, the most important among them is the river. River Bed Sand Mining is a common practice as habitation concentrates along the rivers and the mining locations are preferred near the markets or along the transportation route, for reducing the transportation cost.

- There are no M-sand plants or any de-siltation locations in the district. There are total 90 mining leases in the district out of which 81 leases are existing and are already approved while 09 lease areas are new and have been proposed in this revised supplementary DSR.
- Out of 09 newly proposed lease areas, 06 areas are situated on private land, rest 03 areas are on Govt. Land.





- The leases exist on the riverbed of River Betwa and Yamuna.

The total area of all the mining leases is 1300.657 ha. The area of newly proposed mining leases is 50.427 ha. All the proposed lease areas are on the riverbed of River Betwa.

There are six proposed mining leases located on Private land. The combined area of these leases is 8.427 ha. The area of three leases existing on government land is 42.000 ha.



3.0 LIST OF MINING LEASES IN THE DISTRICT WITH LOCATION, AREA AND PERIOD OF VALIDITY

There are total 90 riverbed sand/morrum mining leases in the district. Out of these, 81 leases are existing and have been already approved in the DSR. There are newly proposed 09 leases out of which 03 leases are on government land and 06 leases on private land. All the newly proposed mining leases exist on the riverbed of river Betwa.

Details of the leases are given in **Table I**.

Table I: Mining leases in the district with location, area and period of validity

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
1	Betwa	Nandha	Orai	345G, Khand-1	20.242	A 25°46'57.35" N, 79°18'10.64"E B 25°46'56.54" N, 79°18'14.50"E C 25°46'53.22" N, 79°18'21.55"E D 25°46'46.58" N, 79°18'30.72"E E 25°46'44.15" N, 79°18'34.25"E F 25°46'40.43" N, 79°18'38.85"E G 25°46'34.98" N, 79°18'33.15"E H 25°46'45.58" N, 79°18'19.50"E I 25°46'49.36" N, 79°18'10.64"E	Govt. Land	5 Years (Vacant)
2	Betwa	Nandha	Orai	3G, Khand-2	20.242	A 25°46'57.35" N, 79°18'10.64"E B 25°47'3.00" N, 79°17'54.63"E C 25°47'4.89" N, 79°17'51.81"E D 25°47'11.60" N, 79°17'45.20"E E 25°47'7.56" N, 79°17'38.88"E F 25°47'00.32" N, 79°17'44.88"E G 25°46'49.36" N, 79°18'10.64"E	Govt. Land	5 Years (Vacant)
3	Betwa	Nandha	Orai	3G, Khand-3	8.480	A 25°47'22.30" N, 79°17'31.20"E B 25°47'28.20" N, 79°17'29.60"E C 25°47'31.40" N, 79°17'27.20"E D 25°47'41.00" N, 79°17'27.80"E E 25°47'35.13" N, 79°17'34.10"E F 25°47'23.70" N, 79°17'36.60"E	Govt. Land	5 Years (Vacant)
4	Betwa	Karthara	Orai	208, Khand-1	6.870	A 25° 49' 12.00"N, 79° 17' 31.90"E B 25° 49' 15.80"N, 79° 17' 50.30"E C 25° 49' 11.50"N, 79° 17' 50.80"E D 25° 49' 07.80"N, 79° 17' 32.70"E	Govt. Land	5 Years (EC under process)
5	Betwa	Kharka	Orai	2513,2629, Khand-1	20.242	A 25° 53' 16.80"N, 79° 34' 10.80"E B 25° 53' 14.78"N, 79° 34' 10.60"E C 25° 53' 08.39"N, 79° 34' 06.54"E D 25° 53' 06.08"N, 79° 34' 14.78"E E 25° 53' 07.87"N, 79° 34' 29.98"E F 25° 53' 20.08"N, 79° 34' 30.68"E G 25° 53' 17.30"N, 79° 34' 19.84"E H 25° 53' 17.37"N, 79° 34' 15.31"E	Govt. Land	5 Years (20.02.2020 to 19.02.2025)



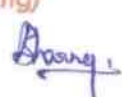



Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
6	Betwa	Kharka	Orai	2513,2629, Khand-2	20.242	A 25° 53'26.77"N, 79° 34'49.88"E B 25° 53'22.70"N, 79° 34'39.71"E C 25° 53'20.08"N, 79° 34'30.68"E D 25° 53'7.87"N, 79° 34'29.98"E E 25° 53'09.88"N, 79° 34'38.35"E F 25° 53'12.77"N, 79° 34'44.84"E G 25° 53'14.90"N, 79° 34'49.66"E	Govt. Land	5 Years (EC under process)
7	Betwa	Kharka	Orai	2628,2629, Khand-3	20.242	A 25° 53'26.77"N, 79° 34'49.88"E B 25° 53'35.28"N, 79° 35'05.26"E C 25° 53'38.04"N, 79° 35'09.37"E D 25° 53'27.66"N, 79° 35'09.90"E E 25° 53'19.04"N, 79° 34'59.04"E F 25° 53'16.76"N, 79° 34'52.76"E G 25° 53'14.90"N, 79° 34'49.66"E	Govt. Land	5 Years (Vacant)
8	Betwa	Kharka	Orai	2257 - Khand-6	11.740	A 25° 53'46.13"N, 79° 35'26.48"E B 25° 53'44.89"N, 79° 35'20.52"E C 25° 53'38.04"N, 79° 35'09.37"E D 25° 53'32.85"N, 79° 35'09.64"E E 25° 53'33.38"N, 79° 35'10.59"E F 25° 53'33.90"N, 79° 35'18.67"E G 25° 53'40.29"N, 79° 35'27.26"E	Govt. Land	5 Years (EC under process)
9	Betwa	Mohana	Orai	1782,1783 - Khand-1	11.740	A 25°47'53.18" N, 79°27'37.62"E B 25°47'49.73" N, 79°27'50.23"E C 25°48'3.89" N, 79°27'49.77"E D 25°48'3.13" N, 79°27'41.00"E	Govt. Land	5 Years (06.01.2022 to 05.01.2027)
10	Betwa	Mohana	Orai	1782,1783 - Khand-2	8.906	A 25° 48'14.68"N, 79° 27'40.28"E B 25° 48'3.13"N, 79° 27'41.00"E C 25° 48'3.89"N, 79° 27'49.77"E D 25° 48'16.05"N, 79° 27'48.82"E	Govt. Land	5 Years (EC under process)
11	Betwa	Mohana	Orai	1782,1783 - Khand-3	8.906	A 25° 48'14.68"N, 79° 27'40.28"E B 25° 48'15.75"N, 79° 27'40.15"E C 25° 48'17.30"N, 79° 27'41.13"E D 25° 48'25.00"N, 79° 27'39.69"E E 25° 48'27.85"N, 79° 27'38.37"E F 25° 48'28.02"N, 79° 27'47.34"E G 25° 48'20.41"N, 79° 27'48.68"E H 25° 48'16.05"N, 79° 27'48.82"E	Govt. Land	5 Years (13.04.2025 to 12.01.2026)
12	Betwa	Sikrivyas	Orai	1193/916, 1191/2 - Khand-1	15.300	A 25° 46'40.43"N, 79° 18'38.85"E B 25° 46'37.60"N, 79° 18'43.92"E C 25° 46'23.66"N, 79° 18'57.76"E D 25° 46'17.44"N, 79° 18'53.11"E E 25° 46'22.40"N, 79° 18'49.20"E F 25° 46'36.43"N, 79° 18'35.03"E	Govt. Land	5 Years (EC under process)
13	Betwa	Sikrivyas	Orai	1191/2 - Khand-3	20.242	A 25° 46'16.97"N, 79° 19'50.68"E B 25° 46'12.34"N, 79° 19'44.43"E C 25° 46'8.29"N, 79° 19'33.70"E D 25° 46'8.43"N, 79° 19'27.32"E E 25° 46'9.63"N, 79° 19'15.52"E F 25° 46'3.80"N, 79° 19'14.36"E G 25° 46'2.55"N, 79° 19'29.38"E H 25° 46'5.16"N, 79° 19'42.37"E I 25° 46'12.20"N, 79° 19'55.69"E	Govt. Land	5 Years (13.12.2024 to 30.06.2025)
14	Betwa	Sikrivyas	Orai	1191/2 - Khand-4	20.242	A 25°46'16.97" N, 79°19'50.68"E B 25°46'23.29" N, 79°19'56.06"E C 25°46'43.57" N, 79°20'9.64"E D 25°46'46.93" N, 79°20'13.52"E E 25°46'41.76" N, 79°20'16.19"E F 25°46'17.20" N, 79°19'59.51"E G 25°46'12.20" N, 79°19'55.69"E	Govt. Land	5 Years (11.05.2021 to 10.05.2026)

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
15	Betwa	Kurona	Orai	317Mi - Khand-1	20.242	A 25°53'48.85" N, 79°36'2.90"E B 25°53'48.22" N, 79°35'30.46"E C 25°53'38.67" N, 79°35'31.35"E D 25°53'42.74" N, 79°35'53.60"E E 25°53'41.58" N, 79°36'2.20"E	Govt. Land	5 Years (Vacant)
16	Betwa	Kurona	Orai	317Mi - Khand-2	20.242	A 25°53'48.85" N, 79°36'2.90"E B 25°53'48.53" N, 79°36'7.00"E C 25°53'50.48" N, 79°36'17.54"E D 25°53'54.42" N, 79°36'21.79"E E 25°53'43.44" N, 79°36'30.27"E F 25°53'41.68" N, 79°36'26.42"E G 25°53'40.83" N, 79°36'20.23"E H 25°53'40.59" N, 79°36'11.51"E I 25°53'41.58" N, 79°36'2.20"E	Govt. Land	5 Years (14.11.2024 to 13.05.2025)
17	Betwa	Kurona	Orai	317Mi - Khand-3	20.242	A 25°54'4.78" N, 79°36'31.84"E B 25°54'2.54" N, 79°36'31.38"E C 25°53'56.33" N, 79°36'25.12"E D 25°53'54.42" N, 79°36'21.79"E E 25°53'43.44" N, 79°36'30.27"E F 25°53'50.84" N, 79°36'39.18"E G 25°53'57.98" N, 79°36'43.63"E	Govt. Land	5 Years (EC Granted)
18	Betwa	Kurona	Orai	317Mi - Khand-4	16.195	A 25° 54'16.48"N, 79° 36'34.47"E B 25° 54'10.66"N, 79° 36'34.10"E C 25° 54'4.78"N, 79° 36'31.84"E D 25° 53'57.98"N, 79°36'43.63"E E 25° 54'1.83"N, 79°36'44.93"E F 25° 54'11.34"N, 79°36'45.84"E G 25° 54'16.95"N, 79°36'45.00"E	Govt. Land	5 Years (14.02.2024 to 13.11.2024)
19	Betwa	Kurona	Orai	317Mi - Khand-5	12.120	A 25°54'29.72" N, 79°36'30.60"E B 25°54'21.16" N, 79°36'34.26"E C 25°54'16.48" N, 79°36'34.47"E D 25°54'16.95" N, 79°36'45.00"E E 25°54'24.84" N, 79°36'43.00"E F 25°54'32.08" N, 79°36'38.62"E	Govt. Land	5 Years (EC under process)
20	Betwa	Dadri	Orai	2093 - Khand-1	20.242	A 25°55'8.04" N, 79°36'7.76"E B 25°55'19.63" N, 79°36'5.22"E C 25°55'36.94" N, 79°36'12.10"E D 25°55'44.90" N, 79°36'22.07"E E 25°55'41.62" N, 79°36'25.57"E F 25°55'34.90" N, 79°36'18.10"E G 25°55'19.27" N, 79°36'11.71"E H 25°55'7.08" N, 79°36'13.07"E	Govt. Land	5 Years (Vacant)
21	Betwa	Bandholi	Orai	2559,2563 - Khand-1	20.242	A 25° 51'29.61"N, 79° 29'46.72"E B 25° 51'30.83"N, 79° 30'03.27"E C 25° 51'15.60"N, 79° 30'03.42"E D 25° 51'12.61"N, 79°29'57.20"E E 25° 51'10.40"N, 79°29'53.80"E	Govt. Land	5 Years (EC under process)
22	Betwa	Bandholi	Orai	2559,2563 - Khand-2	20.242	A 25°51'29.61" N, 79°29'46.72"E B 25°51'25.37" N, 79°29'37.20"E C 25°51'22.85" N, 79°29'36.50"E D 25°51'16.85" N, 79°29'40.66"E E 25°51'15.45" N, 79°29'38.53"E F 25°51'04.62" N, 79°29'46.87"E G 25°51'07.62" N, 79°29'50.00"E H 25°51'10.40" N, 79°29'53.80"E	Govt. Land	5 Years (EC under process)

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
23	Betwa	Bandholi	Orai	2558,2559,2563 - Khand-3	20.242	A 25° 51'18.15"N, 79° 29'24.15"E B 25° 51'10.98"N, 79° 29'29.68"E C 25° 51'04.50"N, 79° 29'32.85"E D 25° 51'09.52"N, 79° 29'39.42"E E 25° 51'13.76"N, 79° 29'36.14"E F 25° 51'15.45"N, 79° 29'38.53"E G 25° 51'04.62"N, 79° 29'46.87"E H 25° 50'54.84"N, 79° 29'36.36"E I 25° 50'52.88"N, 79° 29'31.21"E	Govt. Land	5 Years (EC under process)
24	Betwa	Bandholi	Orai	2558,2563 - Khand-4	16.195	A 25° 51'15.38"N, 79° 29'20.70"E B 25° 51'18.15"N, 79° 29'24.15"E C 25° 50'52.88"N, 79° 29'31.21"E D 25° 50'47.83"N, 79° 29'21.56"E	Govt. Land	5 Years (09.01.2025 to 08.10.2025)
25	Betwa	Bandholi	Orai	2558,2563 - Khand-5	12.145	A 25° 51'15.38"N, 79° 29'20.70"E B 25° 51'12.00"N, 79° 29'16.47"E C 25° 50'44.98"N, 79° 29'14.90"E D 25° 50'47.83"N, 79° 29'21.56"E	Govt. Land	5 Years (EC under process)
26	Betwa	Bandholi	Orai	2556,2557 - Khand-5A	36.360	A 25° 50'56.26"N, 79° 28'54.55"E B 25° 51'12.00"N, 79° 29'16.47"E C 25° 50'44.98"N, 79° 29'14.90"E D 25° 50'42.93"N, 79° 28'53.77"E	Govt. Land	5 Years (04.11.2020 to 03.11.2025)
27	Betwa	Simiriya	Orai	864/320, 865/320	27.470	A 25° 51'39.30"N, 79° 32'38.33"E B 25° 51'39.88"N, 79° 32'44.30"E C 25° 51'39.20"N, 79° 32'44.80"E D 25° 51'40.40"N, 79° 33'00.50"E E 25° 51'42.26"N, 79° 33'07.24"E F 25° 51'44.52"N, 79° 33'15.34"E G 25° 51'44.82"N, 79° 33'24.28"E H 25° 51'43.62"N, 79° 33'30.37"E I 25° 51'52.40"N, 79° 33'30.75"E J 25° 51'52.77"N, 79° 33'28.12"E K 25° 51'53.84"N, 79° 33'28.12"E L 25° 51'53.94"N, 79° 33'23.00"E M 25° 51'53.06"N, 79° 33'17.82"E N 25° 51'46.60"N, 79° 33'01.13"E O 25° 51'43.54"N, 79° 32'49.27"E	Govt. Land	5 Years (07.06.2024 to 06.03.2025)
28	Betwa	Simiriya	Orai	866/144	17.500	A 25° 51'38.64"N, 79° 32'22.25"E B 25° 51'41.78"N, 79° 32'21.89"E C 25° 51'42.43"N, 79° 32'28.89"E D 25° 51'41.74"N, 79° 32'34.85"E E 25° 51'44.81"N, 79° 32'42.60"E F 25° 51'47.94"N, 79° 32'45.72"E G 25° 51'47.91"N, 79° 32'50.26"E H 25° 51'48.76"N, 79° 32'55.92"E I 25° 51'56.00"N, 79° 33'20.24"E J 25° 51'53.94"N, 79° 33'23.00"E K 25° 51'53.06"N, 79° 33'17.82"E L 25° 51'46.60"N, 79° 33'01.13"E M 25° 51'43.54"N, 79° 32'49.27"E N 25° 51'38.78"N, 79° 32'37.05"E O 25° 51'39.43"N, 79° 32'29.92"E	Govt. Land	5 Years (Vacant)
29	Betwa	Tikar	Orai	1482 - Khand-1	20.242	A 25° 53'15.88"N, 79° 31'07.12"E B 25° 53'21.19"N, 79° 31'08.34"E C 25° 53'33.18"N, 79° 31'17.54"E D 25° 53'38.07"N, 79° 31'30.42"E E 25° 53'27.64"N, 79° 31'36.42"E F 25° 53'27.07"N, 79° 31'31.40"E G 25° 53'21.88"N, 79° 31'13.65"E H 25° 53'19.55"N, 79° 31'11.18"E I 25° 53'17.80"N, 79° 31'09.87"E	Govt. Land	5 Years (EC under process)



Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
30	Betwa	Tikar	Orai	1482 - Khand-2	20.242	A 25°53'38.07" N, 79°31'30.42"E B 25°53'38.64" N, 79°31'30.92"E C 25°53'39.91" N, 79°31'36.91"E D 25°53'39.56" N, 79°31'39.02"E E 25°53'41.96" N, 79°31'51.99"E F 25°53'42.41" N, 79°31'59.82"E G 25°53'42.95" N, 79°32'1.66"E H 25°53'41.93" N, 79°32'5.47"E I 25°53'42.22" N, 79°32'6.76"E J 25°53'40.20" N, 79°32'8.02"E K 25°53'38.37" N, 79°32'11.47"E L 25°53'37.76" N, 79°32'11.48"E M 25°53'38.68" N, 79°32'3.88"E N 25°53'38.16" N, 79°31'54.55"E O 25°53'37.08" N, 79°31'52.95"E P 25°53'36.31" N, 79°31'50.08"E Q 25°53'34.38" N, 79°31'47.54"E R 25°53'28.15" N, 79°31'38.78"E S 25°53'27.64" N, 79°31'36.42"E	Govt. Land	5 Years (09.05.2023 to 08.05.2028)
31	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-1	20.242	A 25°53'33.74"N, 79° 50'24.38"E B 25° 53'45.40"N, 79° 50'6.00"E C 25° 53'36.30"N, 79° 50'1.90"E D 25° 53'22.54"N, 79°50'18.60"E	Govt. Land	5 Years (Vacant)
32	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-2	20.242	A 25° 53'33.74"N, 79° 50'24.38"E B 25° 53'29.82"N, 79° 50'31.80"E C 25° 53'25.59"N, 79° 50'41.20"E D 25° 53'14.07"N, 79°50'35.02"E E 25° 53'22.54"N, 79°50'18.60"E	Govt. Land	5 Years (EC under process)
33	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-3	20.242	A 25°53'17.49" N, 79°50'56.74"E B 25°53'5.84" N, 79°50'50.29"E C 25°53'14.07" N, 79°50'35.02"E D 25°53'25.59" N, 79°50'41.20"E E 25°53'24.94" N, 79°50'42.15"E F 25°53'25.62" N, 79°50'42.56"E	Govt. Land	5 Years (07.04.2025 to 06.01.2026)
34	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-4	20.242	A 25°53'17.49" N, 79°50'56.74"E B 25°53'5.84" N, 79°50'50.29"E C 25°52'57.77" N, 79°51'12.91"E D 25°53'4.00" N, 79°51'16.83"E E 25°53'8.90" N, 79°51'6.80"E	Govt. Land	5 Years (EC under process)
35	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-5	20.242	A 25°53'4.00"N, 79° 51'16.83" E B 25°53'2.05"N, 79° 51'22.03" E C 25°53'0.94"N, 79° 51'31.19" E D 25°52'58.60"N, 79° 51'32.04" E E 25°52'59.30"N, 79° 51'36.20" E F 25°52'58.13"N, 79° 51'36.52" E G 25°53'0.02"N, 79° 51'43.60" E H 25°53'2.80"N, 79° 51'51.45" E I 25°52'54.91"N, 79° 51'52.16" E J 25°52'54.40"N, 79° 51'47.31" E K 25°52'53.79"N, 79° 51'35.77" E L 25°52'54.28"N, 79° 51'28.34" E M 25°52'55.68"N, 79° 51'20.18" E N 25°52'57.77"N, 79° 51'12.91" E	Govt. Land	5 Years (EC under process)
36	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-6	11.740	A 25° 53'2.80"N, 79° 51'51.45" E B 25° 53'8.95"N, 79° 52'5.84" E C 25° 53'2.16"N, 79° 52'9.24" E D 25° 52'57.65"N, 79° 52'1.00" E E 25° 52'54.91"N, 79° 51'52.16" E	Govt. Land	5 Years (Vacant)
37	Betwa	Hemanpura	Kalpi	240 - Khand-1	7.850	A 25° 52'18.98"N, 79° 48'11.19"E B 25° 52'21.30"N, 79° 48'13.57"E C 25° 52'22.18"N, 79° 48'12.93"E D 25° 52'28.15"N, 79° 48'18.37"E E 25° 52'25.28"N, 79° 48'25.11"E	Govt. Land	5 Years (08.04.2025 to 07.04.2030)

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
						F 25° 52'21.55"N, 79° 48'23.36"E G 25° 52'14.80"N, 79° 48'15.74"E		
38	Betwa	Hemanpura	Kalpi	240 - Khand-2	20.242	A 25°52'10.00"N, 79°47'59.50"E B 25°51'59.00"N, 79°48'06.60"E C 25°51'56.90"N, 79°48'4.50"E D 25°51'55.40"N, 79°48'04.50"E E 25°51'53.10"N, 79°48'01.20"E F 25°51'54.15"N, 79°47'54.51"E G 25°51'51.50"N, 79°47'47.80"E H 25°52'6.10"N, 79°47'48.40"E	Govt. Land	5 Years (25.01.2025 to 24.10.2025)
39	Betwa	Hemanpura	Kalpi	240 - Khand-3	13.360	A 25°52'3.43"N, 79°47'36.50"E B 25°51'49.80"N, 79°47'35.77"E C 25°51'51.50"N, 79°47'47.80"E D 25°52'6.10"N, 79°47'48.40"E E 25°52'3.60"N, 79°47'40.60"E	Govt. Land	5 Years (07.06.2024 to 06.03.2025)
40	Betwa	Hemanpura	Kalpi	240 - Khand-4	16.195	A 25° 52'3.43"N, 79° 47'36.50"E B 25° 52'3.78"N, 79° 47'22.83"E C 25° 51'49.47"N, 79° 47'21.85"E D 25° 51'49.80"N, 79°47'35.77"E	Govt. Land	5 Years (EC under process)
41	Betwa	Hemanpura	Kalpi	240 - Khand-5	16.195	A 25°52'05.50"N, 79°47'08.90"E B 25°52'7.32"N, 79°47'22.83"E C 25°51'49.47"N, 79°47'21.85"E D 25°51'52.23"N, 79°47'08.26"E	Govt. Land	5 Years (Stayed-Matter in Court)
42	Betwa	Basrehi	Kalpi	596 - Khand-1	16.195	A 25°53'16.51"N, 79° 45'39.76" E B 25°52'59.61"N, 79° 45'50.61" E C 25°52'47.90"N, 79° 46'0.42" E D 25°52'44.22"N, 79° 45'50.29" E E 25°53'3.85"N, 79° 45'42.38" E F 25°53'7.37"N, 79° 45'42.26" E G 25°53'16.04"N, 79° 45'38.43" E	Govt. Land	5 Years (20.03.2025 to 19.12.2025)
43	Betwa	Basrehi	Kalpi	596 - Khand-2	16.195	A 25° 52'47.90"N, 79° 46'00.42"E B 25° 52'38.29"N, 79° 46'9.59"E C 25° 52'30.00"N, 79° 45'58.80"E D 25° 52'41.70"N, 79° 45'50.30"E E 25° 52'44.22"N, 79° 45'50.29"E	Govt. Land	5 Years (EC under process)
44	Betwa	Chirpura	Kalpi	104 - Khand-1	14.170	A 25° 52'34.33"N, 79° 46'13.60"E B 25° 52'27.74"N, 79° 46'22.00"E C 25° 52'17.32"N, 79° 46'14.42"E D 25° 52'19.64"N, 79°46'11.15"E E 25° 52'20.83"N, 79° 46'6.87"E F 25° 52'23.78"N, 79° 46'2.82"E	Govt. Land	5 Years (EC under process)
45	Betwa	Chirpura	Kalpi	104 - Khand-2	14.170	A 25° 52'21.35"N, 79° 46'31.65"E B 25° 52'27.74"N, 79° 46'22.00"E C 25° 52'17.32"N, 79° 46'14.42"E D 25° 52'9.41"N, 79° 46'25.67"E	Govt. Land	5 Years (07.04.2025 to 06.04.2030)
46	Betwa	Kyotra	Kalpi	267,268 - Khand-1	20.242	A 25°52'13.00"N, 79° 46'46.97"E B 25° 52'21.35"N, 79° 46'31.65"E C 25° 52'08.43"N, 79° 46'25.18"E D 25° 52'1.63"N, 79° 46'39.49"E	Govt. Land	5 Years (EC under process)
47	Betwa	Kyotra	Kalpi	267,268 - Khand-2	18.218	A 25°52'13.00"N, 79°46'46.97"E B 25°52'07.32"N, 79°47'00.16"E C 25°51'54.28"N, 79°46'53.70"E D 25°52'01.63"N, 79°46'39.49"E	Govt. Land	5 Years (23.05.2023 to 22.05.2028)
48	Betwa	Kyotra	Kalpi	267,268 - Khand-3	16.194	A 25° 52'05.50"N, 79° 47'08.90"E B 25° 52'07.32"N, 79° 47'00.16"E C 25° 51'54.28"N, 79° 46'53.70"E D 25° 51'48.18"N, 79° 47'08.07"E	Govt. Land	5 Years (EC under process)
49	Betwa	Pathretha	Kalpi	747 - Khand-1	16.195	A 25° 52'28.53"N, 79°48'28.19"E B 25° 52'42.60"N, 79° 48'31.56"E C 25° 52'41.56"N, 79° 48'46.49"E D 25° 52'27.94"N, 79° 48'39.93"E	Govt. Land	5 Years (19.12.2024 to 18.06.2025)



Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
50	Betwa	Pathretha	Kalpi	747 - Khand-2	16.195	A 25° 52'28.53"N, 79°48'28.19"E B 25° 52'42.60"N, 79° 48'31.56"E C 25° 52'41.56"N, 79° 48'46.49"E D 25° 52'27.94"N, 79° 48'39.93"E	Govt. Land	5 Years (02.03.2024 to 01.03.2029)
51	Betwa	Pathretha	Kalpi	747 -Khand-3	16.195	A 25°52'54.66" N, 79°48'34.47"E B 25°52'58.44" N, 79°48'35.44"E C 25°53'9.14" N, 79°48'35.04"E D 25°53'8.41" N, 79°48'47.68"E E 25°52'53.64" N, 79°48'48.48"E	Govt. Land	5 Years (EC under process)
52	Betwa	Pathretha	Kalpi	747 -Khand-4	16.195	A 25°53'27.08" N, 79°48'34.40"E B 25°53'9.14 "N, 79°48'35.04"E C 25°53'8.41" N, 79°48'47.68"E D 25°53'25.97 "N, 79°48'43.92"E	Govt. Land	5 Years (EC under process)
53	Betwa	Pathretha	Kalpi	747 - Khand-5	16.195	A 25°53'27.08" N, 79°48'34.40"E B 25°53'51.42" N, 79°48'33.45"E C 25°53'50.60" N, 79°48'39.16"E D 25°53'25.97 "N, 79°48'43.92"E	Govt. Land	5 Years (EC under process)
54	Betwa	Pathretha	Kalpi	439 - Khand-6	10.120	A 25°53'52.27" N, 79°48'27.71"E B 25°54'9.35" N, 79°48'25.35"E C 25°54'6.92" N, 79°48'29.84"E D 25°54'5.26" N, 79°48'31.80"E E 25°54'1.35" N, 79°48'32.43"E F 25°53'58.73" N, 79°48'34.74"E G 25°53'50.60" N, 79°48'39.16"E	Govt. Land	5 Years (EC under process)
55	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-1	9.710	A 25°54'30.24" N, 79°39'29.54"E B 25°54'29.60" N, 79°39'32.30"E C 25°54'29.66" N, 79°39'33.38"E D 25°54'31.32" N, 79°39'39.56"E E 25°54'20.35" N, 79°39'41.26"E F 25°54'20.11" N, 79°39'40.77"E G 25°54'19.50" N, 79°39'41.11"E H 25°54'20.27" N, 79°39'34.43"E I 25°54'25.50" N, 79°39'26.69"E	Govt. Land	5 Years (01.01.2022 to 31.12.2026)
56	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-2	20.242	A 25° 54'31.32"N, 79° 39'39.56"E B 25° 54'38.54"N, 79° 39'55.67"E C 25° 54'32.36"N, 79° 39'57.60"E D 25° 54'24.93"N, 79° 39'59.95"E E 25° 54'24.81"N, 79° 39'57.89"E F 25° 54'21.29"N, 79° 39'50.47"E G 25° 54'21.41"N, 79° 39'47.81"E H 25° 54'20.50"N, 79° 39'47.36"E I 25° 54'20.73"N, 79° 39'46.75"E J 25° 54'20.63"N, 79° 39'46.11"E K 25° 54'21.29"N, 79° 39'44.67" E L 25° 54'20.35"N, 79° 39'41.26" E	Govt. Land	5 Years (10.03.2025 to 09.03.2030)
57	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-3	12.120	A 25°54'38.54" N, 79°39'55.67"E B 25°54'42.69" N, 79°40'03.61"E C 25°54'30.65 "N, 79°40'09.43"E D 25°54'27.81" N, 79°40'05.75"E E 25°54'27.34 "N, 79°40'05.48"E F 25°54'26.31" N, 79°40'03.05" E G 25°54'25.33" N, 79°40'01.72"E H 25°54'24.93 "N, 79°39'59.95"E	Govt. Land	5 Years (EC under process)
58	Betwa	Kehtahamirpur	Kalpi	1064 -Khand-4	12.120	A 25° 54'42.69"N, 79° 40'3.61" E B 25° 54'47.88"N, 79° 40'11.42" E C 25° 54'40.23"N, 79° 40'19.16" E D 25° 54'35.14"N, 79° 40'15.14" E E 25° 54'30.65"N, 79° 40'9.43" E	Govt. Land	5 Years (04.02.2025 to 03.02.2030)

SL.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
59	Yamuna	Taribulda	Kalpi	36/1 - Khand-1	20.242	A 26° 07'17.43"N, 79° 46'00.17"E B 26° 07'21.67"N, 79° 46'06.21"E C 26° 07'19.97"N, 79° 46'14.52"E D 26° 07'16.03"N, 79° 46'21.69"E E 26° 07'12.60"N, 79° 46'24.42"E F 26° 07'03.96"N, 79° 46'12.39"E	Govt. Land	5 Years (02.02.2024 to 01.02.2029)
60	Yamuna	Gajraura	Jalaun	22/14	6.950	A 26°25'6.88"N, 79°28'51.57"E B 26°25'7.79"N, 79°28'56.66"E C 26°24'52.53"N, 79°29'5.04"E D 26°24'51.43"N, 79°29'0.28"E	Govt. Land	5 Years (04.02.2024 to 30.12.2029)
61	Yamuna	Mahtoli	Madhavgarh	714Ma	10.000	A 26°26'21.50"N, 79°17'31.08"E B 26°26'19.28"N, 79°17'40.77"E C 26°26'16.64"N, 79°17'50.72"E D 26°26'5.25"N, 79°18'2.26"E E 26°26'2.87"N, 79°18'3.69"E F 26°26'1.89"N, 79°18'1.79"E G 26°26'4.76"N, 79°17'59.85"E H 26°26'11.10"N, 79°17'52.88"E I 26°26'9.25"N, 79°17'50.12"E J 26°26'12.03"N, 79°17'47.51"E K 26°26'16.27"N, 79°17'41.66"E L 26°26'17.25"N, 79°17'38.25"E M 26°26'17.57"N, 79°17'34.27"E N 26°26'18.80"N, 79°17'31.65"E	Govt. Land	5 Years (EC under process)
62	Betwa	Pathretha	Kalpi	747/16, Khand-1	8.880	A 25°52'34.30"N, 79°48'27.20"E B 25°52'59.51"N, 79°48'33.60"E C 25°53'6.77"N, 79°48'33.40"E D 25°53'28.44"N, 79°48'32.77"E E 25°53'51.67"N, 79°48'31.64"E F 25°53'51.47"N, 79°48'33.10"E G 25°52'58.49"N, 79°48'35.07"E H 25°52'33.97"N, 79°48'28.84"E	Govt. Land	5 Years (Vacant)
63	Yamuna	Jeetamau Deewara	Kalpi	84,85,86,87 - Khand-1	15.000	A 26° 21'21.55"N, 79° 33'20.40"E B 26° 21'36.45"N, 79° 33'31.70"E C 26° 21'37.61"N, 79° 33'23.53"E D 26° 21'34.27"N, 79° 33'18.48"E E 26° 21'21.42"N, 79° 33'08.62"E F 26° 21'21.98"N, 79° 33'15.79"E	Govt. Land	5 Years (EC under process)
64	Yamuna	Jeetamau Deewara	Kalpi	84 ,87,91 - Khand-2	15.000	A 26° 21'21.55"N, 79° 33'20.40"E B 26° 21'36.45"N, 79° 33'31.70"E C 26° 21'34.92"N, 79° 33'42.17"E D 26° 21'19.40"N, 79° 33'30.35"E E 26° 21'21.16"N, 79° 33'24.56"E	Govt. Land	5 Years (EC under process)
65	Yamuna	Jeetamau Deewara	Kalpi	88/2, 89,90,91 - Khand-3	13.080	A 26° 21'16.53"N, 79° 33'39.21"E B 26° 21'30.23"N, 79° 33'51.42"E C 26° 21'33.63"N, 79° 33'44.13"E D 26° 21'24.43"N, 79°33'35.85"E E 26° 21'24.60"N, 79°33'34.36"E F 26° 21'19.40"N, 79°33'30.35"E	Govt. Land	5 Years (EC under process)
66	Yamuna	Jeetamau Deewara	Kalpi	88/2, 89, 120/1 - Khand-4	15.000	A 26° 21'16.53"N, 79° 33'39.21"E B 26° 21'30.23"N, 79° 33'51.42"E C 26° 21'29.10"N, 79° 33'56.06"E D 26° 21'19.94"N, 79° 33'57.74"E E 26° 21'12.49"N, 79°33'45.46"E	Govt. Land	5 Years (EC under process)
67	Yamuna	Jeetamau Deewara	Kalpi	120/1 - Khand-5	15.000	A 26° 21'01.83"N, 79° 33'53.48"E B 26° 21'01.60"N, 79° 34'00.80"E C 26° 21'12.10"N, 79° 34'01.23"E D 26° 21'19.94"N, 79° 33'57.74"E E 26° 21'12.49"N, 79° 33'45.46"E F 26° 21'06.29"N, 79°33'51.35"E	Govt. Land	5 Years (EC under process)

SLNo	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
68	Yamuna	HarshanKarpur Diwara	Jalaun	76Mi - Khand-01	9.000	A 26°24'36.80"N, 79°29'5.58"E B 26°24'38.60"N, 79°29'13.89"E C 26°24'47.57"N, 79°29'10.48"E D 26° 24'52.53"N, 79°29'7.85"E E 26°24'51.22"N, 79°29'2.24"E	Govt. Land	5 Years (EC under process)
69	Yamuna	HarshanKarpur Diwara	Jalaun	76Mi -Khand-02	9.000	A 26°24'36.80"N, 79°29'5.58"E B 26°24'38.60"N, 79°29'13.89"E C 26°24'33.87"N, 79°29'15.74"E D 26°24'29.27"N, 79°29'16.27"E E 26°24'24.35"N, 79°29'15.45"E F 26°24'23.63"N, 79°29'9.95"E	Govt. Land	5 Years (EC under process)
70	Yamuna	Simra Sheikhpur	Kalpi	117/1 - Khand-01	11.000	A 26°14'11.04"N, 79°38'47.92"E B 26°14'22.17"N, 79°38'44.12"E C 26°14'25.26"N, 79°38'42.55"E D 26°14'30.94"N, 79°38'39.89"E E 26°14'32.00"N, 79°38'47.70"E F 26°14'12.28"N, 79°38'53.46"E	Govt. Land	5 Years (EC granted)
71	Yamuna	Simra Sheikhpur	Kalpi	117/1 -Khand-02	10.000	A 26°14'11.04"N, 79°38'47.92"E B 26°13'56.73"N, 79°38'48.24"E C 26°13'54.25"N, 79°38'47.67"E D 26°13'50.94"N, 79°38'46.16"E E 26°13'49.29"N, 79°38'50.00"E F 26°13'53.50"N, 79°38'51.96"E G 26°14'3.12"N, 79°38'54.45"E H 26°14'12.28"N, 79°38'53.46"E	Govt. Land	5 Years (EC under process)
72	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-01	15.000	A 26°10'43.61"N, 79°45'21.81"E B 26°10'50.17"N, 79°45'16.20"E C 26°11'0.74"N, 79°45'26.80"E D 26°10'56.23"N, 79°45'36.66"E E 26°10'54.96"N, 79°45'37.72"E	Govt. Land	5 Years (EC under process)
73	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-02	15.000	A 26°10'43.61"N, 79°45'21.81"E B 26°10'38.33"N, 79°45'25.72"E C 26°10'47.55"N, 79°45'45.92"E D 26°10'49.13"N, 79°45'44.11"E E 26°10'54.96"N, 79°45'37.72"E	Govt. Land	5 Years (EC under process)
74	Yamuna	Heerapur Diwara	Kalpi	169/9, 170/1 - Khand-03	15.000	A 26°10'32.52"N, 79°45'28.98"E B 26°10'38.33"N, 79°45'25.72"E C 26°10'47.55"N, 79°45'45.92"E D 26°10'37.12"N, 79°45'47.63"E	Govt. Land	5 Years (EC under process)
75	Yamuna	Heerapur Diwara	Kalpi	169/9, 170/1 - Khand-04	15.000	A 26°10'32.52"N, 79°45'28.98"E B 26°10'24.69"N, 79°45'31.44"E C 26°10'24.92"N, 79°45'47.38"E D 26°10'26.29"N, 79°45'47.92"E E 26°10'37.12"N, 79°45'47.63"E	Govt. Land	5 Years (EC under process)
76	Yamuna	Heerapur Diwara	Kalpi	169/9, 170/1 - Khand-05	15.000	A 26°10'11.81"N, 79°45'31.88"E B 26°10'16.25"N, 79°45'32.80"E C 26°10'24.69"N, 79°45'31.44"E D 26°10'24.92"N, 79°45'47.38"E E 26°10'16.25"N, 79°45'44.63"E F 26°10'10.57"N, 79°45'42.32"E	Govt. Land	5 Years (EC under process)
77	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-06	15.000	A 26°10'11.81"N, 79°45'31.88"E B 26°10'4.08"N, 79°45'30.18"E C 26° 9'55.83"N, 79°45'27.02"E D 26° 9'53.28"N, 79°45'35.65"E E 26°10'3.14"N, 79°45'40.69"E F 26°10'10.57"N, 79°45'42.32"E	Govt. Land	5 Years (EC under process)



Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
78	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-07	15.000	A 26° 9'32.22"N, 79°45'11.32"E B 26° 9'48.60"N, 79°45'24.32"E C 26° 9'55.83"N, 79°45'27.02"E D 26° 9'53.28"N, 79°45'35.65"E E 26° 9'45.33"N, 79°45'30.20"E F 26° 9'39.51"N, 79°45'24.12"E G 26° 9'30.14"N, 79°45'14.08"E	Govt. Land	5 Years (EC under process)
79	Betwa	Simeriya	Orai	861, 861/12, 861/12Mi	1.47	A 25° 51'18.84"N, 79° 34'08.89"E B 25° 51'17.39"N, 79° 34'14.15"E C 25° 51'15.43"N, 79° 34'12.98"E D 25° 51'13.38"N, 79°34'12.27"E E 25° 51'13.67"N, 79°34'10.00"E	Pvt. Land	6 Months (Vacant)
80	Betwa	Simeriya	Orai	860/19	3.112	A 25°51'33.27"N, 79°33'41.00"E B 25°51'38.41"N, 79°33'48.51"E C 25°51'34.58"N, 79°33'49.77"E D 25°51'29.25"N, 79°33'42.10"E	Pvt. Land	6 Months (03.06.2025 to 02.03.2026)
81	Betwa	Parasan	Kalpi	4032/15	1.234	A 25°54'34.52"N, 79°42'59.45"E B 25°54'35.77"N, 79°43'1.50"E C 25°54'32.06"N, 79°43'8.43"E D 25°54'30.65"N, 79°43'5.96"E	Pvt. Land	6 Months (EC under process)
82	Betwa	Sikrivyas	Orai	1191/2 - Khand-5	13.000	A- 25°47'8.43"N 79°20'32.42"E B- 25°46'46.61"N 79°20'13.69"E C- 25°46'41.76"N 79°20'16.19"E D- 25°47'3.87"N 79°20'35.54"E	Govt. Land	5 Years (Proposed New Lease)
83	Betwa	Sikrivyas	Orai	1191/2 - Khand-6	19.000	A- 25°47'08.43"N 79°20'32.42"E B- 25°47'14.20"N 79°20'41.85"E C- 25°47'18.49"N 79°20'45.94"E D- 25°47'23.54"N 79°20'54.30"E E- 25°47'22.89"N 79°20'56.47"E F- 25°47'24.05"N 79°21'07.51"E G- 25°47'20.12"N 79°21'08.31"E H- 25°47'15.44"N 79°20'53.48"E I- 25°47'03.87"N 79°20'35.54"E	Govt. Land	5 Years (Proposed New Lease)
84	Betwa	Sikrivyas	Orai	1191/2 - Khand-7	10.000	A - 25°47'26.87"N 79°21'29.53"E B - 25°47'28.37"N 79°21'15.25"E C - 25°47'25.04"N 79°21'11.95"E D - 25°47'24.05"N 79°21'7.51"E E - 25°47'20.12"N 79°21'8.31"E F - 25°47'22.24"N 79°21'17.24"E G - 25°47'21.06"N 79°21'28.10"E	Govt. Land	5 Years (Proposed New Lease)
85	Betwa	Pathretha	Kalpi	396	1.461	A - 25°54'11.29"N 79°48'24.11"E B - 25°54'19.29"N 79°48'24.20"E C - 25°54'22.45"N 79°48'24.30"E D - 25°54'26.30"N 79°48'26.68"E E - 25°54'29.76"N 79°48'28.25"E F - 25°54'26.30"N 79°48'27.64"E G - 25°54'23.95"N 79°48'26.36"E H - 25°54'20.50"N 79°48'25.26"E I - 25°54'16.97"N 79°48'25.37"E J - 25°54'13.45"N 79°48'24.72"E K - 25°54'11.30"N 79°48'24.92"E	Pvt. Land	6 Months (Proposed New Lease)
86	Betwa	Simiriya	Orai	860/8 , 860/8Mi	1.710	A - 25°51'28.77"N 79°33'42.35"E B - 25°51'34.12"N 79°33'50.03"E C - 25°51'32.32"N 79°33'51.17"E D - 25°51'26.77"N 79°33'43.00"E	Pvt. Land	6 Months (Proposed New Lease)



SL.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land	Period of Validity*
87	Betwa	Parasan	Kalpi	898/1, 899/2, 899/3, 899/4, 899/5, 899/6, 899/7, 899/8, 899/9, 899/10, 899/11, 899/12, 899/13, 899/14, 899/15, 899/19, 899/20, 901/1	1.287	A - 25°54'58.92"N 79°40'23.61"E B - 25°55'3.35"N 79°40'28.58"E C - 25°55'3.09"N 79°40'28.87"E D - 25°55'2.54"N 79°40'28.23"E E - 25°55'0.48"N 79°40'30.43"E F - 25°54'59.80"N 79°40'29.81"E G - 25°55'1.40"N 79°40'28.34"E H - 25°55'1.20"N 79°40'28.00"E I - 25°54'59.58"N 79°40'29.58"E J - 25°54'57.67"N 79°40'27.82"E K - 25°54'59.65"N 79°40'25.67"E L - 25°54'58.33"N 79°40'24.32"E	Pvt. Land	6 Months (Proposed New Lease)
88	Betwa	Simiriya	Orai	861/8, 861/10aa, 861/10ba, 861/11	0.809	A - 25°51'13.67"N 79°34'10.00"E B - 25°51'13.38"N 79°34'12.27"E C - 25°51'12.06"N 79°34'11.90"E D - 25°51'11.53"N 79°34'14.18"E E - 25°51'10.28"N 79°34'13.89"E F - 25°51'9.21"N 79°34'11.45"E	Pvt. Land	6 Months (Proposed New Lease)
89	Betwa	Simiriya	Orai	861/2	2.290	A - 25°51'17.15"N 79°34'14.90"E B - 25°51'16.31"N 79°34'17.52"E C - 25°51'14.26"N 79°34'18.48"E D - 25°51'14.03"N 79°34'19.54"E E - 25°51'10.60"N 79°34'18.19"E F - 25°51'11.84"N 79°34'12.83"E	Pvt. Land	6 Months (Proposed New Lease)
90	Betwa	Sikriyas	Orai	404, 405	0.870	A - 25°47'20.55"N 79°20'46.19"E B - 25°47'21.71"N 79°20'45.34"E C - 25°47'24.69"N 79°20'50.76"E D - 25°47'23.18"N 79°20'51.90"E	Pvt. Land	6 Months (Proposed New Lease)

*Note: The period of validity is the maximum period for which a lease can be operated. A 05-year lease can still be allotted for short term for 06 months depending on the site condition and availability of minerals.

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4.0 DETAILS OF ROYALTY OR REVENUE RECEIVED IN LAST THREE YEARS

The details of revenue received from river bed sand mining in the last three financial years viz. 2022-2023, 2023-2024 and 2024-2025 is given in *Table II*.

Table II: Revenue received in last three financial years

Sl. No.	Financial Year	Revenue (Lakh Rs.)
1.	2022-2023	16,116.61
2.	2023-2024	13,951.14
3.	2024-2025	22,805.79



5.0 DETAILS OF PRODUCTION OF SAND OR BAJRI OR MINOR MINERAL IN LAST THREE YEARS

The details of production of sand/morrum in the last three financial years viz. 2022-2023, 2023-2024 and 2024-2025 is given in *Table III*.

Table III: Production of sand/morrum in last three financial years

Sl. No.	Financial Year	Production (cubic-m)
1.	2022-2023	11,87,683
2.	2023-2024	23,21,634
3.	2024-2025	17,49,460



6.0 PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVERS OF THE DISTRICT

The sediment of a river is commonly considered to be aesthetically displeasing and environmentally degrading. Conversely, part of the sediment (sand and gravel) may represent a natural resource for use by society. The potential usefulness of the sediment is enhanced when it is composed of particle sizes found in deposits on the river-bed that would be replenished by newly transported sediment after mining. As such, river deposits become renewable resources, periodically replaced by sediment transport in the river.

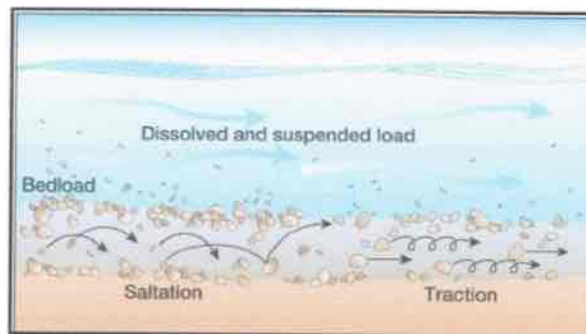


Figure 2: Sediment deposition process

Sediment transport is the movement of organic and inorganic particles by water. In general, the greater the flow, the more sediment that will be conveyed. Water flow can be strong enough to suspend particles in the water column as they move downstream, or simply push them along the bottom of a waterway. Transported sediment may include mineral matter, chemicals and pollutants, and organic material. Another name for sediment transport is sediment load. The total load includes all particles moving as bedload, suspended load, and wash load.

Sediment deposition is the process of settling down of suspended particles to the bottom of a body of water. This settling often occurs when water flow slows down or stops, and heavy particles can no longer be supported by the bed turbulence. Sediment deposition can be found anywhere in a water system, from high mountain streams, to rivers, lakes, deltas and floodplains.

Sediment transport is critical to understanding how rivers work because it is the set of processes that mediates between the flowing water and the channel boundary. Erosion involves removal and transport of sediment (mainly from the boundary) and deposition involves the transport and placement of sediment on the boundary. Erosion and deposition are what form the channel of any alluvial river as well as the floodplain through which it moves. The amount and size of sediment moving through a river channel are determined by three fundamental controls: competence, capacity and sediment supply. Competence refers to the largest size (diameter) of sediment particle or grain that the flow is capable of moving; it is a hydraulic limitation. If a river is sluggish and moving very slowly it simply may not have the power to mobilize and transport sediment of a given size even

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though such sediment is available to transport. So a river may be competent or incompetent with respect to a given grain size. If it is incompetent it will not transport sediment of the given size. If it is competent it may transport sediment of that size if such sediment is available (that is, the river is not supply-limited). Capacity refers to the maximum amount of sediment of a given size that a stream can transport in traction as bedload. Given a supply of sediment, capacity depends on channel gradient, discharge and the calibre of the load (the Presence of fines may increase fluid density and increase capacity; the presence of large particles may obstruct the flow and reduce capacity). Capacity transport is the competence-limited sediment transport (mass per unit time) predicted by all sediment-transport equations, examples of which will be examined later. Capacity transport only occurs when sediment supply is abundant (non-limiting). Sediment supply refers to the amount and size of sediment available for sediment transport. Capacity transport for a given grain size is only achieved if the supply of that calibre of sediment is not limiting (that is, the maximum amount of sediment a stream is capable of transporting is actually available). Because of these two different potential constraints (hydraulics and sediment supply) distinction is often made between supply-limited and capacity-limited transport.

Most rivers probably function in a sediment supply limited condition, although we often assume that this is not the case. Much of the material supplied to a stream is so fine (silt and clay) that provided it can be carried in suspension, almost any flow will transport it. Although there must be an upper limit to the capacity of the stream to transport such fines, it is probably never reached in natural channels and the amount moved is limited in supply. In contrast, transport of coarser material (say, coarser than fine sand) is largely capacity limited.

Modes of Sediment Transport: The sediment load of a river is transported in various ways although these distinctions are to some extent arbitrary and not always very practical in the sense that not all of the components can be separated in practice. The modes are:

1. Dissolved Load
2. Suspended Load
3. Intermittent Suspension (Saltation) Load
4. Wash Load
5. Bed Load

Sediment Transport in Rivers: The loose boundary (consisting of movable material) of an alluvial channel deforms under the action of flowing water and the deformed bed with its changing roughness (bed forms) interacts with the flow. A dynamic equilibrium state of the boundary may be expected when a steady and uniform flow has developed (Nalluri & Heatherstone, 2001). The resuming movement of the bed material (sediment) in the direction of the flow is called sediment transport and a critical bed sheer stress must be exceeded to start the particle movement. Such a critical sheer stress is referred as recipient (threshold) motion condition, below which the pick's will be at rest and the flow is similar to that on a rigid boundary.

Sediment Influx Rate: Sediment influx in ephemeral streams is generally confined to the beginning of the rainy season as velocity of the water washes down medium to fine sand and silt depending on the velocity and gradient of land. Cobbles, pebbles and boulders will be transported by only over short distance. Boulders are normally 256 mm and above are normally transported either by dragging action or by saltation.

Recharge is in two forms, one general deposition of coarse, medium and fine sand when the velocity of the river water decreases below the carrying capacity. However, flash floods due to heavy rains in the upper reaches often causes rapid transportation of boulder, sand etc. along with silt which can never deposit.

Recharge Rate: It is dependent upon the following 4 factors:

1. Velocity of water and change in velocity
2. Size of particles
3. Temporary increase in density of carrying media due to presence of silt load
4. Artificial and natural barriers being encountered within the river course where due to sudden check in velocity, materials are deposited.

The numerical sedimentation rate varies from 50cm medium sand to as much as 3m of medium and fine sand where the slope of the river bed is less than 10° slope per season. For silt and clay, these only be deposited in the flood area and normally varies between 1-5m over 6 months period.

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7.0 GENERAL PROFILE OF THE DISTRICT

The Jalaun District includes an area of 4,544 sq.km. It is the northernmost district in Uttar Pradesh. This district is a large area that spans the north of the state. The Yamuna River in the north and the Betwa River in the south border it. The western border follows the Phuja River. The eastern border is shared with Hamirpur district. The area lies between Latitude 26° 26' to 25° 45' North and Longitude 79° 57' to 78° 00' East, falling in the survey of India Toposheet No.54 N.

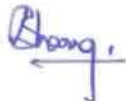
Jalaun district is surrounded in all four directions by rivers Yamuna, Betwa, Pahuj and Dhasan. The net sown area is 3.50 lakh ha and 1.95 lakh ha as net irrigated area with cropping intensity of 118.82%. Small and marginal farmers contribute 74% of total farm holdings. 52.76% of farmers have land holdings less than 1 ha and 21.69% have land holding of 1-2 ha. Jalaun District is a part of Jhansi Division. The district has population of 16,89,974 (2011 census), with a population density of 370 persons per sqkm. The district lies entirely within the level plain of Bundelkhand, north of the hill country, and is almost surrounded by the Yamuna River, which forms the northern boundary of the district, and its tributaries the Betwa, which forms the southern boundary of the district, and the Pahuj, which forms the western boundary. The central region thus enclosed is a dead level of cultivated land, almost destitute of trees, and dotted with villages. The southern portion presents an almost unbroken sheet of cultivation. The Non River flows through the centre of the district, which it drains by innumerable small ravines.

The districts of Etawah and Kanpur lie to the north across the Yamuna, while Jalaun District lies to the east and southeast, Jhansi District lies to the southeast, and Bhind District of Madhya Pradesh lies to the west cross the Pahuj.

District has five Tehsils namely Jalaun, Orai, Kalpi, Madhogarh and Konch. Area wise, the biggest tehsil is Kalpi (Area 1252 sqkm) while smallest is Jalaun (Area 682 sqkm). There are total 9 blocks in the district.

Topography and Terrain: The topography of the district also plays a key role in locational analysis for any provision of services and facilities. Jhansi is located in the plateau of central India, an area dominated by rocky reliefs and 6 minerals underneath the soil. It has an average altitude of 144





meters above msl. The city has a natural slope in the north as it lies on the south western border of the vast Tarai plains of Uttar Pradesh. The elevation rises on the south. The land is suitable for citrus species fruits. Main crops grown in the district include wheat, pulses, peas & oilseeds. The region relies heavily on Monsoon rains for irrigation purposes.

Water Course and Hydrology: The area is chiefly drained by three perennial rivers namely, Yamuna, Betwa, and Pahuj. There are many minor ephemeral tributaries, viz. Non Nadi, Kunchamalanga Nadi which drains central parts of the district area. Jamuna and Betwa are flowing towards east and Pahuja from south to north. The overall drainage of the area forms dendritic pattern. Besides, there is good network of canal system draining from Betwa river through Kuthaund and Jalaun branches. The entire area of Jalaun district is underlain by quaternary alluvium, comprising mainly clay, kankar, sand, and gravel over the basement of Bundelkhand granites. The thickness of alluvium increases towards north which has good potential. Ground water potential in granites is poor as they have little porosity. The weathered zone in the granite rock usually hold good quantity of water. The ground water in the alluvium occurs under water table conditions in phreatic zones and under semi confined to confined conditions in the lower zone.

Land Form and Seismicity: The district falls in seismic zone III and lies in low to moderate hazard risk zone. No earthquake has been observed in the district during Last 200 years. The district has however experienced earthquakes on a few occasions.

Socio-Economics: As per the official Census data 2011, Jalaun had population of 1,689,974 of which male and female were 906,092 and 783,882 respectively. In 2001 census, Jalaun had a population of 1,454,452 of which males were 786,641 and remaining 667,811 were females. There was change of 16.19 percent in the population compared to population as per 2001. In the previous census of India 2001, Jalaun District recorded increase of 19.28 percent to its population compared to 1991.

Flora & Fauna

Flora: In the former days a large part of the district was covered with forest of sal and other trees, but since then most of it has been cleared and brought under the plough. Though the district is no longer rich in timber, it can still be described as well-wooded, owing to the numerous clumps of mango (*Mangifera indica*), mahua (*Madhuca longifolia*), sal (*Sorea robusta*), and bamboo (*Bambusa arundinacea*).

Plantations of fast growing species such as bamboo, Eucalyptus (*Eucalyptus teritornis*), mango and shisham (*Dalbergia sissoo*) have been raised in the district.

Table IV: Forests in Jalaun district

Sl. No.	Name/Place	Sl. No.	Name/Place
1.	Billaun P.F.	35.	Makrana R.F.
2.	Bhitaun P.F.	36.	Makrecha R.F.
3.	Mahtauli R.F.	37.	Sikri Kahta R.F.
4.	Silaura R.F.	38.	Sikri R.F.
5.	Kota Diwara	39.	Kotra R.F.
6.	Motipur	40.	Nanda R.F.
7.	Tulakpur	41.	Kishor R.F.
8.	Bijwapur R.F.	42.	Karthara R.F.
9.	Paran P.F.	43.	Sudhauli R.F.
10.	Nainapur R.F.	44.	Amror R.F.
11.	Karmukha Mustqil R.F.	45.	Chirauli R.F.
12.	Tikri R.F.	46.	Rukhna R.F.
13.	Lohari R.F.	47.	Sala R.F.
14.	Raipur R.F.	48.	Dhera R.F.
15.	Jitamaun R.F.	49.	Budhera R.F.
16.	Malthua R.F.	50.	Dang Khairi R.F.
17.	Manpur R.F.	51.	Dang Khajjor R.F.
18.	Khargoi Mustaqil R.F.	52.	Dang Gatiyar R.F.
19.	Sareni Mustaqil R.F.	53.	Angaura R.F.
20.	Pal R.F.	54.	Atrauli R.F.
21.	Semra Sheikhpur R.F.	55.	Manpura R.F.
22.	Narihan R.F.	56.	Gopalpura Rudawali R.F.
23.	Imli R.F.	57.	Mahaoi R.F.
24.	Chhunik R.F.	58.	Karmara R.F.
25.	Vyas R.F.	59.	Asahna R.F.
26.	Kalpi R.F.	60.	Galampura R.F.
27.	Alampur R.F.	61.	Megni R.F.
28.	Dbamna R.F.	62.	Rampura R.F.
29.	Surauli R.F.	63.	Naraul P.F.
30.	Gulauli R.F.	64.	Ata R.F.
31.	Madra Lalpur R.F.	65.	Ukasi R.F.
32.	Abhirwa R.F.	66.	Ragauli R.F.
33.	Ikauna R.F.	67.	Bidhauli R.F.
34.	Dadri R.F.	68.	Haidalpur R.F.

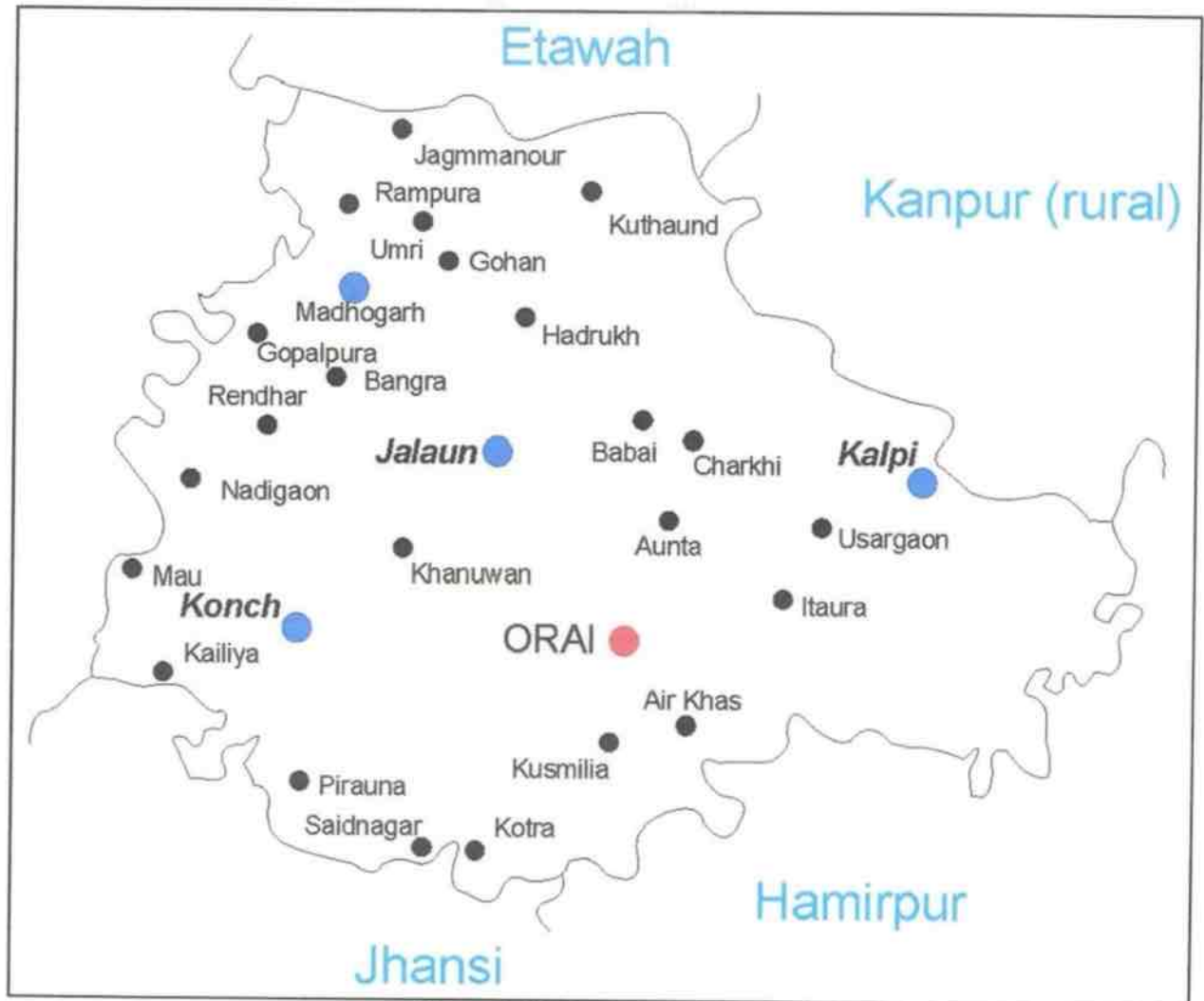


Figure 3: Map of Jalaun District

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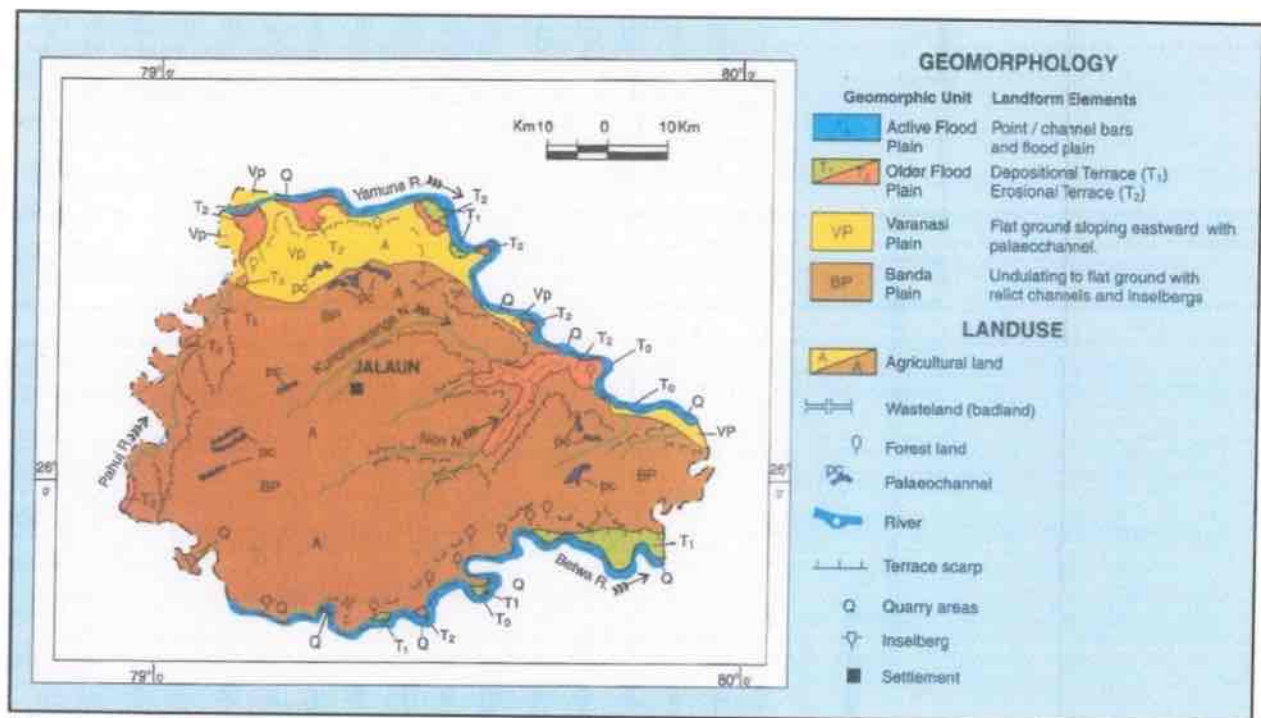
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8.0 LAND UTILISATION PATTERN IN THE DISTRICT: FOREST, AGRICULTURE, HORTICULTURE, MINING ETC.

The Geomorphology and Land Use map is given in *Figure 4*. *Table V* depicts the category wise Land Use pattern in the district.



(Source:gsi.gov.in)

Figure 4: Geomorphology and land use map of Jalaun District

The total area under agriculture stands at 3838.81 sqkm which is 82.42% area of the district. The land use area under barren/unculturable/wastelands is 202.08 sqkm which occupies 4.34% area. The builtup area is at 162.04 sqkm standing at 3.48%. The area occupied by forests in the district is 248.58 sq km (5.34%). The area under graas/grazing is merely 0.07 sqkm at 0.0015%. The area under wetlands/water bodies is 205.5 sqkm (4.41%). The percentage wise breakup of the area is shown in *Figure 5*.

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Table V: Detailed land use pattern of Jalaun district

Category	Use	Area (sqkm)
Agriculture	Cropland	3620.96
	Current Shifting cultivation	
	Fallow	212.0
	Plantation	5.85
Barren/unculturable/ Wastelands	Barren Rocky Rann	
	Gullied / Ravinous Land	202.08
	Rann	
	Salt Affected Land	
	Sandy Area	
	Scrub Land	
Builtup	Mining	0.08
	Rural	109.55
	Urban	52.41
Forest	Deciduous	128.03
	Evergreen/Semi evergreen	
	Forest Plantation	2.12
	Scrub Forest	118.43
	Swamp / Mangroves	
Grass/Grazing	Grass/Grazing	0.07
Wetlands / Water bodies	Inland Wetland	0.53
	Coastal Wetland	
	River/Stream/Canals	104.03
	Water bodies	0.94

(Source: <https://bhuvan-app1.nrsc.gov.in/2dresources/thematic/LULC503/MAP/UP.pdf>)





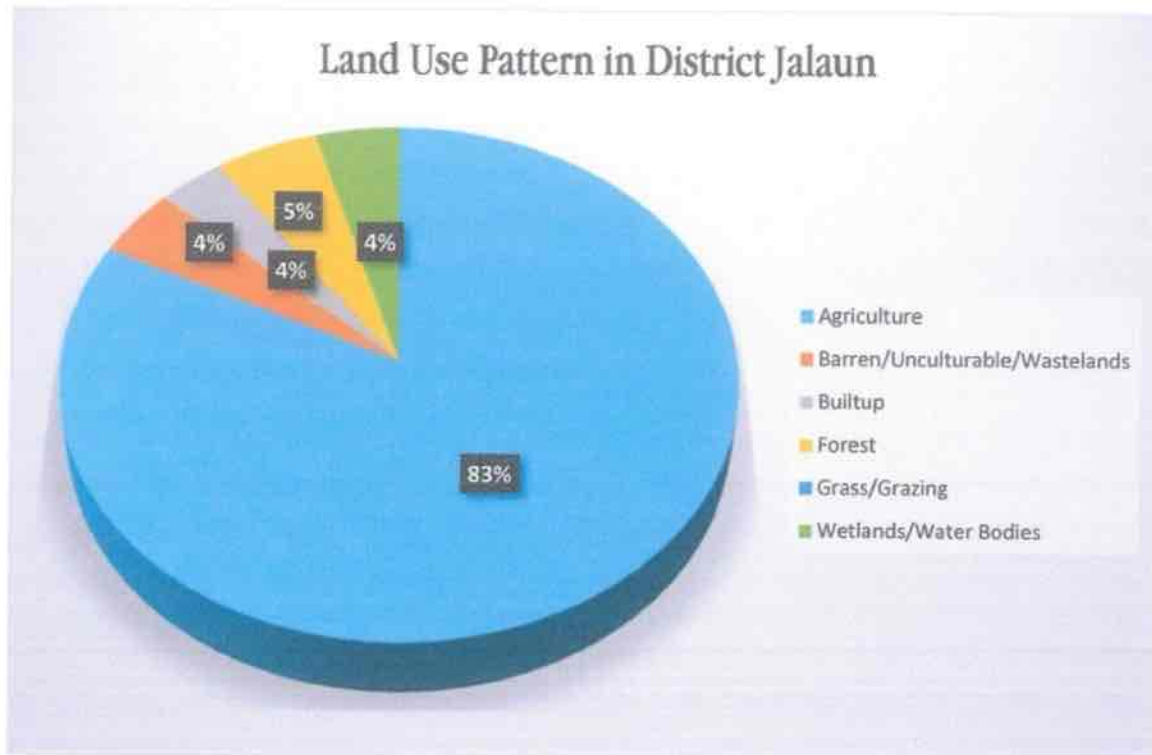


Figure 5: Land Use pattern percentage in Jalaun District

9.0 PHYSIOGRAPHY OF THE DISTRICT

The main physical features of the district are largely determined by the three rivers- the Yamuna, the Betwa and the Pahuj, which nearly encircle it. The same characteristics are common to all, varying in proportion to their respective sizes. They are surrounded by a deep network of ravines running one to three kilometers from the streams. These ravines are succeeded by a bank or belt of higher land the surface of which gradually falls the further the river is left behind. The high lands border on the *khadir* Valleys of the Betwa and Pahuj, while the low lands occupy the central tract, The latter is thus a wide flat basin encircled by a narrow rim of higher ground which break up into a network of ravines along the river banks stretching for some kilometers inland from the streams. The levels are clearly indicated horn the situation and direction of the branches of the Betwa canal which follows the watersheds closely. The drainage of the central tract is supplied by two minor streams, the Non and the Melunga which flowing north-eastwards unite some 12 kilometers from the Yamuna bank and join that river at an equal distance to the north of the town of Kalpi, like the larger rivers they too have carved deep ravines which increase in extent the nearer the Yamuna is approached and as a consequence of their action, the Kalpi Tahsil is cut by a tracery of ravines which have scored the greater portion of soil and having more barren and sterile land than in any other part of the district.

The natural divisions into which the district falls are clearly marked. Along the outer edge is the ravine belt fringed here and there, by rich alluvial soil, but for most part consisting of low hummocks thickly strewn with Kankar. The upland which succeeds the ravines is poor in quality. It has a light coloured hard soil, to the north there is a tract of loam, the characteristics of which resemble those of the doab but practically the whole of the south and centre of the district beyond the upland, excluding, the area in tehsil Kalpi affected by the Non and Melunga is occupied by the dark *kakar* and the black cotton soil *mar*. With the exception of two rocky outcrops near Saiyidnagar in tahsil Orai, here are no hills in the district and the red soil which is found in the hilly tracts of Jhansi is also absent but in other respects the district is a typical part of Bundelkhand.

Groundwater Scenario: Groundwater in the district occurs in an aquifer system mainly made of alluvial sediments deposited by the Yamuna and Betwa River and its tributaries. Granular zones comprise finegrained sand to silty sand with the occurrence of calcareous concretions (kankar) and





possess moderate transmissivity and permeability. Clay layers act as barriers separating the three aquifer groups in the district and possess insignificant transmissivity and permeability, resulting in clay acting as confining layers. Granite is the Basement rock underlying the Marginal alluvium. Primary Porosity like Fractures, Joints, Faults forms the source of Groundwater resource. Perusal reveals that the groundwater flow is mainly towards the Yamuna River and its tributaries and Temporal variation of aquifer system (Source: CGWB: *Aquifer Mapping and Management of Ground Water Resources*, 2020).

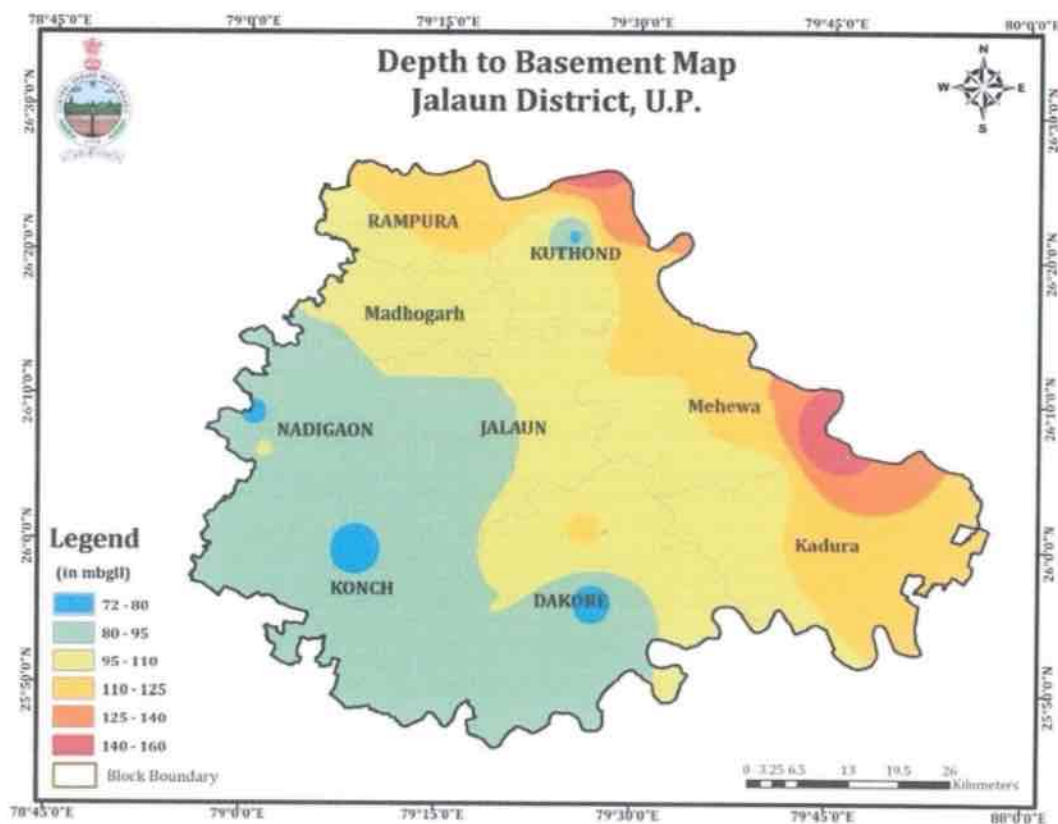


Figure 6: Depth to basement map Jalaun District

(Signatures)

10.0 RAINFALL : MONTH WISE

The average annual normal rainfall in the district from Year 2012 to 2024 is 618.7 mm. The climate is sub humid and it is characterised by hot summer, humid monsoon and cold winter seasons. About 90% of rainfall takes place during monsoon period from the month June to September. During the monsoon surplus water is available for the deep percolation to ground water. As per the document provided by the Irrigation Department, the HFL in river Yamuna is 112.980 m recorded on 25/08/1996 and HFL in river Betwa is 133.350 m recorded on 11/09/1983.

The Tropic of the Capricorn passes close to the area making the climate drier than other districts to the north of the river Yamuna. After February the temperature begins to increase rapidly. May and early part of June are the hottest parts of the year. Temperatures come down to a minimum in January and reaches a maximum in the hottest period of May and June. The rainfall in the region is less than the other areas of the State. The month wise rainfall data of the district from 2012-2024 is given in **Table VI**.

Table VI: Month wise rainfall data of Jalaun district

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Rainfall in mm													
2024	8.2	25.3	41.7	0.8	0.0	101.0	8.2	8.2	8.2	8.2	8.2	8.2	222.6
2023	7.8	0.0	3.0	7.9	36.9	87.6	262.4	124.3	93.0	13.6	9.0	24.8	670.3
2022	36.2	0.0	0.0	0.0	22.6	17.0	187.2	190.7	254.5	202.6	0.0	0.0	910.8
2021	0.3	0.3	1.3	4.3	42.8	79.1	255.6	161.6	127.9	92.9	6.8	6.9	779.5
2020	33.0	0.0	6.0	10.6	11.4	46.8	188.3	137.7	44.8	0.0	0.0	0.0	478.6
2019	10.3	22.5	0.0	1.8	5.3	28.3	190.6	210.4	145.0	20.5	0.0	10.0	644.6
2018	0.0	3.4	0.0	8.5	28.2	37.3	288.4	161.0	116.8	0.0	0.0	0.0	643.5
2017	22.2	0.0	0.3	0.0	19.9	64.5	117.5	103.7	33.7	0.0	0.0	0.0	361.7
2016	5.7	0.0	8.9	0.0	14.3	63.7	325.8	215.5	33.5	33.0	0.0	0.0	700.3
2015	31.4	0.0	52.0	4.1	4.7	20.8	190.1	120.7	3.0	19.6	0.0	3.7	450.0
2014	90.8	22.8	4.0	0.0	6.3	21.8	137.0	68.7	125.5	7.0	0.0	18.7	502.7
2013	1.3	83.8	1.7	0.0	0.0	205.4	197.7	318.0	35.6	151.3	0.0	8.0	1002.8
2012	17.0	1.0	0.0	7.0	0.0	2.5	230.3	282.8	134.9	0.0	0.0	0.0	675.5

(Source: Rainfall statistics of India)

[Signatures]

11.0 GEOLOGY AND MINERAL WEALTH

11.1 GEOLOGY

Jalaun District includes an area of 4,544 sq.km. It is the northernmost district in Uttar Pradesh. This district is a large area that spans the north of the state. The Yamuna River in the north and the Betwa River in the south border it. The western border follows the Phuja River. The eastern border is shared with Hamirpur district. The area lies between Latitude 26° 26' to 25° 45' North and Longitude 79° 57' to 78° 00' East.

The rocks mapped in the area are variety of granites having xenoliths of metasediments and metabasites. The granites are intruded by aplite, pegmatite, granite-porphyry, quartz-itefs, doleritic dykes, and secondary veins of quartz and epidosite.

Geological formation of the district consists more or less entirely of alluvium which consists of kankar sand, ballast, maurang and brick-earth.

Kankar is available in significant quantity in Konch, Orai and Kalpi tahsils of the district. It is used for metalling the roads and making lime.

Large deposits of sand and maurang are found on the bank of the Yamuna. Ballast is found in Orai tahsil.

Geologically, the area is underlain by Bundelkhand granite and complex (BGC) with a capping of quaternary deposits. The setup is as follows:

Table VII: Geological formation of the district

Group	Age
Younger Alluvium	Recent channel fill deposits and present-day flood plains of streams.
Older Alluvium	Older flood plain deposits, which includes badlands/ shallow ravines.

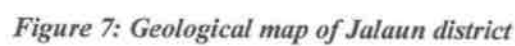
The Bundelkhand granites (BGC) and the banded gneisses of Archaean age, display heterogeneity in texture and composition and are pegmatite in places. They are at certain localities traversed by quartz reef i.e. near Kabrai (80°00'15": 25°23'15") and basically intrusive of doleritic composition i.e. SW of Kharka (80°05': 25°20'45"). A few typical basic dykes trending ENE- WSW originating

from the south-western extremities of the area continue towards Mahoba ($79^{\circ}52'30''$: $25^{\circ}17'30''$). The major bulk of metamorphic rocks are exposed as isolated hills in the southern fringes of the area mapped. The older alluvium on the other hand, comprises finer grained, well-compacted and more mature sediments occupying extensive stretches at relatively higher elevations. These sediments, related to some earlier fluvial episodes, have been at most places stabilized by vegetation and majority of the badlands are sculptured within it. These sediments characteristically display red and brown colour and are richer in ferruginous content. These older alluvium deposits range from a few metres in the south and increase progressively in thickness up to 70 m to 80 m or so in the northern part of the area under study. The older alluvium supports most of the vegetation in the terrain because of its higher moisture retaining capabilities. The younger alluvium, which is confined to the recent channel fill deposits and present day flood plains or rivers/streams, occurs as narrow strips at lower levels. The sediments are light colored, coarse to very coarse and gravelly, poorly sorted and not too well inundated. These immature sediments are relatively deficient in clay/silt fractions and also ferruginous matter.

Geomorphologically the area can be sub-divided into four major units:

- I. Recent channel-fill and present-day flood-plain deposits and adjacent lowland areas
 - II. Upland areas/river terraces (older alluvium surface)
 - III. Badlands/ravineous tracts
 - IV. Residual hills
- I. **Recent channel-fill and present-day flood-plain deposits:** It is constituted from the deposits carried out by the rivers and all its active network of stream and its periodically inundated contiguous low-lying tracts. It has been designated as younger alluvium.
 - II. **Higher alluvial plain:** Tracts bordering both the banks of Ken river with extensive lateral continuity have been designated as the older alluvium surface. This unit has a low northerly gradient, in conformity with the basement configuration.
 - III. **Hi- Badlands or Ravines:** These are noticed to be essentially confined along the courses of both the Ken river and its network of streams, the former accounting for better defined and well dissected ravines viz. 3 to 4 m in height. Hummocky ridges and rolling topography characterize badlands areas.
 - IV. **Low residual hills of granitic composition:** These are noticed and they tend to form domes and have steep slopes because of spheroidal weathering.

(Signatures)







11.2 MINERAL WEALTH

The Peninsular part of Uttar Pradesh is covered by the rocks of Archean to Mesozoic ages. The hard rocks are mainly igneous and metamorphic rocks and are exposed as isolated hills. The basement of the Peninsular belongs to Bundelkhand granitoids intruded by later phase of magmatic activity. The rocks exposed in the southwest and south part of state are dominantly granitic, consist Bundelkhand Craton and those in the Sonbhadra area in the east are dominantly gneissic rocks, comprise Mahakoshal belt. The Bundelkhand Craton mostly contains a wide variety of plutonic and hypabyssal rocks dominated by porphyritic granite of several generations, gneisses, migmatites, and leucogranites (Geological Survey of India, 2012). Migmatites, different types of granite, basic intrusive dykes and quartz reefs have been identified and assigned to various types. It is generally agreed that the enclaves of metabasics and metasedimentary are older than the granitoids. The Bundelkhand granitoids display heterogeneity in texture and composition and are pegmatitic in some places (Dinkar, 2016; Dinkar et al., 2018). The detailed geology of central Bundelkhand greenstone complex is given by Singh and Slabunov (2015a) and Slabunov and Singh (2018), so we don't discuss here. The southern Bundelkhand greenstone complex exposures of the rocks belonging to Mehroni Group are very scanty and can be observed around Girar, Manpura and Rajaula areas in Mandawra block of Lalitpur (Prakash et al., 1975; Singh and Slabunov, 2016; Slabunov et al., 2017; Dinkar et al., 2018 and references therein). In Sidhi (Son valley) area, the older metamorphics and granite gneiss are exposed as a linear belt south of Mahakoshal belt and in Rihand reservoir area bordering Mirzapur District, Uttar Pradesh. The gneissic complex associated with high grade meta-sedimentary and meta-volcanics including mafic and ultramafic schist. These include sillimanite-garnet gneiss, garnet-sillimanite-corundum schist, staurolite-garnet-biotite schist, garnetiferous grunerite-magnetite quartzite, quartz sericite schist, quartzite, marble and calc-silicate rocks, talc-chlorite schist, amphibolites and hornblende granulite (Geological Survey of India, 2012). The Dudhi Gneissic Complex (DGC) composed of mainly granitic gneiss, migmatites, and nonfoliated massive granite with enclaves of metamorphites and veins of pegmatite, aplite and quartz (Geological Survey of India, 2012). The rocks of this group are exposed in Mirzapur and Sonbhadra areas in Uttar Pradesh. The Mahrauni Group occurs as sliced unit between BGC and Bijawars and has the thrust contact with BGC in southern Lalitpur. The exposures of the rocks of Mahrauni Group are very scanty and exposed around Girar, Manpura and Rajaula areas of Mandawra block in Lalitpur district. The rocks of Mahakoshal Group in the Uttar Pradesh are the eastward extension of similar rocks of Madhya Pradesh inferred to have Paleoproterozoic age to the group includes metasediments with interlayered metavolcanics and granitic bodies intruding it (Geological Survey of India, 2012). Roy and



Devarajan (2000) classified this group into three formations. The youngest one is Dudhmaniya Formation composed of impersistent Banded Iron Formation, chlorite phyllite and greywacke underlain by an argillite-predominantly facies- the Parsoi Formation, and oldest one is Agori Formation characterized by the argillite-arenite facies with chemogenic rocks (BIF). Parsoi Formation characterized by andalusite is developed in the phyllite. The basal part of Agori Formation is characterised by proliferation of the basic and ultrabasic volcanic rocks. The upper part of the Agori Formation contains BIF, phyllite, acid volcanic and calcareous and chert bands. The Bijawar Group (metasedimentary sequence) characterized by ferruginous quartzite, carbonate, phosphorite, sandstone and tuffaceous rocks rest over unconformably on the southern part of Bundelkhand Craton. The rocks of this group are exposed in Sonrai area in the southern part of Lalitpur district. The classification of the Bijawar group into Sonari Formation, Solda Formation and Kurrat flow is in ascending order. The Sonari Formation is consisting of carbonate, arenite, argillite sequence and phosphorites horizons. The Solda Formation characterized by ferruginous quartzite, shale and tuffaceous rocks, is the youngest formation (Absar et al., 2009). The small exposures of Ajabgarh Group characterized by purple and white quartzite interbedded with phyllite and slate occur in Mathura district. This sequence traversed by quartz veins is grouped under Barsana Formation. The Barsana Formation in the Uttar Pradesh is northeastward extension of the Ajabgarh Group of Paleozoic to Meso-proterozoic age. The Bundelkhand Craton is capped by the sedimentary units of Vindhyan Supergroup in southern and western side. The rocks of this unit occur as mounds and small hillocks. These are structurally controlled by E-W and NE-SW trending lineaments. This supergroup is subdivided unconformably into a lower sequence (Semri Group) and an upper sequence (Kaimur, Rewa and Bhandar Groups). The Semri Group includes carbonate, tuff, green silicious shale and minor glauconitic sandstone and dolomitic limestone, with conglomerate bands in the basal part. The shale sequence is composed of alternate green bands of shale, mudstone and siltstone. This is exposed along the margins of the basin and is well developed in the Son valley, Rewa and Katni area and along the northern limit of the Vindhyan terrain in the Bundelkhand region in part of the Satna, Panna, Chhatarpur and Damoh district of Madhya Pradesh (Ramakrishnan and Vaidyanadhan, 2010). The Kaimur Group are consists of sandstone and overlying quartz arenite containing silica sand as lenses in the arenite. These conglomerate lenses occur in the basal part of the sequence. The Kaimur Sandstone transgresses the Semri rocks towards the north and west directly overlies the Bundelkhand Granite and Bijawar rocks. However the southern margin, the contact between Kaimur and underlying Semri groups appears to be without any break in sedimentation, although, a few conglomerate bands are recorded. The overlying sequence of the Rewa Group consist thick alternating sequence of argillaceous lithounits with interbedded diamondiferous conglomerate



horizons conformably overlying the Kaimur rocks with a gradational contact. This Group is divided into Panna shale, Lower Rewa Sandstone, Jhiri Shale and Upper Rewa Sandstone. Generally, limestone is absent except for a restricted occurrence in the lower most Paisuri Formation of the group and occurs mainly in northern part of Satna district and further east.

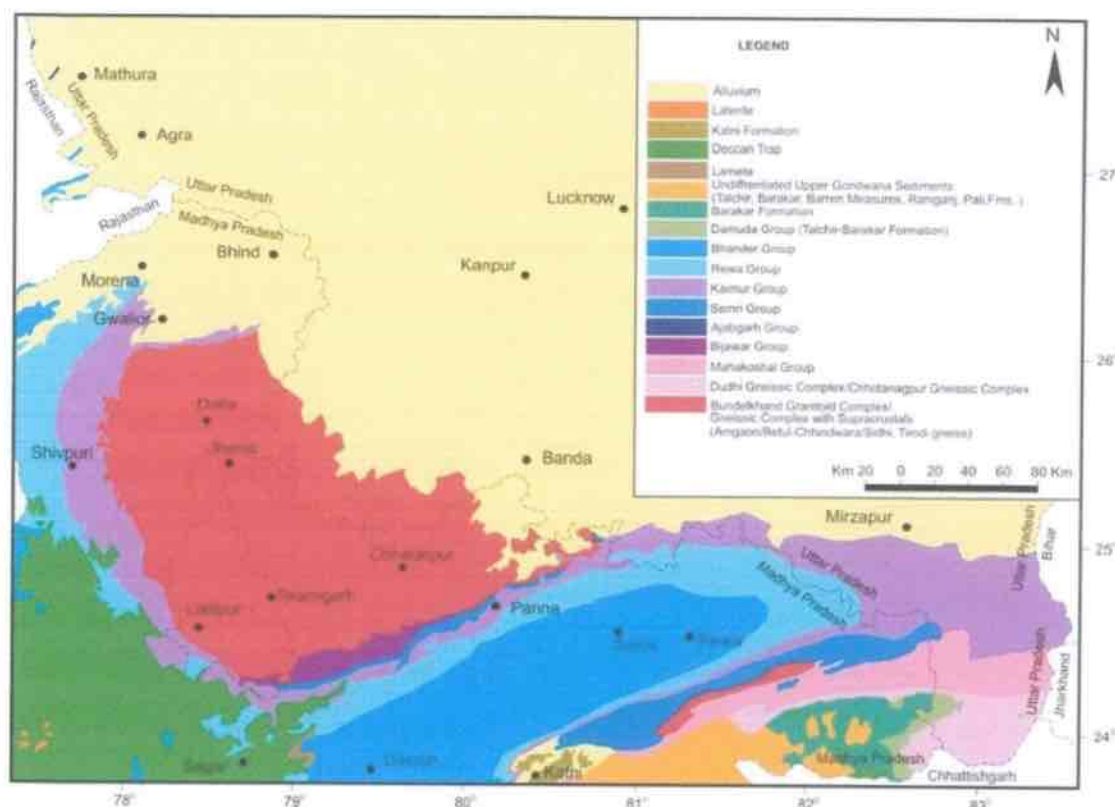


Figure 8: Geological map of southern part of Uttar Pradesh and adjoining area

1. Ordinary Earth/Brick Clay

Several kinds of soils are found across Hamirpur. Broadly, the soils fall into following categories:

Mar: It is a variety of black soil. This type of soil contains high organic matter and clay, hence it is good for cultivation without using fertilizers. It is most precious soil, it is mostly found in Muskara. By proper handling it is suitable for cultivation of gram and jowar.

Kabar: It is a black cotton soil and found in three different colors. It is highly adhesive due to the clay content. Hence it retains moisture, and quickly turns to dry and into hard blocks. It is mostly found in Hamirpur sub lands as in Sumerpur, Muskra and Gahrauli. Wheat, gram and rice are main crops of the area. Rankar: It is found on sloping surfaces of ravine land along river banks. It is a

(Signatures)

variety of loamy, alluvial type soil which is suitable for cultivation where irrigation is available. It is a degraded kind of coarse soil found mostly in Rath and Gohand.

Purwa: It is a variety of red soil, sandy in nature and has some clay content which easily absorbs water. It is suited for cultivation of wheat. **Kachhar:** Dark soils found along river beds and naalas, known as kacchar / tari soils, suitable to grow water melons and vegetables.

The above types of soils suffer from over-drainage due to a large number of rivers and streams. A number of naalas are flowing across the district, which makes some parts of land worthless. During floods fast-flowing water leads to loss of top surface soil.

Texture and mineralogy of clay

The soil of the district is formed through rocks (sands) and alluvial deposits carried by the river systems, generally rich in iron (Fe) and aluminium (Al) contents which form clay minerals like kaolinite illite and montmorillonite. The major textured group of the soil in the district is sandy loam, black soil, alluvial and clay loam. Soil here is rich in iron, calcium, potash, aluminium and magnesium carbonates but poor in nitrogen, phosphorus and organic matter. These clay minerals are suitable for brick manufacturing.

Texture and mineralogy of sand at Jalaun, Uttar Pradesh

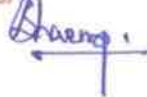
Yamuna sand: In Yamuna liver, medium to coarse grain sand is mainly constituted of quartz and feldspar mineral with little micaceous minerals. It contains very little amount of clay minerals.

Betwa sand: On the banks of river Betwa lies the "coarse sand", which derive their feldspar from granitic gneisses of the Bundelkhand complex. Based on its coarse grain size, high feldspar content, and gravel class types, the red sediment was derived from Betwa river.

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5. Shri Gautam Kumar Dinkar – Msc(DU), MPhil(Du), PhD(LU), RA(DU), GATE(Geology & Geophy), JRF-NET-Earth Sci(CSIR) is currently posted as Geologist ad Regional Mineral Exploration Officer and Regional Officer , Department Of Geology & Mining , UP.



12.0 THE REPORT ALSO CONTAINS...

a) District wise detail of river or stream or other sand source

Table VIII: Detail of sand source in the district

Sl. No.	Name of the Mineral	Details of Source	Availability
1.	Sand/Morrum	Betwa, Yamuna	Available
2.	M-Sand	N/A	N/A
3.	Desilted mineral	N/A	N/A

There is no other source of Sand/Morrum in the district.

b) District wise availability of sand or gravel or aggregate resources

Table IX: Availability of sand resources in the district

Sl. No.	Name of the River	Cumulative Area for Mining (sq-m)	Cumulative Number of Leases	Total Resources (cubic-m)
1.	Yamuna	25,42,720	19	76,28,160
2.	Betwa	1,04,92,190	71	3,13,91,522

c) District wise detail of existing mining leases of sand and aggregates

Sl. No.	River	Village	Tehsil	Lease Details	Area (ha.)	Type of Land
1	Betwa	Nandha	Orai	345G , Khand-1	20.242	Govt. Land
2	Betwa	Nandha	Orai	3G , Khand-2	20.242	Govt. Land
3	Betwa	Nandha	Orai	3G , Khand-3	8.480	Govt. Land
4	Betwa	Karthara	Orai	208, Khand-1	6.870	Govt. Land
5	Betwa	Kharka	Orai	2513,2629 , Khand-1	20.242	Govt. Land
6	Betwa	Kharka	Orai	2513,2629, Khand-2	20.242	Govt. Land
7	Betwa	Kharka	Orai	2628,2629, Khand-3	20.242	Govt. Land
8	Betwa	Kharka	Orai	2257 - Khand-6	11.740	Govt. Land
9	Betwa	Mohana	Orai	1782,1783 - Khand-1	11.740	Govt. Land
10	Betwa	Mohana	Orai	1782,1783 - Khand-2	8.906	Govt. Land
11	Betwa	Mohana	Orai	1782,1783 - Khand-3	8.906	Govt. Land
12	Betwa	Sikrivyas	Orai	1193/916, 1191/2 - Khand-1	15.300	Govt. Land
13	Betwa	Sikrivyas	Orai	1191/2 - Khand-3	20.242	Govt. Land
14	Betwa	Sikrivyas	Orai	1191/2 - Khand-4	20.242	Govt. Land
15	Betwa	Kurona	Orai	317Mi - Khand-1	20.242	Govt. Land
16	Betwa	Kurona	Orai	317Mi - Khand-2	20.242	Govt. Land
17	Betwa	Kurona	Orai	317Mi - Khand-3	20.242	Govt. Land

18	Betwa	Kurona	Orai	317Mi - Khand-4	16.195	Govt. Land
19	Betwa	Kurona	Orai	317Mi - Khand-5	12.120	Govt. Land
20	Betwa	Dadri	Orai	2093 - Khand-1	20.242	Govt. Land
21	Betwa	Bandholi	Orai	2559,2563 - Khand-1	20.242	Govt. Land
22	Betwa	Bandholi	Orai	2559,2563 - Khand-2	20.242	Govt. Land
23	Betwa	Bandholi	Orai	2558,2559,2563 - Khand-3	20.242	Govt. Land
24	Betwa	Bandholi	Orai	2558,2563 - Khand-4	16.195	Govt. Land
25	Betwa	Bandholi	Orai	2558,2563 - Khand-5	12.145	Govt. Land
26	Betwa	Bandholi	Orai	2556,2557 - Khand-5A	36.360	Govt. Land
27	Betwa	Simiriya	Orai	864/320, 865/320	27.470	Govt. Land
28	Betwa	Simiriya	Orai	866/144	17.500	Govt. Land
29	Betwa	Tikar	Orai	1482 - Khand-1	20.242	Govt. Land
30	Betwa	Tikar	Orai	1482 - Khand-2	20.242	Govt. Land
31	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-1	20.242	Govt. Land
32	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-2	20.242	Govt. Land
33	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-3	20.242	Govt. Land
34	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-4	20.242	Govt. Land
35	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-5	20.242	Govt. Land
36	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-6	11.740	Govt. Land
37	Betwa	Hemanpura	Kalpi	240 - Khand-1	7.850	Govt. Land
38	Betwa	Hemanpura	Kalpi	240 - Khand-2	20.242	Govt. Land
39	Betwa	Hemanpura	Kalpi	240 - Khand-3	13.360	Govt. Land
40	Betwa	Hemanpura	Kalpi	240 - Khand-4	16.195	Govt. Land
41	Betwa	Hemanpura	Kalpi	240 - Khand-5	16.195	Govt. Land
42	Betwa	Basrehi	Kalpi	596 - Khand-1	16.195	Govt. Land
43	Betwa	Basrehi	Kalpi	596 - Khand-2	16.195	Govt. Land
44	Betwa	Chirpura	Kalpi	104 - Khand-1	14.170	Govt. Land
45	Betwa	Chirpura	Kalpi	104 - Khand-2	14.170	Govt. Land
46	Betwa	Kyotra	Kalpi	267,268 - Khand-1	20.242	Govt. Land
47	Betwa	Kyotra	Kalpi	267,268 - Khand-2	18.218	Govt. Land
48	Betwa	Kyotra	Kalpi	267,268 - Khand-3	16.194	Govt. Land
49	Betwa	Pathretha	Kalpi	747 - Khand-1	16.195	Govt. Land
50	Betwa	Pathretha	Kalpi	747 - Khand-2	16.195	Govt. Land
51	Betwa	Pathretha	Kalpi	747 - Khand-3	16.195	Govt. Land
52	Betwa	Pathretha	Kalpi	747 - Khand-4	16.195	Govt. Land
53	Betwa	Pathretha	Kalpi	747 - Khand-5	16.195	Govt. Land
54	Betwa	Pathretha	Kalpi	439 - Khand-6	10.120	Govt. Land
55	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-1	9.710	Govt. Land
56	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-2	20.242	Govt. Land
57	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-3	12.120	Govt. Land
58	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-4	12.120	Govt. Land
59	Yamuna	Taribulda	Kalpi	36/1 - Khand-1	20.242	Govt. Land
60	Yamuna	Gajraura	Jalaun	22/14	6.950	Govt. Land

61	Yamuna	Mahtoli	Madhavgarh	714Ma	10.000	Govt. Land
62	Betwa	Pathretha	Kalpi	747/16, Khand-1	8.880	Govt. Land
63	Yamuna	Jeetamau Deewara	Kalpi	84,85,86,87 - Khand-1	15.000	Govt. Land
64	Yamuna	Jeetamau Deewara	Kalpi	84 ,87,91 - Khand-2	15.000	Govt. Land
65	Yamuna	Jeetamau Deewara	Kalpi	88/2, 89,90,91 - Khand-3	13.080	Govt. Land
66	Yamuna	Jeetamau Deewara	Kalpi	88/2, 89, 120/1 - Khand-4	15.000	Govt. Land
67	Yamuna	Jeetamau Deewara	Kalpi	120/1 - Khand-5	15.000	Govt. Land
68	Yamuna	HarshanKarpur Diwara	Jalaun	76Mi - Khand-01	9.000	Govt. Land
69	Yamuna	HarshanKarpur Diwara	Jalaun	76Mi -Khand-02	9.000	Govt. Land
70	Yamuna	Simra Sheikhpur	Kalpi	117/1 - Khand-01	11.000	Govt. Land
71	Yamuna	Simra Sheikhpur	Kalpi	117/1 -Khand-02	10.000	Govt. Land
72	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-01	15.000	Govt. Land
73	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-02	15.000	Govt. Land
74	Yamuna	Heerapur Diwara	Kalpi	169/9, 170/1 - Khand-03	15.000	Govt. Land
75	Yamuna	Heerapur Diwara	Kalpi	169/9, 170/1 - Khand-04	15.000	Govt. Land
76	Yamuna	Heerapur Diwara	Kalpi	169/9, 170/1 - Khand-05	15.000	Govt. Land
77	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-06	15.000	Govt. Land
78	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-07	15.000	Govt. Land
79	Betwa	Simeriya	Orai	861, 861/12, 861/12Mi	1.47	Pvt. Land
80	Betwa	Simeriya	Orai	860/19	3.112	Pvt. Land
81	Betwa	Parasan	Kalpi	4032/15	1.234	Pvt. Land

13.0 DRAINAGE SYSTEM WITH DESCRIPTION OF MAIN RIVERS

Table X: Drainage system of the main rivers

Sl. No.	Name of the River	Area drained (sqkm)	% of Area drained in the district
1.	Yamuna	3,66,223	0.702
2.	Betwa	44,335	0.100

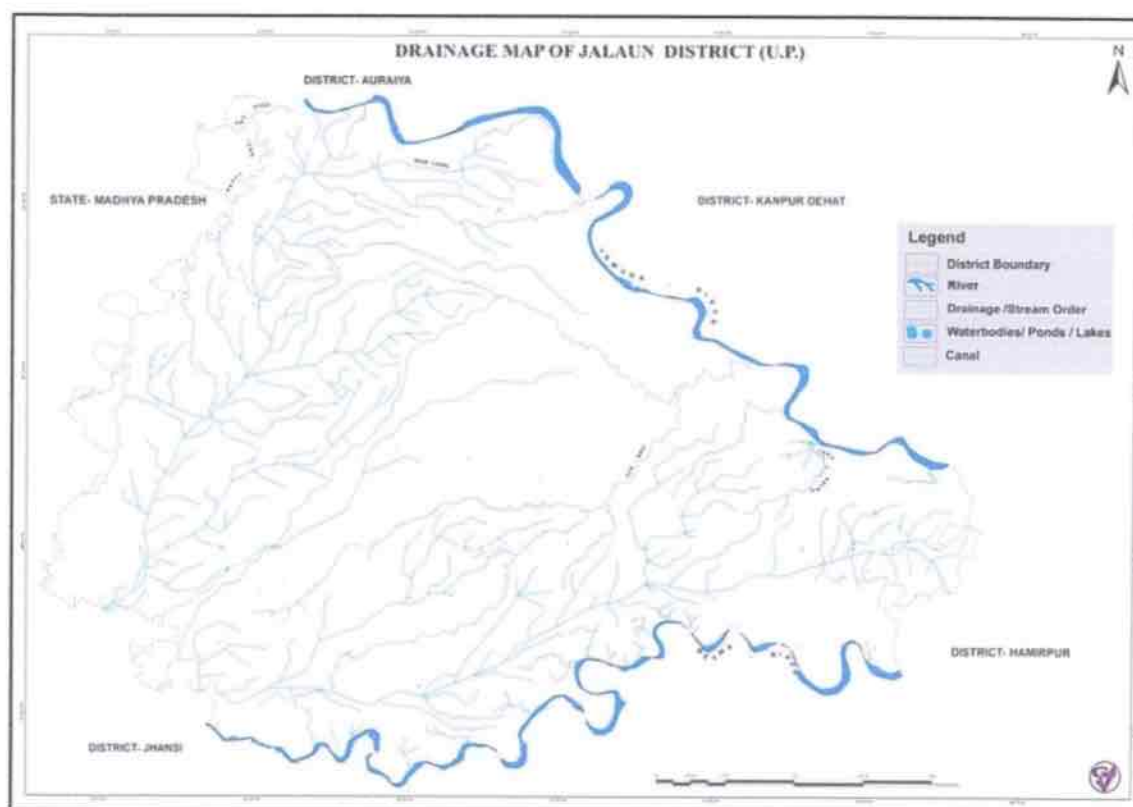


Figure 9: Drainage map of Jalaun district

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14.0 SALIENT FEATURES OF IMPORTANT RIVERS AND STREAMS

Table XI: Salient features of important rivers in the district

Sl. No.	Name of the River or Stream	Total Length in the District (km)	Place of Origin	Altitude at Origin (m)
1.	Yamuna	114	Yamunotri glacier	6,387
2.	Betwa	96	Vindhyan Range (Hosangabad)	470

Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)
The leases exist in the North-eastern part of the district on the right bank of the River Yamuna	14.0606	180.840	25,42,720	37,56,220 cum 67,61,196 MT
The lease exists in the South-eastern part of the district on the left bank of the River Betwa	37.4404	279.481	1,04,63,850	1,47,56,829 cum 2,65,62,292 MT

15.0 MINERAL POTENTIAL

- Mineral potential is the part of the Geo-Technical and Field studies.
- The riverbed area geologically has exposure of Sand/Morrum in river beds and Boulder / Bajari are not found in this area.

Table XII: Mineral potential of the district

Sl. No.	Name of the River or Stream	Boulder (MT)	Bajari (MT)	Sand (MT)	Total Mineable Mineral potential
1.	Yamuna	-	-	76,28,160 cum 1,37,30,688 MT	37,56,220 cum 67,61,196 MT
2.	Betwa	-	-	3,13,91,522 cum 5,65,04,740 MT	1,47,56,829 cum 2,65,62,292 MT
Total				3,90,19,682 cum 7,02,35,428 MT	1,85,13,049 cum 3,33,23,488 MT



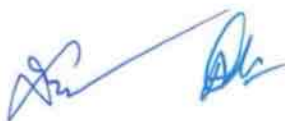


16.0 ANNUAL DEPOSITION

Table XIII: Annual deposition

Sl. No.	River or Stream	Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)	Total for the district
1.	Yamuna	The leases exist in the North-eastern part of the district on the right bank of the River Yamuna	14.0606	180.840	25,42,720	37,56,220 cum 67,61,196 MT	76,28,160 cum 1,37,30,688 MT
2.	Betwa	The lease exists in the South-eastern part of the district on the left bank of the River Betwa	37.4404	279.481	1,04,63,850	1,47,56,829 cum 2,65,62,292 MT	3,13,91,522 cum 5,65,04,740 MT

The DSR is supposed to be prepared after conducting proper Replenishment Studies as per the provisions of Chapter-5 of EMGSM-2020 Guidelines. The current District Survey Report has been prepared after conducting Replenishment Studies and the mineable quantities mentioned in the current DSR has been ascertained on the basis of the results of Replenishment Studies conducted by Sub-Divisional Committee.

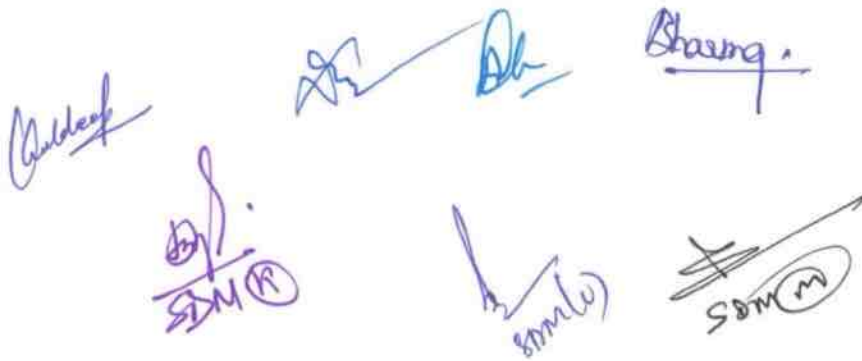

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- Shri Gautam Kumar Dinkar – Msc(DU), MPhil(Du), PhD(LU), RA(DU), GATE(Geology & Geophy), JRF-NET-Earth Sci(CSIR) is currently posted as Geologist ad Regional Mineral Exploration Officer and Regional Officer , Department Of Geology & Mining , UP



ANNEXURES



Handwritten signatures in blue and purple ink, arranged in two rows of three. The signatures are stylized and appear to be initials or names.

**LIST OF MINING LEASES (EXISTING & PROPOSED) RIVERS
IN THE DISTRICT WITH LOCATION, AREA AND PERIOD OF
VALIDITY:**

Details of Sand/M-Sand Sources

A) Rivers:

River Name/M-Sand Plant	Total Stretch of River (in KM)	Type of River (Perennial or Non- Perennial)
Yamuna	114	Perennial
Betwa	96	Perennial

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

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

C) Patta Lands/Khatedari Land:

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

D) M-Sand Plants:

Plant name	Owner	District	Tehsil	Village	Geo-location	Quantity, tones/ annum
Nil	Nil	Nil	Nil	Nil	Nil	Nil

The bottom section of the page contains several handwritten signatures and stamps. There are approximately 10 signatures in blue ink, some with initials like 'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J'. There are also several stamps, including one that says 'SDM(S)', another that says 'SDM(M)', and a date stamp '16.10.20' with 'ASD(M/F/K)' below it.

Annexure-II

List of potential mining leases (existing and proposed)

Rivers

Sl. No.	River Details	Village/ Tehsil	Lease Details	Lease Area (in Ha)	Distance (In KM) from PA/BR/WC/	Distance from Forest Area (in KM)	Mining leases within 500 meters (if yes cluster area in ha)	Total excavation in Tonnes* /Annum considering digging depth max as 3 meters	Mineral to be mined (Sand/ Bajri/ RBM etc.)	Existing / Proposed
1	Betwa	Village- Nandha, Tehsil- Orai	345G , Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 48.964	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
2	Betwa	Village- Nandha, Tehsil- Orai	3G , Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 48.964	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
3	Betwa	Village- Nandha, Tehsil- Orai	3G , Khand-3	8.480	NA	> 0.100 KM	Yes, Area = 48.964	254400 cum 457920 MT	85020 cum 153036 MT	Existing
4	Betwa	Village- Karthara, Tehsil- Orai	208, Khand-1	6.870	NA	> 0.100 KM	No	206100 cum 370980 MT	68820 cum 123876 MT	Existing
5	Betwa	Village- Kharka, Tehsil- Orai	2513,2629 , Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
6	Betwa	Village- Kharka, Tehsil- Orai	2513,2629 , Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
7	Betwa	Village- Kharka, Tehsil- Orai	2628,2629 - Khand-3	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
8	Betwa	Village- Kharka, Tehsil- Orai	2257 - Khand-6	11.740	NA	> 0.100 KM	Yes, Area = 161.507	352200 cum 633960 MT	117200 cum 210960 MT	Existing
9	Betwa	Village- Mohana, Tehsil- Orai	1782,1783 - Khand-1	11.740	NA	> 0.100 KM	Yes, Area = 29.552	352200 cum 633960 MT	111700 cum 201060 MT	Existing
10	Betwa	Village- Mohana, Tehsil- Orai	1782,1783 - Khand-2	8.906	NA	> 0.100 KM	Yes, Area = 29.552	267180 cum 480924 MT	89060 cum 160308 MT	Existing
11	Betwa	Village- Mohana, Tehsil- Orai	1782,1783 - Khand-3	8.906	NA	> 0.100 KM	Yes, Area = 29.552	267180 cum 480924 MT	89060 cum 160308 MT	Existing
12	Betwa	Village- Sikrivayas, Tehsil- Orai	1193/916, 1191/2 - Khand-1	15.300	NA	> 0.100 KM	Yes, Area = 98.654	459000 cum 826200 MT	153200 cum 275760 MT	Existing
13	Betwa	Village- Sikrivayas, Tehsil- Orai	1191/2 - Khand-3	20.242	NA	> 0.100 KM	Yes, Area = 98.654	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
14	Betwa	Village- Sikrivayas, Tehsil- Orai	1191/2 - Khand-4	20.242	NA	> 0.100 KM	Yes, Area = 98.654	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
15	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
16	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	303630 cum 546534 MT	Existing

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17	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand- 3	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
18	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand- 4	16.195	NA	> 0.100 KM	Yes, Area = 161.507	485850 cum 874530 MT	242910 cum 437238 MT	Existing
19	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand- 5	12.120	NA	> 0.100 KM	Yes, Area = 161.507	363600 cum 654480 MT	182175 cum 327915 MT	Existing
20	Betwa	Village- Dadri, Tehsil- Orai	2093 - Khand-1	20.242	NA	> 0.100 KM	No	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
21	Betwa	Village- Bandholi, Tehsil- Orai	2559,2563 - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 125.426	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
22	Betwa	Village- Bandholi, Tehsil- Orai	2559,2563 - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 125.426	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
23	Betwa	Village- Bandholi, Tehsil- Orai	2558,2559,2563 - Khand-3	20.242	NA	> 0.100 KM	Yes, Area = 125.426	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
24	Betwa	Village- Bandholi, Tehsil- Orai	2558,2563 - Khand-4	16.195	NA	> 0.100 KM	Yes, Area = 125.426	485850 cum 874530 MT	242910 cum 437238 MT	Existing
25	Betwa	Village- Bandholi, Tehsil- Orai	2558,2563 - Khand-5	12.145	NA	> 0.100 KM	Yes, Area = 125.426	364350 cum 655830 MT	182175 cum 327915 MT	Existing
26	Betwa	Village- Bandholi, Tehsil- Orai	2556,2557 - Khand-5A	36.360	NA	> 0.100 KM	Yes, Area = 125.426	1090800 cum 1963440 MT	545400 cum 981720 MT	Existing
27	Betwa	Village- Simiriya, Tehsil- Orai	864/320, 865/320	27.470	NA	> 0.100 KM	Yes, Area = 48.082	824100 cum 1483380 MT	412950 cum 743310 MT	Existing
28	Betwa	Village- Simiriya, Tehsil- Orai	866/144	17.500	NA	> 0.100 KM	Yes, Area = 48.082	525000 cum 945000 MT	262500 cum 472500 MT	Existing
29	Betwa	Village- Tikar, Tehsil- Orai	1482 - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 40.484	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
30	Betwa	Village- Tikar, Tehsil- Orai	1482 - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 40.484	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
31	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
32	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
33	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-3	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
34	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-4	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
35	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-5	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing

36	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-6	11.740	NA	> 0.100 KM	Yes, Area = 112.95	352200 cum 633960 MT	176100 cum 316980 MT	Existing
37	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-1	7.850	NA	> 0.100 KM	Yes, Area = 290.662	235500 cum 423900 MT	121455 cum 218619 MT	Existing
38	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 290.662	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
39	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-3	13.360	NA	> 0.100 KM	Yes, Area = 290.662	400800 cum 721440 MT	200400 cum 360720 MT	Existing
40	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-4	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	242910 cum 437238 MT	Existing
41	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-5	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	242910 cum 437238 MT	Existing
42	Betwa	Village- Basrehi, Tehsil- Kalpi	596 - Khand-1	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	242910 cum 437238 MT	Existing
43	Betwa	Village- Basrehi, Tehsil- Kalpi	596 - Khand-2	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	242910 cum 437238 MT	Existing
44	Betwa	Village- Chirpura, Tehsil- Kalpi	104 - Khand-1	14.170	NA	> 0.100 KM	Yes, Area = 290.662	425100 cum 765180 MT	212100 cum 381780 MT	Existing
45	Betwa	Village- Chirpura, Tehsil- Kalpi	104 - Khand-2	14.170	NA	> 0.100 KM	Yes, Area = 290.662	425100 cum 765180 MT	212100 cum 381780 MT	Existing
46	Betwa	Village- Kyotra, Tehsil- Kalpi	267,268 - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 290.662	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
47	Betwa	Village- Kyotra, Tehsil- Kalpi	267,268 - Khand-2	18.218	NA	> 0.100 KM	Yes, Area = 290.662	546540 cum 983772 MT	182180 cum 327924 MT	Existing
48	Betwa	Village- Kyotra, Tehsil- Kalpi	267,268 - Khand-3	16.194	NA	> 0.100 KM	Yes, Area = 290.662	485820 cum 874476 MT	161940 cum 291492 MT	Existing
49	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-1	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
50	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-2	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
51	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-3	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
52	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-4	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
53	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-5	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
54	Betwa	Village- Pathretha, Tehsil- Kalpi	439 - Khand-6	10.120	NA	> 0.100 KM	Yes, Area = 290.662	303600 cum 546480 MT	151820 cum 273276 MT	Existing

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55	Betwa	Village- Kehtahamirpur, Tehsil- Kalpi	1064 - Khand-1	9.710	NA	> 0.100 KM	Yes, Area = 55.479	291300 cum 524340 MT	145650 cum 262170 MT	Existing
56	Betwa	Village- Kehtahamirpur, Tehsil- Kalpi	1064 - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 55.479	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
57	Betwa	Village- Kehtahamirpur, Tehsil- Kalpi	1064 - Khand-3	12.120	NA	> 0.100 KM	Yes, Area = 55.479	363600 cum 654480 MT	181800 cum 327240 MT	Existing
58	Betwa	Village- Kehtahamirpur, Tehsil- Kalpi	1064 -Khand-4	12.120	NA	> 0.100 KM	Yes, Area = 55.479	363600 cum 654480 MT	182175 cum 327915 MT	Existing
59	Yamuna	Village- Taribulda, Tehsil- Kalpi	36/1 - Khand-1	20.242	NA	> 0.100 KM	No	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
60	Yamuna	Village- Gajraura, Tehsil- Jalaun	22/14	6.950	NA	> 0.100 KM	Yes, Area = 24.95	208500 cum 375300 MT	69600 cum 125280 MT	Existing
61	Yamuna	Village- Mahtoli, Tehsil- Madhavgarh	714Ma	10.000	NA	> 0.100 KM	No	300000 cum 540000 MT	100000 cum 180000 MT	Existing
62	Betwa	Village- Pathretha, Tehsil- Kalpi	747/16, Khand- 1	8.880	NA	> 0.100 KM	Yes, Area = 290.662	266400 cum 479520 MT	220000 cum 396000 MT	Existing
63	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	84,85,86,87 - Khand-1	15.000	NA	> 0.100 KM	Yes, Area = 73.08	450000 cum 810000 MT	225000 cum 405000 MT	Existing
64	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	84 ,87,91 - Khand-2	15.000	NA	> 0.100 KM	Yes, Area = 73.08	450000 cum 810000 MT	225000 cum 405000 MT	Existing
65	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	88/2, 89,90,91 - Khand-3	13.080	NA	> 0.100 KM	Yes, Area = 73.08	392400 cum 706320 MT	196200 cum 353160 MT	Existing
66	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	88/2, 89, 120/1 - Khand-4	15.000	NA	> 0.100 KM	Yes, Area = 73.08	450000 cum 810000 MT	225000 cum 405000 MT	Existing
67	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	120/1 - Khand- 5	15.000	NA	> 0.100 KM	Yes, Area = 73.08	450000 cum 810000 MT	225000 cum 405000 MT	Existing
68	Yamuna	Village- HarshanKarpur Diwara, Tehsil- Jalaun	76Mi - Khand- 01	9.000	NA	> 0.100 KM	Yes, Area = 24.95	270000 cum 486000 MT	144000 cum 259200 MT	Existing
69	Yamuna	Village- HarshanKarpur Diwara, Tehsil- Jalaun	76Mi -Khand- 02	9.000	NA	> 0.100 KM	Yes, Area = 24.95	270000 cum 486000 MT	144000 cum 259200 MT	Existing
70	Yamuna	Village- Simra Sheikhpur, Tehsil- Kalpi	117/1 - Khand- 01	11.000	NA	> 0.100 KM	Yes, Area = 21	330000 cum 594000 MT	160000 cum 288000 MT	Existing
71	Yamuna	Village- Simra Sheikhpur, Tehsil- Kalpi	117/1 -Khand- 02	10.000	NA	> 0.100 KM	Yes, Area = 21	300000 cum 540000 MT	160000 cum 288000 MT	Existing

72	Yamuna	Village- Heerapur Diwara, Tehsil- Kalpi	169/9 - Khand- 01	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
73	Yamuna	Village- Heerapur Diwara, Tehsil- Kalpi	169/9 - Khand- 02	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
74	Yamuna	Village- Heerapur Diwara, Tehsil- Kalpi	169/9, 170/1 - Khand-03	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
75	Yamuna	Village- Heerapur Diwara, Tehsil- Kalpi	169/9, 170/1 - Khand-04	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
76	Yamuna	Village- Heerapur Diwara, Tehsil- Kalpi	169/9, 170/1 - Khand-05	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
77	Yamuna	Village- Heerapur Diwara, Tehsil- Kalpi	169/9 - Khand- 06	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
78	Yamuna	Village- Heerapur Diwara, Tehsil- Kalpi	169/9 - Khand- 07	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
79	Betwa	Village- Sikriyias, Tehsil- Orai	1191/2 - Khand-5	13.000	NA	> 0.100 KM	Yes, Area = 98.654	390000 cum 702000 MT	234000 cum 421200 MT	Proposed
80	Betwa	Village- Sikriyias, Tehsil- Orai	1191/2 - Khand-6	19.000	NA	> 0.100 KM	Yes, Area = 98.654	570000 cum 1026000 MT	342000 cum 615600 MT	Proposed
81	Betwa	Village- Sikriyias, Tehsil- Orai	1191/2 - Khand-7	10.000	NA	> 0.100 KM	Yes, Area = 98.654	300000 cum 540000 MT	180000 cum 324000 MT	Proposed

* The average bulk density of sand/morrum in the district has been taken as 1.8 gm/cc

Patta Lands/Khatedari Land: (existing & proposed)

Sl. No.	Owner	Sl. No./ Gata No.	Area (ha)	District	Tehsil	Village	Total Reserves (MT)*	Total Mineral to be Mined (MT)*	Existing/ Proposed
82.	Sukh Singh and others	861,861/12, 861/12Mi	1.470	Jalaun	Orai	Simiriya	44100 cum 79380 MT	33070 cum 59526 MT	Existing
83.	Surender Singh	860/19	3.112	Jalaun	Orai	Simiriya	93360 cum 168048 MT	84000 cum 151200 MT	Existing
84.	Beti Bai	4032/15	1.234	Jalaun	Kalpi	Parasan	37020 cum 66636 MT	34440 cum 61992 MT	Existing
85.	Kailash & Others	396	1.461	Jalaun	-Kalpi	Pathretha	43802 cum 78844 MT	26281 cum 47306 MT	Proposed

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86.	Aman Rajpoot & Others	860/8, 860/8Mi	1.710	Jalaun	Orai	Simiriya	51300 cum 92340 MT	30780 cum 55404 MT	Proposed
87.	Manoj Kumar & Others	898/1, 899/2, 899/3, 899/4, 899/5, 899/6, 899/7, 899/8, 899/9, 899/10, 899/11, 899/12, 899/13, 899/14, 899/15, 899/19, 899/20, 901/1	1.287	Jalaun	Kalpi	Parasan	38610 cum 69498 MT	23166 cum 41699 MT	Proposed
88.	Jay Chandra Rajpoot & Others	861/8, 861/10aa, 861/10ba, 861/11	0.809	Jalaun	Orai	Simiriya	24270 cum 43686 MT	14562 cum 26212 MT	Proposed
89.	Vijay Bahadur Singh	861/2	2.290	Jalaun	Orai	Simiriya	68700 cum 123660 MT	41200 cum 74160 MT	Proposed
90.	Shivnath Singh & Others	404, 405	0.870	Jalaun	Orai	Sikrivyas	26100 cum 46980 MT	15660 cum 28188 MT	Proposed

* The average bulk density of sand/morrum in the district has been taken as 1.8 gm/cc

De-Siltation Location: (existing/Proposed): Not Applicable

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

M-Sand Plants: Not Applicable

Plant name	Owner	District	Tehsil	Village	Geo-location	Quantity, tones/ annum	Existing/proposed
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

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Annexure- III

Cluster & Contiguous Cluster Details

Clusters:

River Name	Cluster no.	Lease no.	Location (Riverbed/ Patta)	Village	Area (ha.)	Total Excavation (Ton)	Total Mineral Excavation (Ton)
Betwa	I	Leases in Sl. No. 1-3	Riverbed	Nandha	48.964	2644056	881748
Betwa	II	Leases in Sl. No. 12-14, 79-81 & 90	Riverbed & Patta Land	Sikrivyas	98.654	5327316	2393460
Betwa	III	Leases in Sl. No. 9-11	Riverbed	Mohana	29.552	1595808	521676
Betwa	IV	Leases in Sl. No. 21-26	Riverbed	Bandholi	125.426	6773004	3386475
Betwa	V	Leases in Sl. No. 27-28 & 83	Riverbed & Patta Land	Simeriya	48.082	2596428	1367010
Betwa	VI	Leases in Sl. No. 29-30	Riverbed	Tikar	40.484	2186136	728712
Betwa	VII	Leases in Sl. No. 5-8, 15-19	Riverbed	Kharka & Kurona	161.507	8721378	3708783
Betwa	VIII	Leases in Sl. No. 55-58 & 87	Riverbed & Patta Land	Kehtamirpur & Parasani	55.479	2995866	1505558
Betwa	IX	Leases in Sl. No. 37-54, 62 & 85	Riverbed & Patta Land	Hemanpura, Basrehi, Chirpura, Kyotara & Pathretha	290.662	15695698	8253659
Betwa	X	Leases in Sl. No. 31-36	Riverbed	Bhedi Khurd	112.950	6099300	3049650
Yamuna	XI	Leases in Sl. No. 72-78	Riverbed	Heerpur Diwara	105.000	5670000	3024000
Yamuna	XII	Leases in Sl. No. 70-71	Riverbed	Simra Sheikhpur	21.000	1134000	576000
Yamuna	XIII	Leases in Sl. No. 63-67	Riverbed	Jeetamau Deewara	73.080	3946320	1973160
Yamuna	XIV	Leases in Sl. No. 60, 68, 69	Riverbed	Gajraura, HarshanKarpur	24.950	1347300	643680

Note:

1. The average bulk density of sand/morrum in the district has been taken as 1.8 gm/cc
2. Total Mineral Excavation is based on assumption that all the leases in the cluster are in operation

Contiguous Cluster:

River Name	Cluster no.	Lease no.	Location (Riverbed/ Patta Land)	Village	Area (In ha.)	Total Excavation (Ton)	Total Mineral Excavation (Ton)
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Annexure- IV

Transportation Routes for Individual Leases and Leases in Cluster

Lease No.	Transportation Route no.	Number of Tippers/ day of lease	Number of Tippers/ day of all the lease on route	Length of Route in KM	Type of Road (Black Topped/ Unpaved)	Recommendation for road (Black Topped/ Unpaved)	The road will be constructed by Govt/ Lease Owner	Route Map & Location
1.	1	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Nandha to Kotra Then Kotra to Ait NH 27
2.	1	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Nandha to Kotra Then Kotra to Ait NH 27
3.	1	21	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Nandha to Kotra Then Kotra to Ait NH 27
4.	23	17	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Karthara to NH 27
5.	7	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka to Aer then Aer to NH27
6.	7	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka to Aer then Aer to NH27
7.	7	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka to Aer then Aer to NH27
8.	7	29	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka to Aer then Aer to NH27
9.	3	28	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mohana To NH27
10.	3	22	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mohana To NH27
11.	3	22	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mohana To NH27
12.	2	38	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikrivas to Kotra then NH27
13.	2	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikrivas to Kotra then NH27
14.	2	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikrivas to Kotra then NH27
15.	7	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
16.	7	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
17.	7	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
18.	7	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
19.	7	46	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
20.	15	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Dadri to Aer then Aer to NH27
21.	4	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
22.	4	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
23.	4	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
24.	4	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
25.	4	46	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
26.	4	136	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
27.	5	103	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
28.	5	66	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
29.	6	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Tikar to Aer then NH27
30.	6	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Tikar to Aer then NH27
31.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
32.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
33.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
34.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
35.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
36.	10	44	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
37.	9	30	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura to Kadaura then NH27
38.	9	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura to Kadaura then NH27
39.	9	50	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura to Kadaura then NH27
40.	9	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura to Kadaura then NH27

41.	9	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hernanpura to Kadaura then NH27
42.	9	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Basrehi to kadaura then NH27
43.	9	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Basrehi to kadaura then NH27
44.	9	53	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Chirpura to kadaura then NH27
45.	9	53	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Chirpura to kadaura then NH27
46.	9	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kyotra to Kadaura then NH27
47.	9	46	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kyotra to Kadaura then NH27
48.	9	40	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kyotra to Kadaura then NH27
49.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
50.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
51.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
52.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
53.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
54.	9	38	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
55.	8	36	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtahamirpur to Jolhupur Kadaura road then NH27
56.	8	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtahamirpur to Jolhupur Kadaura road then NH27
57.	8	45	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtahamirpur to Jolhupur Kadaura road then NH27
58.	8	46	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtahamirpur to Jolhupur Kadaura road then NH27
59.	16	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Taribulda to NH27
60.	14	17	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Gajraura to Shankarpur then State Highway
61.	17	25	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mahtoli to Kurhoun then State Highway
62.	9	55	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
63.	13	56	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
64.	13	56	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
65.	13	49	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
66.	13	56	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
67.	13	56	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
68.	14	36	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Harshankarpur to bilaya banwari marg then NH
69.	14	36	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Harshankarpur to bilaya banwari marg then NH
70.	12	40	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simra Sheikhpur to Kalpi NH Highway
71.	12	40	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simra Sheikhpur to Kalpi NH Highway
72.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
73.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
74.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
75.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
76.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
77.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
78.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
79.	2	59	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27

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80.	2	86	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27
81.	2	45	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27
82.	18	8	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
83.	5	21	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
84.	19	9	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Parasan to Itaura/Kashikhera then SH to NH27
85.	9	7	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
86.	20	8	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
87.	8	6	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Parasan to Itaura/Kashikhera then SH to NH27
88.	21	4	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
89.	22	10	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
90.	2	4	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to kotra then NH27

Note:

1. The planning of transportation route (haulage route) shall be done by respective lease holders while conducting EIA studies. The transportation route will also depend upon the prevailing conditions at that time and the availability of the land from private land owners as leaseholders are required to source land parcels from private land owners from local village.
2. The number of tippers per day of all the lease will depend on the number of the leases in which mining is going on at a particular time.
3. The number of tippers per day is the average number that has been calculated assuming 16 cum capacity of a 12 tyre truck and 250 days of mining in a year for leases with 5 years of validity.

Clusters

Cluster No.	Transportation Route no.	Number of Tippers/day of cluster	Number of Tippers/day of all the clusters on route	Length of Route in KM	Type of Road (Black Topped/Unpaved)	Recommendation for road (Black Topped/Unpaved)	The road will be constructed by Govt/Lease Owner	Route Map & Location
I	1	122	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Nandha to Kotra Then Kotra to Ait NH 27
II	2	332	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27
III	3	72	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mobana To NH27
IV	4	470	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
V	5	190	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
VI	6	101	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Tikar to Aer then NH27
VII	7	515	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka & Kurona to Aer then Aer to NH27
VIII	8	209	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtampur to Jolhupur Kadaura road then NH27
IX	9	1146	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura, Basrehi, Chirpura, Kyotara, Pathretha to Kadaura then NH27
X	10	424	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
XI	11	420	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway

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XII	12	80	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simra Sheikhpur to Kalpi NH Highway
XIII	13	274	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jectamau to Sirsakalar then Jholupur NH27
XIV	14	89	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Harshankarpur to Bilaya Banwari marg then NH

Note:

1. The planning of transportation route (haulage route) shall be done by respective lease holders while conducting EIA studies. The transportation route will also depend upon the prevailing conditions at that time and the availability of the land from private land owners as leaseholders are required to source land parcels from private land owners from local village.
2. The number of tippers per day of cluster is taken assuming all the leases in the cluster are operating.
3. The number of tippers per day of all the clusters on route will depend on the number of the leases that are in operation in a cluster and around it. It will also depend upon the availability of connectivity at that time.
4. The number of tippers per day is the average number that has been calculated assuming 16 cum capacity of a 12 tyre truck and 250 days of mining in a year for leases with 5 years of validity.

Annexure-V

Final List of potential mining leases (existing and proposed)

Rivers

Sl. No.	River Details	Village/ Tehsil	Lease Details	Lease Area (in Ha)	Distance (In KM) from PA/BR/ WC/	Distance from Forest Area (in KM)	Mining leases within 500 meters (if yes cluster area in ha)	Total excavation in Tonnes* /Annum considering digging depth max as 3 meters	Mineral to be mined (Sand/ Bajri/ RBM etc.)	Existing / Proposed
1	Betwa	Village- Nandha, Tehsil- Orai	345G , Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 48.964	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
2	Betwa	Village- Nandha, Tehsil- Orai	3G , Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 48.964	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
3	Betwa	Village- Nandha, Tehsil- Orai	3G , Khand-3	8.480	NA	> 0.100 KM	Yes, Area = 48.964	254400 cum 457920 MT	85020 cum 153036 MT	Existing
4	Betwa	Village- Karthara, Tehsil- Orai	208, Khand-1	6.870	NA	> 0.100 KM	No	206100 cum 370980 MT	68820 cum 123876 MT	Existing
5	Betwa	Village- Kharka, Tehsil- Orai	2513,2629 , Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
6	Betwa	Village- Kharka, Tehsil- Orai	2513,2629, Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
7	Betwa	Village- Kharka, Tehsil- Orai	2628,2629 - Khand-3	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
8	Betwa	Village- Kharka, Tehsil- Orai	2257 - Khand-6	11.740	NA	> 0.100 KM	Yes, Area = 161.507	352200 cum 633960 MT	117200 cum 210960 MT	Existing
9	Betwa	Village- Mohana, Tehsil- Orai	1782,1783 - Khand-1	11.740	NA	> 0.100 KM	Yes, Area = 29.552	352200 cum 633960 MT	111700 cum 201060 MT	Existing
10	Betwa	Village- Mohana, Tehsil- Orai	1782,1783 - Khand-2	8.906	NA	> 0.100 KM	Yes, Area = 29.552	267180 cum 480924 MT	89060 cum 160308 MT	Existing
11	Betwa	Village- Mohana, Tehsil- Orai	1782,1783 - Khand-3	8.906	NA	> 0.100 KM	Yes, Area = 29.552	267180 cum 480924 MT	89060 cum 160308 MT	Existing
12	Betwa	Village- Sikrivyas, Tehsil- Orai	1193/916, 1191/2 - Khand-1	15.300	NA	> 0.100 KM	Yes, Area = 98.654	459000 cum 826200 MT	153200 cum 275760 MT	Existing
13	Betwa	Village- Sikrivyas, Tehsil- Orai	1191/2 - Khand-3	20.242	NA	> 0.100 KM	Yes, Area = 98.654	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
14	Betwa	Village- Sikrivyas, Tehsil- Orai	1191/2 - Khand-4	20.242	NA	> 0.100 KM	Yes, Area = 98.654	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
15	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
16	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	303630 cum 546534 MT	Existing

17	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand-3	20.242	NA	> 0.100 KM	Yes, Area = 161.507	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
18	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand-4	16.195	NA	> 0.100 KM	Yes, Area = 161.507	485850 cum 874530 MT	242910 cum 437238 MT	Existing
19	Betwa	Village- Kurona, Tehsil- Orai	317Mi - Khand-5	12.120	NA	> 0.100 KM	Yes, Area = 161.507	363600 cum 654480 MT	182175 cum 327915 MT	Existing
20	Betwa	Village- Dadri, Tehsil- Orai	2093 - Khand-1	20.242	NA	> 0.100 KM	No	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
21	Betwa	Village- Bandholi, Tehsil- Orai	2559,2563 - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 125.426	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
22	Betwa	Village- Bandholi, Tehsil- Orai	2559,2563 - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 125.426	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
23	Betwa	Village- Bandholi, Tehsil- Orai	2558,2559,2563 - Khand-3	20.242	NA	> 0.100 KM	Yes, Area = 125.426	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
24	Betwa	Village- Bandholi, Tehsil- Orai	2558,2563 - Khand-4	16.195	NA	> 0.100 KM	Yes, Area = 125.426	485850 cum 874530 MT	242910 cum 437238 MT	Existing
25	Betwa	Village- Bandholi, Tehsil- Orai	2558,2563 - Khand-5	12.145	NA	> 0.100 KM	Yes, Area = 125.426	364350 cum 655830 MT	182175 cum 327915 MT	Existing
26	Betwa	Village- Bandholi, Tehsil- Orai	2556,2557 - Khand-5A	36.360	NA	> 0.100 KM	Yes, Area = 125.426	1090800 cum 1963440 MT	545400 cum 981720 MT	Existing
27	Betwa	Village- Simiriya, Tehsil- Orai	864/320, 865/320	27.470	NA	> 0.100 KM	Yes, Area = 48.082	824100 cum 1483380 MT	412950 cum 743310 MT	Existing
28	Betwa	Village- Simiriya, Tehsil- Orai	866/144	17.500	NA	> 0.100 KM	Yes, Area = 48.082	525000 cum 945000 MT	262500 cum 472500 MT	Existing
29	Betwa	Village- Tikar, Tehsil- Orai	1482 - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 40.484	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
30	Betwa	Village- Tikar, Tehsil- Orai	1482 - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 40.484	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
31	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
32	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
33	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-3	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
34	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-4	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
35	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-5	20.242	NA	> 0.100 KM	Yes, Area = 112.95	607260 cum 1093068 MT	303630 cum 546534 MT	Existing

36	Betwa	Village- Bhedi Khurd, Tehsil- Kalpi	1396G - Khand-6	11.740	NA	> 0.100 KM	Yes, Area = 112.95	352200 cum 633960 MT	176100 cum 316980 MT	Existing
37	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-1	7.850	NA	> 0.100 KM	Yes, Area = 290.662	235500 cum 423900 MT	121455 cum 218619 MT	Existing
38	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 290.662	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
39	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-3	13.360	NA	> 0.100 KM	Yes, Area = 290.662	400800 cum 721440 MT	200400 cum 360720 MT	Existing
40	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-4	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	242910 cum 437238 MT	Existing
41	Betwa	Village- Hemanpura, Tehsil- Kalpi	240 - Khand-5	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	242910 cum 437238 MT	Existing
42	Betwa	Village- Basrehi, Tehsil- Kalpi	596 - Khand-1	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	242910 cum 437238 MT	Existing
43	Betwa	Village- Basrehi, Tehsil- Kalpi	596 - Khand-2	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	242910 cum 437238 MT	Existing
44	Betwa	Village- Chirpura, Tehsil- Kalpi	104 - Khand-1	14.170	NA	> 0.100 KM	Yes, Area = 290.662	425100 cum 765180 MT	212100 cum 381780 MT	Existing
45	Betwa	Village- Chirpura, Tehsil- Kalpi	104 - Khand-2	14.170	NA	> 0.100 KM	Yes, Area = 290.662	425100 cum 765180 MT	212100 cum 381780 MT	Existing
46	Betwa	Village- Kyotra, Tehsil- Kalpi	267,268 - Khand-1	20.242	NA	> 0.100 KM	Yes, Area = 290.662	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
47	Betwa	Village- Kyotra, Tehsil- Kalpi	267,268 - Khand-2	18.218	NA	> 0.100 KM	Yes, Area = 290.662	546540 cum 983772 MT	182180 cum 327924 MT	Existing
48	Betwa	Village- Kyotra, Tehsil- Kalpi	267,268 - Khand-3	16.194	NA	> 0.100 KM	Yes, Area = 290.662	485820 cum 874476 MT	161940 cum 291492 MT	Existing
49	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-1	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
50	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-2	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
51	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-3	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
52	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-4	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
53	Betwa	Village- Pathretha, Tehsil- Kalpi	747 - Khand-5	16.195	NA	> 0.100 KM	Yes, Area = 290.662	485850 cum 874530 MT	323880 cum 582984 MT	Existing
54	Betwa	Village- Pathretha, Tehsil- Kalpi	439 - Khand-6	10.120	NA	> 0.100 KM	Yes, Area = 290.662	303600 cum 546480 MT	151820 cum 273276 MT	Existing

J. S. D. M. K. (SDMK)

55	Betwa	Village- Kehtahamirpur, Tehsil- Kalpi	1064 - Khand-1	9.710	NA	> 0.100 KM	Yes, Area = 55.479	291300 cum 524340 MT	145650 cum 262170 MT	Existing
56	Betwa	Village- Kehtahamirpur, Tehsil- Kalpi	1064 - Khand-2	20.242	NA	> 0.100 KM	Yes, Area = 55.479	607260 cum 1093068 MT	303630 cum 546534 MT	Existing
57	Betwa	Village- Kehtahamirpur, Tehsil- Kalpi	1064 - Khand-3	12.120	NA	> 0.100 KM	Yes, Area = 55.479	363600 cum 654480 MT	181800 cum 327240 MT	Existing
58	Betwa	Village- Kehtahamirpur, Tehsil- Kalpi	1064 -Khand-4	12.120	NA	> 0.100 KM	Yes, Area = 55.479	363600 cum 654480 MT	182175 cum 327915 MT	Existing
59	Yamuna	Village- Taribulda, Tehsil- Kalpi	36/1 - Khand-1	20.242	NA	> 0.100 KM	No	607260 cum 1093068 MT	202420 cum 364356 MT	Existing
60	Yamuna	Village- Gajraura, Tehsil- Jalaun	22/14	6.950	NA	> 0.100 KM	Yes, Area = 24.95	208500 cum 375300 MT	69600 cum 125280 MT	Existing
61	Yamuna	Village- Mahtoli, Tehsil- Madhavgarh	714Ma	10.000	NA	> 0.100 KM	No	300000 cum 540000 MT	100000 cum 180000 MT	Existing
62	Betwa	Village- Pathretha, Tehsil- Kalpi	747/16, Khand- 1	8.880	NA	> 0.100 KM	Yes, Area = 290.662	266400 cum 479520 MT	220000 cum 396000 MT	Existing
63	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	84,85,86,87 - Khand-1	15.000	NA	> 0.100 KM	Yes, Area = 73.08	450000 cum 810000 MT	225000 cum 405000 MT	Existing
64	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	84 ,87,91 - Khand-2	15.000	NA	> 0.100 KM	Yes, Area = 73.08	450000 cum 810000 MT	225000 cum 405000 MT	Existing
65	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	88/2, 89,90,91 - Khand-3	13.080	NA	> 0.100 KM	Yes, Area = 73.08	392400 cum 706320 MT	196200 cum 353160 MT	Existing
66	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	88/2, 89, 120/1 - Khand-4	15.000	NA	> 0.100 KM	Yes, Area = 73.08	450000 cum 810000 MT	225000 cum 405000 MT	Existing
67	Yamuna	Village- Jeetamau Deewara, Tehsil- Kalpi	120/1 - Khand- 5	15.000	NA	> 0.100 KM	Yes, Area = 73.08	450000 cum 810000 MT	225000 cum 405000 MT	Existing
68	Yamuna	Village- HarshanKarpur Diwara, Tehsil- Jalaun	76Mi - Khand- 01	9.000	NA	> 0.100 KM	Yes, Area = 24.95	270000 cum 486000 MT	144000 cum 259200 MT	Existing
69	Yamuna	Village- HarshanKarpur Diwara, Tehsil- Jalaun	76Mi -Khand- 02	9.000	NA	> 0.100 KM	Yes, Area = 24.95	270000 cum 486000 MT	144000 cum 259200 MT	Existing
70	Yamuna	Village- Simra Sheikhpur, Tehsil- Kalpi	117/1 - Khand- 01	11.000	NA	> 0.100 KM	Yes, Area = 21	330000 cum 594000 MT	160000 cum 288000 MT	Existing
71	Yamuna	Village- Simra Sheikhpur, Tehsil- Kalpi	117/1 -Khand- 02	10.000	NA	> 0.100 KM	Yes, Area = 21	300000 cum 540000 MT	160000 cum 288000 MT	Existing

72	Yamuna	Village-Heerapur Diwara, Tehsil-Kalpi	169/9 - Khand-01	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
73	Yamuna	Village-Heerapur Diwara, Tehsil-Kalpi	169/9 - Khand-02	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
74	Yamuna	Village-Heerapur Diwara, Tehsil-Kalpi	169/9, 170/1 - Khand-03	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
75	Yamuna	Village-Heerapur Diwara, Tehsil-Kalpi	169/9, 170/1 - Khand-04	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
76	Yamuna	Village-Heerapur Diwara, Tehsil-Kalpi	169/9, 170/1 - Khand-05	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
77	Yamuna	Village-Heerapur Diwara, Tehsil-Kalpi	169/9 - Khand-06	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
78	Yamuna	Village-Heerapur Diwara, Tehsil-Kalpi	169/9 - Khand-07	15.000	NA	> 0.100 KM	Yes, Area = 105	450000 cum 810000 MT	240000 cum 432000 MT	Existing
79	Betwa	Village-Sikrivyas, Tehsil- Orai	1191/2 - Khand-5	13.000	NA	> 0.100 KM	Yes, Area = 98.654	390000 cum 702000 MT	234000 cum 421200 MT	Proposed
80	Betwa	Village-Sikrivyas, Tehsil- Orai	1191/2 - Khand-6	19.000	NA	> 0.100 KM	Yes, Area = 98.654	570000 cum 1026000 MT	342000 cum 615600 MT	Proposed
81	Betwa	Village-Sikrivyas, Tehsil- Orai	1191/2 - Khand-7	10.000	NA	> 0.100 KM	Yes, Area = 98.654	300000 cum 540000 MT	180000 cum 324000 MT	Proposed

* The average bulk density of sand/morrum in the district has been taken as 1.8 gm/cc

Patta Lands/Khatedari Land: (existing & proposed)

Sl. No.	Owner	Sl. No./ Gata No.	Area (ha)	District	Tehsil	Village	Total Reserves (MT)*	Total Mineral to be Mined (MT)*	Existing/ Proposed
82.	Sukh Singh and others	861,861/12, 861/12Mi	1.470	Jalaun	Orai	Simiriya	44100 cum 79380 MT	33070 cum 59526 MT	Existing
83.	Surender Singh	860/19	3.112	Jalaun	Orai	Simiriya	93360 cum 168048 MT	84000 cum 151200 MT	Existing
84.	Beti Bai	4032/15	1.234	Jalaun	Kalpi	Parasan	37020 cum 66636 MT	34440 cum 61992 MT	Existing
85.	Kailash & Others	396	1.461	Jalaun	-Kalpi	Pathretha	43802 cum 78844 MT	26281 cum 47306 MT	Proposed

Handwritten signatures and initials in blue ink are present below the table, including names like "Sukh Singh", "Surender Singh", "Beti Bai", "Kailash & Others", and various initials and marks.

* The average bulk density of sand/morrum in the district has been taken as 1.8 gm/cc

De-Siltation Location: (existing/Proposed): Not Applicable

[illegible]

M-Sand Plants: Not Applicable

Plant name	Owner	District	Tehsil	Village	Geo-locationl	Quantity, tones/ annum	Existing/ proposed
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Handwritten signatures and initials: "Gutierrez", "Gr", "Sh", "Baumg.", "Ph", "Mr. SDM", "A", "B", "C", "D", "E", "F", "G", "H", "I", "J", "K", "L", "M", "N", "O", "P", "Q", "R", "S", "T", "U", "V", "W", "X", "Y", "Z", "1", "2", "3", "4", "5", "6", "7", "8", "9", "10", "11", "12", "13", "14", "15", "16", "17", "18", "19", "20", "21", "22", "23", "24", "25", "26", "27", "28", "29", "30", "31", "32", "33", "34", "35", "36", "37", "38", "39", "40", "41", "42", "43", "44", "45", "46", "47", "48", "49", "50", "51", "52", "53", "54", "55", "56", "57", "58", "59", "60", "61", "62", "63", "64", "65", "66", "67", "68", "69", "70", "71", "72", "73", "74", "75", "76", "77", "78", "79", "80", "81", "82", "83", "84", "85", "86", "87", "88", "89", "90", "91", "92", "93", "94", "95", "96", "97", "98", "99", "100".

Final List of Cluster & Contiguous Cluster Details

Clusters:

River Name	Cluster no.	Lease no.	Location (Riverbed/ Patta)	Village	Area (ha.)	Total Excavation (Ton)	Total Mineral Excavation (Ton)
Betwa	I	Leases in Sl. No. 1-3	Riverbed	Nandha	48.964	2644056	881748
Betwa	II	Leases in Sl. No. 12-14, 79-81 & 90	Riverbed & Patta Land	Sikriyas	98.654	5327316	2393460
Betwa	III	Leases in Sl. No. 9-11	Riverbed	Mohana	29.552	1595808	521676
Betwa	IV	Leases in Sl. No. 21-26	Riverbed	Bandholi	125.426	6773004	3386475
Betwa	V	Leases in Sl. No. 27-28 & 83	Riverbed & Patta Land	Simeriya	48.082	2596428	1367010
Betwa	VI	Leases in Sl. No. 29-30	Riverbed	Tikar	40.484	2186136	728712
Betwa	VII	Leases in Sl. No. 5-8, 15-19	Riverbed	Kharka & Kurona	161.507	8721378	3708783
Betwa	VIII	Leases in Sl. No. 55-58 & 87	Riverbed & Patta Land	Kehtahamirpur & Parasan	55.479	2995866	1505558
Betwa	IX	Leases in Sl. No. 37-54, 62 & 85	Riverbed & Patta Land	Hemanpura, Basrehi, Chirpura, Kyotara & Pathretha	290.662	15695698	8253659
Betwa	X	Leases in Sl. No. 31-36	Riverbed	Bhedi Khurd	112.950	6099300	3049650
Yamuna	XI	Leases in Sl. No. 72-78	Riverbed	Heerpur Diwara	105.000	5670000	3024000
Yamuna	XII	Leases in Sl. No. 70-71	Riverbed	Simra Sheikhpur	21.000	1134000	576000
Yamuna	XIII	Leases in Sl. No. 63-67	Riverbed	Jeetamau Deewara	73.080	3946320	1973160
Yamuna	XIV	Leases in Sl. No. 60, 68, 69	Riverbed	Gajraura, HarshanKarpur	24.950	1347300	643680

Note:

3. The average bulk density of sand/morrum in the district has been taken as 1.8 gm/cc

4. Total Mineral Excavation is based on assumption that all the leases in the cluster are in operation

Contiguous Cluster:

River Name	Cluster no.	Lease no.	Location (Riverbed/ Patta Land)	Village	Area (In ha.)	Total Excavation (Ton)	Total Mineral Excavation (Ton)
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Annexure- VII

Final Transportation Routes for Individual Leases and Leases in Cluster

Lease No.	Transportation Route no.	Number of Tippers/day of lease	Number of Tippers/day of all the lease on route	Length of Route in KM	Type of Road (Black Topped/Unpaved)	Recommendation for road (Black Topped/Unpaved)	The road will be constructed by Govt/Lease Owner	Route Map & Location
1.	1	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Nandha to Kotra Then Kotra to Ait NH 27
2.	1	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Nandha to Kotra Then Kotra to Ait NH 27
3.	1	21	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Nandha to Kotra Then Kotra to Ait NH 27
4.	23	17	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Karthara to NH 27
5.	7	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka to Aer then Aer to NH27
6.	7	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka to Aer then Aer to NH27
7.	7	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka to Aer then Aer to NH27
8.	7	29	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka to Aer then Aer to NH27
9.	3	28	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mohana To NH27
10.	3	22	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mohana To NH27
11.	3	22	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mohana To NH27
12.	2	38	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27
13.	2	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27
14.	2	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27
15.	7	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
16.	7	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
17.	7	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
18.	7	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
19.	7	46	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kurona to Aer then Aer to NH27
20.	15	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Dadri to Aer then Aer to NH27
21.	4	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
22.	4	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
23.	4	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
24.	4	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
25.	4	46	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
26.	4	136	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
27.	5	103	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
28.	5	66	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
29.	6	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Tikar to Aer then NH27
30.	6	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Tikar to Aer then NH27
31.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
32.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
33.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
34.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
35.	10	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
36.	10	44	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
37.	9	30	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura to Kadaura then NH27
38.	9	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura to Kadaura then NH27
39.	9	50	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura to Kadaura then NH27
40.	9	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura to Kadaura then NH27

A collection of handwritten signatures and initials in blue and black ink, located below the table. Some signatures are accompanied by circled numbers or other markings.

41.	9	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hemanpura to Kadaura then NH27
42.	9	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Basrehi to kadaura then NH27
43.	9	61	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Basrehi to kadaura then NH27
44.	9	53	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Chirpura to kadaura then NH27
45.	9	53	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Chirpura to kadaura then NH27
46.	9	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kyotra to Kadaura then NH27
47.	9	46	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kyotra to Kadaura then NH27
48.	9	40	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kyotra to Kadaura then NH27
49.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
50.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
51.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
52.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
53.	9	81	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
54.	9	38	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
55.	8	36	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtahamirpur to Jolhupur Kadaura road then NH27
56.	8	76	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtahamirpur to Jolhupur Kadaura road then NH27
57.	8	45	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtahamirpur to Jolhupur Kadaura road then NH27
58.	8	46	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtahamirpur to Jolhupur Kadaura road then NH27
59.	16	51	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Tarbulda to NH27
60.	14	17	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Gajraura to Shankarpur then State Highway
61.	17	25	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mahtoli to Kuthound then State Highway
62.	9	55	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
63.	13	56	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
64.	13	56	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
65.	13	49	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
66.	13	56	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
67.	13	56	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholupur NH27
68.	14	36	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Harshankarpur to bilaya banwari marg then NH
69.	14	36	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Harshankarpur to bilaya banwari marg then NH
70.	12	40	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simra Sheikhpur to Kalpi NH Highway
71.	12	40	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simra Sheikhpur to Kalpi NH Highway
72.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
73.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
74.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
75.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
76.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
77.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
78.	11	60	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway
79.	2	59	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27

A collection of handwritten signatures and initials in blue ink, including names like 'Chandrasekhar', 'S. N. B.', 'Blawing', and others, along with some numerical notations like '100/1000'.

80.	2	86	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27
81.	2	45	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27
82.	18	8	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
83.	5	21	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
84.	19	9	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Parasan to Itaura/Kashikhera then SH to NH27
85.	9	7	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Pathretha to Kadaura then NH27
86.	20	8	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
87.	8	6	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Parasan to Itaura/Kashikhera then SH to NH27
88.	21	4	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
89.	22	10	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
90.	2	4	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to kotra then NH27

Note:

- The planning of transportation route (haulage route) shall be done by respective lease holders while conducting EIA studies. The transportation route will also depend upon the prevailing conditions at that time and the availability of the land from private land owners as leaseholders are required to source land parcels from private land owners from local village.
- The number of tippers per day of all the lease will depend on the number of the leases in which mining is going on at a particular time.
- The number of tippers per day is the average number that has been calculated assuming 16 cum capacity of a 12 tyre truck and 250 days of mining in a year for leases with 5 years of validity.

Clusters

Cluster No.	Transportation Route no.	Number of Tippers/day of cluster	Number of Tippers/day of all the clusters on route	Length of Route in KM	Type of Road (Black Topped/Unpaved)	Recommendation for road (Black Topped/Unpaved)	The road will be constructed by Govt/Lease Owner	Route Map & Location
I	1	122	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Nandha to Kotra Then Kotra to Ait NH 27
II	2	332	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Sikriyas to Kotra then NH27
III	3	72	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Mohana To NH27
IV	4	470	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bandholi to Mumhadabad then NH27
V	5	190	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simriya to Mumhadabad then NH27
VI	6	101	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Tikar to Aer then NH27
VII	7	515	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kharka & Kurona to Aer then Aer to NH27
VIII	8	209	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Kehtahampur to Jolhupur Kadaura road then NH27
IX	9	1146	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Hernanpura, Basrehi, Chirpura, Kyotara, Pathretha to Kadaura then NH27
X	10	424	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Bhedi to Kadaura then NH27
XI	11	420	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Heerapur diwara to Kalpi NH Highway

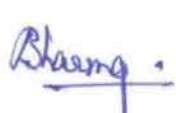
A collection of handwritten signatures and stamps in blue and black ink. Some signatures are accompanied by circular stamps, possibly official seals or verification marks. The text is mostly illegible due to the cursive nature of the handwriting.

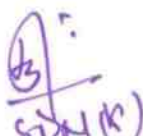
XII	12	80	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Simra Sheikhpur to Kalpi NH Highway
XIII	13	274	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Jeetamau to Sirsakalar then Jholapur NH27
XIV	14	89	-	1.5 to 2.5 km	Unpaved	Unpaved	Lease Owner	Harshankarpur to Bilaya Barwari marg then NH

Note:

5. The planning of transportation route (haulage route) shall be done by respective lease holders while conducting EIA studies. The transportation route will also depend upon the prevailing conditions at that time and the availability of the land from private land owners as leaseholders are required to source land parcels from private land owners from local village.
6. The number of tippers per day of cluster is taken assuming all the leases in the cluster are operating.
7. The number of tippers per day of all the clusters on route will depend on the number of the leases that are in operation in a cluster and around it. It will also depend upon the availability of connectivity at that time.
8. The number of tippers per day is the average number that has been calculated assuming 16 cum capacity of a 12 tyre truck and 250 days of mining in a year for leases with 5 years of validity.





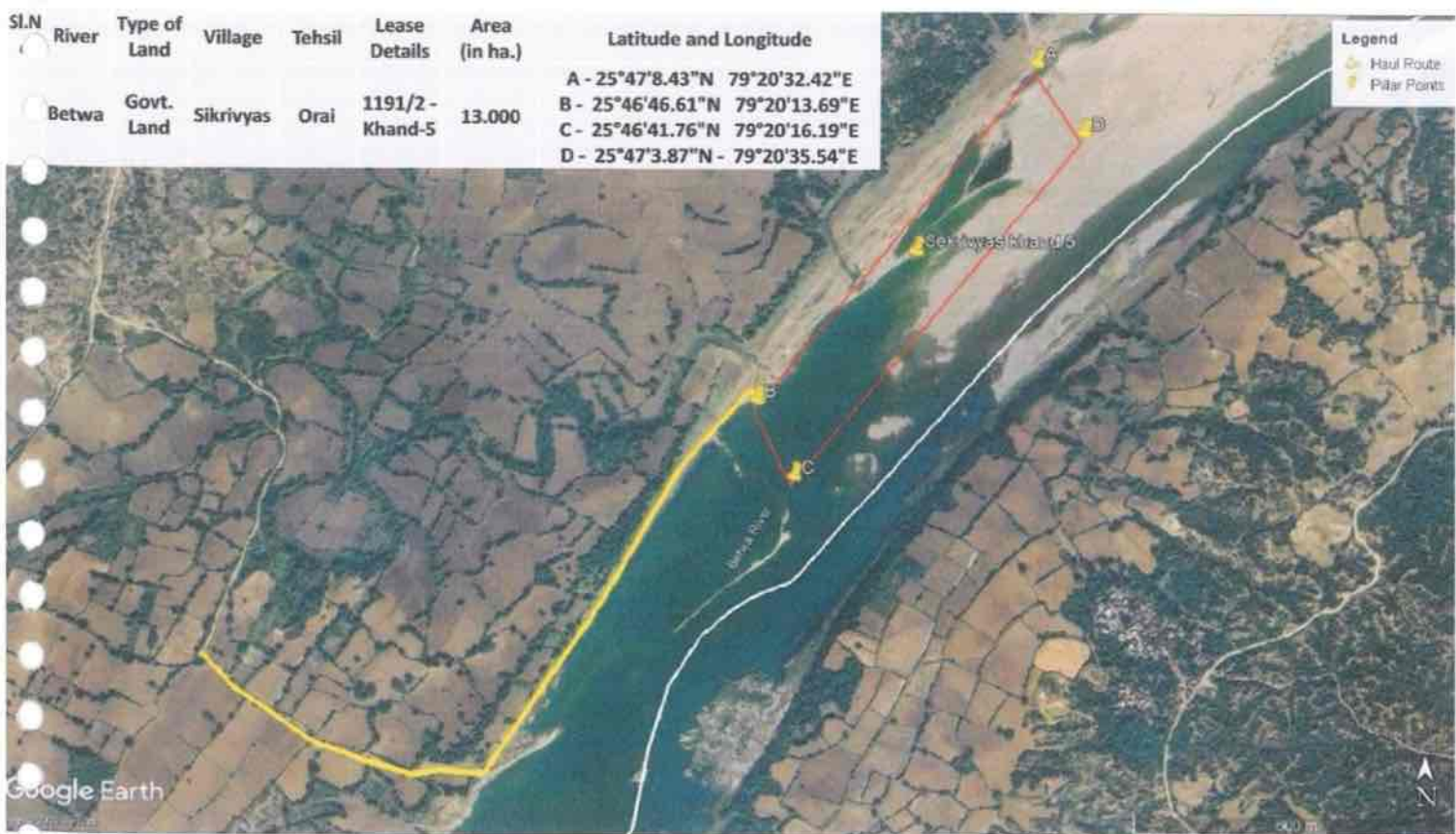





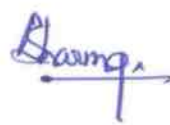
ANNEXURE-A

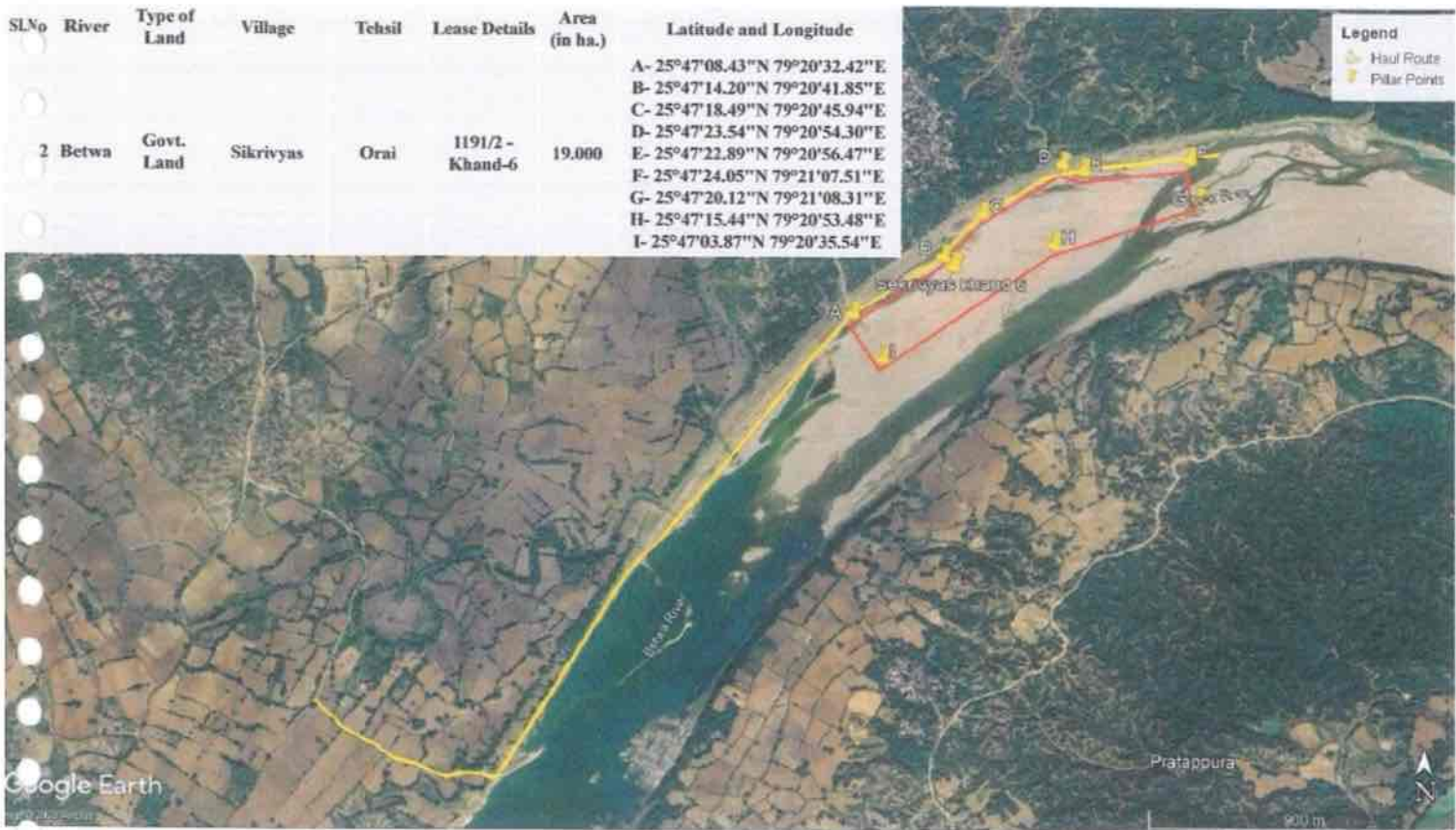
SATELLITE IMAGE OF NEW LEASE AREA & ROUTE MAP

Chaudhary *SR* *AK* *Sharma* *Min* *SDMC* *Sh*
Sharma









Chaudhary

[Signature]

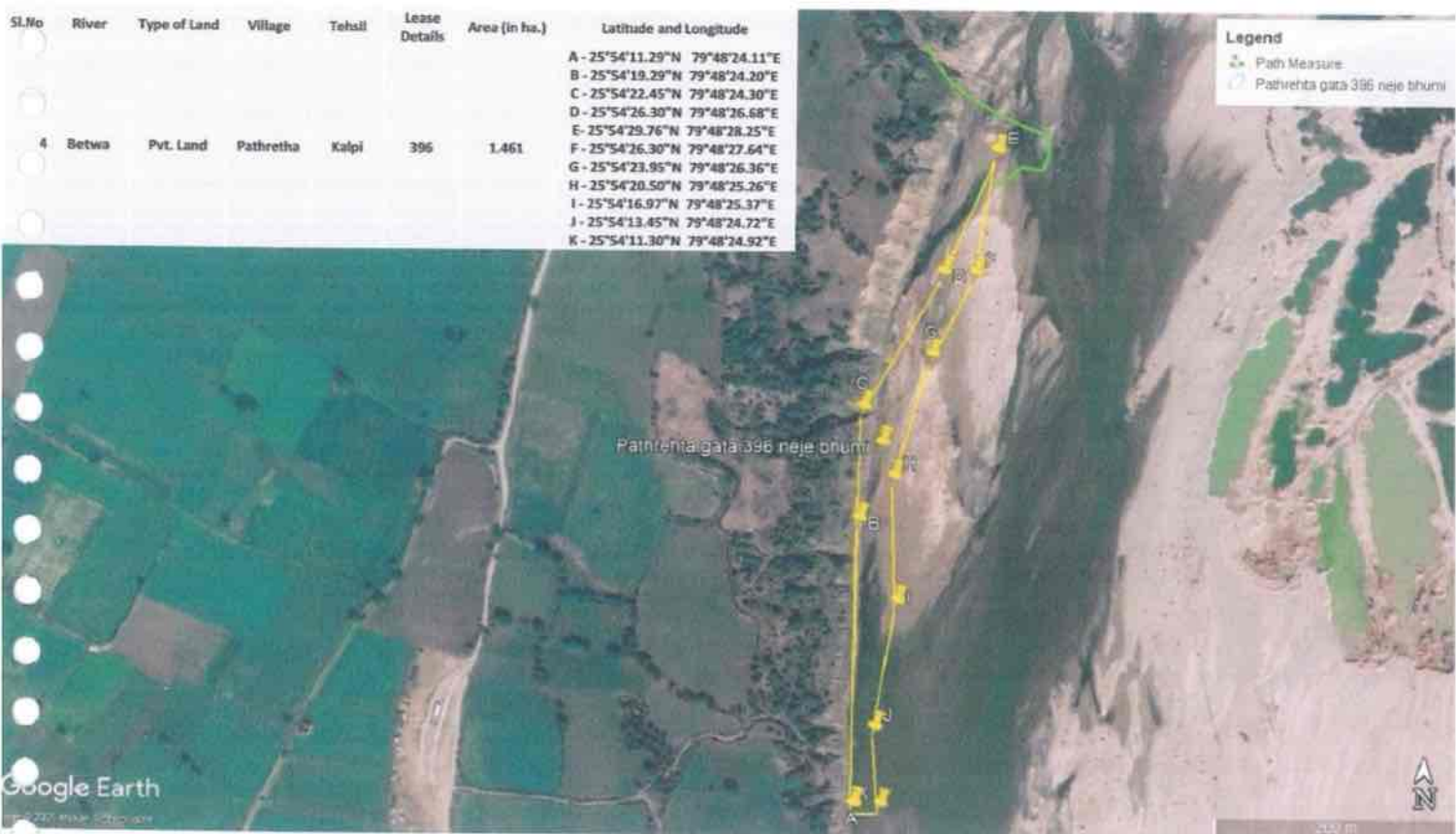
Sharma



Chandrabh

Shri Ah

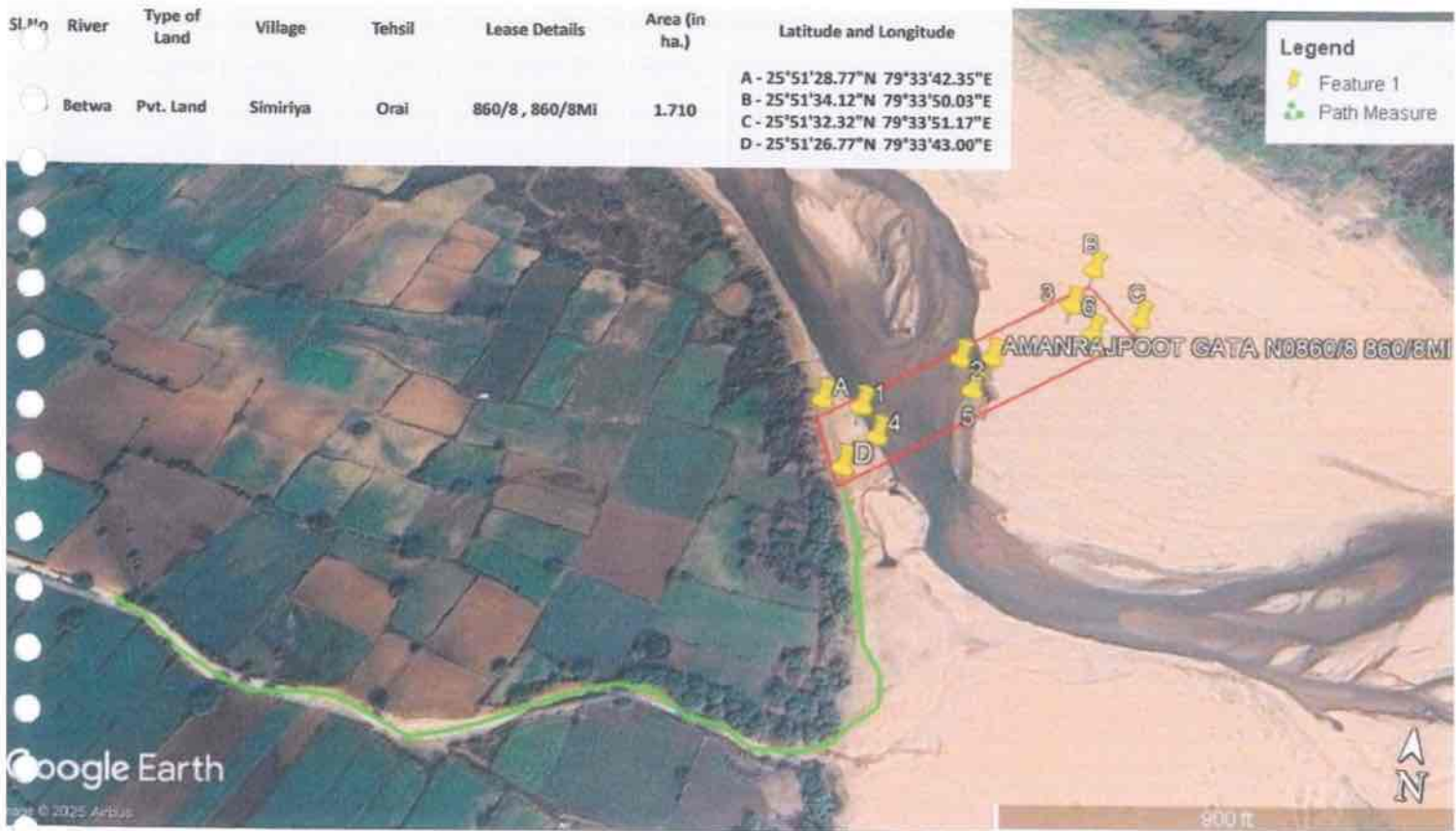
Shri.



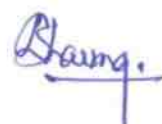
Chakraborty

[Signature]

Sharma





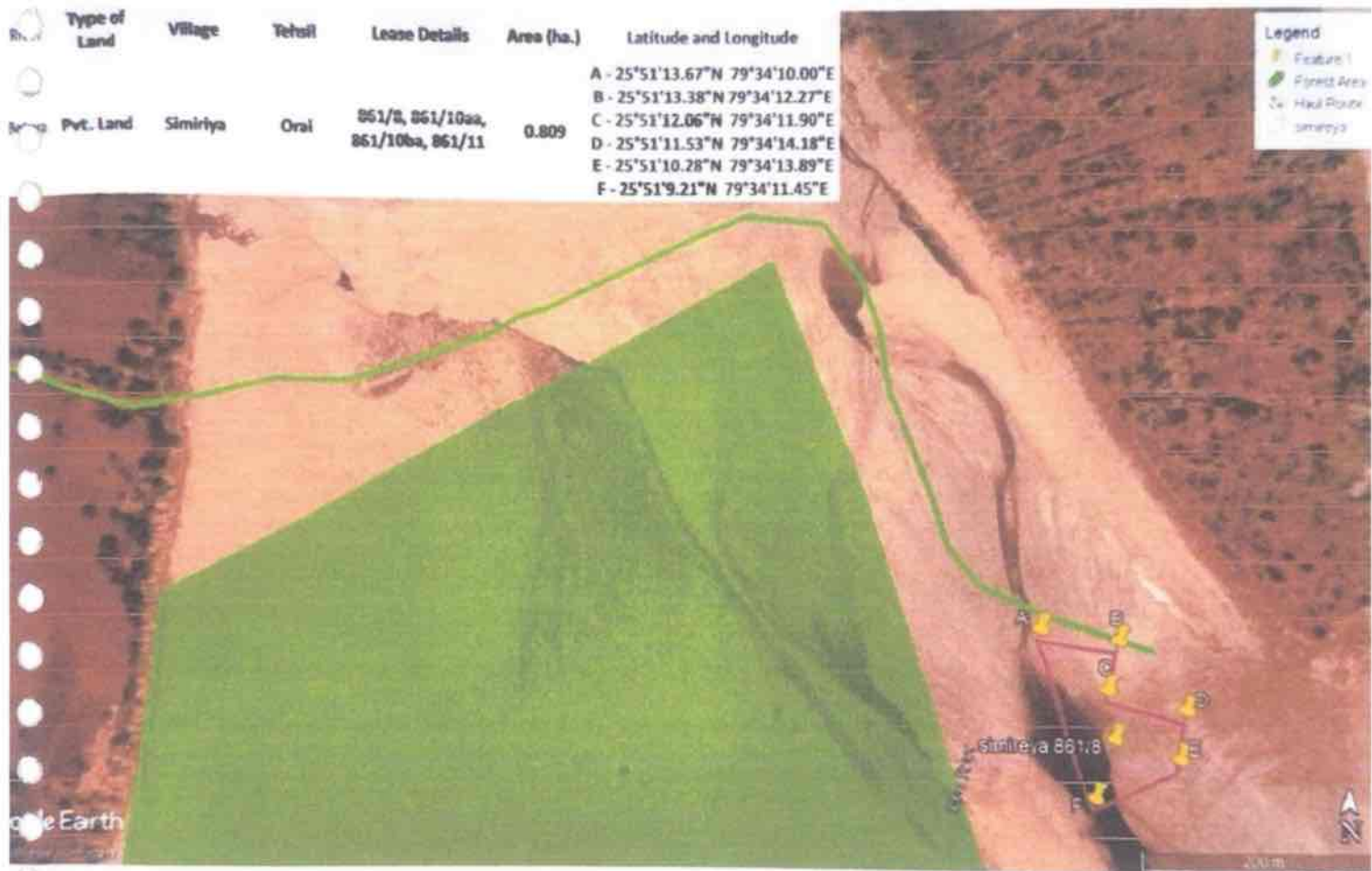
Sl.No	River	Type of Land	Village	Tehsil	Lease Details	Area (in ha.)	Latitude and Longitude
6	Betwa	Pvt. Land	Parasan	Kalpi	898/1, 899/2, 899/3, 899/4, 899/5, 899/6, 899/7, 899/8, 899/9, 899/10, 899/11, 899/12, 899/13, 899/14, 899/15, 899/19, 899/20, 901/1	1.287	A - 25°54'58.92"N 79°40'23.61"E B - 25°55'3.35"N 79°40'28.58"E C - 25°55'3.09"N 79°40'28.87"E D - 25°55'2.54"N 79°40'28.23"E E - 25°55'0.48"N 79°40'30.43"E F - 25°54'59.80"N 79°40'29.81"E G - 25°55'1.40"N 79°40'28.34"E H - 25°55'1.20"N 79°40'28.00"E I - 25°54'59.58"N 79°40'29.58"E J - 25°54'57.67"N 79°40'27.82"E K - 25°54'59.65"N 79°40'25.67"E L - 25°54'58.33"N 79°40'24.32"E



Chaudhary

Sharma

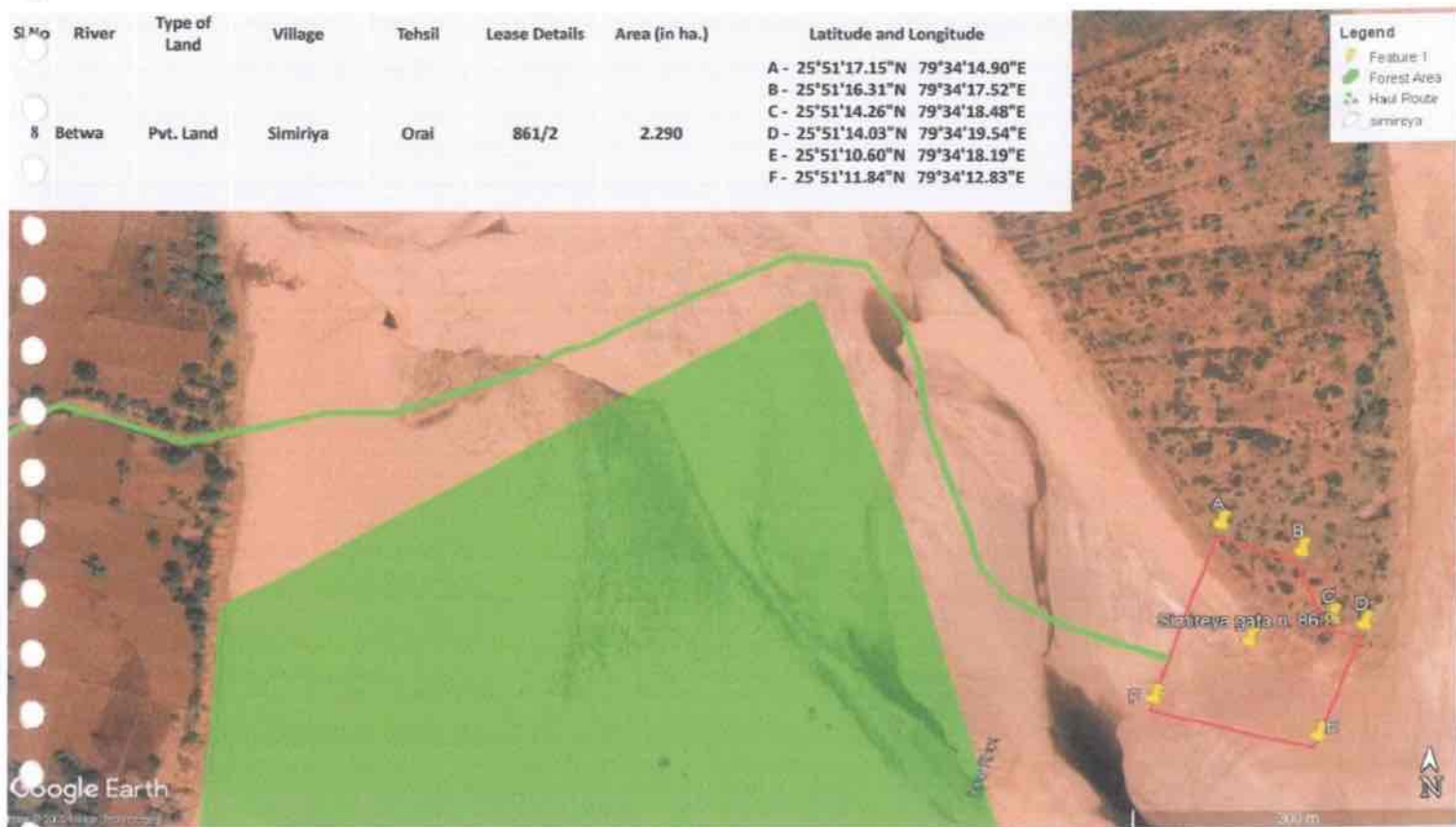
Sharma



Chakrabarty

Sharma

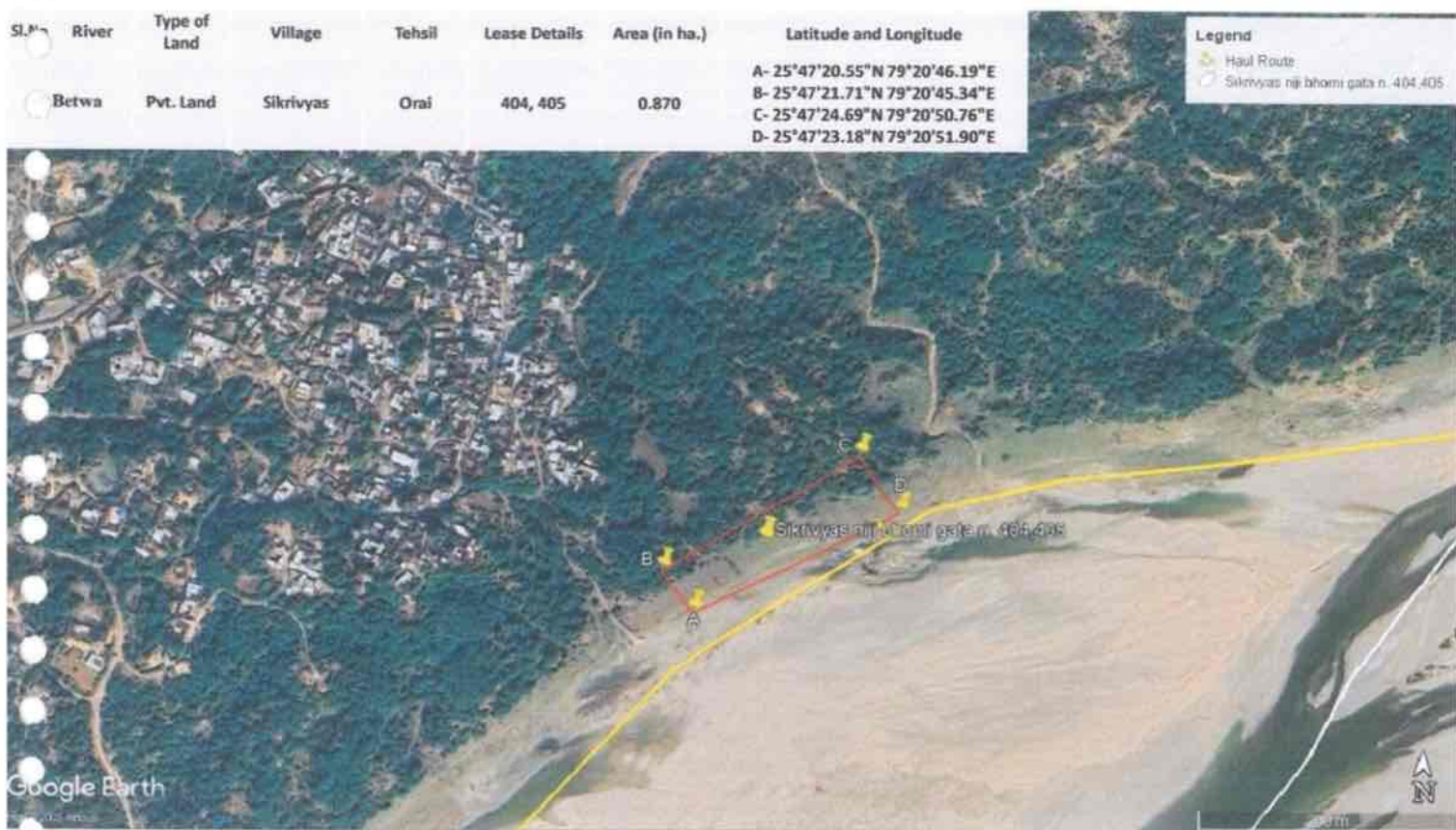
Sharma



Chaudhary

[Signature]

Sharma



Chakraborty

Sharma

Sharma

प्रेषक,

जिलाधिकारी,
जालौन ।

सेवा में.

सदस्य सचिव, राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति (SEAC)
पर्यावरण निदेशालय उ०प्र०, लखनऊ ।

संख्या: 260 / खनिज-एम०एम०सी०-30

दिनांक 02 मई, 2025

विषय:-

जनपद जालौन के नदी तल में उपलब्ध बालू/मौरम के खनन क्षेत्रों/नये क्षेत्रों का Revised District Survey Report 2024 (DSR) के अनुमोदन के शर्त का अनुपालन हेतु Replacement Study Report 2024 प्रस्तुत करने के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के अधिसूचना दिनांक 15.01.2016 Sustainable Sand Mining Mangement Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand Mining 2020 के क्रम में SEAC एवं SEIAA की संयुक्त समिति द्वारा तैयार की गयी Standard Operating Procedure (SOP) के अनुसार जनपद में गठित SDC द्वारा जिला सर्वेक्षण रिपोर्ट तैयार कर SEIAA के समक्ष अनुमोदन हेतु इस कार्यालय के पत्र संख्या 912/खनिज-एमएमसी-30 दिनांक 27.02.2024 द्वारा प्रेषित किया गया था. जिसके क्रम में SEIAA के पत्र संख्या-135/पर्या०/डी०एस०आर०/जालौ०/2024 दिनांक 28.05.2024 द्वारा Revised District Survey Report 2024 का अनुमोदन प्रदान किया गया।

उपरोक्त के क्रम में अवगत कराना है पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के अधिसूचना दिनांक-15.01.2016, Sustainable Sand Mining Mangement Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand Mining 2020 के अनुसार जनपद जालौन में नदी तल में उपलब्ध बालू/मौरम के उपलब्ध 81 खनन क्षेत्रों की जनपद में गठित सब डिविजनल कमेटी द्वारा प्री-मानसून एवं पोस्ट मानसून की Study Report को संकलन कर Replenishment Study Report-2024 प्रस्तुत की गई है।

अतः पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के अधिसूचना दिनांक-15.01.2016, Sustainable Sand Mining Mangement Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand Mining 2020 के अनुसार जनपद जालौन में नदी तल में उपलब्ध बालू/मौरम के उपलब्ध 81 खनन क्षेत्रों की जनपद में गठित सब डिविजनल कमेटी द्वारा Replenishment Study Report-2024 तैयार कर इस पत्र के साथ संलग्न कर आवश्यक कार्यवाही हेतु प्रेषित है।

संलग्नक- Replenishment Study Report 2024 की छाया प्रति।

भवदीय,

(राजेश कुमार पाण्डेय)
जिलाधिकारी जालौन,

पृष्ठांक संख्या / खनिज-एमएमसी-30 तदिदनांक

प्रतिलिपि निम्नलिखित को सादर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

1- सचिव, भूतत्व एवं खनिकर्म विभाग, उ०प्र० शासन लखनऊ।

2- अध्यक्ष विशेषज्ञ स्तरीय मूल्यांकन समिति, लखनऊ।

3- निदेशक, भूतत्व एवं खनिकर्म निदेशालय उ०प्र०, खनिज भवन लखनऊ।

4- सदस्य सचिव, राज्य स्तरीय पर्यावरण प्रभाव आंकलन प्राधिकरण लखनऊ।

5- जिला सूचना विज्ञान अधिकारी, जालौन स्थान उरई को इस निर्देश के साथ कि वह Replenishment Study Report 2024 को जिले की वेबसाइट पर पांच वर्ष की अवधि के लिये अपलोड कराना सुनिश्चित करें।

(राजेश कुमार पाण्डेय)
जिलाधिकारी जालौन,

Pre & Post Monsoon Replenishment Study Report with Reserve Estimation Report of River Bed Sand/Morrum Leases

As per Chapter-5 of the Enforcement & Monitoring Guidelines for Sand Mining-2020 issued by MoEF&CC

District –Jalaun, Uttar Pradesh
Study Period – Year 2024



[Signature]
Dr. GAUTAM KUMAR DINKAR
M.Sc. M.Phil, Ph.D. GATE, NET-JRF (CSIR)
Geologist/Regional Officer
Dept. of Geology & Mining, U.P.
KHANU BHAWAN, Regional Office, Jhansi

[Signature]
(Ashish Chauhan)
(RO Jhansi)

[Signature]
निरुद्ध निरीक्षणकर्ता
जालौन

[Signature]
(Suryan)

[Signature]
(MO)
G.K. Dutta

[Signature]
(इमरान अली)
क्षेत्रीय अधिकारी
उ.प्र. प्रदूषण नियंत्रण बोर्ड, झाँसी

[Signature]
(M)
उपजिलाधिकारी
माधौगढ

[Signature]
उपजिलाधिकारी
जालौन

[Signature]
(धर्म घोष)
अधिशाली अभियन्ता
वेतवा नहर प्रखण्ड प्रथम, उरई

[Signature]
उप वन संरक्षक
जालौन साठवावन प्रभाग
उरई (जालौन)

[Signature]
उपजिला मजिस्ट्रेट
उपजिलाधिकारी
कालापी

[Signature]

[Signature]
16.04.25
उप जिलाधिकारी
उरई

प्रेषक,

जिलाधिकारी,
जालौन ।

सेवा में,

सदस्य सचिव, राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति (SEAC)
पर्यावरण निदेशालय उ०प्र०, लखनऊ ।

संख्या: 260 / खनिज-एम०एमसी०-30

दिनांक 02 मई, 2025

विषय:- जनपद जालौन के नदी तल में उपलब्ध बालू/मौरम के खनन क्षेत्रों/नये क्षेत्रों का Revised District Survey Report 2024 (DSR) के अनुमोदन के शर्त का अनुपालन हेतु Replacement Study Report 2024 प्रस्तुत करने के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के अधिसूचना दिनांक 15.01.2016 Sustainable Sand Mining Mangement Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand Mining 2020 के क्रम में SEAC एवं SEIAA की संयुक्त समिति द्वारा तैयार की गयी Standard Operating Procedure (SOP) के अनुसार जनपद में गठित SDC द्वारा जिला सर्वेक्षण रिपोर्ट तैयार कर SEIAA के समक्ष अनुमोदन हेतु इस कार्यालय के पत्र संख्या 912/खनिज-एमएमसी-30 दिनांक 27.02.2024 द्वारा प्रेषित किया गया था। जिसके क्रम में SEIAA के पत्र संख्या-135/पर्या०/डी०एस०आर०/जालौ०/2024 दिनांक 28.05.2024 द्वारा Revised District Survey Report 2024 का अनुमोदन प्रदान किया गया।

उपरोक्त के क्रम में अवगत कराना है पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के अधिसूचना दिनांक-15.01.2016, Sustainable Sand Mining Mangement Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand Mining 2020 के अनुसार जनपद जालौन में नदी तल में उपलब्ध बालू/मौरम के उपलब्ध 81 खनन क्षेत्रों की जनपद में गठित सब डिविजनल कमेटी द्वारा प्री-मानसून एवं पोस्ट मानसून की Study Report को संकलन कर Replenishment Study Report-2024 प्रस्तुत की गई है।

अतः पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के अधिसूचना दिनांक-15.01.2016, Sustainable Sand Mining Mangement Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand Mining 2020 के अनुसार जनपद जालौन में नदी तल में उपलब्ध बालू/मौरम के उपलब्ध 81 खनन क्षेत्रों की जनपद में गठित सब डिविजनल कमेटी द्वारा Replenishment Study Report-2024 तैयार कर इस पत्र के साथ संलग्न कर आवश्यक कार्यवाही हेतु प्रेषित है।

संलग्नक- Replenishment Study Report 2024 की छाया प्रति।

भवदीय,

(राजेश कुमार पाण्डेय)
जिलाधिकारी जालौन,

पृष्ठांक संख्या / खनिज-एमएमसी-30 तदिदनांक

प्रतिलिपि निम्नलिखित को सादर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

- 1- सचिव, भूतत्व एवं खनिकर्म विभाग, उ०प्र० शासन लखनऊ।
- 2- अध्यक्ष विशेषज्ञ स्तरीय मूल्यांकन समिति, लखनऊ।
- 3- निदेशक, भूतत्व एवं खनिकर्म निदेशालय उ०प्र०, खनिज भवन लखनऊ।
- 4- सदस्य सचिव, राज्य स्तरीय पर्यावरण प्रभाव आंकलन प्राधिकरण लखनऊ।
- 5- जिला सूचना विज्ञान अधिकारी, जालौन स्थान उरई को इस निर्देश के साथ कि वह Replenishment Study Report 2024 को जिले की वेबसाइट पर पांच वर्ष की अवधि के लिये अपलोड कराना सुनिश्चित करें।

(राजेश कुमार पाण्डेय)
जिलाधिकारी जालौन,

प्रेषक,

जिलाधिकारी,
जालौन ।

सेवा में,

सदस्य सचिव, राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति (SEAC)
पर्यावरण निदेशालय उ०प्र०, लखनऊ ।

संख्या: 260 / खनिज-एम०एमसी०-30

दिनांक 02 मई, 2025

विषय:-

जनपद जालौन के नदी तल में उपलब्ध बालू/मौरम के खनन क्षेत्रों/नये क्षेत्रों का Revised District Survey Report 2024 (DSR) के अनुमोदन के शर्त का अनुपालन हेतु Replacement Study Report 2024 प्रस्तुत करने के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के अधिसूचना दिनांक 15.01.2016 Sustainable Sand Mining Mangement Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand Mining 2020 के क्रम में SEAC एवं SEIAA की संयुक्त समिति द्वारा तैयार की गयी Standard Operating Procedure (SOP) के अनुसार जनपद में गठित SDC द्वारा जिला सर्वेक्षण रिपोर्ट तैयार कर SEIAA के समक्ष अनुमोदन हेतु इस कार्यालय के पत्र संख्या 912/खनिज-एमएमसी-30 दिनांक 27.02.2024 द्वारा प्रेषित किया गया था. जिसके क्रम में SEIAA के पत्र संख्या-135/पर्या०/डी०एस०आर०/जालौ०/2024 दिनांक 28.05.2024 द्वारा Revised District Survey Report 2024 का अनुमोदन प्रदान किया गया।

उपरोक्त के क्रम में अवगत कराना है पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के अधिसूचना दिनांक-15.01.2016, Sustainable Sand Mining Mangement Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand Mining 2020 के अनुसार जनपद जालौन में नदी तल में उपलब्ध बालू/मौरम के उपलब्ध 81 खनन क्षेत्रों की जनपद में गठित सब डिविजनल कमेटी द्वारा प्री-मानसून एवं पोस्ट मानसून की Study Report को संकलन कर Replenishment Study Report-2024 प्रस्तुत की गई है।

अतः पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के अधिसूचना दिनांक-15.01.2016, Sustainable Sand Mining Mangement Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand Mining 2020 के अनुसार जनपद जालौन में नदी तल में उपलब्ध बालू/मौरम के उपलब्ध 81 खनन क्षेत्रों की जनपद में गठित सब डिविजनल कमेटी द्वारा Replenishment Study Report-2024 तैयार कर इस पत्र के साथ संलग्न कर आवश्यक कार्यवाही हेतु प्रेषित है।

संलग्नक- Replenishment Study Report 2024 की छाया प्रति।

भवदीय,

(राजेश कुमार पाण्डेय)
जिलाधिकारी जालौन,

पृष्ठांक संख्या / खनिज-एमएमसी-30 तदिदिनांक

प्रतिलिपि निम्नलिखित को सादर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

1- सचिव, भूतत्व एवं खनिकर्म विभाग, उ०प्र० शासन लखनऊ।

2- अध्यक्ष विशेषज्ञ स्तरीय मूल्यांकन समिति, लखनऊ।

3- निदेशक, भूतत्व एवं खनिकर्म निदेशालय उ०प्र०, खनिज भवन लखनऊ।

4- सदस्य सचिव, राज्य स्तरीय पर्यावरण प्रभाव आंकलन प्राधिकरण लखनऊ।

5- जिला सूचना विज्ञान अधिकारी, जालौन स्थान उरई को इस निर्देश के साथ कि वह Replenishment Study Report 2024 को जिले की वेबसाइट पर पांच वर्ष की अवधि के लिये अपलोड कराना सुनिश्चित करें।

(राजेश कुमार पाण्डेय)
जिलाधिकारी जालौन,

News

Sort By:

Publish Date ▼

News

Title	Description	Start Date	End Date	File
Mining, Office of District Magistrate Jalaun, Orai	Regarding submission of Replacement Study Report 2024 to comply with the condition of approval of Revised District Survey Report 2024	20/05/2025	19/05/2030	View (5 MB)
Mining, Office District Magistrate Jalaun at Orai	Correction letter for correction of certain errors in Revised District Survey Report 2024 in district mining office Jalaun at orai	20/05/2025	19/05/2030	View (2 MB)
Mining, Office District Magistrate Jalaun at Orai	Mining, Office District Magistrate Jalaun at Orai- Nivida Soochna	13/05/2025	20/05/2025	View (176 KB)
Mining, Office District Magistrate Jalaun at Orai	Mining factual report/ corrigendum of district mining office Jalaun at orai	01/05/2025	01/05/2030	View (228 KB)
Distirct Panchayat jalaun at orai	Distirct Panchayat jalaun at orai E- Nivida Soochna	02/05/2025	23/05/2025	View (1 MB)
Mining, Office District Magistrate Jalaun at Orai	Mining, Office District Magistrate Jalaun at Orai- Replacement Study Report 2023 at district jalaun	12/03/2025	12/03/2030	View (4 MB)
District Program Officer Jalaun Place Orai	List of final selected applicants for Anganwadi Worker Recruitment in District Program Officer Jalaun at Orai	24/03/2025	31/12/2025	View (4 MB)
Excise Department district Jalaun	E-Lottery Result for Bhang Shop for Financial Year 2025-26	06/03/2025	31/03/2026	View (266 KB)
Excise Department district Jalaun	E-Lottery Result for Model Shop for Financial Year 2025-26	06/03/2025	31/03/2026	View (254 KB)
Excise Department district Jalaun	E-lottery result for composite shops for the financial year 2025-26	06/03/2025	31/03/2026	View (3 MB)

- [1](#)
- [2](#)
- [Next »](#)

[Archive](#)

सेवा में,

जिलाधिकारी,
जालौन ।

पत्र सं० 129 / खनिज-एमएमसी-30

दिनांक: 16 अप्रैल 2025

विषय:- जनपद जालौन के बेतवा एवं यमुना नदी में स्थित बालू/मौरम खनन क्षेत्रों (संचालित/प्रस्तावित) की पुनःपूर्ति अध्ययन रिपोर्ट (Pre & Post Monsoon Replenishment Study Report with Reserve Estimation Report of River Bed Sand/ Morrum, Leases) 2024 के संबंध में।

महोदय,

उपर्युक्त विषय के संबंध में सादर अवगत कराना है कि वर्ष 2024 में जनपद जालौन के बेतवा एवं यमुना नदी में स्थित बालू/मौरम खनन क्षेत्रों (संचालित/प्रस्तावित) की पुनःपूर्ति अध्ययन रिपोर्ट (Pre & Post Monsoon Replenishment Study Report with Reserve Estimation Report of River Bed Sand/ Morrum, Leases) गठित समिति द्वारा तैयार कर प्रस्तुत कर दी गयी है, पुनःपूर्ति अध्ययन रिपोर्ट (Pre & Post Monsoon Replenishment Study Report with Reserve Estimation Report of River Bed Sand/ Morrum, Leases 2024) पत्र के साथ संलग्न कर आवश्यक कार्यवाही हेतु सादर प्रेषित है।

संलग्नक-उपरोक्तानुसार।

भवदीय,


16.04.25

(संजय कुमार)

अपर जिलाधिकारी(वि०/रा०)
जालौन।

PREFACE

A Drainage system is the pattern formed by streams, rivers and lakes in a drainage basin. In a drainage system, streams or rivers always connect together to form networks. Several factors such as topography, soil type, bedrock type, climate and vegetation cover influence input, output and transport of sediment and water in a drainage basin (Charlton, 2008). Such factors also influence the nature of the pattern of water bodies (Twidale, 2004). As a consequence, drainage pattern can reflect geographical characteristics of a river network to a certain extent. There are several types of drainage pattern. So far, much research has been done on the description of drainage patterns in geography and hydrology (e.g. Howard, 1967; Lambert, 1998; Twidale, 2004; Pidwirny, 2006).

In addition, sediment transport knowledge is important in river restoration, ecosystem protection, navigation, watershed studies and its management. Bed load represents the lower portion of sediment load in natural rivers. Fluvial sediment load materials are transported by rivers. Sediment load can be divided into bed load and suspended load based on the mode of transport. Bed load is transported close to the bed where particles moved by rolling, sliding, or jumping (Adegbola, 2012). Xiaoling (2003) explained that bed load transport in natural rivers is a complicated phenomenon. Its movement is quite uneven in both the transverse and longitudinal directions, which vary considerably.

The state of Uttar Pradesh has great importance in the local, regional, national and international perspectives due to its distinct physiographic conditions. It is endowed with diverse vegetation types, ranging from tropical to subtropical, temperate and alpine including riverine, grasslands and wetlands. The rivers of Uttar Pradesh play's an important role for the nation and provide water required by various sectors such as irrigation, drinking, recreation and industrial requirements etc. Besides, mining activities are also being carried out in the rivers for the developmental process.

Removal of excess sand and stone from river bed helps to maintain the carrying capacity and provides protection from flooding during monsoon season. Further, continuous flow of river is essential for ecological and economic needs such as irrigation and biodiversity etc. Therefore, drainage study of the river helps to understand potential carrying capacity of water during monsoon season which is generated from rainfall in the watershed and quantity of di-siltation of rivers under mining affected areas.

DR. GAUTAM KUMAR DINKAR
 MSc, MPhil, PhD, GATE, NET-JRF (CSIR)
 Geologist/Regional Officer
 Dept. of Geology & Mining, U.P.
 KHANU BHAWAN, Regional Office, Jhansi

(Ashish Chaudhary)
 RD Jhansi

In line with same, Replenishment study was carried out for operative/new/planned River Bed leases of District Jalaun. Quantification and estimation of river bed minor material (Sand/Morrum) was accomplished by following scientific approaches as envisaged in Sustainable Sand Management Guidelines – 2016 (SSMG-2016) and its contemporary guidelines Enforcement & Monitoring Guidelines for Sand Mining (EMSM-2020) issued by MoEF&CC in January-2020.

Mining areas were geo-tagged and surveyed for analysis of study of the availability/potential of sand and gravel. Estimation of deposition and safe limit for extraction/ removal of deposited river bed material available in the various rivers/streams were done by analysing elevation profiles and pit profiles at regular intervals and DGPS based Survey.

Sub-Divisional Committee – District Jalaun


 Dr. GAUTAM KUMAR DINKAR
 MSc, MPhil, PhD, GATE, NET-JRF (CSIR)
 Geologist/Regional Officer
 Dept. of Geology & Mining, U.P.
 KHANIJ BHAWAN, Regional Office, Jhansi


 (Ashish Chaudhary)
 RO Jhansi


 S. K. Singh

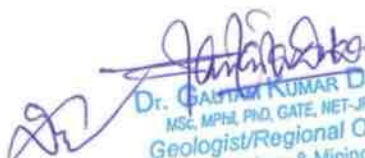

 Ashish Chaudhary

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1	Introduction
2	Objective of Study
3	Methodology
4	District and River Profile
5	Sediment Composition
6	Enforcement & Monitoring Guidelines for Sand Mining- 2020
7	Inventory of Sand/Morrum Leases in District Jalaun
8	Results of Leases in pre & post monsoon period
9	Conclusion & Recommendation
10	Annexures

Shri
S. K. J.

Chakraborty


Dr. GAJPATI KUMAR DINKAR
M.Sc., M.Phil., Ph.D., GATE, NET-JRF (CSIR)
Geologist/Regional Officer
Dept. of Geology & Mining, U.P.
KHAIRI BHAWAN, Regional Office, Jhansi



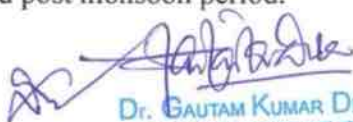
1. INTRODUCTION

- A replenishment study, particularly in the context of sand mining, aims to assess the rate at which sand is naturally replenished in a river or stream, ensuring that extraction doesn't exceed the river's capacity to naturally replenish itself, thereby preventing ecological damage.
- The Chapter-5 of the Enforcement & Monitoring Guidelines for Sand Mining (EMGSM-2020) issue by MoEF&CC provides generic structure and mechanism for conducting Replenishment Studies.
- In total 81 leases measuring 1253.064 ha. were surveyed and studied in various River Betwa and Yamuna.

Report Coverage :-

- The report covers the study of River Bed Minor Mineral Material in the stretch of Betwa & Yamuna District Jalaun.
- Removal of excess sand and stone from river bed helps to maintain the carrying capacity and provides protection from flooding during monsoon season. Further, continuous flow of river is essential for ecological and economic needs such as irrigation and biodiversity etc.
- Therefore, drainage study of the river helps to understand potential carrying capacity of water during monsoon season which is generated from rainfall in the watershed and quantity of disiltation of rivers under mining affected areas.
- Replenishment potential of the existing/inoperative mining areas are studied to assess the availability/potential of sand and gravel.
- Estimation of deposition and safe limit for extraction/ removal of deposited river bed material available in the various rivers/streams were done by analysing elevation profiles and pit profiles at regular intervals.
- The conclusion has been arrived upon considering the various factors as per guidelines and data correlation of pre and post monsoon period.

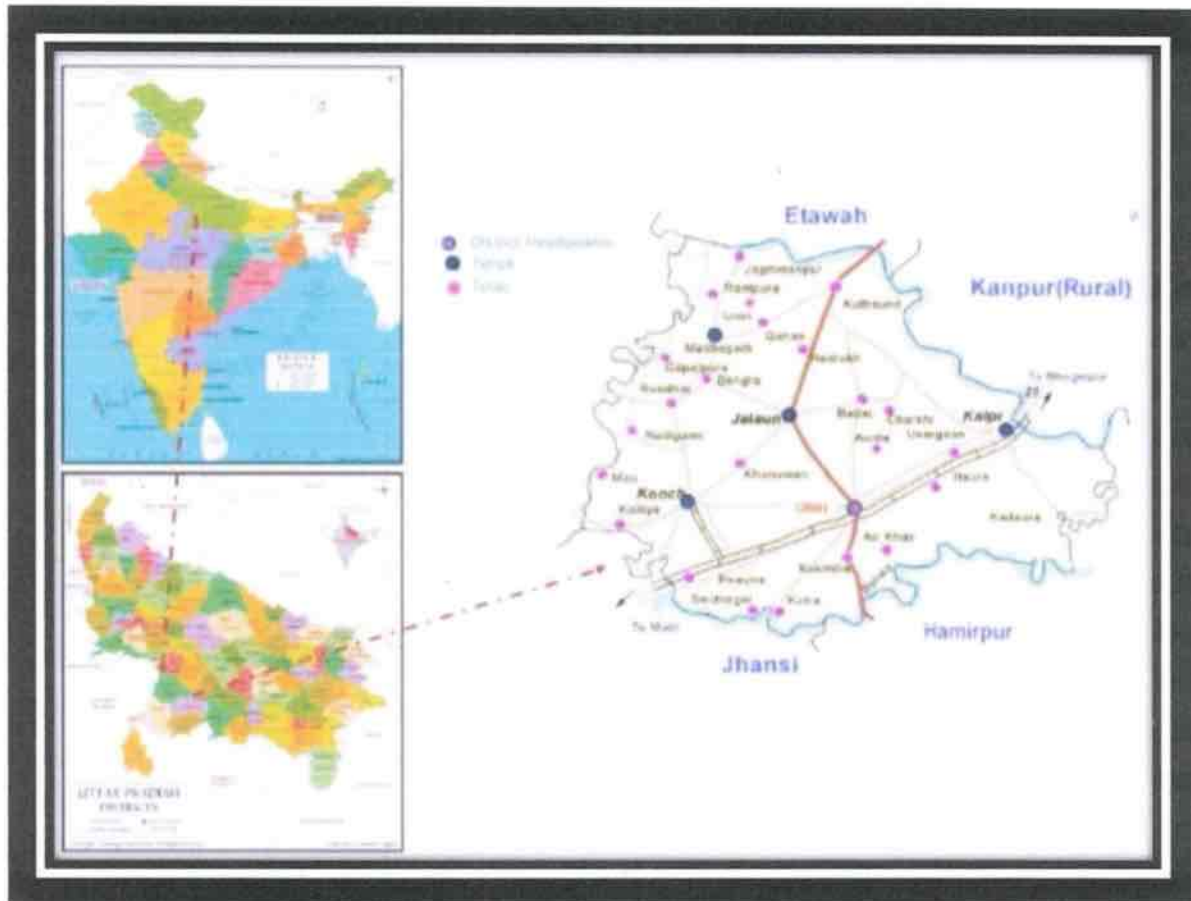




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Study Area Map - District Jalaun, Uttar Pradesh



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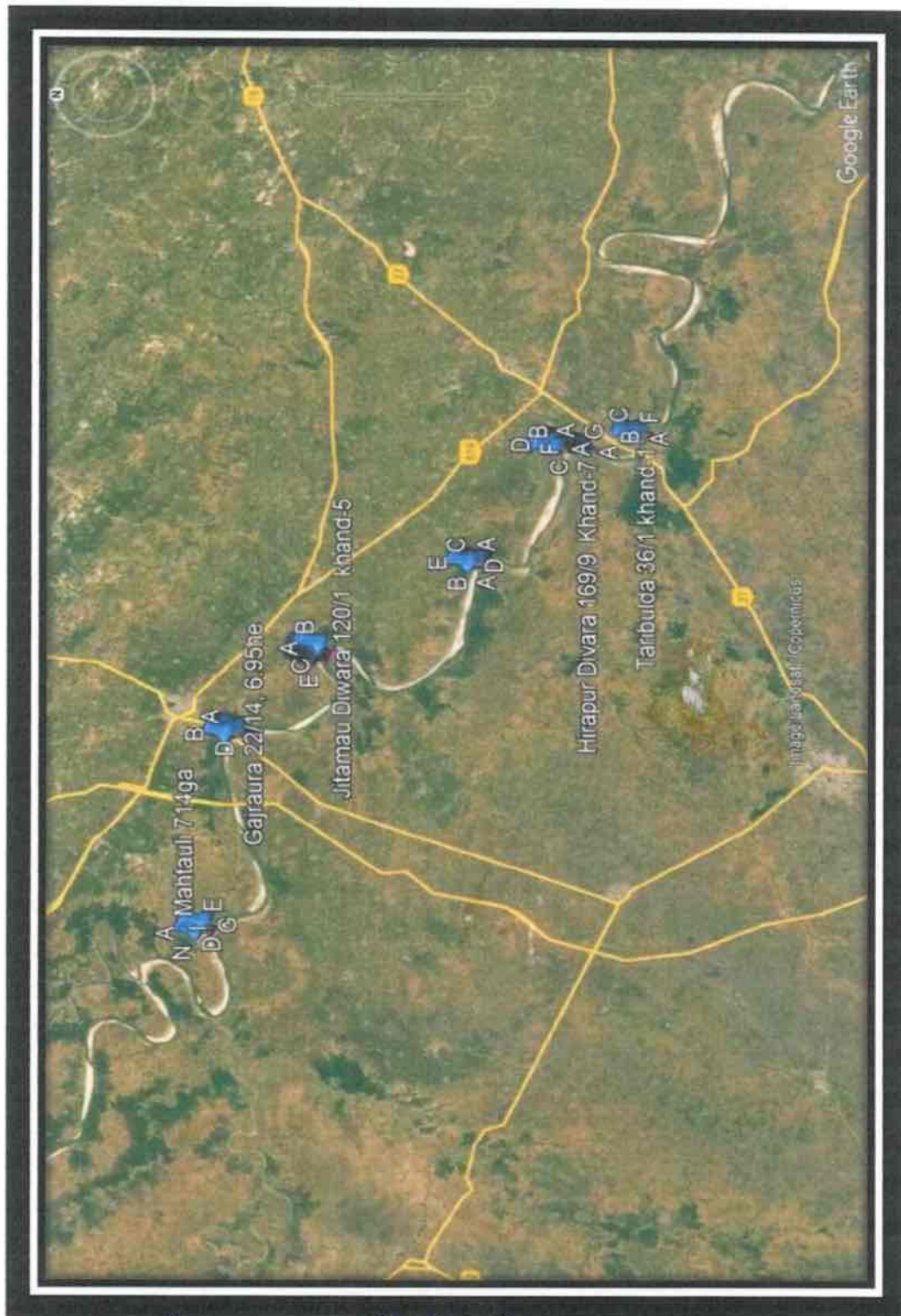
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- **Areas under River Betwa**



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- Areas under River Yamuna



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2. OBJECTIVE OF THE STUDY

- To assess the possibility of safe extraction of river bed material from River **Yamuna** and **Betwa** in District Jalaun.
- To determine the existing reserve and rate of replenishable quantities within mine lease area in order to establish sustainable operations of leases and quantification of D.S.R. which has been approved by Member Secretary SEIAA on 28-May-2024
- To prepare a Scientific Replenishment Study Report which can further form the basis for updation/modification of District Survey Report.
- The results of Replenishment Study Report will be used by Sub-Divisional Committee for preparing new areas as well as year wise monitoring the approved D.S.R.
- The results of replenishment study and SDC Joint Inspection Report will form the basis for updation/modification of District Survey Report.
- To identify ecological and environmental sustainable balance between river sand mining and replenishment. As the extracted sand is required to be replenished in next monsoon it is therefore necessary to do sand budgeting before and after monsoon to ensure that the extraction will not exceed sedimentation.
- The imbalance may cause threat to the ecosystem of the area / region, if proper study and sand budgeting is not done.







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3. METHODOLOGY

PHYSICAL SURVEY FOR RESERVE ESTIMATION IN PRE-MONSOON PERIOD:

- For existing mineral reserve estimation in pre-monsoon period, river was surveyed and ground level coordinates and elevations at regular intervals were recorded with the help of DGPS. Deposits 1 meter above the river water level was considered as existing deposits in pre-monsoon period. For this base flow level of river was determined.
- Physical survey and collection of information related to existing reserves and by conducting pit profiles at regular intervals with the help of JCB Machine and Auger digging equipment upto a depth of three meters was done.

METHODOLOGY FOR CONDUCTING REPLENISHMENT STUDY

- Generic structure of Replenishment Study as mentioned in the Chapter-5 of the EMGSM-2020 Guidelines were followed for calculation of replenished results.
- The district has identification of 81 leases out of which 18 leases were operational before monsoon period by various lease holders. The rate of replenishment was ascertained for all the leases.
- The main aim of the survey work and measurements was to carry out the collection of baseline data in pre-monsoon period which was repeated in post-monsoon period to assess the quantum of replenishment.
- Depending on the geographical and site-specific conditions, practical limitations to complete the studies of 81 individual areas in definite time period as mentioned in the EMGSM-2020 guidelines was observed by Sub-Divisional Committee.
- The studies were done on the basis of individual mines approach. Study plans were prepared for all the leases and each lease was surveyed with DGPS and elevation records in intervals of 200 meters were recorded. Inventory of the recorded "Elevation Index" of leases were prepared in pre and post monsoon period.
- Changes in the elevation in pre and post monsoon period in each interval (*called Ground Control Point- GCP*) was tabulated. Area of deposition for each cross section was calculated and summation deposition at each GCP was done to report the overall thickness observed in the post-monsoon period.






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- As the size of leases generally were $> 10\text{h.}$, lease wise cross section DGPS survey was conducted 100m upstream, within cluster area and 100m downstream and measurements were taken in equal distance intervals of 200m across the lease width and along the lease length, falling in river bed.
- Assessment of bulk density was done by referring the report published by Directorate of Geology & Mining.

Illustrative Ground Control Point (GCP) Map of a lease



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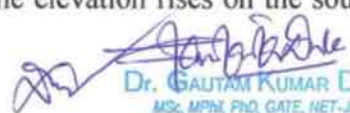
4. DISTRICT AND RIVER PROFILE

- The Jalaun District includes an area of 4,544 sq.km. It is the northernmost district in Uttar Pradesh. This district is a large area that spans the north of the state. The Yamuna River in the north and the Betwa River in the south border it. The western border follows the Phuja River. The eastern border is shared with Hamirpur district. The area lies between Latitude 26° 26' to 25° 45' North and Longitude 79° 57' to 78° 00' East, falling in the survey of India Toposheet No.54 N.
- Jalaun district is surrounded in all four directions by rivers Yamuna, Betwa, Pahuj and Dhasan. The net sown area is 3.50 lakh ha and 1.95 lakh ha as net irrigated area with cropping intensity of 118.82%. Small and marginal fanners contribute 74% of total farm holdings. 52.76% of fanners have land holdings less than 1 ha and 21.69% have land holding of 1-2 ha. Jalaun District is a part of Jhansi Division. The district has population of 16,89,974 (2011 census), with a population density of 370 persons per sqkm. The district lies entirely within the level plain of Bundelkhand, north of the hill country, and is almost surrounded by the Yamuna River, which forms the northern boundary of the district, and its tributaries the Betwa, which forms the southern boundary of the district, and the Pahuj, which forms the western boundary. The central region thus enclosed is a dead level of cultivated land, almost destitute of trees, and dotted with villages. The southern portion presents an almost unbroken sheet of cultivation. The Non River flows through the centre of the district, which it drains by innumerable small ravines.
- The districts of Etawah and Kanpur lie to the north across the Yamuna, while Jalaun District lies to the east and southeast, Jhansi District lies to the southeast, and Bhind District of Madhya Pradesh lies to the west cross the Pahuj.
- District has five Tehsils namely Jalaun, Orai, Kalpi, Madhogarh and Konch. Area wise, the biggest tehsil is Kalpi (Area 1252 sqkm) while smallest is Jalaun (Area 682 sqkm). There are total 9 blocks in the district.

Topography and Terrain:

- The topography of the district also plays a key role in locational analysis for any provision of services and facilities. Jhansi is located in the plateau of central India, an area dominated by rocky reliefs and 6 minerals underneath the soil. It has an average altitude of 144 meters above msl. The city has a natural slope in the north as it lies on the south western border of the vast Tarai plains of Uttar Pradesh. The elevation rises on the south. The land is suitable for citrus





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species fruits. Main crops grown in the district include wheat, pulses, peas & oilseeds. The region relies heavily on Monsoon rains for irrigation purposes.

Water Course and Hydrology:

- The area is chiefly drained by three perennial rivers namely, Yamuna, Betwa, and Pahuj. There are many minor ephemeral tributaries, viz. Non Nadi, Kunchamalanga Nadi which drains central parts of the district area. Jamuna and Betwa are flowing towards east and Pahuja from south to north. The overall drainage of the area forms dendritic pattern. Besides, there is good network of canal system draining from Betwa river through Kuthaund and Jalaun branches. The entire area of Jalaun district is underlain by quaternary alluvium, comprising mainly clay, kankar, sand, and gravel over the basement of Bundelkhand granites. The thickness of alluvium increases towards north which has good potential. Ground water potential in granites is poor as they have little porosity. The weathered zone in the granite rock usually hold good quantity of water. The ground water in the alluvium occurs under water table conditions in phreatic zones and under semi confined to confined conditions in the lower zone.

Land Form and Seismicity:

- The district falls in seismic zone III and lies in low to moderate hazard risk zone. No earthquake has been observed in the district during Last 200 years. The district has however experienced earthquakes on a few occasions.

Socio-Economics:

- As per the official Census data 2011, Jalaun had population of 1,689,974 of which male and female were 906,092 and 783,882 respectively. In 2001 census, Jalaun had a population of 1,454,452 of which males were 786,641 and remaining 667,811 were females. There was change of 16.19 percent in the population compared to population as per 2001. In the previous census of India 2001, Jalaun District recorded increase of 19.28 percent to its population compared to 1991.

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DISTRIPTION OF RIVERS

Yamuna in district Jalaun: The Yamuna forms the northern boundary of the district. It first touches the district at the village of Sitoura in the erstwhile jagir of Jagamanpur, at the point where it is joined by Sindh river. It flows with a gently curving course forming the boundary with Etawah district as far as Shergarh ferry on the road from Jalaun to Auraiya. Then it turns south continuing to form the district limit till it leaves it some 16 kilometers south east of Kalpi town on the border of Baoni. With the exception of a sudden loop north of the old city of Raipur and near Mainupur, its courses is not characterized by any abrupt curves or bends. It's total length within the district limit is approximately 83 Kilometers.

The Yamuna receives water of several tributaries during its course along the border of the district but few are of any importance. The Non rises in the tehsil of Orai and drains the southern portion of the district. The Melunga starting not far from the town of Konch flows due North as far as Hadrukh and turning near that town abruptly east holding a course parallel to Yamuna till it unites with the Non at Mahewa in Kalpi. Both the streams are, for most part deep-bedded and merely serve to carry off the drainage of the central black soil tract during the rainy season and then dry up. In the upper portion of their courses, they have low and shelving sides but as they approach the main river, they cut more abruptly and have scored out their banks to a considerable extent Near the junction with the Yamuna which is about 13 kilometers north of the Kalpi town, they have been responsible for more extensive erosion and deterioration.

In the extreme south flows a small but deep bedded stream called the Manmesari nullah which has caused a certain amount of deterioration in the milages that border it. To the south of the tahsil Kalpi flow two small streams, the Rayar and Jondhar which join the Yamuna near Kalpi starting in uneven and adulating but not actually unculturable land, the two are flanked by ravines before reaching their destination.

Betwa in district Jalaun: The Betwa forms the boundary with Jhansi along the southern border from a point a few kilometers east of the town of Erichh to its junction with Dhasan. Its course, which up to the junction runs due east tends then somewhat to the north-east and it meanders along the south-eastern side of tahsil Orai and Kalpi, separating them from Hamirpur. Like the Yamuna it leaves the district on Baoni border. It flows in a tortuous channel with many loops and bends. Its total length along the district border is approximately 96 kilometers, but from point to point it does not exceed 64 kilometers. Both the banks are fringed for some distance inland by unculturable ravines. Pahuj in Jalaun - The Pahuj river rises in Gwalior district of Madhya Pradesh and flows

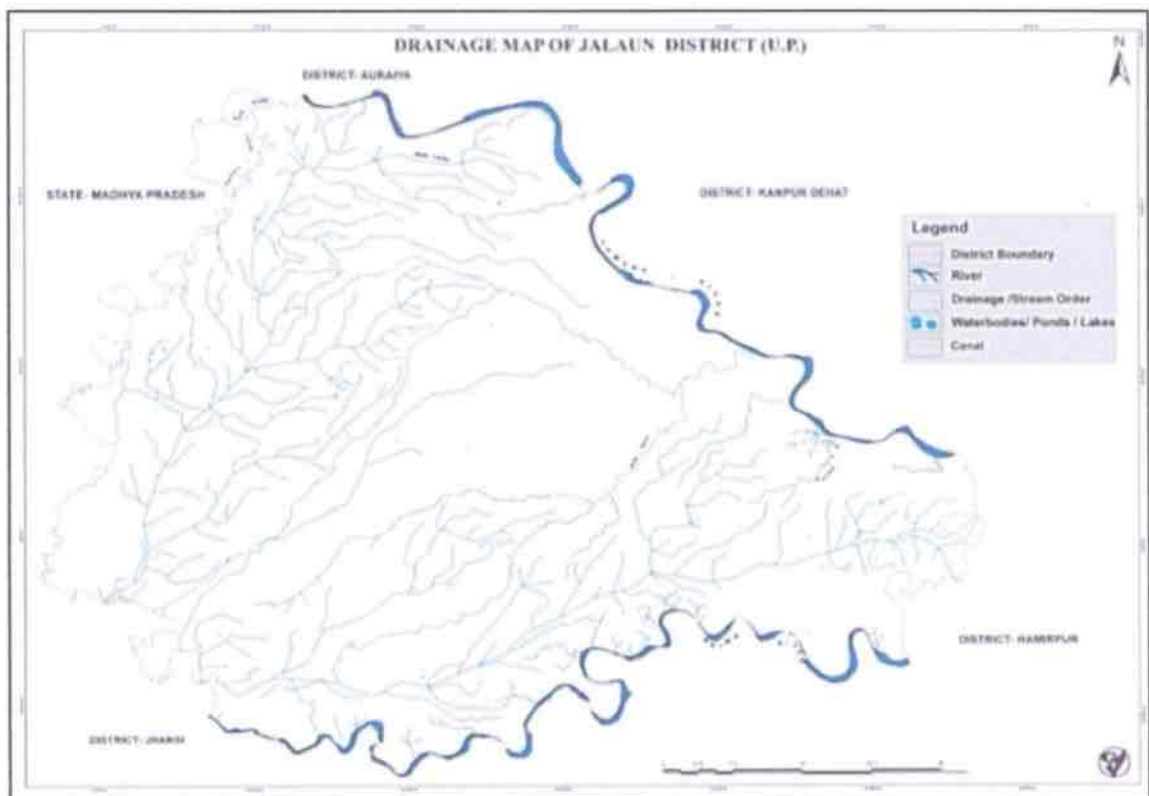




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through Jhansi, enters Jalaun in the south-western corner of tahsil Konch at the village of Savaiya-Buzurg. The river forms the western boundary, except at few points where the district projects here and there beyond the stream. It is a much smaller river than the Betwa and flows in a deep channel between high banks in a sinuous course along the western side of that tahsil and pursues its way north wards along the border of Madhogarh. Within 10 kilometers north-west of this town it flows through the erstwhile jagir of Rampura and the village of Jaghar joins the Sindh river. river. On both sides of the river, the banks are to a considerable distance cut up into ravines and nullahs. The Pahuj has no tributaries in the district except Dhumna, a small stream which rises in Kalia and joins it near Maheshpur.



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5. SEDIMENT COMPOSITION

The sediment of a river is commonly considered to be aesthetically displeasing and environmentally degrading. Conversely, part of the sediment (sand and gravel) may represent a natural resource for use by society. The potential usefulness of the sediment is enhanced when it is composed of particle sizes found in deposits on the river-bed that would be replenished by newly transported sediment after mining. As such, river deposits become renewable resources, periodically replaced by sediment transport in the river.



Sediment deposition process

Sediment transport is the movement of organic and inorganic particles by water. In general, the greater the flow, the more sediment that will be conveyed. Water flow can be strong enough to suspend particles in the water column as they move downstream, or simply push them along the bottom of a waterway. Transported sediment may include mineral matter, chemicals and pollutants, and organic material. Another name for sediment transport is sediment load. The total load includes all particles moving as bedload, suspended load, and wash load.

Sediment deposition is the process of settling down of suspended particles to the bottom of a body of water. This settling often occurs when water flow slows down or stops, and heavy particles can no longer be supported by the bed turbulence. Sediment deposition can be found anywhere in a water system, from high mountain streams, to rivers, lakes, deltas and floodplains.

Sediment transport is critical to understanding how rivers work because it is the set of processes that mediates between the flowing water and the channel boundary. Erosion involves removal and transport of sediment (mainly from the boundary) and deposition involves the transport and placement of sediment on the boundary. Erosion and deposition are what form the channel of any alluvial river as well as the floodplain through which it moves. The amount and size of sediment moving through a river channel are determined by three fundamental controls: competence, capacity and sediment supply. Competence refers to the largest size (diameter) of sediment particle or grain that the flow is capable of moving; it is a hydraulic limitation. If a river is sluggish and moving very slowly it simply may not have the power to mobilize and transport sediment of a given size even though such sediment is available to transport. So a river may be competent or incompetent with respect to a given grain size. If it is incompetent it will not transport sediment of the given size. If it

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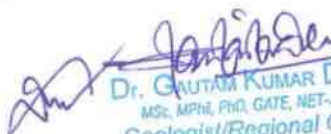
is competent it may transport sediment of that size if such sediment is available (that is, the river is not supply-limited). Capacity refers to the maximum amount of sediment of a given size that a stream can transport in traction as bedload. Given a supply of sediment, capacity depends on channel gradient, discharge and the calibre of the load (the Presence of fines may increase fluid density and increase capacity; the presence of large particles may obstruct the flow and reduce capacity). Capacity transport is the competence-limited sediment transport (mass per unit time) predicted by all sediment-transport equations, examples of which will be examined later. Capacity transport only occurs when sediment supply is abundant (non-limiting). Sediment supply refers to the amount and size of sediment available for sediment transport. Capacity transport for a given grain size is only achieved if the supply of that calibre of sediment is not limiting (that is, the maximum amount of sediment a stream is capable of transporting is actually available). Because of these two different potential constraints (hydraulics and sediment supply) distinction is often made between supply-limited and capacity-limited transport.

Most rivers probably function in a sediment supply limited condition, although we often assume that this is not the case. Much of the material supplied to a stream is so fine (silt and clay) that provided it can be carried in suspension, almost any flow will transport it. Although there must be an upper limit to the capacity of the stream to transport such fines, it is probably never reached in natural channels and the amount moved is limited in supply. In contrast, transport of coarser material (say, coarser than fine sand) is largely capacity limited.

Modes of Sediment Transport: The sediment load of a river is transported in various ways although these distinctions are to some extent arbitrary and not always very practical in the sense that not all of the components can be separated in practice. The modes are:

1. Dissolved Load
2. Suspended Load
3. Intermittent Suspension (Saltation) Load
4. Wash Load
5. Bed Load




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6. ENFORCEMENT & MONITORING GUIDELINES FOR SAND MINING – 2020

- The need for replenishment study for river bed sand is required in order to nullify the adverse impacts arising due to excessing sand extraction. Mining within or near riverbed has a direct impact on the stream's physical characteristics, such as channel geometry, bed elevation, substratum composition and stability, in-stream roughness of the bed, flow velocity, discharge capacity, sediment transport capacity, turbidity, temperature etc.
- Alteration or modification of the above attributes may cause an impact on the ecological equilibrium of the riverine regime, disturbance in channel configuration and flow-paths. This may also cause an adverse impact on in- stream biota and riparian habitats. It is assumed that the riparian habitat disturbance is minimum if the replenishment is equal to excavation for a given stretch. Therefore, to minimize the adverse impact arising out of sand mining in a given river stretch, it is imperative to have a study of replenishment of material during the defined period.
- As per the provisions of EM Guidelines for Sand Mining – 2020, replenishment study requires filed surveys. For this, original ground level (OGL) are to be recorded and area of aggradation/deposition needs to be ascertained by comparing the level difference between the outside riverbed OGL and water level.
- The river reaches with sand provide the resource and thus it is necessary to ascertain the rate of replenishment of the mineral. Regular replenishment study needs to be carried out to keep a balance between deposition and extraction.
- The current study has been done on the basis of Physical DGPS Survey of field as per proviso of Section 5.2.1 of EMSM-2020 Guidelines.
- The conventional survey using DGPS and other survey tools are used to define elevation contours of the lease area as the contour and the elevation benchmarks provide the baseline data for assessing the pre and post-study period scenario.
- Baseline data on elevation status by formation of grids has been done on intervals depending on the geographical and site-specific conditions
- The changes observed in the elevation in pre and post scenario shall be depicted in graphical forms along with reserve estimation of the mining area.

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7. INVENTORY OF SAND/MORRUM LEASES IN DISTRICT JALAUN

- There are total 81 leases in district Jalaun.

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)
1	Betwa	Nandha , Tehsil Orai	345G , Khand-1	20.242
2	Betwa	Nandha , Tehsil Orai	3G , Khand-2	20.242
3	Betwa	Nandha , Tehsil Orai	3G , Khand-3	8.480
4	Betwa	Karthara, Tehsil Orai	208, Khand-1	6.870
5	Betwa	Kharka, Tehsil orai	2513,2629 , Khand-1	20.242
6	Betwa	Kharka , Tehsil orai	2513,2629 - Khand-2	20.242
7	Betwa	Kharka , Tehsil orai	2628,2629, 2513 - Khand-3	20.242
8	Betwa	Kharka , Tehsil orai	2257 - Khand-6	11.740
9	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-1	14.574
10	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-2	8.906
11	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-3	8.906
12	Betwa	Sikrivyas , Tehsil Orai	1193/916, 1191/2 - Khand-1	15.300
13	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-3	20.242
14	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-4	20.242
15	Betwa	Kurona , Tehsil Orai	317Mi - Khand-1	20.242
16	Betwa	Kurona , Tehsil Orai	317Mi - Khand-2	20.242
17	Betwa	Kurona , Tehsil Orai	317Mi - Khand-3	20.242
18	Betwa	Kurona , Tehsil Orai	317Mi - Khand-4	16.195
19	Betwa	Kurona , Tehsil Orai	317Mi - Khand-5	12.120
20	Betwa	Dadri , Tehsil Orai	2093 - Khand-1	20.242
21	Betwa	Bandholi , Tehsil Orai	2559,2563 - Khand-1	20.242
22	Betwa	Bandholi , Tehsil Orai	2559,2563 - Khand-2	20.242
23	Betwa	Bandholi , Tehsil Orai	2558,2559,2563 - Khand-3	20.242
24	Betwa	Bandholi , Tehsil Orai	2558,2563 - Khand-4	16.195
25	Betwa	Bandholi , Tehsil Orai	2558,2563 - Khand-5	12.145
26	Betwa	Bandholi , Tehsil Orai	2556,2557 - Khand-5A	36.360
27	Betwa	Simiriya , Tehsil Orai	864/320, 865/320	27.470
28	Betwa	Simiriya , Tehsil Orai	866/144	17.500
29	Betwa	Tikar , Tehsil Orai	1482 - Khand-1	20.242
30	Betwa	Tikar , Tehsil Orai	1482 - Khand-2	20.242
31	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-1	20.242
32	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-2	20.242
33	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-3	20.242
34	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-4	20.242
35	Betwa	Bhedi khurd - Tehsil Kalpi	1396G - Khand-5	20.242
36	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-6	11.740

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37	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-1	7.850
38	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-2	20.242
39	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-3	13.360
40	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-4	16.195
41	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-5	16.195
42	Betwa	Basrehi , Teshil Kalpi	596 - Khand-1	16.195
43	Betwa	Basrehi , Teshil Kalpi	596 - Khand-2	16.195
44	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-1	14.170
45	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-2	14.170
46	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-1	20.242
47	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-2	18.218
48	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-3	16.194
49	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-1	16.195
50	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-2	16.195
51	Betwa	Pathretha , Tehsil Kalpi	747 -Khand-3	16.195
52	Betwa	Pathretha , Tehsil Kalpi	747 -Khand-4	16.195
53	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-5	16.195
54	Betwa	Pathretha , Tehsil Kalpi	439 - Khand-6	10.120
55	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-1	9.710
56	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-2	20.242
57	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-3	12.120
58	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 -Khand-4	12.120
59	Yamuna	Taribulda , Tehsil Kalpi	36/1 - Khand-1	20.242
60	Yamuna	Gajraura , Tehsil Jalaun	22/14	6.950
61	Yamuna	Mahtoli , Tehsil Jalaun	714G	10.000
62	Betwa	Pathretha , Tehsil Kalpi	747/16, Khand-1	8.880
63	Yamuna	Jeetamau Deewara , Tehsil Kalpi	84,85,86,87 - Khand-1	15.000
64	Yamuna	Jeetamau Deewara , Tehsil Kalpi	84 ,87,91 - Khand-2	15.000
65	Yamuna	Jeetamau Deewara , Tehsil Kalpi	88/2, 89,90,91 - Khand-3	13.080
66	Yamuna	Jeetamau Deewara , Tehsil Kalpi	88/2, 89, 120/1 - Khand-4	15.000
67	Yamuna	Jeetamau Deewara , Tehsil Kalpi	120/1 - Khand-5	15.000
68	Yamuna	HarshanKarpur Diwara , Tehsil Jalaun	76Mi - Khand-01	9.000
69	Yamuna	HarshanKarpur Diwara, Tehsil Jalaun	76Mi -Khand-02	9.000
70	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 - Khand-01	11.000
71	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 -Khand-02	10.000
72	Yamuna	Heerapur Diwara , Tehsil Kalpi	169/9 - Khand-01	15.000
73	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-02	15.000
74	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-03	15.000
75	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-04	15.000
76	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-05	15.000
77	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-06	15.000
78	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-07	15.000

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79	Betwa	Simeriya , Tehsil - Orai	861, 861/12, 861/12Mi	1.47
80	Betwa	Simeriya , Tehsil - Orai	860/19	3.112
81	Betwa	Parasan, Tehsil - Kalpi	4032/15	1.234
Total Area				1253.064 ha.

- List of 18 Leases operational in the period of 1-Oct-2023 till 30—June-2024 along with production.

SL.N.	River	Village/Tehsil	Lease Details	Area (in ha.)	Actual Production as per MM11	Planned Production as per D.S.R.
5	Betwa	Kharka, Tehsil orai	2513,2629 , Khand-1	20.242	114977	202420
17	Betwa	Kurona , Tehsil Orai	317Mi - Khand-3	20.242	5934	303630
18	Betwa	Kurona , Tehsil Orai	317Mi - Khand-4	16.195	115417	242910
23	Betwa	Bandholi , Tehsil Orai	2558,2559,2563 - Khand-3	20.242	95439	303630
27	Betwa	Simiriya , Tehsil Orai	864/320, 865/320	27.470	26364	412950
30	Betwa	Tikar , Tehsil Orai	1482 - Khand-2	20.242	188020	202420
32	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-2	20.242	96708	303630
34	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-4	20.242	104264	303630
39	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-3	13.360	14271	200400
40	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-4	16.195	49868	242910
43	Betwa	Basrehi , Teshil Kalpi	596 - Khand-2	16.195	60726	242910
47	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-2	18.218	133553	182180
50	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-2	16.195	161930	323880
53	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-5	16.195	79961	323880
54	Betwa	Pathretha , Tehsil Kalpi	439 - Khand-6	10.120	150807	151820
55	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-1	9.710	116572	145650
59	Yamuna	Taribulda , Tehsil Kalpi	36/1 - Khand-1	20.242	127581	202420
79	Betwa	Simeriya , Tehsil - Orai	861, 861/12, 861/12Mi	1.47	16200	33070






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8. RESULTS OF LEASES IN PRE & POST MONSOON PERIOD

SLN	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon -2024 Reserve A	Post-Monsoon-2024 Replenishment (in Cum) B	Total Quantity in Lease-2024 (in Cum) A+B	D.S.R. Planned Quantity (cum)
1	Betwa	Nandha , Tehsil Orai	345G , Khand-1	20.242	124488	78337	202825	202420
2	Betwa	Nandha , Tehsil Orai	3G , Khand-2	20.242	111331	91696	203027	202420
3	Betwa	Nandha , Tehsil Orai	3G , Khand-3	8.480	61226	23829	85054	85020
4	Betwa	Karthara, Tehsil Orai	208, Khand-1	6.870	26724	42594	69318	68820
5	Betwa	Kharka, Tehsil orai	2513,2629 , Khand-1	20.242	87566	114975	202541	202420
6	Betwa	Kharka , Tehsil orai	2513,2629 - Khand-2	20.242	111331	92101	203432	202420
7	Betwa	Kharka , Tehsil orai	2628,2629, 2513 - Khand-3	20.242	119225	83802	203027	202420
8	Betwa	Kharka , Tehsil orai	2257 - Khand-6	11.740	64453	53065	117517	117200
9	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-1	14.574	75931	36289	112220	111700
10	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-2	8.906	46133	43372	89505	89060
11	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-3	8.906	56019	33843	89862	89060
12	Betwa	Sikrivyas , Tehsil Orai	1193/916, 1191/2 - Khand-1	15.300	73287	80478	153765	153200
13	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-3	20.242	97666	104854	202520	202420
14	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-4	20.242	110988	91494	202482	202420
15	Betwa	Kurona , Tehsil Orai	317Mi - Khand-1	20.242	137138	166592	303730	303630
16	Betwa	Kurona , Tehsil Orai	317Mi - Khand-2	20.242	150266	153434	303700	303630
17	Betwa	Kurona , Tehsil Orai	317Mi - Khand-3	20.242	211277	92911	304188	303630
18	Betwa	Kurona , Tehsil Orai	317Mi - Khand-4	16.195	128500	114823	243323	242910
19	Betwa	Kurona , Tehsil Orai	317Mi - Khand-5	12.120	91839	90536	182375	182175
20	Betwa	Dadri , Tehsil Orai	2093 - Khand-1	20.242	132000	70442	202442	202420
21	Betwa	Bandholi , Tehsil Orai	2559,2563 - Khand-1	20.242	198005	105663	303668	303630
22	Betwa	Bandholi , Tehsil Orai	2559,2563 - Khand-2	20.242	170725	132990	303715	303630
23	Betwa	Bandholi , Tehsil Orai	2558,2559,2563 - Khand-3	20.242	206000	97769	303769	303630
24	Betwa	Bandholi , Tehsil Orai	2558,2563 - Khand-4	16.195	120755	122596	243351	242910
25	Betwa	Bandholi , Tehsil Orai	2558,2563 - Khand-5	12.145	120998	61454	182452	182175
26	Betwa	Bandholi , Tehsil Orai	2556,2557 - Khand-5A	36.360	309821	235976	545797	545400
27	Betwa	Simiriya , Tehsil Orai	864/320, 865/320	27.470	382000	31041	413041	412950

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SLN	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon -2024 Reserve A	Post-Monsoon-2024 Replenishment (in Cum) B	Total Quantity in Lease-2024 (in Cum) A+B	D.S.R. Planned Quantity (cum)
28	Betwa	Simiriya , Tehsil Orai	866/144	17.500	202800	60025	262825	262500
29	Betwa	Tikar , Tehsil Orai	1482 - Khand-1	20.242	106945	95745	202690	202420
30	Betwa	Tikar , Tehsil Orai	1482 - Khand-2	20.242	15350	187239	202589	202420
31	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-1	20.242	198204	105663	303867	303630
32	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-2	20.242	206950	96757	303707	303630
33	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-3	20.242	176991	126917	303908	303630
34	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-4	20.242	198075	105663	303738	303630
35	Betwa	Bhedi khurd - Tehsil Kalpi	1396G - Khand-5	20.242	170966	132990	303956	303630
36	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-6	11.740	87780	88637	176417	176100
37	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-1	7.850	80384	41291	121675	121455
38	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-2	20.242	183493	120237	303730	303630
39	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-3	13.360	186288	14295	200583	200400
40	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-4	16.195	192000	51014	243014	242910
41	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-5	16.195	145676	97494	243170	242910
42	Betwa	Basrehi , Teshil Kalpi	596 - Khand-1	16.195	148994	93931	242925	242910
43	Betwa	Basrehi , Teshil Kalpi	596 - Khand-2	16.195	182200	60893	243093	242910
44	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-1	14.170	91672	120728	212400	212100
45	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-2	14.170	98798	113502	212300	212100
46	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-1	20.242	51966	150600	202566	202420
47	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-2	18.218	48800	134084	182884	182180
48	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-3	16.194	76884	85342	162226	161940
49	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-1	16.195	214996	109154	324150	323880
50	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-2	16.195	162672	161464	324136	323880
51	Betwa	Pathretha , Tehsil Kalpi	747 -Khand-3	16.195	198407	125673	324080	323880
52	Betwa	Pathretha , Tehsil Kalpi	747 -Khand-4	16.195	177544	146565	324109	323880
53	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-5	16.195	242300	81785	324085	323880
54	Betwa	Pathretha , Tehsil Kalpi	439 - Khand-6	10.120	5000	147246	152246	151820
55	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-1	9.710	30000	116132	146132	145650
56	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-2	20.242	136854	166997	303851	303630

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SL.N	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon -2024 Reserve A	Post-Monsoon-2024 Replenishment (in Cum) B	Total Quantity in Lease-2024 (in Cum) A+B	D.S.R. Planned Quantity (cum)
57	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-3	12.120	98998	82901	181899	181800
58	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 -Khand-4	12.120	93735	88840	182575	182175
59	Yamuna	Taribulda , Tehsil Kalpi	36/1 - Khand-1	20.242	74950	128739	203689	202420
60	Yamuna	Gajraura , Tehsil Jalaun	22/14	6.950	28609	41492	70101	69600
61	Yamuna	Mahtoli , Tehsil Jalaun	714G	10.000	41504	59100	100604	100000
62	Betwa	Pathretha , Tehsil Kalpi	747/16, Khand-1	8.880	216008	4085	220093	220000
63	Yamuna	Jeetamau Deewara , Tehsil Kalpi	84,85,86,87 - Khand-1	15.000	119994	105150	225144	225000
64	Yamuna	Jeetamau Deewara , Tehsil Kalpi	84 ,87,91 - Khand-2	15.000	125001	100050	225051	225000
65	Yamuna	Jeetamau Deewara , Tehsil Kalpi	88/2, 89,90,91 - Khand-3	13.080	123837	72463	196300	196200
66	Yamuna	Jeetamau Deewara , Tehsil Kalpi	88/2, 89, 120/1 - Khand-4	15.000	154655	70650	225305	225000
67	Yamuna	Jeetamau Deewara , Tehsil Kalpi	120/1 - Khand-5	15.000	133884	91350	225234	225000
68	Yamuna	HarshanKarpur Diwara , Tehsil Jalaun	76Mi - Khand-01	9.000	70550	73620	144170	144000
69	Yamuna	HarshanKarpur Diwara, Tehsil Jalaun	76Mi -Khand-02	9.000	72650	71640	144290	144000
70	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 - Khand-01	11.000	78664	81510	160174	160000
71	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 -Khand-02	10.000	91004	69200	160204	160000
72	Yamuna	Heerapur Diwara , Tehsil Kalpi	169/9 - Khand-01	15.000	107993	132150	240143	240000
73	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-02	15.000	100684	139500	240184	240000
74	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-03	15.000	122005	118050	240055	240000
75	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-04	15.000	96651	143550	240201	240000
76	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-05	15.000	106662	133500	240162	240000
77	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-06	15.000	156102	84000	240102	240000
78	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-07	15.000	157188	82950	240138	240000

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SLN	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre- Monsoon -2024 Reserve A	Post-Monsoon- 2024 Replenishment (in Cum) B	Total Quantity in Lease- 2024 (in Cum) A+B	D.S.R. Planned Quantity (cum)
79	Betwa	Simeriya , Tehsil - Orai	861, 861/12, 861/12Mi	1.47	16800	16685	33485	33070
80	Betwa	Simeriya , Tehsil - Orai	860/19	3.112	56664	27603	84267	84000
81	Betwa	Parasan, Tehsil - Kalpi	4032/15	1.234	27455	7207	34662	34440

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9. CONCLUSION

- To determine the replenishment of Sand/Morrum in two rivers (Betwa and Yamuna) field survey and measurement of river bed levels in 81 locations were done in pre and post monsoon period.
- Since the operations of mines / leases is an ongoing process and rivers keeps on replenishing year to year basis, it was important to estimate the quantity of existing deposits/reserve in pre-monsoon period, which has accumulated as a result of past replenishment. The rainfall in June to September-2024 recorded was 857.90 mm which was on a higher side (excess rainfall category) as compared to average of 642.70 in the same period, as per IMD data.
- Out of 81 existing leases, 18 leases were operational which has attained productions for the period of Oct-2023 till June-2024. Rest 63 leases were vacant/non-operational which replenished in past monsoon as well as current monsoon period.
- The Maximum replenishment was observed in Kharka Khand-1, Tikar Khand-2, Pathreta Cluster and Kehtahamirpur cluster leases in Betwa river. and Maximum existing reserve was observed in Heerapur , Simra Sheikhpur, Jeetamau, and Harishanakpur leases of Yamuna river.
- Lease wise rate of replenishment and reserve in this report will be utilized by Sub-Divisional Committee in coming period for scientific operation of District Survey Report.
- The adequate rate of Replenishment is attributed to higher rainfall and extended monsoon period along with river gradient levels.



10. ANNEXURES

- DGPS Ground Control Point records of Lease with Coordinated with Pre-Monsoon and Post Monsoon Elevation levels records.

The image shows five handwritten signatures in blue ink. From left to right: the first is a circular stamp containing the word 'Shan'; the second is a signature that appears to be 'Anildeep'; the third is a signature with a large 'X' over it; the fourth is a signature that appears to be 'Jatinder'; and the fifth is a signature that appears to be 'AL'. Below the first signature is another signature that appears to be 'S. J. S.'.

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
1	Betwa	Nandha, Tehsil Orai	345G, Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°46'49.88"N	79°18'12.61"E	111.467	111.849
		2	25°46'55.61"N	79°18'12.60"E	112.850	113.332
		3	25°46'53.16"N	79°18'19.33"E	113.230	113.888
		4	25°46'47.62"N	79°18'19.10"E	111.513	111.638
		5	25°46'43.71"N	79°18'24.89"E	112.179	112.567
		6	25°46'49.75"N	79°18'25.45"E	112.879	113.133
		7	25°46'45.59"N	79°18'31.02"E	112.982	113.337
		8	25°46'39.12"N	79°18'29.94"E	111.989	112.370
		9	25°46'36.22"N	79°18'33.33"E	112.038	112.433
		10	25°46'41.39"N	79°18'36.53"E	112.780	113.232
2	Betwa	Nandha, Tehsil Orai	3G, Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°47'6.16"N	79°17'41.29"E	111.431	111.686
		2	25°47'8.81"N	79°17'45.40"E	113.264	113.508
		3	25°47'4.19"N	79°17'50.64"E	113.248	113.533
		4	25°47'1.69"N	79°17'45.86"E	111.545	111.808
		5	25°46'58.16"N	79°17'54.13"E	112.189	112.871
		6	25°47'1.15"N	79°17'57.05"E	113.293	113.764
		7	25°46'58.84"N	79°18'3.82"E	113.379	114.037
		8	25°46'55.18"N	79°18'0.57"E	111.581	112.004
		9	25°46'52.44"N	79°18'7.43"E	111.761	112.345
		10	25°46'56.96"N	79°18'10.04"E	112.295	112.960
3	Betwa	Nandha, Tehsil Orai	3G, Khand-3	8.480		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°47'33.35"N	79°17'28.84"E	109.798	110.043
		2	25°47'34.29"N	79°17'33.07"E	110.986	111.398
		3	25°47'28.09"N	79°17'34.95"E	110.923	111.191
		4	25°47'27.62"N	79°17'30.62"E	109.724	110.092
		5	25°47'23.18"N	79°17'31.82"E	109.959	110.111
		6	25°47'24.08"N	79°17'35.95"E	111.195	111.436
4	Betwa	Karthara, Tehsil Orai	208, Khand-1	6.870		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°49'8.64"N	79°17'33.61"E	110.601	111.189

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Chandrasekhar

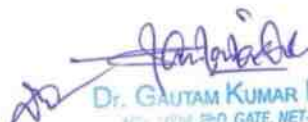
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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			2	25°49'11.30"N 79°17'33.02"E	113.801	114.362
			3	25°49'12.95"N 79°17'40.02"E	113.906	114.505
			4	25°49'9.99"N 79°17'40.55"E	110.541	111.111
			5	25°49'11.77"N 79°17'48.49"E	110.339	110.921
			6	25°49'14.67"N 79°17'47.84"E	113.963	114.784
5	Betwa	Kharka, Tehsil orai	2513,2629, Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'8.91"N	79°34'11.57"E	100.232	100.799
		2	25°53'15.04"N	79°34'12.55"E	101.403	101.977
		3	25°53'15.54"N	79°34'19.72"E	101.432	101.987
		4	25°53'8.78"N	79°34'18.77"E	100.478	101.060
		5	25°53'9.27"N	79°34'25.95"E	100.697	101.266
		6	25°53'15.81"N	79°34'26.91"E	101.937	102.499
6	Betwa	Kharka, Tehsil orai	2513,2629 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'10.84"N	79°34'33.15"E	100.685	101.110
		2	25°53'17.43"N	79°34'33.18"E	102.011	102.433
		3	25°53'18.94"N	79°34'40.27"E	101.836	102.364
		4	25°53'12.46"N	79°34'40.27"E	100.912	101.378
		5	25°53'15.12"N	79°34'46.97"E	100.642	101.054
		6	25°53'21.77"N	79°34'46.82"E	101.880	102.354
7	Betwa	Kharka, Tehsil orai	2628,2629, 2513 - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'19.36"N	79°34'53.00"E	100.978	101.366
		2	25°53'25.23"N	79°34'52.28"E	101.860	102.285
		3	25°53'28.16"N	79°34'58.72"E	102.457	102.835
		4	25°53'22.32"N	79°34'59.53"E	100.953	101.374
		5	25°53'26.28"N	79°35'5.33"E	101.156	101.591
		6	25°53'30.55"N	79°35'5.57"E	101.902	102.338
8	Betwa	Kharka, Tehsil orai	2257 - Khand-6	11.740		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'35.66"N	79°35'14.71"E	101.094	101.546
		2	25°53'38.93"N	79°35'13.42"E	102.483	103.064
		3	25°53'42.13"N	79°35'21.42"E	102.487	102.869
		4	25°53'38.70"N	79°35'22.43"E	101.044	101.435






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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
9	Betwa	Mohana, Tehsil Orai	1782, 1783 - Khand-1	14.574		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°47'51.11"N	79°27'49.07"E	104.606	104.845
		2	25°47'53.61"N	79°27'39.40"E	106.100	106.384
		3	25°48'0.82"N	79°27'41.30"E	106.313	106.548
		4	25°48'0.74"N	79°27'48.41"E	104.313	104.551
10	Betwa	Mohana, Tehsil Orai	1782, 1783 - Khand-2	8.906		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°48'6.43"N	79°27'48.94"E	106.236	106.621
		2	25°48'5.87"N	79°27'41.78"E	106.250	106.732
		3	25°48'12.14"N	79°27'41.10"E	104.075	104.656
		4	25°48'13.26"N	79°27'48.10"E	104.675	105.174
11	Betwa	Mohana, Tehsil Orai	1782, 1783 - Khand-3	8.906		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°48'17.73"N	79°27'47.32"E	105.980	106.268
		2	25°48'17.30"N	79°27'42.77"E	106.059	106.443
		3	25°48'23.92"N	79°27'41.71"E	104.258	104.730
		4	25°48'24.36"N	79°27'45.76"E	103.513	103.890
12	Betwa	Sikrivyas, Tehsil Orai	1193/916, 1191/2 - Khand-1	15.300		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°46'36.40"N	79°18'36.54"E	111.213	111.671
		2	25°46'39.21"N	79°18'39.04"E	112.927	113.509
		3	25°46'35.35"N	79°18'44.87"E	113.597	114.259
		4	25°46'31.47"N	79°18'41.24"E	110.997	111.409
		5	25°46'26.72"N	79°18'46.22"E	111.283	111.803
		6	25°46'30.36"N	79°18'50.01"E	113.100	113.629
		7	25°46'25.50"N	79°18'54.80"E	112.787	113.263
		8	25°46'21.89"N	79°18'51.06"E	110.864	111.430
13	Betwa	Sikrivyas, Tehsil Orai	1191/2 - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°46'4.28"N	79°19'15.12"E	111.053	111.468
		2	25°46'8.82"N	79°19'16.20"E	112.954	113.536
		3	25°46'8.24"N	79°19'23.38"E	112.661	113.162
		4	25°46'3.71"N	79°19'22.34"E	111.195	111.607
		5	25°46'3.38"N	79°19'29.56"E	111.471	111.889

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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			6	25°46'7.77"N 79°19'30.60"E	112.887	113.184
			7	25°46'8.76"N 79°19'37.66"E	112.713	113.271
			8	25°46'5.00"N 79°19'36.98"E	110.615	111.153
			9	25°46'7.02"N 79°19'43.99"E	111.069	111.690
			10	25°46'11.26"N 79°19'44.34"E	111.249	111.977
			11	25°46'15.18"N 79°19'50.23"E	112.751	113.373
			12	25°46'11.36"N 79°19'51.81"E	112.652	113.175
14	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-4	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°46'13.38"N	79°19'55.90"E	112.804	113.192
		2	25°46'16.97"N	79°19'51.88"E	112.533	112.932
		3	25°46'22.18"N	79°19'56.23"E	110.845	111.255
		4	25°46'18.77"N	79°20'0.06"E	111.288	111.684
		5	25°46'24.54"N	79°20'3.51"E	111.070	111.469
		6	25°46'27.69"N	79°20'0.08"E	112.559	112.941
		7	25°46'33.42"N	79°20'3.64"E	113.184	113.555
		8	25°46'30.04"N	79°20'7.48"E	110.980	111.805
		9	25°46'35.60"N	79°20'11.47"E	111.267	111.925
		10	25°46'39.06"N	79°20'7.31"E	110.830	111.271
		11	25°46'44.36"N	79°20'11.59"E	113.202	113.630
		12	25°46'41.26"N	79°20'15.07"E	113.343	113.664
15	Betwa	Kurona , Tehsil Orai	317Mi - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'42.19"N	79°35'34.69"E	101.095	101.853
		2	25°53'45.70"N	79°35'34.50"E	102.337	103.193
		3	25°53'46.62"N	79°35'41.70"E	102.585	103.444
		4	25°53'43.18"N	79°35'41.78"E	101.130	101.930
		5	25°53'44.28"N	79°35'48.93"E	102.878	103.860
		6	25°53'47.32"N	79°35'48.96"E	103.074	103.829
		7	25°53'47.60"N	79°35'56.22"E	101.566	102.218
		8	25°53'44.74"N	79°35'56.05"E	101.766	102.688
16	Betwa	Kurona , Tehsil Orai	317Mi - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'43.01"N	79°36'5.71"E	101.426	102.214
		2	25°53'46.83"N	79°36'5.82"E	102.894	103.719

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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			3	25°53'47.93"N 79°36'12.96"E	102.747	103.429
			4	25°53'43.78"N 79°36'12.73"E	101.634	102.525
			5	25°53'43.99"N 79°36'20.01"E	100.470	101.311
			6	25°53'48.73"N 79°36'17.84"E	102.580	103.235
			7	25°53'50.30"N 79°36'23.43"E	102.911	103.592
			8	25°53'45.60"N 79°36'25.08"E	101.343	102.044
17	Betwa	Kurona, Tehsil Orai	317Mi - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'46.58"N	79°36'30.79"E	102.209	102.690
		2	25°53'53.56"N	79°36'25.32"E	103.156	103.678
		3	25°53'57.77"N	79°36'30.88"E	103.353	103.770
		4	25°53'51.14"N	79°36'35.91"E	102.012	102.323
		5	25°53'56.33"N	79°36'40.32"E	102.353	102.934
		6	25°54'1.50"N	79°36'34.58"E	103.233	103.675
18	Betwa	Kurona, Tehsil Orai	317Mi - Khand-4	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'2.20"N	79°36'42.17"E	100.252	100.961
		2	25°54'5.50"N	79°36'35.16"E	101.622	102.330
		3	25°54'13.54"N	79°36'37.12"E	101.525	102.235
		4	25°54'13.14"N	79°36'43.12"E	100.487	101.198
19	Betwa	Kurona, Tehsil Orai	317Mi - Khand-5	12.120		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'19.91"N	79°36'42.07"E	101.176	101.928
		2	25°54'19.43"N	79°36'36.74"E	101.260	101.918
		3	25°54'27.78"N	79°36'34.27"E	100.980	101.921
		4	25°54'28.58"N	79°36'38.18"E	101.059	101.697
20	Betwa	Dadri, Tehsil Orai	2093 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°55'9.59"N	79°36'11.27"E	100.868	101.187
		2	25°55'10.08"N	79°36'8.51"E	102.331	102.783
		3	25°55'16.79"N	79°36'7.90"E	102.356	102.811
		4	25°55'16.67"N	79°36'10.28"E	100.976	101.287
		5	25°55'22.64"N	79°36'11.62"E	101.153	101.440
		6	25°55'23.55"N	79°36'8.78"E	102.546	102.945
		7	25°55'30.03"N	79°36'10.88"E	102.376	102.577

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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			8	25°55'28.98"N 79°36'13.56"E	100.915	101.236
			9	25°55'34.88"N 79°36'16.34"E	101.069	101.413
			10	25°55'36.40"N 79°36'13.32"E	102.437	102.826
			11	25°55'41.33"N 79°36'19.14"E	102.258	102.590
			12	25°55'39.87"N 79°36'20.63"E	100.855	101.221
21	Betwa	Bandholi, Tehsil Orai	2559,2563 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'15.13"N	79°29'55.10"E	106.831	107.330
		2	25°51'25.93"N	79°29'51.32"E	107.066	107.594
		3	25°51'27.33"N	79°29'58.08"E	107.343	107.981
		4	25°51'17.86"N	79°30'0.94"E	106.622	107.163
22	Betwa	Bandholi, Tehsil Orai	2559,2563 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'10.22"N	79°29'46.13"E	106.374	107.062
		2	25°51'22.52"N	79°29'39.84"E	107.330	108.014
		3	25°51'25.09"N	79°29'45.03"E	107.308	107.987
		4	25°51'12.50"N	79°29'50.30"E	106.613	107.189
23	Betwa	Bandholi, Tehsil Orai	2558,2559,2563 - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°50'56.76"N	79°29'33.56"E	105.796	106.279
		2	25°51'2.10"N	79°29'31.74"E	106.807	107.290
		3	25°51'7.82"N	79°29'40.60"E	106.837	107.321
		4	25°51'4.78"N	79°29'42.75"E	106.214	106.696
24	Betwa	Bandholi, Tehsil Orai	2558,2563 - Khand-4	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°50'52.36"N	79°29'23.89"E	106.296	107.084
		2	25°51'7.79"N	79°29'22.44"E	107.590	108.442
		3	25°51'8.33"N	79°29'25.56"E	107.472	108.171
		4	25°50'53.63"N	79°29'28.01"E	106.485	107.173
25	Betwa	Bandholi, Tehsil Orai	2558,2563 - Khand-5	12.145		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°50'50.14"N	79°29'17.49"E	106.204	106.662
		2	25°51'7.75"N	79°29'17.49"E	107.866	108.448
		3	25°51'8.04"N	79°29'19.57"E	107.553	108.105
		4	25°50'50.15"N	79°29'19.77"E	106.722	107.155





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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
26	Betwa	Bandholi, Tehsil Orai	2556,2557 - Khand-5A	36.360		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°50'43.69"N	79°29'4.79"E	106.115	106.733
		2	25°50'55.30"N	79°29'0.15"E	107.913	108.625
		3	25°50'58.81"N	79°29'7.96"E	107.579	108.234
		4	25°50'48.13"N	79°29'12.62"E	106.358	106.969
27	Betwa	Simiriya, Tehsil Orai	864/320, 865/320	27.470		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'47.35"N	79°33'26.72"E	103.746	103.859
		2	25°51'50.99"N	79°33'26.90"E	103.607	103.719
		3	25°51'50.72"N	79°33'19.71"E	103.770	103.884
		4	25°51'46.77"N	79°33'19.52"E	102.695	102.806
		5	25°51'45.46"N	79°33'12.31"E	103.720	103.833
		6	25°51'49.22"N	79°33'12.56"E	103.329	103.443
		7	25°51'47.44"N	79°33'5.47"E	103.490	103.603
		8	25°51'43.20"N	79°33'5.39"E	103.820	103.933
		9	25°51'41.12"N	79°32'58.01"E	103.767	103.880
		10	25°51'45.00"N	79°32'57.23"E	103.387	103.500
28	Betwa	Simiriya, Tehsil Orai	866/144	17.500		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'54.05"N	79°33'20.13"E	103.647	103.967
		2	25°51'55.22"N	79°33'19.64"E	102.590	102.912
		3	25°51'53.22"N	79°33'12.78"E	102.290	102.692
		4	25°51'51.84"N	79°33'13.48"E	103.418	103.783
		5	25°51'49.39"N	79°33'6.91"E	103.543	103.931
		6	25°51'51.24"N	79°33'5.88"E	102.538	102.909
		7	25°51'49.06"N	79°32'59.02"E	102.293	102.681
		8	25°51'47.23"N	79°32'59.97"E	103.497	103.909
		9	25°51'45.17"N	79°32'53.07"E	103.930	104.318
		10	25°51'47.46"N	79°32'52.66"E	102.772	103.074
		11	25°51'45.94"N	79°32'45.56"E	102.705	103.006
		12	25°51'43.58"N	79°32'46.50"E	102.013	102.053
		13	25°51'40.89"N	79°32'40.71"E	103.404	103.725
		14	25°51'42.62"N	79°32'39.37"E	102.219	102.677
		15	25°51'40.91"N	79°32'32.51"E	102.548	102.856

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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			16	25°51'39.88"N 79°32'32.93"E	103.564	103.908
			17	25°51'39.70"N 79°32'25.33"E	103.736	104.092
			18	25°51'41.16"N 79°32'25.17"E	101.980	102.369
29	Betwa	Tikar, Tehsil Orai	1482 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'33.63"N	79°31'29.43"E	101.244	101.702
		2	25°53'29.38"N	79°31'31.76"E	100.036	100.557
		3	25°53'27.28"N	79°31'24.96"E	100.068	100.389
		4	25°53'31.89"N	79°31'22.65"E	101.470	102.122
		5	25°53'28.90"N	79°31'16.42"E	101.756	102.222
		6	25°53'25.19"N	79°31'18.13"E	100.162	100.580
30	Betwa	Tikar, Tehsil Orai	1482 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'30.89"N	79°31'37.81"E	99.214	100.139
		2	25°53'36.09"N	79°31'35.10"E	100.114	101.036
		3	25°53'38.51"N	79°31'41.85"E	100.292	101.217
		4	25°53'34.33"N	79°31'44.00"E	99.095	100.020
		5	25°53'37.59"N	79°31'50.36"E	99.467	100.395
		6	25°53'40.34"N	79°31'48.80"E	100.527	101.452
		7	25°53'41.56"N	79°31'55.89"E	100.820	101.745
		8	25°53'39.37"N	79°31'57.27"E	99.401	100.325
		9	25°53'39.30"N	79°32'4.38"E	99.684	100.609
		10	25°53'41.93"N	79°32'3.06"E	100.809	101.734
31	Betwa	Bhedi khurd, Tehsil Kalpi	1396G - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'36.73"N	79°50'5.02"E	91.029	91.471
		2	25°53'41.66"N	79°50'7.25"E	92.716	93.244
		3	25°53'38.74"N	79°50'12.39"E	92.598	93.286
		4	25°53'32.64"N	79°50'10.40"E	91.527	92.015
		5	25°53'28.69"N	79°50'16.32"E	92.075	92.560
		6	25°53'33.07"N	79°50'19.13"E	93.224	93.723
32	Betwa	Bhedi khurd, Tehsil Kalpi	1396G - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'23.38"N	79°50'22.48"E	90.734	91.212
		2	25°53'29.48"N	79°50'25.79"E	92.128	92.606





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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			3	25°53'27.32"N 79°50'30.79"E	91.851	92.329
			4	25°53'20.61"N 79°50'28.21"E	90.643	91.121
			5	25°53'17.75"N 79°50'34.50"E	91.063	91.542
			6	25°53'24.42"N 79°50'37.13"E	92.252	92.730
33	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'14.78"N	79°50'38.52"E	91.226	91.814
		2	25°53'22.01"N	79°50'42.67"E	92.513	93.195
		3	25°53'19.43"N	79°50'47.49"E	92.651	93.243
		4	25°53'12.38"N	79°50'44.49"E	91.385	92.032
		5	25°53'9.22"N	79°50'50.02"E	91.274	91.936
		6	25°53'16.21"N	79°50'53.30"E	92.474	93.064
34	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-4	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'7.40"N	79°50'54.57"E	90.727	91.249
		2	25°53'13.26"N	79°50'56.96"E	92.126	92.647
		3	25°53'10.01"N	79°51'3.22"E	92.807	93.330
		4	25°53'4.63"N	79°51'1.15"E	90.840	91.362
		5	25°53'1.39"N	79°51'9.96"E	90.829	91.350
		6	25°53'4.54"N	79°51'11.01"E	92.742	93.266
35	Betwa	Bhedi khurd - Tehsil Kalpi	1396G - Khand-5	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'58.72"N	79°51'16.74"E	91.157	91.811
		2	25°53'1.66"N	79°51'17.97"E	92.511	93.296
		3	25°53'0.37"N	79°51'23.83"E	92.093	92.721
		4	25°52'56.91"N	79°51'23.71"E	91.507	92.229
		5	25°52'55.63"N	79°51'31.20"E	90.873	91.498
		6	25°52'58.45"N	79°51'31.01"E	92.485	93.037
		7	25°52'57.68"N	79°51'38.16"E	92.394	92.902
		8	25°52'55.17"N	79°51'38.66"E	90.799	91.497
		9	25°52'56.91"N	79°51'48.44"E	91.078	91.636
		10	25°52'59.97"N	79°51'48.51"E	91.280	92.121
36	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-6	11.740		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'57.71"N	79°51'54.83"E	90.736	91.404





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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			2	25°53'1.85"N 79°51'53.65"E	92.449	93.190
			3	25°53'4.98"N 79°51'59.72"E	91.906	92.798
			4	25°52'59.92"N 79°52'0.93"E	91.005	91.730
			5	25°53'2.66"N 79°52'6.04"E	90.720	91.425
			6	25°53'6.87"N 79°52'4.58"E	91.960	92.759
37	Betwa	Hemanpura, Tehsil Kalpi	240 - Khand-1	7.850		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'16.93"N	79°48'16.02"E	93.761	94.243
		2	25°52'19.25"N	79°48'13.50"E	95.607	96.195
		3	25°52'24.90"N	79°48'18.47"E	95.354	95.735
		4	25°52'23.21"N	79°48'21.09"E	94.201	94.853
38	Betwa	Hemanpura, Tehsil Kalpi	240 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'59.31"N	79°48'1.45"E	94.430	95.018
		2	25°52'5.97"N	79°47'58.61"E	95.786	96.438
		3	25°52'3.48"N	79°47'51.46"E	95.545	96.016
		4	25°51'56.16"N	79°47'52.20"E	94.543	95.207
39	Betwa	Hemanpura, Tehsil Kalpi	240 - Khand-3	13.360		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'52.62"N	79°47'39.12"E	93.834	93.942
		2	25°52'0.53"N	79°47'38.93"E	94.991	95.098
		3	25°52'1.26"N	79°47'44.94"E	95.216	95.325
		4	25°51'53.29"N	79°47'45.73"E	93.876	93.982
40	Betwa	Hemanpura, Tehsil Kalpi	240 - Khand-4	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'52.43"N	79°47'25.34"E	93.690	94.005
		2	25°52'0.56"N	79°47'26.02"E	95.131	95.447
		3	25°52'0.60"N	79°47'33.54"E	94.896	95.213
		4	25°51'52.11"N	79°47'33.19"E	93.816	94.127
41	Betwa	Hemanpura, Tehsil Kalpi	240 - Khand-5	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'53.99"N	79°47'11.10"E	94.437	95.022
		2	25°52'1.43"N	79°47'11.75"E	95.012	95.611
		3	25°52'0.86"N	79°47'19.37"E	94.929	95.549
		4	25°51'52.58"N	79°47'19.55"E	94.436	95.038





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SL.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
42	Betwa	Basrehi , Tehsil Kalpi	596 - Khand-1	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'58.79"N	79°45'45.69"E	93.372	93.911
		2	25°53'0.10"N	79°45'49.29"E	95.919	96.457
		3	25°52'54.93"N	79°45'53.69"E	95.899	96.489
		4	25°52'53.50"N	79°45'48.86"E	93.900	94.501
		5	25°52'47.59"N	79°45'51.81"E	95.770	96.377
		6	25°52'49.40"N	79°45'57.41"E	93.306	93.911
43	Betwa	Basrehi , Tehsil Kalpi	596 - Khand-2	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'42.76"N	79°45'53.24"E	93.426	93.801
		2	25°52'45.19"N	79°45'59.37"E	95.414	95.790
		3	25°52'38.54"N	79°46'5.80"E	95.327	95.705
		4	25°52'34.62"N	79°45'59.72"E	93.279	93.654
44	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-1	14.170		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'24.07"N	79°46'6.73"E	93.265	94.064
		2	25°52'30.36"N	79°46'13.23"E	95.447	96.308
		3	25°52'26.95"N	79°46'17.99"E	94.858	95.840
		4	25°52'21.01"N	79°46'13.35"E	93.484	94.249
45	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-2	14.170		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'18.22"N	79°46'18.52"E	92.982	93.640
		2	25°52'23.42"N	79°46'22.79"E	95.834	96.511
		3	25°52'20.55"N	79°46'27.16"E	95.689	96.574
		4	25°52'14.94"N	79°46'23.86"E	93.659	94.641
46	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'10.66"N	79°46'30.47"E	93.151	93.831
		2	25°52'16.17"N	79°46'33.29"E	95.211	95.861
		3	25°52'12.22"N	79°46'41.76"E	95.561	96.319
		4	25°52'6.37"N	79°46'38.35"E	92.570	93.459
47	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-2	18.218		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'3.14"N	79°46'44.73"E	92.605	93.339

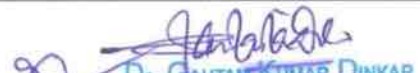
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SL.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			2	25°52'8.59"N 79°46'49.10"E	94.695	95.432
			3	25°52'5.73"N 79°46'55.31"E	94.608	95.346
			4	25°51'58.47"N 79°46'52.72"E	93.199	93.933
48	Betwa	Kyotra, Tehsil Kalpi	267,268 - Khand-3	16.194		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'56.08"N	79°46'57.12"E	93.040	93.624
		2	25°52'3.29"N	79°47'1.34"E	95.584	96.040
		3	25°52'2.11"N	79°47'6.36"E	95.440	95.942
		4	25°51'54.06"N	79°47'4.44"E	92.971	93.537
49	Betwa	Pathretha, Tehsil Kalpi	747 - Khand-1	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'30.80"N	79°48'38.64"E	93.247	93.889
		2	25°52'31.39"N	79°48'31.93"E	94.335	95.023
		3	25°52'39.03"N	79°48'33.66"E	95.772	96.477
		4	25°52'38.25"N	79°48'40.71"E	93.302	93.963
50	Betwa	Pathretha, Tehsil Kalpi	747 - Khand-2	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'44.06"N	79°48'44.96"E	91.657	92.647
		2	25°52'51.13"N	79°48'46.16"E	91.647	92.667
		3	25°52'52.14"N	79°48'37.13"E	93.355	94.365
		4	25°52'45.80"N	79°48'36.20"E	93.666	94.636
51	Betwa	Pathretha, Tehsil Kalpi	747 -Khand-3	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'57.13"N	79°48'37.47"E	95.580	96.339
		2	25°53'5.59"N	79°48'37.94"E	95.828	96.584
		3	25°53'5.98"N	79°48'45.17"E	93.533	94.321
		4	25°52'57.01"N	79°48'45.13"E	93.554	94.356
52	Betwa	Pathretha, Tehsil Kalpi	747 -Khand-4	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'11.21"N	79°48'45.12"E	93.541	94.529
		2	25°53'11.31"N	79°48'37.79"E	95.268	96.167
		3	25°53'17.90"N	79°48'37.78"E	95.491	96.396
		4	25°53'17.79"N	79°48'44.18"E	93.373	94.228
		5	25°53'23.52"N	79°48'42.22"E	93.556	94.430
		6	25°53'24.39"N	79°48'36.93"E	95.153	96.059

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53	Betwa	Pathretha, Tehsil Kalpi	747 - Khand-5	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'28.12"N	79°48'42.10"E	92.689	93.195
		2	25°53'28.51"N	79°48'36.09"E	94.587	95.093
		3	25°53'35.01"N	79°48'35.94"E	94.671	95.177
		4	25°53'34.54"N	79°48'40.60"E	92.832	93.336
		5	25°53'41.14"N	79°48'39.44"E	93.317	93.822
		6	25°53'41.45"N	79°48'35.07"E	95.199	95.701
		7	25°53'47.91"N	79°48'34.68"E	94.717	95.224
		8	25°53'47.38"N	79°48'38.25"E	93.174	93.680
54	Betwa	Pathretha, Tehsil Kalpi	439 - Khand-6	10.120		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'53.31"N	79°48'33.93"E	91.200	92.654
		2	25°53'53.60"N	79°48'29.09"E	93.620	95.078
		3	25°54'0.11"N	79°48'28.26"E	93.528	94.981
		4	25°54'0.21"N	79°48'31.92"E	90.876	92.327
		5	25°54'5.22"N	79°48'30.66"E	90.990	92.449
		6	25°54'5.19"N	79°48'27.66"E	93.469	94.926
55	Betwa	Kehtahamirpur, Tehsil Kalpi	1064 - Khand-1	9.710		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'25.56"N	79°39'30.57"E	100.416	101.615
		2	25°54'28.35"N	79°39'31.55"E	101.644	102.843
		3	25°54'27.49"N	79°39'37.77"E	101.312	102.494
		4	25°54'23.00"N	79°39'37.60"E	100.396	101.600
56	Betwa	Kehtahamirpur, Tehsil Kalpi	1064 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'24.32"N	79°39'45.66"E	100.769	101.558
		2	25°54'30.34"N	79°39'44.49"E	102.043	102.848
		3	25°54'32.89"N	79°39'51.80"E	101.975	102.880
		4	25°54'26.76"N	79°39'53.37"E	101.063	101.864
57	Betwa	Kehtahamirpur, Tehsil Kalpi	1064 - Khand-3	12.120		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'28.86"N	79°40'0.65"E	100.788	101.456
		2	25°54'36.42"N	79°39'58.52"E	102.072	102.766
		3	25°54'38.44"N	79°40'2.68"E	102.002	102.689





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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			4	25°54'31.18"N 79°40'6.31"E	101.197	101.885
58	Betwa	Kehtahamirpur, Tehsil Kalpi	1064 -Khand-4	12.120		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'34.97"N	79°40'10.46"E	100.604	101.303
		2	25°54'40.78"N	79°40'7.04"E	101.857	102.545
		3	25°54'44.19"N	79°40'11.46"E	102.167	102.908
		4	25°54'39.82"N	79°40'15.48"E	101.094	101.899
59	Yamuna	Taribulda, Tehsil Kalpi	36/1 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26° 7'16.81"N	79°46'2.23"E	94.299	94.931
		2	26° 7'20.08"N	79°46'7.38"E	91.904	92.566
		3	26° 7'17.70"N	79°46'14.12"E	91.831	92.442
		4	26° 7'13.11"N	79°46'6.52"E	94.201	94.879
		5	26° 7'7.18"N	79°46'12.60"E	94.598	95.206
		6	26° 7'12.99"N	79°46'21.10"E	91.671	92.293
60	Yamuna	Gajraura, Tehsil Jalaun	22/14	6.950		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°25'4.74"N	79°28'53.77"E	107.815	108.301
		2	26°25'5.40"N	79°28'56.88"E	106.933	107.491
		3	26°25'0.16"N	79°29'0.19"E	106.869	107.551
		4	26°24'59.18"N	79°28'56.61"E	108.479	109.060
		5	26°24'53.63"N	79°29'0.09"E	108.189	108.843
		6	26°24'54.48"N	79°29'3.25"E	107.255	107.877
61	Yamuna	Mahtoli, Tehsil Jalaun	714G	10.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°26'20.37"N	79°17'34.75"E	106.825	107.358
		2	26°26'17.92"N	79°17'34.54"E	108.133	108.721
		3	26°26'16.70"N	79°17'41.72"E	107.524	108.115
		4	26°26'18.51"N	79°17'42.63"E	106.091	106.577
		5	26°26'16.57"N	79°17'48.73"E	106.679	107.271
		6	26°26'14.52"N	79°17'46.88"E	107.453	108.019
		7	26°26'11.52"N	79°17'51.82"E	107.426	108.027
		8	26°26'13.59"N	79°17'53.31"E	106.345	106.919
		9	26°26'5.63"N	79°18'1.59"E	106.448	107.237
		10	26°26'4.75"N	79°18'0.34"E	106.424	107.012






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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
62	Betwa	Pathretha, Tehsil Kalpi	747/16, Khand-I	8.880		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'34.87"N	79°48'28.69"E	97.058	97.090
		2	25°52'35.00"N	79°48'27.94"E	97.067	97.139
		3	25°52'41.39"N	79°48'29.45"E	97.342	97.417
		4	25°52'41.19"N	79°48'30.25"E	98.011	98.095
		5	25°52'47.56"N	79°48'31.88"E	97.860	97.959
		6	25°52'47.74"N	79°48'31.15"E	97.258	97.316
		7	25°52'54.26"N	79°48'32.61"E	97.249	97.313
		8	25°52'54.04"N	79°48'33.49"E	97.830	97.865
		9	25°53'0.69"N	79°48'34.50"E	98.025	98.102
		10	25°53'0.74"N	79°48'34.09"E	97.168	97.180
		11	25°53'7.29"N	79°48'33.78"E	97.392	97.461
		12	25°53'7.30"N	79°48'34.42"E	97.652	97.695
		13	25°53'13.84"N	79°48'34.11"E	97.933	97.988
		14	25°53'13.81"N	79°48'33.56"E	97.355	97.417
		15	25°53'20.35"N	79°48'33.29"E	97.482	97.566
		16	25°53'20.32"N	79°48'33.96"E	97.468	97.551
		17	25°53'26.88"N	79°48'33.73"E	97.070	97.158
		18	25°53'26.91"N	79°48'33.18"E	97.207	97.268
		19	25°53'33.42"N	79°48'32.85"E	97.415	97.417
		20	25°53'33.45"N	79°48'33.37"E	97.210	97.216
		21	25°53'39.97"N	79°48'33.28"E	97.253	97.257
		22	25°53'39.99"N	79°48'32.59"E	98.065	98.073
		23	25°53'46.49"N	79°48'32.25"E	97.423	97.429
		24	25°53'46.47"N	79°48'33.00"E	97.196	97.201
		25	25°53'50.61"N	79°48'32.76"E	97.388	97.397
		26	25°53'50.81"N	79°48'32.19"E	97.425	97.431
63	Yamuna	Jectamau Deewara, Tehsil Kalpi	84,85,86,87 - Khand-I	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'23.39"N	79°33'20.34"E	104.339	104.907
		2	26°21'24.55"N	79°33'12.90"E	104.296	104.961
		3	26°21'30.17"N	79°33'16.73"E	103.927	104.614
		4	26°21'28.00"N	79°33'23.38"E	103.702	104.584
		5	26°21'32.99"N	79°33'28.26"E	102.860	103.559






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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
64	Yamuna	Jeetamau Deewara, Tehsil Kalpi	26°21'35.41"N 84, 87, 91 - Khand-2	79°33'22.61"E 15.000	102.552	103.254
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'23.65"N	79°33'23.19"E	103.757	104.442
		2	26°21'21.85"N	79°33'30.57"E	103.880	104.351
		3	26°21'27.03"N	79°33'34.50"E	103.543	104.138
		4	26°21'28.92"N	79°33'27.29"E	103.505	104.187
		5	26°21'34.71"N	79°33'31.60"E	102.100	103.025
		6	26°21'33.65"N	79°33'38.79"E	102.147	102.788
65	Yamuna	Jeetamau Deewara, Tehsil Kalpi	88/2, 89, 90, 91 - Khand-3	13.080		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'18.53"N	79°33'39.28"E	103.714	104.203
		2	26°21'20.56"N	79°33'33.35"E	103.319	103.907
		3	26°21'26.36"N	79°33'38.10"E	102.452	102.951
		4	26°21'23.55"N	79°33'43.98"E	102.535	103.043
		5	26°21'28.93"N	79°33'48.79"E	101.268	101.920
		6	26°21'31.74"N	79°33'43.56"E	101.139	101.728
66	Yamuna	Jeetamau Deewara, Tehsil Kalpi	88/2, 89, 120/1 - Khand-4	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'17.39"N	79°33'40.62"E	103.045	103.534
		2	26°21'13.95"N	79°33'45.95"E	103.270	103.792
		3	26°21'16.62"N	79°33'50.60"E	102.077	102.565
		4	26°21'22.17"N	79°33'45.60"E	102.248	102.660
		5	26°21'27.92"N	79°33'50.80"E	101.219	101.720
		6	26°21'20.31"N	79°33'56.09"E	101.176	101.592
67	Yamuna	Jeetamau Deewara, Tehsil Kalpi	120/1 - Khand-5	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'13.40"N	79°33'48.98"E	102.915	103.510
		2	26°21'17.46"N	79°33'56.20"E	100.788	101.377
		3	26°21'11.26"N	79°33'58.62"E	103.257	103.894
		4	26°21'9.27"N	79°33'51.78"E	101.296	101.980
		5	26°21'3.42"N	79°33'54.47"E	103.352	103.878
		6	26°21'4.03"N	79°33'59.92"E	101.318	101.940
68	Yamuna	HarshanKarpur Diwara, Tehsil Jalaun	76Mi - Khand-01	9.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level





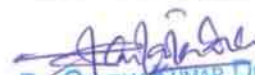

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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			1	26°24'49.52"N 79°29'3.25"E	107.590	108.489
			2	26°24'50.48"N 79°29'7.54"E	106.103	106.897
			3	26°24'45.93"N 79°29'9.45"E	106.283	107.065
			4	26°24'45.03"N 79°29'4.55"E	107.165	107.970
			5	26°24'39.40"N 79°29'5.94"E	107.576	108.442
			6	26°24'40.27"N 79°29'11.83"E	106.838	107.602
69	Yamuna	HarshanKarpur Diwara, Tehsil Jalaun	76Mi -Khand-02	9.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
			1	26°24'35.25"N 79°29'7.01"E	107.347	107.955
			2	26°24'36.63"N 79°29'12.96"E	105.913	106.601
			3	26°24'31.75"N 79°29'14.29"E	106.237	107.129
			4	26°24'31.18"N 79°29'8.61"E	107.168	108.000
			5	26°24'25.83"N 79°29'10.18"E	107.580	108.339
			6	26°24'26.32"N 79°29'15.10"E	105.954	106.949
70	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 - Khand-01	11.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
			1	26°14'12.92"N 79°38'48.01"E	106.145	106.800
			2	26°14'13.75"N 79°38'52.11"E	103.010	103.738
			3	26°14'20.51"N 79°38'50.33"E	103.234	104.002
			4	26°14'19.70"N 79°38'45.88"E	105.805	106.549
			5	26°14'26.93"N 79°38'42.87"E	106.377	107.176
			6	26°14'27.82"N 79°38'47.77"E	102.638	103.392
71	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 -Khand-02	10.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
			1	26°13'52.97"N 79°38'47.63"E	106.256	106.915
			2	26°13'52.45"N 79°38'50.96"E	102.629	103.301
			3	26°13'58.91"N 79°38'52.74"E	101.876	102.811
			4	26°13'59.48"N 79°38'48.95"E	105.936	106.618
			5	26°14'8.13"N 79°38'48.62"E	106.293	106.892
			6	26°14'8.47"N 79°38'53.26"E	102.214	102.818
72	Yamuna	Heerapur Diwara , Tehsil Kalpi	169/9 - Khand-01	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
			1	26°10'45.56"N 79°45'23.15"E	101.546	102.407
			2	26°10'50.73"N 79°45'18.74"E	101.547	102.438
			3	26°10'58.20"N 79°45'27.22"E	99.833	100.734





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SLNo	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			4	26°10'54.05"N 79°45'34.72"E	99.797	100.669
73	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-02	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°10'44.01"N	79°45'24.26"E	101.115	102.023
		2	26°10'40.33"N	79°45'28.23"E	101.012	101.914
		3	26°10'46.25"N	79°45'40.67"E	99.170	100.114
		4	26°10'52.05"N	79°45'36.72"E	98.200	99.166
74	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-03	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°10'33.92"N	79°45'30.82"E	101.201	101.953
		2	26°10'38.61"N	79°45'28.63"E	101.427	102.228
		3	26°10'43.81"N	79°45'42.02"E	98.673	99.461
		4	26°10'37.76"N	79°45'44.51"E	98.620	99.426
75	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-04	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°10'25.89"N	79°45'32.78"E	100.533	101.499
		2	26°10'31.70"N	79°45'31.90"E	100.516	101.487
		3	26°10'34.06"N	79°45'44.82"E	97.309	98.299
		4	26°10'26.59"N	79°45'45.59"E	98.546	99.447
76	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-05	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°10'12.46"N	79°45'33.68"E	100.087	101.029
		2	26°10'23.54"N	79°45'33.70"E	100.459	101.314
		3	26°10'23.44"N	79°45'44.68"E	96.967	97.833
		4	26°10'11.86"N	79°45'41.71"E	94.234	95.133
77	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-06	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26° 9'57.73"N	79°45'29.28"E	99.822	100.439
		2	26°10'9.96"N	79°45'32.98"E	99.967	100.722
		3	26°10'9.26"N	79°45'40.69"E	97.095	97.900
		4	26° 9'56.53"N	79°45'35.25"E	97.020	97.084
78	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-07	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26° 9'34.02"N	79°45'13.06"E	99.258	99.826
		2	26° 9'32.34"N	79°45'15.74"E	97.470	98.014





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Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level	Post-Monsoon Level
			3	26° 9'39.19"N 79°45'23.19"E	96.852	97.356
			4	26° 9'41.44"N 79°45'19.22"E	99.450	100.049
			5	26° 9'51.99"N 79°45'27.04"E	99.608	100.110
			6	26° 9'50.36"N 79°45'31.93"E	97.193	97.794
79	Betwa	Simeriya, Tehsil - Orai	861, 861/12, 861/12Mi	1.47		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'17.41"N	79°34'10.69"E	103.062	104.196
		2	25°51'17.00"N	79°34'12.73"E	104.165	105.298
		3	25°51'14.67"N	79°34'11.92"E	103.708	104.846
		4	25°51'14.85"N	79°34'10.51"E	102.724	103.861
80	Betwa	Simeriya, Tehsil - Orai	860/19	3.112		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
			25°51'33.06"N	79°33'42.63"E	104.242	105.133
			25°51'36.35"N	79°33'47.46"E	105.759	106.66
			25°51'34.80"N	79°33'48.27"E	105.247	106.152
			25°51'31.77"N	79°33'43.39"E	104.653	105.507
81	Betwa	Parasan, Tehsil - Kalpi	4032/15	1.234		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'34.19"N	79°43'1.19"E	96.373	96.957
		2	25°54'34.92"N	79°43'1.82"E	94.856	95.424
		3	25°54'32.39"N	79°43'6.61"E	96.371	96.873
		4	25°54'31.78"N	79°43'5.83"E	95.414	96.098

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Site Inspection by
S.D.C. Members
&
Field D.G.P.S. Survey
Site Photographs







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Pre & Post-Monsoon Replenishment Study with Reserve Estimation Report of River Bed Sand/Morrum Leases

Annexure No. 2

As per Chapter-5 of the Enforcement & Monitoring Guidelines for Sand Mining-2020 issued by MoEF&CC

District –Jalaun, Uttar Pradesh
Study Period – Year 2025



PREFACE

A Drainage system is the pattern formed by streams, rivers and lakes in a drainage basin. In a drainage system, streams or rivers always connect together to form networks. Several factors such as topography, soil type, bedrock type, climate and vegetation cover influence input, output and transport of sediment and water in a drainage basin (Charlton, 2008). Such factors also influence the nature of the pattern of water bodies (Twidale, 2004). As a consequence, drainage pattern can reflect geographical characteristics of a river network to a certain extent. There are several types of drainage pattern. So far, much research has been done on the description of drainage patterns in geography and hydrology (e.g. Howard, 1967; Lambert, 1998; Twidale, 2004; Pidwirny, 2006).

In addition, sediment transport knowledge is important in river restoration, ecosystem protection, navigation, watershed studies and its management. Bed load represents the lower portion of sediment load in natural rivers. Fluvial sediment load materials are transported by rivers. Sediment load can be divided into bed load and suspended load based on the mode of transport. Bed load is transported close to the bed where particles moved by rolling, sliding, or jumping (Adegbola, 2012). Xlaoqing (2003) explained that bed load transport in natural rivers is a complicated phenomenon. Its movement is quite uneven in both the transverse and longitudinal directions, which vary considerably.

The state of Uttar Pradesh has great importance in the local, regional, national and international perspectives due to its distinct physiographic conditions. It is endowed with diverse vegetation types, ranging from tropical to subtropical, temperate and alpine including riverine, grasslands and wetlands. The rivers of Uttar Pradesh play's an important role for the nation and provide water required by various sectors such as irrigation, drinking, recreation and industrial requirements etc. Besides, mining activities are also being carried out in the rivers for the developmental process.

Removal of excess sand and stone from river bed helps to maintain the carrying capacity and provides protection from flooding during monsoon season. Further, continuous flow of river is essential for ecological and economic needs such as irrigation and biodiversity etc. Therefore, drainage study of the river helps to understand potential carrying capacity of water during monsoon season which is generated from rainfall in the watershed and quantity of di-siltation of rivers under mining affected areas.

In line with same, Pre & Post-Monsoon Replenishment study was carried out for new River Bed leases of District Jalaun. Quantification and estimation of river bed minor material (Sand/Morrum) was accomplished by following scientific approaches as envisaged in Sustainable Sand Management Guidelines – 2016 (SSMG-2016) and its contemporary guidelines Enforcement & Monitoring Guidelines for Sand Mining (EMSM-2020) issued by MoEF&CC in January-2020.

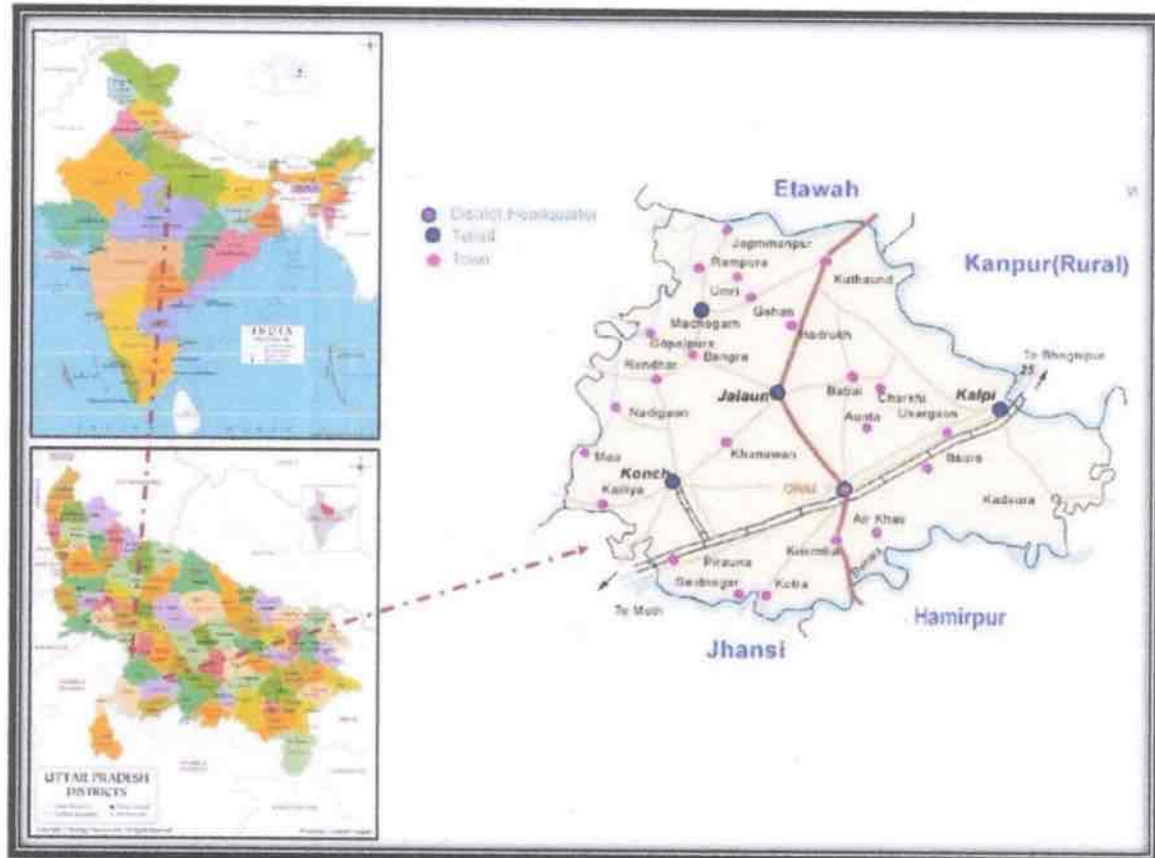
Mining areas were geo-tagged and surveyed for analysis of study of the availability/potential of sand and gravel. Estimation of deposition and safe limit for extraction/ removal of deposited river bed material available in the various rivers/streams were done by analysing elevation profiles and pit profiles at regular intervals and DGPS based Survey.

Sub-Divisional Committee – District Jalaun

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9.	Provisions of Enforcement & Monitoring Guidelines for Sand Mining- 2020
10.	Inventory of Existing Sand/Morrum Leases in District Jalaun
11.	Results of Study in Pre & Post-Monsoon Period for Existing Lease Areas
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13.	Results of Study in Pre & Post-Monsoon Period for Proposed Lease Areas
14.	Conclusion
15.	Annexures

Study Area Map - District Jalaun, Uttar Pradesh



1. INTRODUCTION

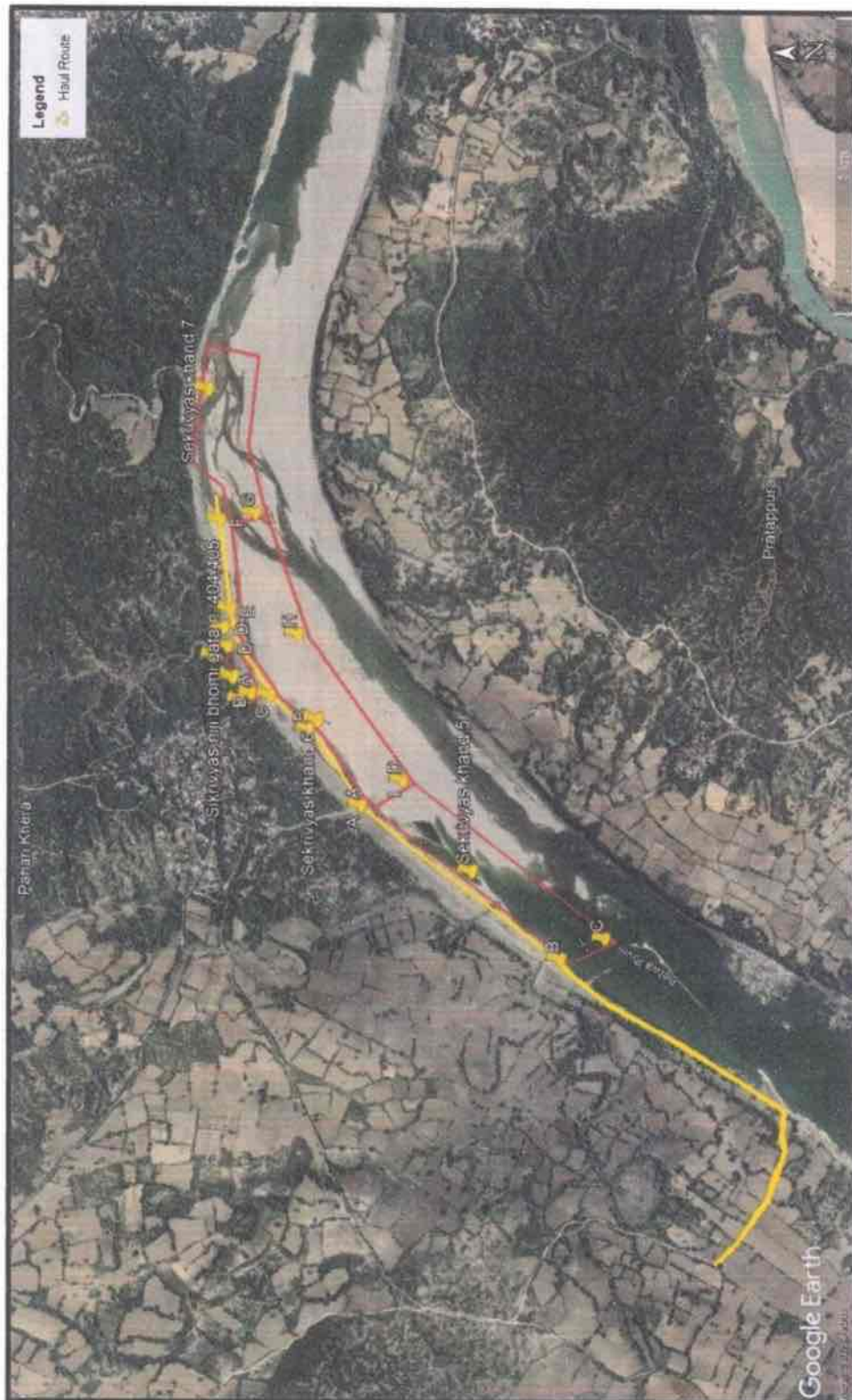
- A replenishment study, particularly in the context of sand mining, aims to assess the rate at which sand is naturally replenished in a river or stream, ensuring that extraction doesn't exceed the river's capacity to naturally replenish itself, thereby preventing ecological damage.
- The Chapter-5 of the Enforcement & Monitoring Guidelines for Sand Mining (EMGSM-2020) issue by MoEF&CC provides generic structure and mechanism for conducting Replenishment Studies.
- This replenishment study report primarily focuses on 81 existing mining lease areas and 09 newly proposed mining lease areas in District Jalaun.
- The total area of all the mining leases is 1300.657 ha. The area of newly proposed mining leases is 50.427 ha. All the proposed lease areas are on the riverbed of River Betwa.

Report Coverage :-

- The report covers the study of River Bed Minor Mineral Material in the stretch of Betwa & Yamuna in Jalaun district.
- Removal of excess sand and stone from river bed helps to maintain the carrying capacity and provides protection from flooding during monsoon season. Further, continuous flow of river is essential for ecological and economic needs such as irrigation and biodiversity etc.
- Therefore, drainage study of the river helps to understand potential carrying capacity of water during monsoon season which is generated from rainfall in the watershed and quantity of disiltation of rivers under mining affected areas.
- Replenishment potential of the existing/inoperative mining areas are studied to assess the availability/potential of sand and gravel.
- Estimation of deposition and safe limit for extraction/ removal of deposited river bed material available in the various rivers/streams are done by analysing elevation profiles and pit profiles at regular intervals.
- The data from both pre and post monsoon will be correlated to reach the final conclusion.

- New Proposed Areas under River Betwa

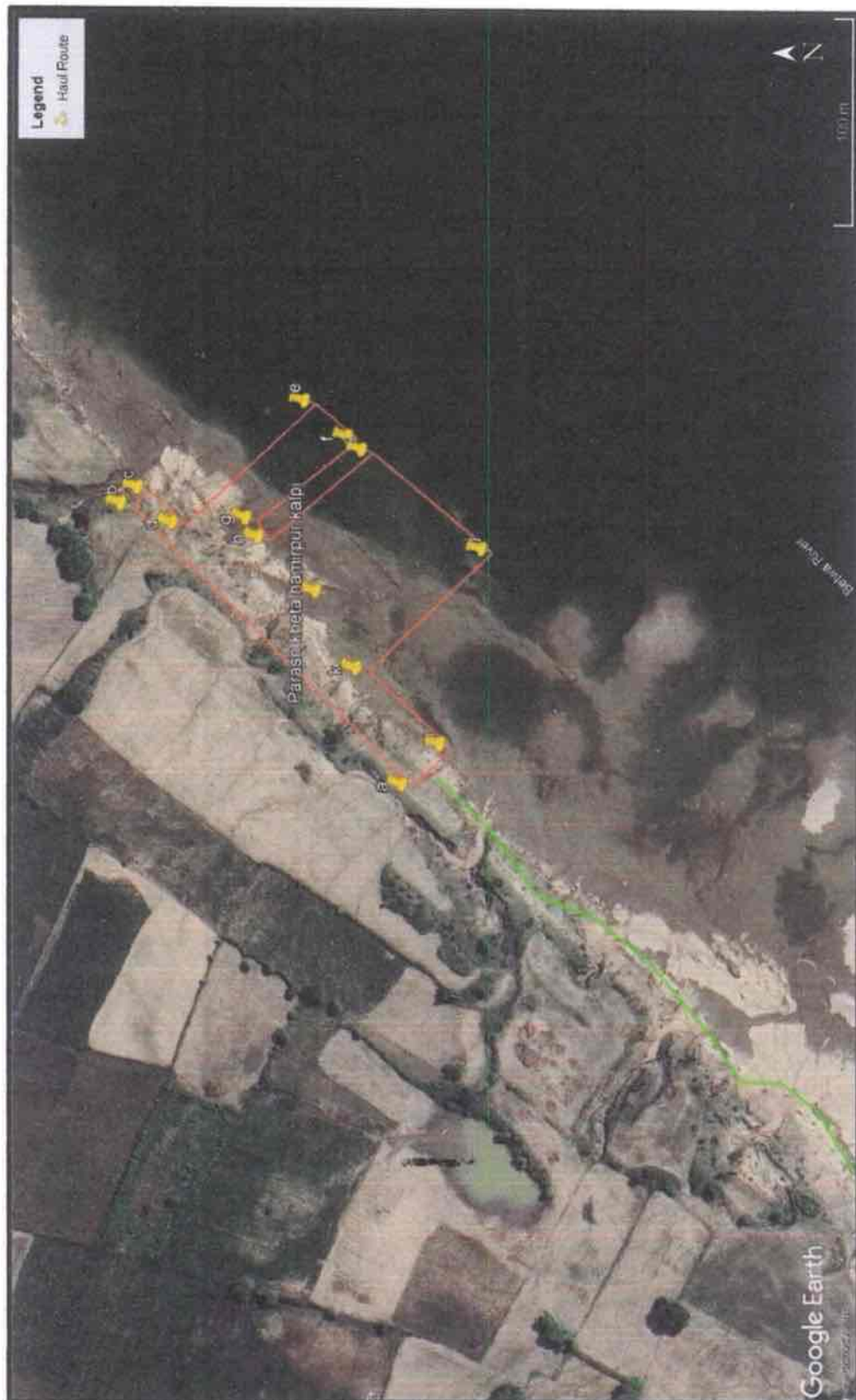
1. Sikrivyas Khand



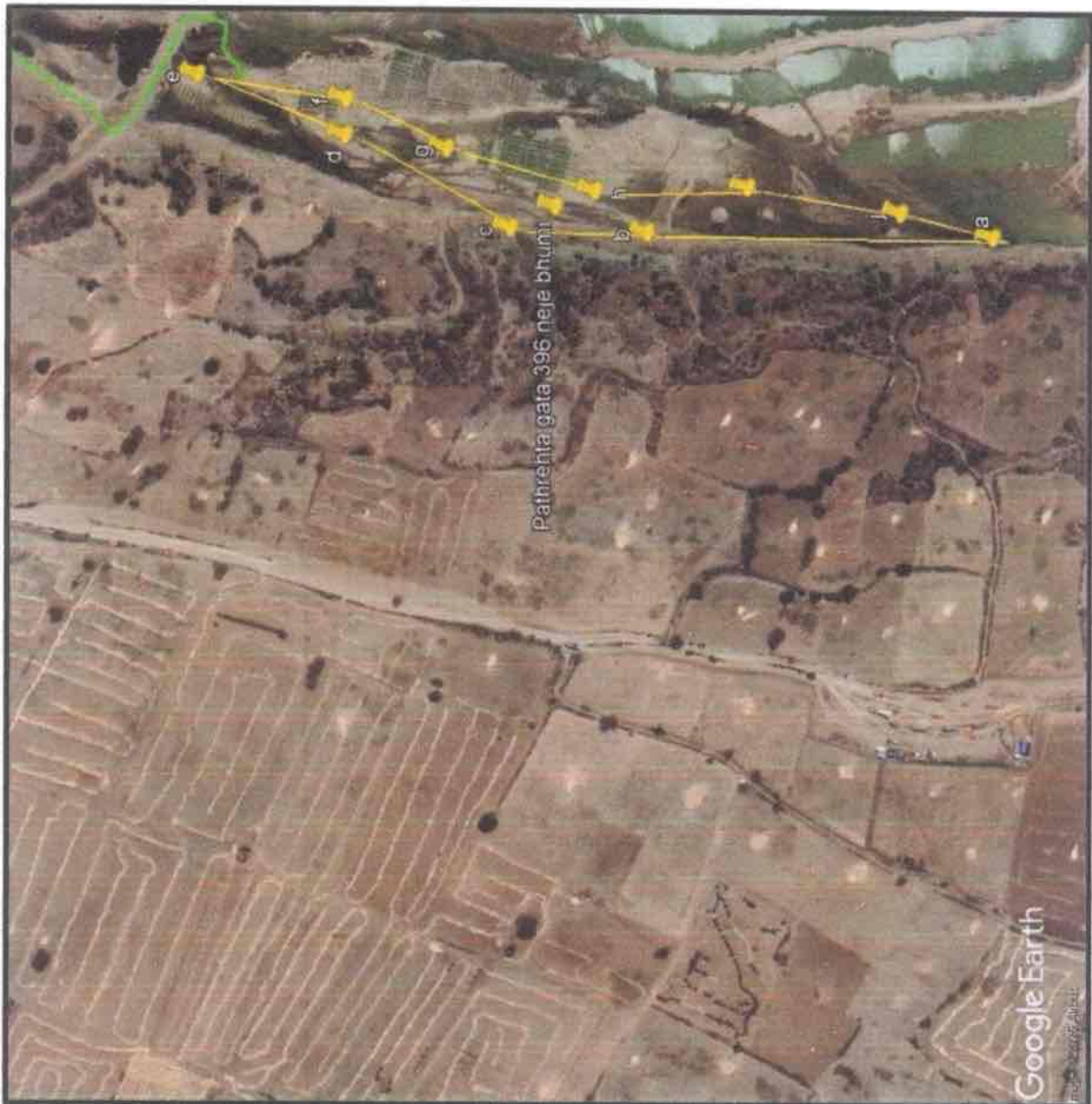
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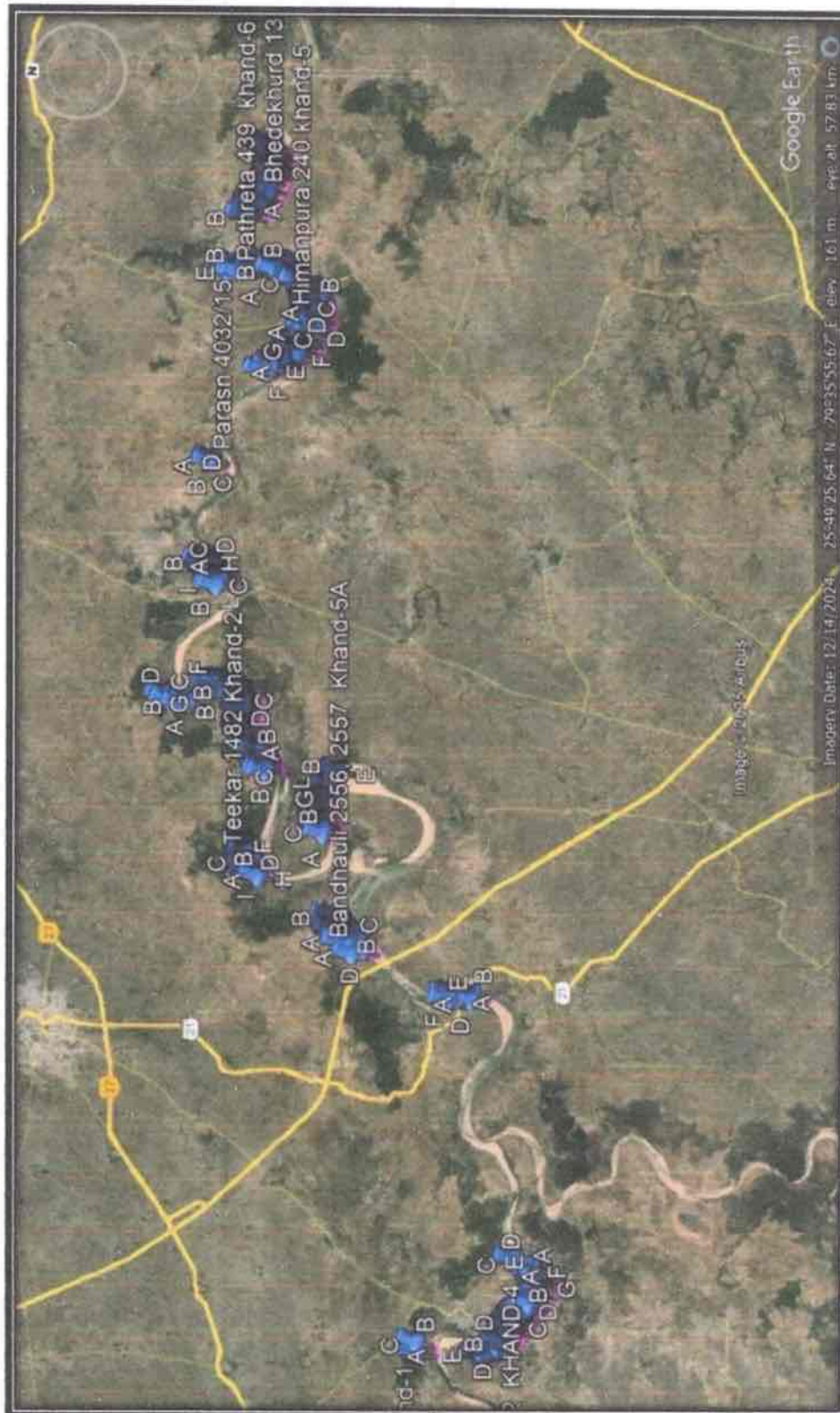
3. Parasan



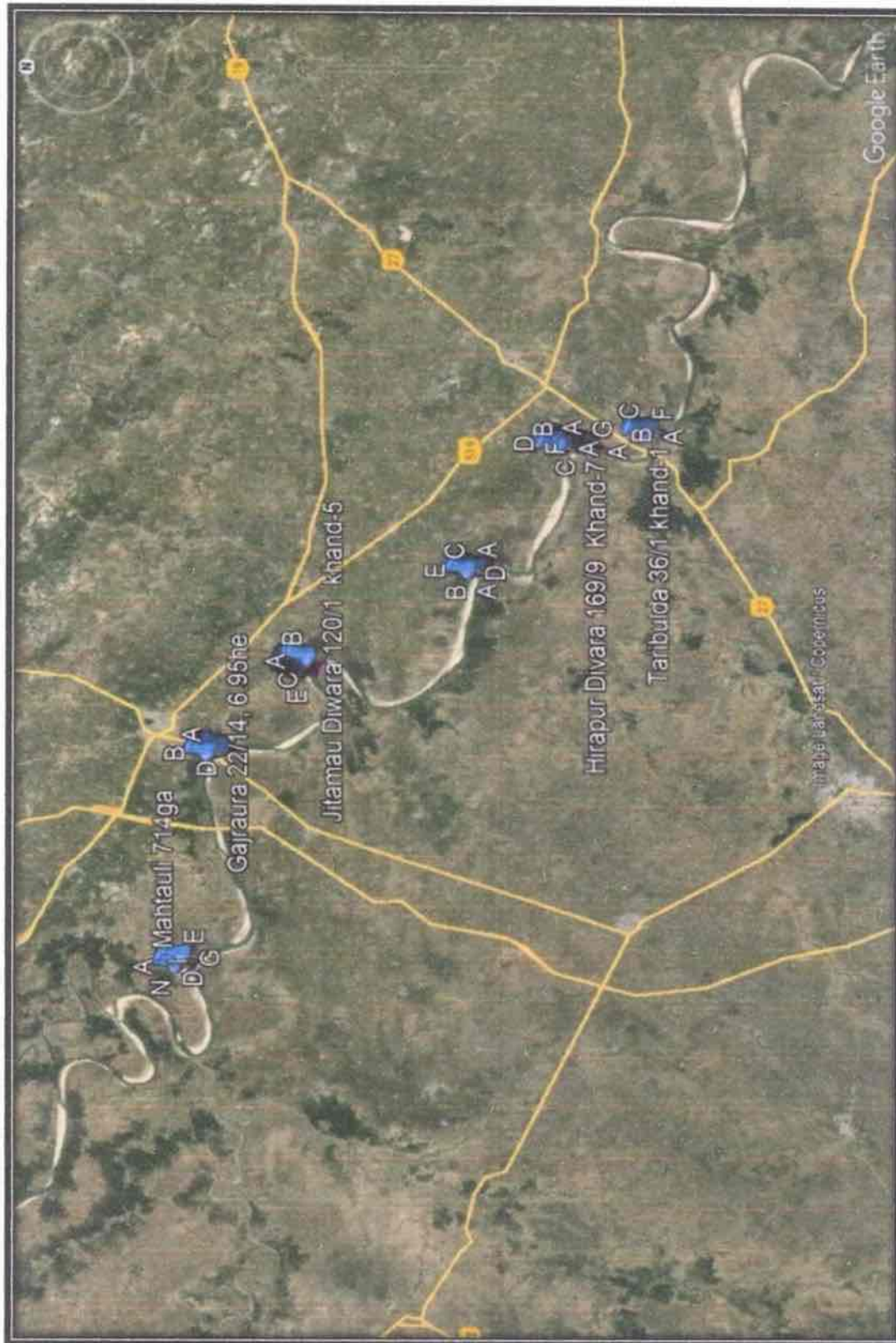
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- **Existing Lease Areas under River Betwa**



- Existing Areas under River Yamuna



2. OBJECTIVE OF THE STUDY

- To assess the possibility of safe extraction of river bed material from River **Betwa & Yamuna** in District Jalaun.
- To determine the existing reserve and rate of replenishable quantities within mine lease area in order to establish sustainable operations of leases and quantification of D.S.R.
- To prepare a Scientific Replenishment Study Report which can further form the basis for updation/modification of District Survey Report.
- The results of Replenishment Study Report will be used by Sub-Divisional Committee for preparing new areas as well as year wise monitoring the approved D.S.R.
- The results of replenishment study and SDC Joint Inspection Report will form the basis for updation/modification of District Survey Report.
- To identify ecological and environmental sustainable balance between river sand mining and replenishment. As the extracted sand is required to be replenished in next monsoon it is therefore necessary to do sand budgeting before and after monsoon to ensure that the extraction will not exceed sedimentation.
- The imbalance may cause threat to the ecosystem of the area / region, if proper study and sand budgeting is not done.

3. METHODOLOGY

PHYSICAL SURVEY FOR RESERVE ESTIMATION IN PRE-MONSOON PERIOD:

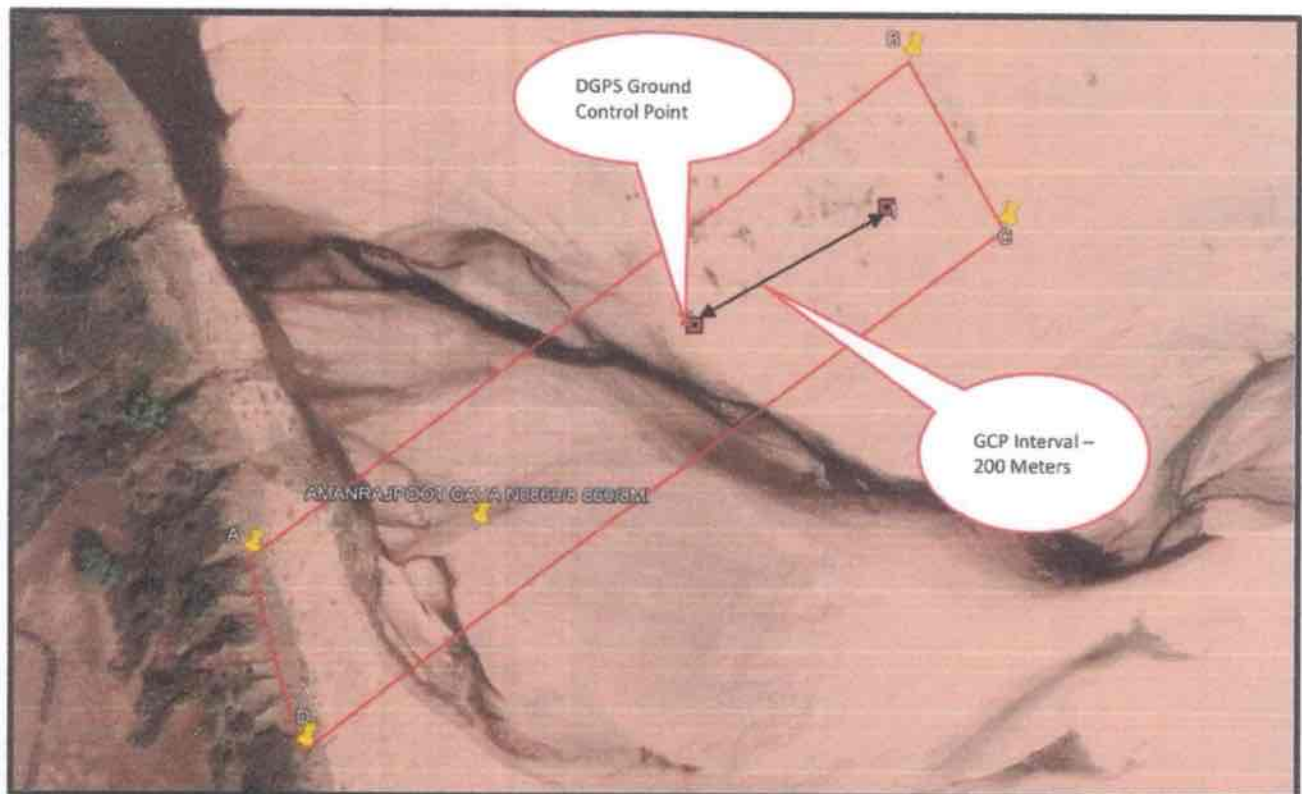
- The main aim of the survey work and measurements is to carry out the collection of baseline data in pre-monsoon period which will be repeated in post-monsoon period to assess the quantum of replenishment.
- For reserve estimation the river was surveyed at the ground and the corner coordinates were determined with the help of D.G.P.S. so that the lease area boundaries are obtained.
- For existing mineral reserve estimation in pre-monsoon period, riverbed was surveyed and ground level coordinates and elevations at regular intervals were recorded with the help of DGPS. Deposits 1.2 meter above the river water level was considered as existing deposits in pre-monsoon period. For this base flow level of river was determined.
- Physical survey and collection of information related to existing reserves and by conducting pit profiles are regular intervals with the help of JCB Machine and Auger digging equipment upto a depth of three meters was done.

METHODOLOGY FOR CONDUCTING REPLENISHMENT STUDY

- Generic structure of Replenishment Study as mentioned in the Chapter-5 of the EMGSM-2020 Guidelines were followed for calculation of replenished results.
- The district has identification of approximately 81 leases (61 leases are on River Betwa and 20 leases are on River Yamuna) out of which 27 leases were operational before monsoon period by various lease holders. The rate of replenishment was ascertained for all the leases.
- The district has identified 09 new leases. All these new leases exist on the riverbed of River Betwa. Pre and post monsoon replenishment studies were done for these leases as well.
- The main aim of the survey work and measurements was to carry out the collection of baseline data in pre-monsoon period which was repeated in post-monsoon period to assess the quantum of replenishment.
- Depending on the geographical and site-specific conditions, practical limitations to complete the studies of all the $81+9 = 90$ lease areas in definite time period as mentioned in the EMGSM-2020 guidelines was observed by Sub-Divisional Committee, the studies were done on the basis of individual mines approach. Study plans were prepared for all the leases and each lease was surveyed with DGPS and elevation records in intervals of 200 meters were recorded. Inventory of the recorded "Elevation Index" of leases were prepared in pre and post monsoon period.

- Changes in the elevation in pre and post monsoon period in each interval (*called Ground Control Point- GCP*) was tabulated. Area of deposition for each cross section was calculated and summation deposition at each GCP was done to report the overall thickness observed in the post-monsoon period.
- As the size of leases generally were $> 10\text{h.}$, lease wise cross section DGPS survey was conducted 100m upstream, within cluster area and 100m downstream and measurements were taken in equal distance intervals of 200m across the lease width and along the lease length, falling in river bed.
- Assessment of bulk density was done by referring the report published by Directorate of Geology & Mining.

Illustrative Ground Control Point (GCP) Map of a lease



4. GENERAL PROFILE OF THE DISTRICT

- Jalaun District includes an area of 4,544 sq.km. It is the northernmost district in Uttar Pradesh. This district is a large area that spans the north of the state. The Yamuna River in the north and the Betwa River in the south border it. The western border follows the Pahuj River. The eastern border is shared with Hamirpur district. The area lies between Latitude 26° 26' to 25° 45' North and Longitude 79° 57' to 78° 00' East, falling in the survey of India Toposheet No.54 N.
- Jalaun district is surrounded in all four directions by rivers Yamuna, Betwa, Pahuj and Dhasan. The net sown area is 3.50 lakh ha and 1.95 lakh ha as net irrigated area with cropping intensity of 118.82%. Small and marginal farmers contribute 74% of total farm holdings. 52.76% of farmers have land holdings less than 1 ha and 21.69% have land holding of 1-2 ha. Jalaun District is a part of Jhansi Division. The district has population of 16,89,974 (2011 census), with a population density of 370 persons per sqkm. The district lies entirely within the level plain of Bundelkhand, north of the hill country, and is almost surrounded by the Yamuna River, which forms the northern boundary of the district, and its tributaries the Betwa, which forms the southern boundary of the district, and the Pahuj, which forms the western boundary. The central region thus enclosed is a dead level of cultivated land, almost destitute of trees, and dotted with villages. The southern portion presents an almost unbroken sheet of cultivation. The Non River flows through the centre of the district, which it drains by innumerable small ravines.
- The districts of Etawah and Kanpur lie to the north across the Yamuna, while Jalaun District lies to the east and southeast, Jhansi District lies to the southeast, and Bhind District of Madhya Pradesh lies to the west cross the Pahuj.
- District has five Tehsils namely Jalaun, Orai, Kalpi, Madhogarh and Konch. Area wise, the biggest tehsil is Kalpi (Area 1252 sqkm) while smallest is Jalaun (Area 682 sqkm). There are total 9 blocks in the district.

Topography and Terrain:

- The topography of the district also plays a key role in locational analysis for any provision of services and facilities. Jhansi is located in the plateau of central India, an area dominated by rocky reliefs and 6 minerals underneath the soil. It has an average altitude of 144 meters above msl. The city has a natural slope in the north as it lies on the south western border of the vast Tarai plains of Uttar Pradesh. The elevation rises on the south. The land is suitable for citrus

species fruits. Main crops grown in the district include wheat, pulses, peas & oilseeds. The region relies heavily on Monsoon rains for irrigation purposes.

Water Course and Hydrology:

- The area is chiefly drained by three perennial rivers namely, Yamuna, Betwa, and Pahuj. There are many minor ephemeral tributaries, viz. Non Nadi, Kunchamalanga Nadi which drains central parts of the district area. Jamuna and Betwa are flowing towards east and Pahuja from south to north. The overall drainage of the area forms dendritic pattern. Besides, there is good network of canal system draining from Betwa river through Kuthaund and Jalaun branches. The entire area of Jalaun district is underlain by quaternary alluvium, comprising mainly clay, kankar, sand, and gravel over the basement of Bundelkhand granites. The thickness of alluvium increases towards north which has good potential. Ground water potential in granites is poor as they have little porosity. The weathered zone in the granite rock usually hold good quantity of water. The ground water in the alluvium occurs under water table conditions in phreatic zones and under semi confined to confined conditions in the lower zone.

Land Form and Seismicity:

- The district falls in seismic zone III and lies in low to moderate hazard risk zone. No earthquake has been observed in the district during Last 200 years. The district has however experienced earthquakes on a few occasions.

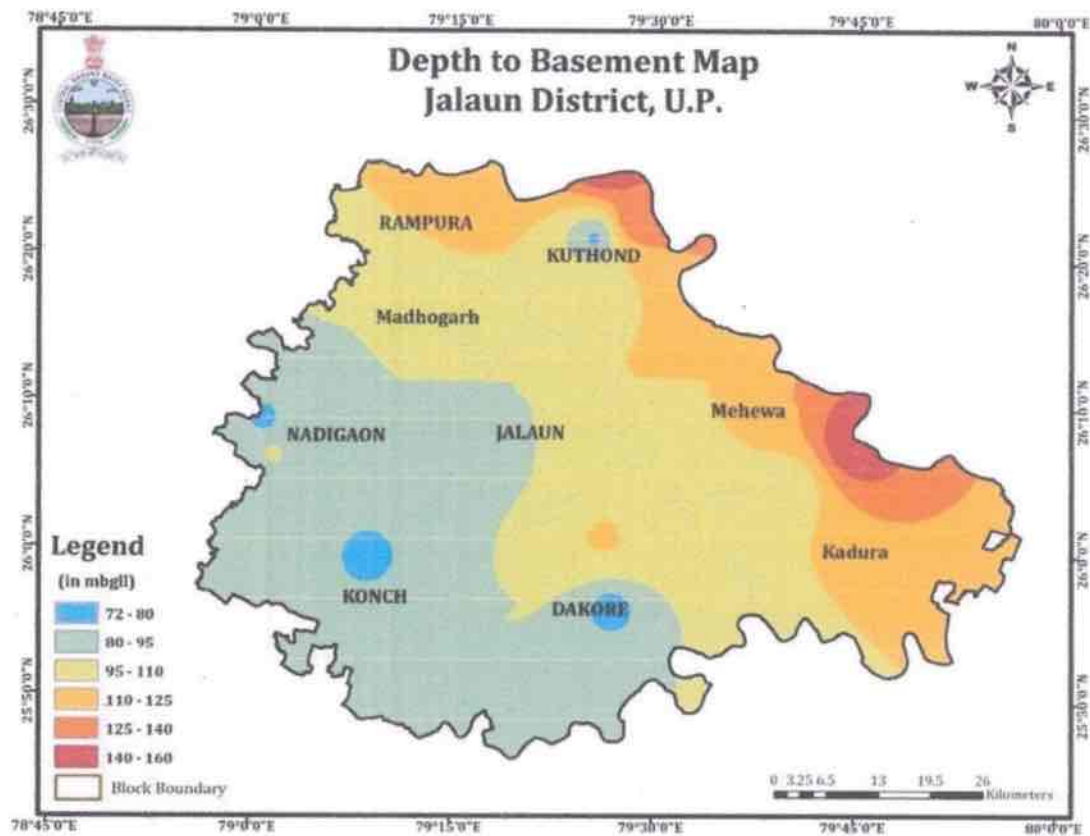
Socio-Economics:

- As per the official Census data 2011, Jalaun had population of 1,689,974 of which male and female were 906,092 and 783,882 respectively. In 2001 census, Jalaun had a population of 1,454,452 of which males were 786,641 and remaining 667,811 were females. There was change of 16.19 percent in the population compared to population as per 2001. In the previous census of India 2001, Jalaun District recorded increase of 19.28 percent to its population compared to 1991.

Groundwater Scenario

- Groundwater in the district occurs in an aquifer system mainly made of alluvial sediments deposited by the Yamuna and Betwa River and its tributaries. Granular zones comprise finegrained sand to silty sand with the occurrence of calcareous concretions (kankar) and possess moderate transmissivity and permeability. Clay layers act as barriers separating the three aquifer

groups in the district and possess insignificant transmissivity and permeability, resulting in clay acting as confining layers. Granite is the Basement rock underlying the Marginal alluvium. Primary Porosity like Fractures, Joints, Faults forms the source of Groundwater resource. Perusal reveals that the groundwater flow is mainly towards the Yamuna River and its tributaries and Temporal variation of aquifer system (Source: CGWB: *Aquifer Mapping and Management of Ground Water Resources*, 2020)



5. RAINFALL AND CLIMATE

The average annual normal rainfall in the district from Year 2012 to 2024 is 618.7 mm. The climate is sub humid and it is characterized by hot summer, humid monsoon and cold winter seasons. About 90% of rainfall takes place during monsoon period from the month June to September. During the monsoon surplus water is available for the deep percolation to ground water. As per the document provided by the Irrigation Department, the HFL in river Yamuna is 112.980 m recorded on 25/08/1996 and HFL in river Betwa is 133.350 m recorded on 11/09/1983.

The Tropic of the Capricorn passes close to the area making the climate drier than other districts to the north of the river Yamuna. After February the temperature begins to increase rapidly. May and early part of June are the hottest parts of the year. Temperatures come down to a minimum in January and reaches a maximum in the hottest period of May and June. The rainfall in the region is less than the other areas of the State. The month wise rainfall data of the district from 2012-2024 is given in the following Table

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<i>Rainfall in mm</i>													
2024	8.2	25.3	41.7	0.8	0.0	101.0	8.2	8.2	8.2	8.2	8.2	8.2	222.6
2023	7.8	0.0	3.0	7.9	36.9	87.6	262.4	124.3	93.0	13.6	9.0	24.8	670.3
2022	36.2	0.0	0.0	0.0	22.6	17.0	187.2	190.7	254.5	202.6	0.0	0.0	910.8
2021	0.3	0.3	1.3	4.3	42.8	79.1	255.6	161.6	127.9	92.9	6.8	6.9	779.5
2020	33.0	0.0	6.0	10.6	11.4	46.8	188.3	137.7	44.8	0.0	0.0	0.0	478.6
2019	10.3	22.5	0.0	1.8	5.3	28.3	190.6	210.4	145.0	20.5	0.0	10.0	644.6
2018	0.0	3.4	0.0	8.5	28.2	37.3	288.4	161.0	116.8	0.0	0.0	0.0	643.5
2017	22.2	0.0	0.3	0.0	19.9	64.5	117.5	103.7	33.7	0.0	0.0	0.0	361.7
2016	5.7	0.0	8.9	0.0	14.3	63.7	325.8	215.5	33.5	33.0	0.0	0.0	700.3
2015	31.4	0.0	52.0	4.1	4.7	20.8	190.1	120.7	3.0	19.6	0.0	3.7	450.0
2014	90.8	22.8	4.0	0.0	6.3	21.8	137.0	68.7	125.5	7.0	0.0	18.7	502.7
2013	1.3	83.8	1.7	0.0	0.0	205.4	197.7	318.0	35.6	151.3	0.0	8.0	1002.8
2012	17.0	1.0	0.0	7.0	0.0	2.5	230.3	282.8	134.9	0.0	0.0	0.0	675.5

The rainfall data in 2025 during the month of June, July, August suggests an ample amount of rainfall which is considerably higher than the normal rainfall during these months. The rainfall data of Jalaun in the month of June, July and August is given in following table:

Month	Actual Rainfall (mm)	Normal Rainfall (mm)	Departure Percentage
June	82.6	62.4	32
July	414.6	274.3	51
August	588.3	511.9	15

6. GEOLOGY OF THE DISTRICT

Jalaun District includes an area of 4,544 sq.km. It is the northernmost district in Uttar Pradesh. This district is a large area that spans the north of the state. The Yamuna River in the north and the Betwa River in the south border it. The western border follows the Phuja River. The eastern border is shared with Hamirpur district. The area lies between Latitude 26° 26' to 25° 45' North and Longitude 79° 57' to 78° 00' East.

The rocks mapped in the area are variety of granites having xenoliths of metasediments and metabasites. The granites are intruded by aplite, pegmatite, granite-porphyry, quartz-reefs, dolerite dykes, and secondary veins of quartz and epidote.

Geological formation of the district consists more or less entirely of alluvium which consists of kankar sand, ballast, maurang and brick-earth.

Kankar is available in significant quantity in Konch, Orai and Kalpi tahsils of the district. It is used for metalling the roads and making lime.

Large deposits of sand and maurang are found on the bank of the Yamuna. Ballast is found in Orai tahsil.

Geologically, the area is underlain by Bundelkhand granite and complex (BGC) with a capping of quaternary deposits. The setup is as follows:

Group	Age
Younger Alluvium	Recent channel fill deposits and present-day flood plains of streams.
Older Alluvium	Older flood plain deposits, which includes bad-lands/ shallow ravines.

The Bundelkhand granites (BGC) and the banded gneisses of Archaean age, display heterogeneity in texture and composition and are pegmatite in places. They are at certain localities traversed by quartz reef i.e. near Kabrai (80°00'15": 25°23'15") and basically intrusive of doleritic composition i.e. SW of Kharka (80°05': 25°20'45"). A few typical basic dykes trending ENE- WSW originating from the south-western extremities of the area continue towards Mahoba (79°52'3 0": 25°17'3 0"). The major bulk of metamorphic rocks are exposed as isolated hills in the southern fringes of the area mapped. The older alluvium on the other hand, comprises finer grained, well-compacted and more mature sediments occupying extensive stretches at relatively higher elevations. These sediments,

related to some earlier fluvial episodes, have been at most places stabilized by vegetation and majority of the badlands are sculptured within it. These sediments characteristically display red and brown colour and are richer in ferruginous content. These older alluvium deposits range from a few metres in the south and increase progressively in thickness up to 70 m to 80 m or so in the northern part of the area under study. The older alluvium supports most of the vegetation in the terrain because of its higher moisture retaining capabilities. The younger alluvium, which is confined to the recent channel fill deposits and present day flood plains or rivers/streams, occurs as narrow strips at lower levels. The sediments are light colored, coarse to very coarse and gravelly, poorly sorted and not too well inundated. These immature sediments are relatively deficient in clay/silt fractions and also ferruginous matter.

Geomorphologically the area can be sub-divided into four major units:

- I. Recent channel-fill and present-day flood-plain deposits and adjacent lowland areas
- II. Upland areas/river terraces (older alluvium surface)
- III. Badlands/ravineous tracts
- IV. Residual hills

- I. **Recent channel-fill and present-day flood-plain deposits:** It is constituted from the deposits carried out by the rivers and all its active network of stream and its periodically inundated contiguous low-lying tracts. It has been designated as younger alluvium.
- II. **Higher alluvial plain:** Tracts bordering both the banks of Ken river with extensive lateral continuity have been designated as the older alluvium surface. This unit has a low northerly gradient, in conformity with the basement configuration.
- III. **Hi- Badlands or Ravines:** These are noticed to be essentially confined along the courses of both the Ken river and its network of streams, the former accounting for better defined and well dissected ravines viz. 3 to 4 m in height. Hummocky ridges and rolling topography characterize badlands areas.
- IV. **Low residual hills of granitic composition:** These are noticed and they tend to form domes and have steep slopes because of spheroidal weathering.

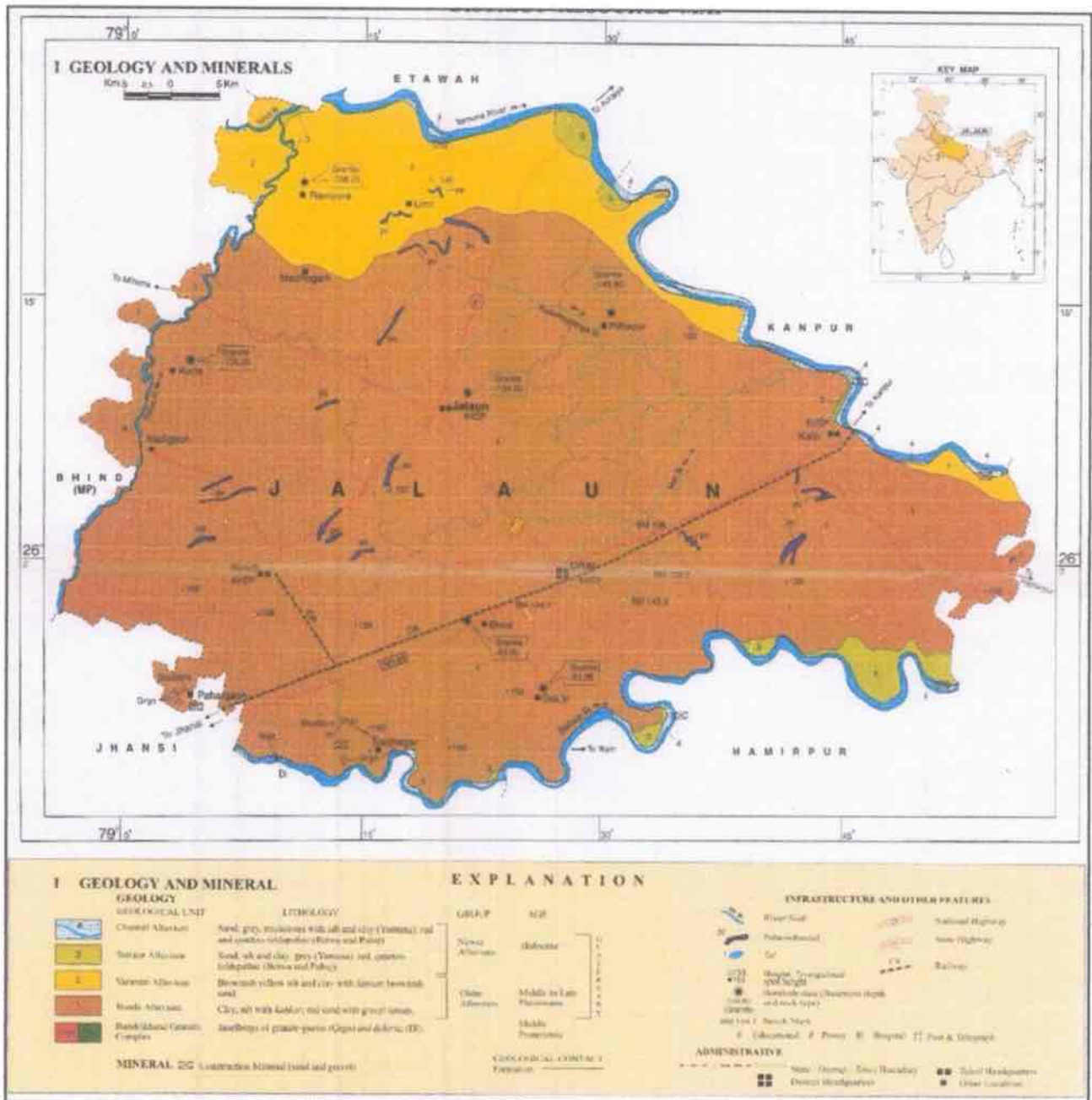


Fig: Geological Map of district Jalaun

7. PROFILE OF RIVERS IN THE DISTRICT

The chief river of the district are Yamuna, the Betwa, the Pahuj and several minor streams minor streams among which the Non and the Melunga are notable. The Upper Ganga plain is the part of the Great Plains lying approximately between the Yamuna in the west covering the parts of Uttarakhand and Uttar Pradesh. The region is delimited in the north by 300m contour which separates it from the Garh-Kum Himalaya, west of Sarda while the International boundary of Nepal marks the limit towards the east. In the south the Yamuna demarcates its border with the Bundelkhand. The axis of the topographic trough paradoxically lies nearer the peninsular block 01 along the Ganga which traverses the area in a south-southeastern direction. Thus, there is, though not perceptible, a tract adjacent to the foot hills where the slope is higher and has resulted in the preponderance of numerous small streams, assigning a somewhat medium to fine texture to this part. The southern counterparts, particularly north of the Ganga are characterized by the sluggishly-flowing streams like the Ramganga and the Ghaghara studded with oxbows, sandy stretches (the Bhurs) etc. Tire topographic diversities produced by the changing river courses are predominantly observed in the Ramganga and the Ghaghara valleys, particularly in their flood plains. The streams such as the Kali, the Hindan, and the Pandu etc. have to go a long way parallel to their master streams to empty themselves. Distinct, though are insignificant, in topographic expressions is the Yamuna par or the Yamuna-lower Chambal tract. The deep valley separated by sharp spurs and buttresses are the main features of Upper Ganga Plain. Topographically most significant and complex part of the region is the submontane belt, running at the foot of the Siwaliks from west to east across the area on the northern border consisting of the two parallel strips - the piedmont zone, the bhabar (the doab region) and the adjoining relatively gently sloping tarai belt.

Yamuna

Yamuna river is the biggest tributary of the Ganga river. It is also considered as sacred river in India. The Yamuna river originates in the Tehri Garhwal district of Uttarakhand from the Yamunotri glacier near Banderpoonch peaks ($38^{\circ} 59' N$ $78^{\circ} 27' E$) at the elevation of about 6,320m above the sea level in the Mussoorie range of lower Himalayas. Arising from the source, the Yamuna river flows through a series of valleys for about 200 km in lower Himalayas and then emerges into Indo-Gangetic plains. In the upper reaches, the gradient of the river is steep and the entire geomorphology of the valley has been carved by the erosive action of the liver water. In the headwater reach of 200 km, the Yamuna draws water from several major streams. The combined stream flows through the Shivalik range of

hills of Himachal Pradesh and Uttarakhand states and enters into the plains at Dak Pathar in Uttarakhand. From Dak Pathar, the Yamuna flows through the famous Sikh religious shrine of Poanta Sahib. Flowing through the Poanta Sahib, it emerges from the foothills of Kalesan, north of Hathnikund/Tajewala where the river water gets diverted into Western Yamuna Canal and Eastern Yamuna Canal for irrigation. The Yamuna river enters Delhi near Palla village after traversing for about 224 km. Further downstream, Yamuna flows through the Agra city which is famous for Taj Mahal. Shortly afterwards, it passes through another historical city, Mathura. The total length of Yamuna from its origin to Allahabad (confluence with Ganga) is 1,376 km and the drainage area is 3,66,223 Sq.km. The Yamuna is a mighty river in itself and has a number of tributaries. In its first 170 km stretch, the tributaries the Risiganga, Hanumanganga, Tons and Giri join the main river. Later big rivers, such as the Chambal, the Sind, the Betwa and the Ken join it. The catchment of the Yamuna river system covers the parts of Uttar Pradesh, Uttarakhand, Himachal Pradesh, Haryana, Rajasthan, Madhya Pradesh and Delhi. The tributaries of Yamuna account for 70.9 percent of the catchment area, the balance of 29.1 percent area is directly drained by the Yamuna. Further, the catchment area of Yamuna amounts to 40.2 percent of the area of the Ganga basin and 10.7 percent of the land in our country. The important tributaries of Yamuna river are the Tons, the Chambal, the Hindon, the Sarda, the Betwa and the Ken. The main Yamuna and Tons are fed by glaciers, viz., the Banderpoonch glacier and its branches that originate from the Great Himalayas. Other small tributaries include the Risiganga, the Hanumanganga, the Unta, the Karan, the Rind and the Giri. The Risiganga a tributary of the Yamuna rises 3 km further north-west and joins the Yamunotri stream on its right bank near Banas while other two streams the Unta and the Hanumanganga rising from the Jakhal glacier and the Chhaian Barmak glacier respectively to the south of Bander poonch meet the main stream on its left bank.

Yamuna in district Jalaun: The Yamuna forms the northern boundary of the district. It first touches the district at the village of Sitoura in the erstwhile jagir of Jagamanpur, at the point where it is joined by Sindh river. It flows with a gently curving course forming the boundary with Etawah district as far as Shergarh ferry on the road from Jalaun to Auraiya. Then it turns south continuing to form the district limit till it leaves it some 16 kilometers south east of Kalpi town on the border of Baoni. With the exception of a sudden loop north of the old city of Raipur and near Mainupur, its course is not characterized by any abrupt curves or bends. Its total length within the district limit is approximately 83 Kilometers.

The Yamuna receives water of several tributaries during its course along the border of the district but few are of any importance. The Non rises in the tehsil of Orai and drains the southern portion of the district. The Melunga starting not far from the town of Konch flows due North as far as Hadrukh and turning near that town abruptly east holding a course parallel to Yamuna till it unites with the Non at Mahewa in Kalpi. Both the streams are, for most part deep-bedded and merely serve to carry off the drainage of the central black soil tract during the rainy season and then dry up. In the upper portion of their courses, they have low and shelving sides but as they approach the main river, they cut more abruptly and have scored out their banks to a considerable extent. Near the junction with the Yamuna which is about 13 kilometers north of the Kalpi town, they have been responsible for more extensive erosion and deterioration.

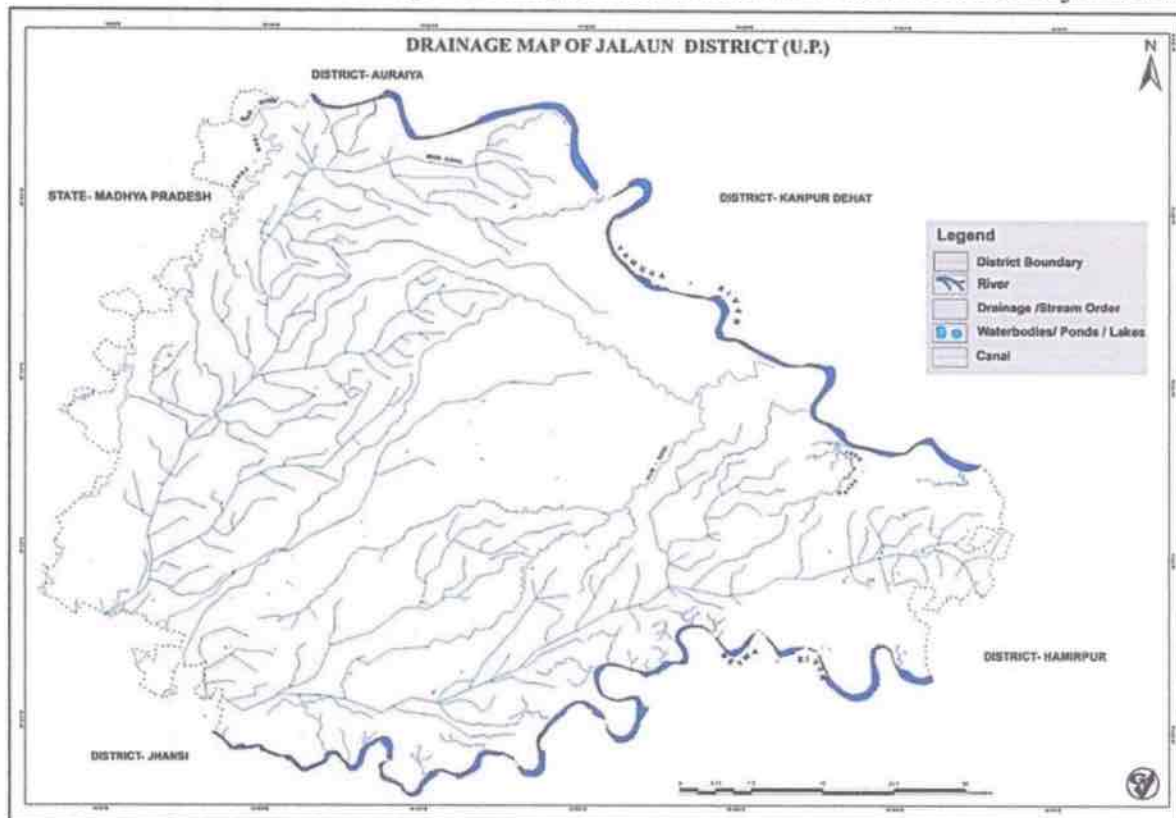
In the extreme south flows a small but deep bedded stream called the Manmesari nullah which has caused a certain amount of deterioration in the milages that border it. To the south of the tahsil Kalpi flow two small streams, the Rayar and Jondhar which join the Yamuna near Kalpi starting in uneven and adulating but not actually unculturable land, the two are flanked by ravines before reaching their destination.

Betwa

The Betwa river is also a tributary of Yamuna river. Its basin extends from longitude 77° to 81° E and latitude 23° 8' to 2° 0' N. The Betwa river originates at an elevation of 470 mt in the Bhopal District in Madhya Pradesh. After traversing a distance of 590 km, the river joins the Yamuna River near Hamirpur at an elevation of 106.68m. The total catchment area of the Betwa river is 46,580 sqkm of which 31,971 sq km (68.64%) lies in M.P. and 14,609 km (31.36%) lies in U.P. The basin is saucer shaped with sandstone hills around the perimeter. The river has 14 principal tributaries out of which 11 are completely in Madhya Pradesh and 3 lie partly in Madhya Pradesh and partly in Uttar Pradesh. The Halali and Dhasan rivers are the important tributaries of the Betwa river.

Betwa in district Jalaun: The Betwa forms the boundary with Jhansi along the southern border from a point a few kilometers east of the town of Erichh to its junction with Dhasan. Its course, which up to the junction runs due east tends then somewhat to the north-east and it meanders along the south-eastern side of tahsil Orai and Kalpi, separating them from Hamirpur. Like the Yamuna it leaves the district on Baoni border. It flows in a tortuous channel with many loops and bends. Its total length along the district border is approximately 96 kilometers, but from point to point it does not exceed 64 kilometers. Both the banks are fringed for some distance inland by unculturable

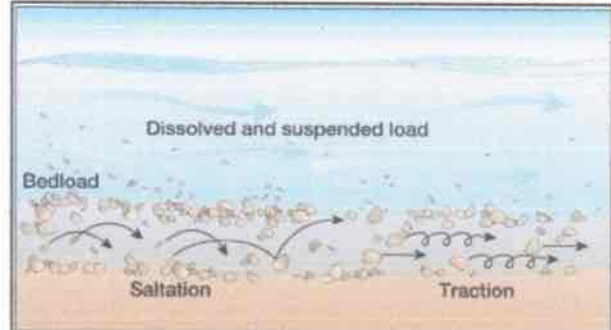
ravines. Pahuj in Jalaun - The Pahuj river rises in Gwalior district of Madhya Pradesh and flows through Jhansi, enters Jalaun in the south-western corner of tahsil Konch at the village of Savaiya-Buzurg. The river forms the western boundary, except at few points where the district projects here and there beyond the stream. It is a much smaller river than the Betwa and flows in a deep channel between high banks in a sinuous course along the western side of that tahsil and pursues its way north wards along the border of Madhogarh. Within 10 kilometers north-west of this town it flows through the erstwhile jagir of Rampura and the village of Jaghar joins the Sindh river. river. On both sides of the river, the banks are to a considerable distance cut up into ravines and nullahs. The Pahuj has no tributaries in the district except Dhumna, a small stream which rises in Kalia and joins it near



Maheshpur.

8. SEDIMENT COMPOSITION

The sediment of a river is commonly considered to be aesthetically displeasing and environmentally degrading. Conversely, part of the sediment (sand and gravel) may represent a natural resource for use by society. The potential usefulness of the sediment is enhanced when it is composed of particle sizes found in deposits on the river-bed that would be replenished by newly transported sediment after mining. As such, river deposits become renewable resources, periodically replaced by sediment transport in the river.



Sediment deposition process

Sediment transport is the movement of organic and inorganic particles by water. In general, the greater the flow, the more sediment that will be conveyed. Water flow can be strong enough to suspend particles in the water column as they move downstream, or simply push them along the bottom of a waterway. Transported sediment may include mineral matter, chemicals and pollutants, and organic material. Another name for sediment transport is sediment load. The total load includes all particles moving as bedload, suspended load, and wash load.

Sediment deposition is the process of settling down of suspended particles to the bottom of a body of water. This settling often occurs when water flow slows down or stops, and heavy particles can no longer be supported by the bed turbulence. Sediment deposition can be found anywhere in a water system, from high mountain streams, to rivers, lakes, deltas and floodplains.

Sediment transport is critical to understanding how rivers work because it is the set of processes that mediates between the flowing water and the channel boundary. Erosion involves removal and transport of sediment (mainly from the boundary) and deposition involves the transport and placement of sediment on the boundary. Erosion and deposition are what form the channel of any alluvial river as well as the floodplain through which it moves. The amount and size of sediment moving through a river channel are determined by three fundamental controls: competence, capacity and sediment supply. Competence refers to the largest size (diameter) of sediment particle or grain that the flow is capable of moving; it is a hydraulic limitation. If a river is sluggish and moving very slowly it simply may not have the power to mobilize and transport sediment of a given size even though such sediment is available to transport. So a river may be competent or incompetent with respect to a given grain size. If it is incompetent it will not transport sediment of the given size. If it

is competent it may transport sediment of that size if such sediment is available (that is, the river is not supply-limited). Capacity refers to the maximum amount of sediment of a given size that a stream can transport in traction as bedload. Given a supply of sediment, capacity depends on channel gradient, discharge and the calibre of the load (the Presence of fines may increase fluid density and increase capacity; the presence of large particles may obstruct the flow and reduce capacity). Capacity transport is the competence-limited sediment transport (mass per unit time) predicted by all sediment-transport equations, examples of which will be examined later. Capacity transport only occurs when sediment supply is abundant (non-limiting). Sediment supply refers to the amount and size of sediment available for sediment transport. Capacity transport for a given grain size is only achieved if the supply of that calibre of sediment is not limiting (that is, the maximum amount of sediment a stream is capable of transporting is actually available). Because of these two different potential constraints (hydraulics and sediment supply) distinction is often made between supply-limited and capacity-limited transport.

Most rivers probably function in a sediment supply limited condition, although we often assume that this is not the case. Much of the material supplied to a stream is so fine (silt and clay) that provided it can be carried in suspension, almost any flow will transport it. Although there must be an upper limit to the capacity of the stream to transport such fines, it is probably never reached in natural channels and the amount moved is limited in supply. In contrast, transport of coarser material (say, coarser than fine sand) is largely capacity limited.

Modes of Sediment Transport: The sediment load of a river is transported in various ways although these distinctions are to some extent arbitrary and not always very practical in the sense that not all of the components can be separated in practice. The modes are:

1. Dissolved Load
2. Suspended Load
3. Intermittent Suspension (Saltation) Load
4. Wash Load
5. Bed Load

9. PROVISIONS OF ENFORCEMENT & MONITORING GUIDELINES FOR SAND MINING – 2020

- The need for replenishment study for river bed sand is required in order to nullify the adverse impacts arising due to excessing sand extraction. Mining within or near riverbed has a direct impact on the stream's physical characteristics, such as channel geometry, bed elevation, substratum composition and stability, in-stream roughness of the bed, flow velocity, discharge capacity, sediment transport capacity, turbidity, temperature etc.
- Alteration or modification of the above attributes may cause an impact on the ecological equilibrium of the riverine regime, disturbance in channel configuration and flow-paths. This may also cause an adverse impact on in- stream biota and riparian habitats. It is assumed that the riparian habitat disturbance is minimum if the replenishment is equal to excavation for a given stretch. Therefore, to minimize the adverse impact arising out of sand mining in a given river stretch, it is imperative to have a study of replenishment of material during the defined period.
- As per the provisions of EM Guidelines for Sand Mining – 2020, replenishment study requires filed surveys. For this, original ground level (OGL) are to be recorded and area of aggradation/deposition needs to be ascertained by comparing the level difference between the outside riverbed OGL and water level.
- The river reaches with sand provide the resource and thus it is necessary to ascertain the rate of replenishment of the mineral. Regular replenishment study needs to be carried out to keep a balance between deposition and extraction.
- The current study has been done on the basis of Physical DGPS Survey of field as per proviso of Section 5.2.1 of EMSM-2020 Guidelines.
- The conventional survey using DGPS and other survey tools are used to define elevation contours of the lease area as the contour and the elevation benchmarks provide the baseline data for assessing the pre and post-study period scenario.
- Baseline data on elevation status by formation of grids has been done on intervals depending on the geographical and site-specific conditions
- The changes observed in the elevation in pre and post scenario shall be depicted in graphical forms along with reserve estimation of the mining area.

10. INVENTORY OF EXISTING SAND/MORRUM LEASES IN DISTRICT JALAUN

• Inventory of existing 81 mining leases in district Jalaun.

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
1	Betwa	Nandha	Orai	345G, Khand-1	20.242	A 25°46'57.35" N, 79°18'10.64"E B 25°46'56.54" N, 79°18'14.50"E C 25°46'53.22" N, 79°18'21.55"E D 25°46'46.58" N, 79°18'30.72"E E 25°46'44.15" N, 79°18'34.25"E F 25°46'40.43" N, 79°18'38.85"E G 25°46'34.98" N, 79°18'33.15"E H 25°46'45.58" N, 79°18'19.50"E I 25°46'49.36" N, 79°18'10.64"E	Govt. Land
2	Betwa	Nandha	Orai	3G, Khand-2	20.242	A 25°46'57.35" N, 79°18'10.64"E B 25°47'3.00" N, 79°17'54.63"E C 25°47'4.89" N, 79°17'51.81"E D 25°47'11.60" N, 79°17'45.20"E E 25°47'7.56" N, 79°17'38.88"E F 25°47'00.32" N, 79°17'44.88"E G 25°46'49.36" N, 79°18'10.64"E	Govt. Land
3	Betwa	Nandha	Orai	3G, Khand-3	8.480	A 25°47'22.30" N, 79°17'31.20"E B 25°47'28.20" N, 79°17'29.60"E C 25°47'31.40" N, 79°17'27.20"E D 25°47'41.00" N, 79°17'27.80"E E 25°47'35.13" N, 79°17'34.10"E F 25°47'23.70" N, 79°17'36.60"E	Govt. Land
4	Betwa	Karthara	Orai	208, Khand-1	6.870	A 25° 49'12.00"N, 79° 17'31.90"E B 25° 49'15.80"N, 79° 17'50.30"E C 25° 49'11.50"N, 79° 17'50.80"E D 25° 49'07.80"N, 79°17'32.70"E	Govt. Land
5	Betwa	Kharka	Orai	2513,2629, Khand-1	20.242	A 25° 53'16.80"N, 79° 34'10.80"E B 25° 53'14.78"N, 79° 34'10.60"E C 25° 53'08.39"N, 79° 34'06.54"E D 25° 53'06.08"N, 79°34'14.78"E E 25° 53'07.87"N, 79°34'29.98"E F 25° 53'20.08"N, 79°34'30.68"E G 25° 53'17.30"N, 79°34'19.84"E H 25° 53'17.37"N, 79°34'15.31"E	Govt. Land
6	Betwa	Kharka	Orai	2513,2629, Khand-2	20.242	A 25° 53'26.77"N, 79° 34'49.88"E B 25° 53'22.70"N, 79° 34'39.71"E C 25° 53'20.08"N, 79° 34'30.68"E D 25° 53'7.87"N, 79° 34'29.98"E E 25° 53'09.88"N, 79°34'38.35"E F 25° 53'12.77"N, 79° 34'44.84"E G 25° 53'14.90"N, 79° 34'49.66"E	Govt. Land
7	Betwa	Kharka	Orai	2628,2629, Khand-3	20.242	A 25° 53'26.77"N, 79° 34'49.88"E B 25° 53'35.28"N, 79° 35'05.26"E C 25° 53'38.04"N, 79° 35'09.37"E D 25° 53'27.66"N, 79° 35'09.90"E E 25° 53'19.04"N, 79° 34'59.04"E F 25° 53'16.76"N, 79° 34'52.76"E G 25° 53'14.90"N, 79° 34'49.66"E	Govt. Land

SL.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
8	Betwa	Kharka	Orai	2257 - Khand-6	11.740	A 25° 53'46.13"N, 79° 35'26.48"E B 25° 53'44.89"N, 79° 35'20.52"E C 25° 53'38.04"N, 79° 35'09.37"E D 25° 53'32.85"N, 79° 35'09.64"E E 25° 53'33.38"N, 79° 35'10.59"E F 25° 53'33.90"N, 79° 35'18.67"E G 25° 53'40.29"N, 79° 35'27.26"E	Govt. Land
9	Betwa	Mohana	Orai	1782,1783 - Khand-1	11.740	A 25°47'53.18" N, 79°27'37.62"E B 25°47'49.73" N, 79°27'50.23"E C 25°48'89" N, 79°27'49.77"E D 25°48'3.13" N, 79°27'41.00"E	Govt. Land
10	Betwa	Mohana	Orai	1782,1783 - Khand-2	8.906	A 25° 48'14.68"N, 79° 27'40.28"E B 25° 48'3.13"N, 79° 27'41.00"E C 25° 48'3.89"N, 79° 27'49.77"E D 25° 48'16.05"N, 79° 27'48.82"E	Govt. Land
11	Betwa	Mohana	Orai	1782,1783 - Khand-3	8.906	A 25° 48'14.68"N, 79° 27'40.28"E B 25° 48'15.75"N, 79° 27'40.15"E C 25° 48'17.30"N, 79° 27'41.13"E D 25° 48'25.00"N, 79° 27'39.69"E E 25° 48'27.85"N, 79° 27'38.37"E F 25° 48'28.02"N, 79° 27'47.34"E G 25° 48'20.41"N, 79° 27'48.68"E H 25° 48'16.05"N, 79° 27'48.82"E	Govt. Land
12	Betwa	Sikrivyas	Orai	1193/916, 1191/2 - Khand-1	15.300	A 25° 46'40.43"N, 79° 18'38.85"E B 25° 46'37.60"N, 79° 18'43.92"E C 25° 46'23.66"N, 79° 18'57.76"E D 25° 46'17.44"N, 79° 18'53.11"E E 25° 46'22.40"N, 79° 18'49.20"E F 25° 46'36.43"N, 79° 18'35.03"E	Govt. Land
13	Betwa	Sikrivyas	Orai	1191/2 - Khand-3	20.242	A 25° 46'16.97"N, 79° 19'50.68"E B 25° 46'12.34"N, 79° 19'44.43"E C 25° 46'8.29"N, 79° 19'33.70"E D 25° 46'8.43"N, 79° 19'27.32"E E 25° 46'9.63"N, 79° 19'15.52"E F 25° 46'3.80"N, 79° 19'14.36"E G 25° 46'2.55"N, 79° 19'29.38"E H 25° 46'5.16"N, 79° 19'42.37"E I 25° 46'12.20"N, 79° 19'55.69"E	Govt. Land
14	Betwa	Sikrivyas	Orai	1191/2 - Khand-4	20.242	A 25°46'16.97" N, 79°19'50.68"E B 25°46'23.29" N, 79°19'56.06"E C 25°46'43.57" N, 79°20'9.64"E D 25°46'46.93" N, 79°20'13.52"E E 25°46'41.76" N, 79°20'16.19"E F 25°46'17.20" N, 79°19'59.51"E G 25°46'12.20" N, 79°19'55.69"E	Govt. Land
15	Betwa	Kurona	Orai	317Mi - Khand-1	20.242	A 25°53'48.85" N, 79°36'2.90"E B 25°53'48.22" N, 79°35'30.46"E C 25°53'38.67" N, 79°35'31.35"E D 25°53'42.74" N, 79°35'53.60"E E 25°53'41.58" N, 79°36'2.20"E	Govt. Land
16	Betwa	Kurona	Orai	317Mi - Khand-2	20.242	A 25°53'48.85" N, 79°36'2.90"E B 25°53'48.53" N, 79°36'7.00"E C 25°53'50.48" N, 79°36'17.54"E D 25°53'54.42" N, 79°36'21.79"E E 25°53'43.44" N, 79°36'30.27"E F 25°53'41.68" N, 79°36'26.42"E	Govt. Land

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
						G 25°53'40.83" N, 79°36'20.23"E H 25°53'40.59" N, 79°36'11.51"E I 25°53'41.58" N, 79°36'2.20"E	
17	Betwa	Kurona	Orai	317Mi - Khand-3	20.242	A 25°54'4.78" N, 79°36'31.84"E B 25°54'2.54" N, 79°36'31.38"E C 25°53'56.33" N, 79°36'25.12"E D 25°53'54.42" N, 79°36'21.79"E E 25°53'43.44" N, 79°36'30.27"E F 25°53.'50.84" N, 79°36'39.18"E G 25°53'57.98" N, 79°36'43.63"E	Govt. Land
18	Betwa	Kurona	Orai	317Mi - Khand-4	16.195	A 25° 54'16.48"N, 79° 36'34.47"E B 25° 54'10.66"N, 79° 36'34.10"E C 25° 54'4.78"N, 79° 36'31.84"E D 25° 53'57.98"N, 79°36'43.63"E E 25° 54'1.83"N, 79°36'44.93"E F 25° 54'11.34"N, 79°36'45.84"E G 25° 54'16.95"N, 79°36'45.00"E	Govt. Land
19	Betwa	Kurona	Orai	317Mi - Khand-5	12.120	A 25°54'29.72" N, 79°36'30.60"E B 25°54'21.16" N, 79°36'34.26"E C 25°54'16.48" N, 79°36'34.47"E D 25°54'16.95" N, 79°36'45.00"E E 25°54'24.84" N, 79°36'43.00"E F 25°54'32.08" N, 79°36'38.62"E	Govt. Land
20	Betwa	Dadri	Orai	2093 - Khand-1	20.242	A 25°55'8.04" N, 79°36'7.76"E B 25°55'19.63" N, 79°36'5.22"E C 25°55'36.94" N, 79°36'12.10"E D 25°55'44.90" N, 79°36'22.07"E E 25°55'41.62" N, 79°36'25.57"E F 25°55'34.90" N, 79°36'18.10"E G 25°55'19.27" N, 79°36'11.71"E H 25°55'7.08" N, 79°36'13.07"E	Govt. Land
21	Betwa	Bandholi	Orai	2559,2563 - Khand-1	20.242	A 25° 51'29.61"N, 79° 29'46.72"E B 25° 51'30.83"N, 79° 30'03.27"E C 25° 51'15.60"N, 79° 30'03.42"E D 25° 51'12.61"N, 79°29'57.20"E E 25° 51'10.40"N, 79°29'53.80"E	Govt. Land
22	Betwa	Bandholi	Orai	2559,2563 - Khand-2	20.242	A 25°51'29.61" N, 79°29'46.72"E B 25°51'25.37" N, 79°29'37.20"E C 25°51'22.85" N, 79°29'36.50"E D 25°51'16.85" N, 79°29'40.66"E E 25°51'15.45" N, 79°29'38.53"E F 25°51'04.62" N, 79°29'46.87"E G 25°51'07.62" N, 79°29'50.00"E H 25°51'10.40" N, 79°29'53.80"E	Govt. Land
23	Betwa	Bandholi	Orai	2558,2559,2563 - Khand-3	20.242	A 25° 51'18.15"N, 79° 29'24.15"E B 25° 51'10.98"N, 79° 29'29.68"E C 25° 51'04.50"N, 79° 29'32.85"E D 25° 51'09.52"N, 79°29'39.42"E E 25° 51'13.76"N, 79°29'36.14"E F 25° 51'15.45"N, 79°29'38.53"E G 25° 51'04.62"N, 79°29'46.87"E H 25° 50'54.84"N, 79°29'36.36"E I 25° 50'52.88"N, 79°29'31.21"E	Govt. Land

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
24	Betwa	Bandholi	Orai	2558,2563 - Khand-4	16.195	A 25° 51'15.38"N, 79° 29'20.70"E B 25° 51'18.15"N, 79° 29'24.15"E C 25° 50'52.88"N, 79° 29'31.21"E D 25° 50'47.83"N, 79° 29'21.56"E	Govt. Land
25	Betwa	Bandholi	Orai	2558,2563 - Khand-5	12.145	A 25° 51'15.38"N, 79° 29'20.70"E B 25° 51'12.00"N, 79° 29'16.47"E C 25° 50'44.98"N, 79° 29'14.90"E D 25° 50'47.83"N, 79° 29'21.56"E	Govt. Land
26	Betwa	Bandholi	Orai	2556,2557 - Khand-5A	36.360	A 25° 50'56.26"N, 79° 28'54.55"E B 25° 51'12.00"N, 79° 29'16.47"E C 25° 50'44.98"N, 79° 29'14.90"E D 25° 50'42.93"N, 79° 28'53.77"E	Govt. Land
27	Betwa	Simiriya	Orai	864/320, 865/320	27.470	A 25° 51'39.30"N, 79° 32'38.33"E B 25° 51'39.88"N, 79° 32'44.30"E C 25° 51'39.20"N, 79° 32'44.80"E D 25° 51'40.40"N, 79° 33'00.50"E E 25° 51'42.26"N, 79° 33'07.24"E F 25° 51'44.52"N, 79° 33'15.34"E G 25° 51'44.82"N, 79° 33'24.28"E H 25° 51'43.62"N, 79° 33'30.37"E I 25° 51'52.40"N, 79° 33'30.75"E J 25° 51'52.77"N, 79° 33'28.12"E K 25° 51'53.84"N, 79° 33'28.12"E L 25° 51'53.94"N, 79° 33'23.00"E M 25° 51'53.06"N, 79° 33'17.82"E N 25° 51'46.60"N, 79° 33'01.13"E O 25° 51'43.54"N, 79° 32'49.27"E	Govt. Land
28	Betwa	Simiriya	Orai	866/144	17.500	A 25° 51'38.64"N, 79° 32'22.25"E B 25° 51'41.78"N, 79° 32'21.89"E C 25° 51'42.43"N, 79° 32'28.89"E D 25° 51'41.74"N, 79° 32'34.85"E E 25° 51'44.81"N, 79° 32'42.60"E F 25° 51'47.94"N, 79° 32'45.72"E G 25° 51'47.91"N, 79° 32'50.26"E H 25° 51'48.76"N, 79° 32'55.92"E I 25° 51'56.00"N, 79° 33'20.24"E J 25° 51'53.94"N, 79° 33'23.00"E K 25° 51'53.06"N, 79° 33'17.82"E L 25° 51'46.60"N, 79° 33'01.13"E M 25° 51'43.54"N, 79° 32'49.27"E N 25° 51'38.78"N, 79° 32'37.05"E O 25° 51'39.43"N, 79° 32'29.92"E	Govt. Land
29	Betwa	Tikar	Orai	1482 - Khand-1	20.242	A 25° 53'15.88"N, 79° 31'07.12"E B 25° 53'21.19"N, 79° 31'08.34"E C 25° 53'33.18"N, 79° 31'17.54"E D 25° 53'38.07"N, 79° 31'30.42"E E 25° 53'27.64"N, 79° 31'36.42"E F 25° 53'27.07"N, 79° 31'31.40"E G 25° 53'21.88"N, 79° 31'13.65"E H 25° 53'19.55"N, 79° 31'11.18"E I 25° 53'17.80"N, 79° 31'09.87"E	Govt. Land
30	Betwa	Tikar	Orai	1482 - Khand-2	20.242	A 25° 53'38.07"N, 79° 31'30.42"E B 25° 53'38.64"N, 79° 31'30.92"E C 25° 53'39.91"N, 79° 31'36.91"E D 25° 53'39.56"N, 79° 31'39.02"E E 25° 53'41.96"N, 79° 31'51.99"E	Govt. Land

SLNo	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
						F 25°53'42.41" N, 79°31'59.82"E G 25°53'42.95" N, 79°32'1.66"E H 25°53'41.93" N, 79°32'5.47"E I 25°53'42.22" N, 79°32'6.76"E J 25°53'40.20" N, 79°32'8.02"E K 25°53'38.37" N, 79°32'11.47"E L 25°53'37.76" N, 79°32'11.48"E M 25°53'38.68" N, 79°32'3.88"E N 25°53'38.16" N, 79°31'54.55"E O 25°53'37.08" N, 79°31'52.95"E P 25°53'36.31" N, 79°31'50.08"E Q 25°53'34.38" N, 79°31'47.54"E R 25°53'28.15" N, 79°31'38.78"E S 25°53'27.64" N, 79°31'36.42"E	
31	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-1	20.242	A 25°53'33.74"N, 79° 50'24.38"E B 25° 53'45.40"N, 79° 50'6.00"E C 25° 53'36.30"N, 79° 50'1.90"E D 25° 53'22.54"N, 79°50'18.60"E	Govt. Land
32	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-2	20.242	A 25° 53'33.74"N, 79° 50'24.38"E B 25° 53'29.82"N, 79° 50'31.80"E C 25° 53'25.59"N, 79° 50'41.20"E D 25° 53'14.07"N, 79°50'35.02"E E 25° 53'22.54"N, 79°50'18.60"E	Govt. Land
33	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-3	20.242	A 25°53'17.49" N, 79°50'56.74"E B 25°53'5.84" N, 79°50'50.29"E C 25°53'14.07" N, 79°50'35.02"E D 25°53'25.59"N, 79°50'41.20"E E 25°53'24.94" N, 79°50'42.15"E F 25°53'25.62" N, 79°50'42.56"E	Govt. Land
34	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-4	20.242	A 25°53'17.49" N, 79°50'56.74"E B 25°53'5.84" N, 79°50'50.29"E C 25°52'57.77" N, 79°51'12.91"E D 25°53'4.00" N, 79°51'16.83"E E 25°53'8.90" N, 79°51'6.80"E	Govt. Land
35	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-5	20.242	A 25°53'4.00"N, 79° 51'16.83" E B 25°53'2.05"N, 79° 51'22.03" E C 25°53'0.94"N, 79° 51'31.19" E D 25°52'58.60"N, 79° 51'32.04" E E 25°52'59.30"N, 79° 51'36.20" E F 25°52'58.13"N, 79° 51'36.52" E G 25°53'0.02"N, 79° 51'43.60" E H 25°53'2.80"N, 79° 51'51.45" E I 25°52'54.91"N, 79° 51'52.16" E J 25°52'54.40"N, 79° 51'47.31" E K 25°52'53.79"N, 79° 51'35.77" E L 25°52'54.28"N, 79° 51'28.34" E M 25°52'55.68"N, 79° 51'20.18" E N 25°52'57.77"N, 79° 51'12.91" E	Govt. Land
36	Betwa	Bhedi Khurd	Kalpi	1396G - Khand-6	11.740	A 25° 53'2.80"N, 79° 51'51.45" E B 25° 53'8.95"N, 79° 52'5.84" E C 25° 53'2.16"N, 79° 52'9.24" E D 25° 52'57.65"N, 79° 52'1.00" E E 25° 52'54.91"N, 79° 51'52.16" E	Govt. Land
37	Betwa	Hemanpura	Kalpi	240 - Khand-1	7.850	A 25° 52'18.98"N, 79° 48'11.19"E B 25° 52'21.30"N, 79° 48'13.57"E C 25° 52'22.18"N, 79° 48'12.93"E	Govt. Land

SLNo	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
						D 25° 52'28.15"N, 79° 48'18.37"E E 25° 52'25.28"N, 79° 48'25.11"E F 25° 52'21.55"N, 79° 48'23.36"E G 25° 52'14.80"N, 79° 48'15.74"E	
38	Betwa	Hemanpura	Kalpi	240 - Khand-2	20.242	A 25°52'10.00" N, 79°47'59.50"E B 25°51'59.00" N, 79°48'06.60"E C 25°51'56.90" N, 79°48'4.50"E D 25°51'55.40" N, 79°48'04.50"E E 25°51'53.10" N, 79°48'01.20"E F 25°51'54.15" N, 79°47'54.51"E G 25°51'51.50" N, 79°47'47.80"E H 25°52'6.10" N, 79°47'48.40"E	Govt. Land
39	Betwa	Hemanpura	Kalpi	240 - Khand-3	13.360	A 25°52'3.43" N, 79°47'36.50"E B 25°51'49.80"N, 79°47'35.77"E C 25°51'51.50" N, 79°47'47.80"E D 25°52'6.10" N, 79°47'48.40"E E 25°52'3.60" N, 79°47'40.60"E	Govt. Land
40	Betwa	Hemanpura	Kalpi	240 - Khand-4	16.195	A 25° 52'3.43"N, 79° 47'36.50"E B 25° 52'3.78"N, 79° 47'22.83"E C 25° 51'49.47"N, 79° 47'21.85"E D 25° 51'49.80"N, 79°47'35.77"E	Govt. Land
41	Betwa	Hemanpura	Kalpi	240 - Khand-5	16.195	A 25°52'05.50" N, 79°47'08.90"E B 25°52'7.32" N, 79°47'22.83"E C 25°51'49.47" N, 79°47'21.85"E D 25°51'52.23 "N, 79°47'08.26"E	Govt. Land
42	Betwa	Basrehi	Kalpi	596 - Khand-1	16.195	A 25°53'16.51"N, 79° 45'39.76" E B 25°52'59.61"N, 79° 45'50.61" E C 25°52'47.90"N, 79° 46'0.42" E D 25°52'44.22"N, 79° 45'50.29" E E 25°53'3.85"N, 79° 45'42.38" E F 25°53'7.37"N, 79° 45'42.26" E G 25°53'16.04"N, 79° 45'38.43" E	Govt. Land
43	Betwa	Basrehi	Kalpi	596 - Khand-2	16.195	A 25° 52'47.90"N, 79° 46'00.42"E B 25° 52'38.29"N, 79° 46'9.59"E C 25° 52'30.00"N, 79° 45'58.80"E D 25° 52'41.70"N, 79° 45'50.30"E E 25° 52'44.22"N, 79° 45'50.29"E	Govt. Land
44	Betwa	Chirpura	Kalpi	104 - Khand-1	14.170	A 25° 52'34.33"N, 79° 46'13.60"E B 25° 52'27.74"N, 79° 46'22.00"E C 25° 52'17.32"N, 79° 46'14.42"E D 25° 52'19.64"N, 79°46'11.15"E E 25° 52'20.83"N, 79° 46'6.87"E F 25° 52'23.78"N, 79° 46'2.82"E	Govt. Land
45	Betwa	Chirpura	Kalpi	104 - Khand-2	14.170	A 25° 52'21.35"N, 79° 46'31.65"E B 25° 52'27.74"N, 79° 46'22.00"E C 25° 52'17.32"N, 79° 46'14.42"E D 25° 52'9.41"N, 79° 46'25.67"E	Govt. Land
46	Betwa	Kyotra	Kalpi	267,268 - Khand-1	20.242	A 25°52'13.00"N, 79° 46'46.97"E B 25° 52'21.35"N, 79° 46'31.65"E C 25° 52'08.43"N, 79° 46'25.18"E D 25° 52'1.63"N, 79° 46'39.49"E	Govt. Land
47	Betwa	Kyotra	Kalpi	267,268 - Khand-2	18.218	A 25°52'13.00" N, 79°46'46.97"E B 25°52'07.32" N, 79°47'00.16"E C 25°51'54.28" N, 79°46'53.70"E D 25°52'01.63 "N, 79°46'39.49"E	Govt. Land

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
48	Betwa	Kyotra	Kalpi	267,268 - Khand-3	16.194	A 25° 52'05.50"N, 79° 47'08.90"E B 25° 52'07.32"N, 79° 47'00.16"E C 25° 51'54.28"N, 79° 46'53.70"E D 25° 51'48.18"N, 79° 47'08.07"E	Govt. Land
49	Betwa	Pathretha	Kalpi	747 - Khand-1	16.195	A 25° 52'28.53"N, 79° 48'28.19"E B 25° 52'42.60"N, 79° 48'31.56"E C 25° 52'41.56"N, 79° 48'46.49"E D 25° 52'27.94"N, 79° 48'39.93"E	Govt. Land
50	Betwa	Pathretha	Kalpi	747 - Khand-2	16.195	A 25° 52'28.53"N, 79° 48'28.19"E B 25° 52'42.60"N, 79° 48'31.56"E C 25° 52'41.56"N, 79° 48'46.49"E D 25° 52'27.94"N, 79° 48'39.93"E	Govt. Land
51	Betwa	Pathretha	Kalpi	747 - Khand-3	16.195	A 25° 52'54.66" N, 79° 48'34.47"E B 25° 52'58.44" N, 79° 48'35.44"E C 25° 53'9.14" N, 79° 48'35.04"E D 25° 53'8.41" N, 79° 48'47.68"E E 25° 52'53.64" N, 79° 48'48.48"E	Govt. Land
52	Betwa	Pathretha	Kalpi	747 - Khand-4	16.195	A 25° 53'27.08" N, 79° 48'34.40"E B 25° 53'9.14" N, 79° 48'35.04"E C 25° 53'8.41" N, 79° 48'47.68"E D 25° 53'25.97" N, 79° 48'43.92"E	Govt. Land
53	Betwa	Pathretha	Kalpi	747 - Khand-5	16.195	A 25° 53'27.08" N, 79° 48'34.40"E B 25° 53'51.42" N, 79° 48'33.45"E C 25° 53'50.60" N, 79° 48'39.16"E D 25° 53'25.97" N, 79° 48'43.92"E	Govt. Land
54	Betwa	Pathretha	Kalpi	439 - Khand-6	10.120	A 25° 53'52.27" N, 79° 48'27.71"E B 25° 54'9.35" N, 79° 48'25.35"E C 25° 54'6.92" N, 79° 48'29.84"E D 25° 54'5.26" N, 79° 48'31.80"E E 25° 54'1.35" N, 79° 48'32.43"E F 25° 53'58.73" N, 79° 48'34.74"E G 25° 53'50.60" N, 79° 48'39.16"E	Govt. Land
55	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-1	9.710	A 25° 54'30.24" N, 79° 39'29.54"E B 25° 54'29.60" N, 79° 39'32.30"E C 25° 54'29.66" N, 79° 39'33.38"E D 25° 54'31.32" N, 79° 39'39.56"E E 25° 54'20.35" N, 79° 39'41.26"E F 25° 54'20.11" N, 79° 39'40.77"E G 25° 54'19.50" N, 79° 39'41.11"E H 25° 54'20.27" N, 79° 39'34.43"E I 25° 54'25.50" N, 79° 39'26.69"E	Govt. Land
56	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-2	20.242	A 25° 54'31.32"N, 79° 39'39.56"E B 25° 54'38.54"N, 79° 39'55.67"E C 25° 54'32.36"N, 79° 39'57.60"E D 25° 54'24.93"N, 79° 39'59.95"E E 25° 54'24.81"N, 79° 39'57.89"E F 25° 54'21.29"N, 79° 39'50.47"E G 25° 54'21.41"N, 79° 39'47.81"E H 25° 54'20.50"N, 79° 39'47.36"E I 25° 54'20.73"N, 79° 39'46.75"E J 25° 54'20.63"N, 79° 39'46.11"E K 25° 54'21.29"N, 79° 39'44.67"E L 25° 54'20.35"N, 79° 39'41.26"E	Govt. Land

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
57	Betwa	Kehtahamirpur	Kalpi	1064 - Khand-3	12.120	A 25°54'38.54" N, 79°39'55.67"E B 25°54'42.69" N, 79°40'03.61"E C 25°54'30.65 "N, 79°40'09.43"E D 25°54'27.81" N, 79°40'05.75"E E 25°54'27.34 "N, 79°40'05.48"E F 25°54'26.31" N, 79°40'03.05" E G 25°54'25.33" N, 79°40'01.72"E H 25°54'24.93 "N, 79°39'59.95"E	Govt. Land
58	Betwa	Kehtahamirpur	Kalpi	1064 -Khand-4	12.120	A 25° 54'42.69"N, 79° 40'3.61" E B 25° 54'47.88"N, 79° 40'11.42" E C 25° 54'40.23"N, 79° 40'19.16" E D 25° 54'35.14"N, 79° 40'15.14" E E 25° 54'30.65"N, 79° 40'9.43" E	Govt. Land
59	Yamuna	Taribulda	Kalpi	36/1 - Khand-1	20.242	A 26° 07'17.43"N, 79° 46'00.17"E B 26° 07'21.67"N, 79° 46'06.21"E C 26° 07'19.97"N, 79° 46'14.52"E D 26° 07'16.03"N, 79° 46'21.69"E E 26° 07'12.60"N, 79° 46'24.42"E F 26° 07'03.96"N, 79°46'12.39"E	Govt. Land
60	Yamuna	Gajraura	Jalaun	22/14	6.950	A 26°25'6.88"N, 79°28'51.57"E B 26°25'7.79"N, 79°28'56.66"E C 26°24'52.53"N, 79°29'5.04"E D 26°24'51.43"N, 79°29'0.28"E	Govt. Land
61	Yamuna	Mahtoli	Madhavgarh	714Ma	10.000	A 26°26'21.50"N, 79°17'31.08"E B 26°26'19.28"N, 79°17'40.77"E C 26°26'16.64"N, 79°17'50.72"E D 26°26'5.25"N, 79°18'2.26"E E 26°26'2.87"N, 79°18'3.69"E F 26°26'1.89"N, 79°18'1.79"E G 26°26'4.76"N, 79°17'59.85"E H 26°26'11.10"N, 79°17'52.88"E I 26°26'9.25"N, 79°17'50.12"E J 26°26'12.03"N, 79°17'47.51"E K 26°26'16.27"N, 79°17'41.66"E L 26°26'17.25"N, 79°17'38.25"E M 26°26'17.57"N, 79°17'34.27"E N 26°26'18.80"N, 79°17'31.65"E	Govt. Land
62	Betwa	Pathretha	Kalpi	747/16, Khand-1	8.880	A 25°52'34.30"N, 79°48'27.20"E B 25°52'59.51"N, 79°48'33.60"E C 25°53'6.77"N, 79°48'33.40"E D 25°53'28.44"N, 79°48'32.77"E E 25°53'51.67"N, 79°48'31.64"E F 25°53'51.47"N, 79°48'33.10"E G 25°52'58.49"N, 79°48'35.07"E H 25°52'33.97"N, 79°48'28.84"E	Govt. Land
63	Yamuna	Jeetamau Deewara	Kalpi	84,85,86,87 - Khand-1	15.000	A 26° 21'21.55"N, 79° 33'20.40"E B 26° 21'36.45"N, 79° 33'31.70"E C 26° 21'37.61"N, 79° 33'23.53"E D 26° 21'34.27"N, 79° 33'18.48"E E 26° 21'21.42"N, 79° 33'08.62"E F 26° 21'21.98"N, 79° 33'15.79"E	Govt. Land
64	Yamuna	Jeetamau Deewara	Kalpi	84 ,87,91 - Khand-2	15.000	A 26° 21'21.55"N, 79° 33'20.40"E B 26° 21'36.45"N, 79° 33'31.70"E C 26° 21'34.92"N, 79° 33'42.17"E D 26° 21'19.40"N, 79° 33'30.35"E E 26° 21'21.16"N, 79° 33'24.56"E	Govt. Land

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
65	Yamuna	Jeetamau Deewara	Kalpi	88/2, 89,90,91 - Khand-3	13.080	A 26° 21'16.53"N, 79° 33'39.21"E B 26° 21'30.23"N, 79° 33'51.42"E C 26° 21'33.63"N, 79° 33'44.13"E D 26° 21'24.43"N, 79°33'35.85"E E 26° 21'24.60"N, 79°33'34.36"E F 26° 21'19.40"N, 79°33'30.35"E	Govt. Land
66	Yamuna	Jeetamau Deewara	Kalpi	88/2, 89, 120/1 - Khand-4	15.000	A 26° 21'16.53"N, 79° 33'39.21"E B 26° 21'30.23"N, 79° 33'51.42"E C 26° 21'29.10"N, 79° 33'56.06"E D 26° 21'19.94"N, 79° 33'57.74"E E 26° 21'12.49"N, 79°33'45.46"E	Govt. Land
67	Yamuna	Jeetamau Deewara	Kalpi	120/1 - Khand-5	15.000	A 26° 21'01.83"N, 79° 33'53.48"E B 26° 21'01.60"N, 79° 34'00.80"E C 26° 21'12.10"N, 79° 34'01.23"E D 26° 21'19.94"N, 79° 33'57.74"E E 26° 21'12.49"N, 79° 33'45.46"E F 26° 21'06.29"N, 79°33'51.35"E	Govt. Land
68	Yamuna	HarshanKarpur Diwara	Jalaun	76Mi - Khand-01	9.000	A 26°24'36.80"N, 79°29'5.58"E B 26°24'38.60"N, 79°29'13.89"E C 26°24'47.57"N, 79°29'10.48"E D 26° 24'52.53"N, 79°29'7.85"E E 26°24'51.22"N, 79°29'2.24"E	Govt. Land
69	Yamuna	HarshanKarpur Diwara	Jalaun	76Mi -Khand-02	9.000	A 26°24'36.80"N, 79°29'5.58"E B 26°24'38.60"N, 79°29'13.89"E C 26°24'33.87"N, 79°29'15.74"E D 26°24'29.27"N, 79°29'16.27"E E 26°24'24.35"N, 79°29'15.45"E F 26°24'23.63"N, 79°29'9.95"E	Govt. Land
70	Yamuna	Simra Sheikhpur	Kalpi	117/1 - Khand-01	11.000	A 26°14'11.04"N, 79°38'47.92"E B 26°14'22.17"N, 79°38'44.12"E C 26°14'25.26"N, 79°38'42.55"E D 26°14'30.94"N, 79°38'39.89"E E 26°14'32.00"N, 79°38'47.70"E F 26°14'12.28"N, 79°38'53.46"E	Govt. Land
71	Yamuna	Simra Sheikhpur	Kalpi	117/1 -Khand-02	10.000	A 26°14'11.04"N, 79°38'47.92"E B 26°13'56.73"N, 79°38'48.24"E C 26°13'54.25"N, 79°38'47.67"E D 26°13'50.94"N, 79°38'46.16"E E 26°13'49.29"N, 79°38'50.00"E F 26°13'53.50"N, 79°38'51.96"E G 26°14'3.12"N, 79°38'54.45"E H 26°14'12.28"N, 79°38'53.46"E	Govt. Land
72	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-01	15.000	A 26°10'43.61"N, 79°45'21.81"E B 26°10'50.17"N, 79°45'16.20"E C 26°11'0.74"N, 79°45'26.80"E D 26°10'56.23"N, 79°45'36.66"E E 26°10'54.96"N, 79°45'37.72"E	Govt. Land
73	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-02	15.000	A 26°10'43.61"N, 79°45'21.81"E B 26°10'38.33"N, 79°45'25.72"E C 26°10'47.55"N, 79°45'45.92"E D 26°10'49.13"N, 79°45'44.11"E E 26°10'54.96"N, 79°45'37.72"E	Govt. Land

Sl.No	River	Village	Tehsil	Lease Details	Area (ha.)	Location (Latitude and Longitude)	Type of Land
74	Yamuna	Heerapur Diwara	Kalpi	169/9, 170/1 - Khand-03	15.000	A 26°10'32.52"N, 79°45'28.98"E B 26°10'38.33"N, 79°45'25.72"E C 26°10'47.55"N, 79°45'45.92"E D 26°10'37.12"N, 79°45'47.63"E	Govt. Land
75	Yamuna	Heerapur Diwara	Kalpi	169/9, 170/1 - Khand-04	15.000	A 26°10'32.52"N, 79°45'28.98"E B 26°10'24.69"N, 79°45'31.44"E C 26°10'24.92"N, 79°45'47.38"E D 26°10'26.29"N, 79°45'47.92"E E 26°10'37.12"N, 79°45'47.63"E	Govt. Land
76	Yamuna	Heerapur Diwara	Kalpi	169/9, 170/1 - Khand-05	15.000	A 26°10'11.81"N, 79°45'31.88"E B 26°10'16.25"N, 79°45'32.80"E C 26°10'24.69"N, 79°45'31.44"E D 26°10'24.92"N, 79°45'47.38"E E 26°10'16.25"N, 79°45'44.63"E F 26°10'10.57"N, 79°45'42.32"E	Govt. Land
77	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-06	15.000	A 26°10'11.81"N, 79°45'31.88"E B 26°10'4.08"N, 79°45'30.18"E C 26°9'55.83"N, 79°45'27.02"E D 26°9'53.28"N, 79°45'35.65"E E 26°10'3.14"N, 79°45'40.69"E F 26°10'10.57"N, 79°45'42.32"E	Govt. Land
78	Yamuna	Heerapur Diwara	Kalpi	169/9 - Khand-07	15.000	A 26°9'32.22"N, 79°45'11.32"E B 26°9'48.60"N, 79°45'24.32"E C 26°9'55.83"N, 79°45'27.02"E D 26°9'53.28"N, 79°45'35.65"E E 26°9'45.33"N, 79°45'30.20"E F 26°9'39.51"N, 79°45'24.12"E G 26°9'30.14"N, 79°45'14.08"E	Govt. Land
79	Betwa	Simeriya	Orai	861, 861/12, 861/12Mi	1.47	A 25°51'18.84"N, 79°34'08.89"E B 25°51'17.39"N, 79°34'14.15"E C 25°51'15.43"N, 79°34'12.98"E D 25°51'13.38"N, 79°34'12.27"E E 25°51'13.67"N, 79°34'10.00"E	Pvt. Land
80	Betwa	Simeriya	Orai	860/19	3.112	A 25°51'33.27"N, 79°33'41.00"E B 25°51'38.41"N, 79°33'48.51"E C 25°51'34.58"N, 79°33'49.77"E D 25°51'29.25"N, 79°33'42.10"E	Pvt. Land
81	Betwa	Parasan	Kalpi	4032/15	1.234	A 25°54'34.52"N, 79°42'59.45"E B 25°54'35.77"N, 79°43'1.50"E C 25°54'32.06"N, 79°43'8.43"E D 25°54'30.65"N, 79°43'5.96"E	Pvt. Land

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- **List of Leases in operation in Jalaun with their production from 01-Oct-2024 to 30-June-2025**

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Actual Production as per MM11 From 1-Oct-24 till 30-June-2025
5	Betwa	Kharka, Tehsil Orai	2513,2629 , Khand-1	20.242	87443
11	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-3	8.906	28952
13	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-3	20.242	101209
16	Betwa	Kurona , Tehsil Orai	317Mi - Khand-2	20.242	75750
18	Betwa	Kurona , Tehsil Orai	317Mi - Khand-4	16.195	6038
24	Betwa	Bandholi , Tehsil Orai	2558,2563 - Khand-4	16.195	118978
27	Betwa	Simiriya , Tehsil Orai	864/320, 865/320	27.470	180111
30	Betwa	Tikar , Tehsil Orai	1482 - Khand-2	20.242	60600
33	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-3	20.242	46094
35	Betwa	Bhedi khurd - Tehsil Kalpi	1396G - Khand-5	20.242	151759
37	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-1	7.850	37792
38	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-2	20.242	150529
39	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-3	13.360	85929
42	Betwa	Basrehi , Teshil Kalpi	596 - Khand-1	16.195	89321
45	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-2	14.170	79703
49	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-1	16.195	161868
50	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-2	16.195	291647
55	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-1	9.710	127138
56	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-2	20.242	60340
58	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 -Khand-4	12.120	102414
59	Yamuna	Taribulda , Tehsil Kalpi	36/1 - Khand-1	20.242	53514
60	Yamuna	Gajraura , Tehsil Jalaun	22/14	6.950	44603
80	Betwa	Simeriya , Tehsil - Orai	860/19	3.112	1555

11. RESULTS OF STUDY IN PRE & POST MONSOON PERIOD FOR EXISTING LEASE AREAS

• Summary of Pre & Post Monsoon Study Results in Existing Leases

Sl. No	River	Village/Tehsil	Lease Details	Lease Area (ha.)	Pre-Monsoon -2025 Reserve (Cum)	Post-Monsoon -2025 Replenishment (Cum)	Total Quantity in Lease-2025 (Cum)	DSR Approved Quantity (Cum)
1	Betwa	Nandha , Tehsil Orai	345G , Khand-1	20.242	125751	77895	203647	202420
2	Betwa	Nandha , Tehsil Orai	3G , Khand-2	20.242	124862	78799	203661	202420
3	Betwa	Nandha , Tehsil Orai	3G , Khand-3	8.480	53074	32457	85531	85020
4	Betwa	Karthara , Tehsil Orai	208 , Khand-1	6.870	42977	26256	69233	68820
5	Betwa	Kharka , Tehsil Orai	2513,2629 , Khand-1	20.242	115939	87865	203804	202420
6	Betwa	Kharka , Tehsil Orai	2513,2629 - Khand-2	20.242	131824	71726	203550	202420
7	Betwa	Kharka , Tehsil Orai	2628,2629, 2513 - Khand-3	20.242	126080	77562	203641	202420
8	Betwa	Kharka , Tehsil Orai	2257 - Khand-6	11.740	70628	47317	117945	117200
9	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-1	14.574	69801	42570	112370	111700
10	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-2	8.906	54688	34922	89610	89060
11	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-3	8.906	61255	28250	89505	89060
12	Betwa	Sikrivyas , Tehsil Orai	1193/916, 1191/2 - Khand-1	15.300	95027	59104	154131	153200
13	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-3	20.242	101415	102622	204036	202420
14	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-4	20.242	131411	72145	203556	202420
15	Betwa	Kurona , Tehsil Orai	317Mi - Khand-1	20.242	188616	116854	305470	303630
16	Betwa	Kurona , Tehsil Orai	317Mi - Khand-2	20.242	149855	156235	306090	303630
17	Betwa	Kurona , Tehsil Orai	317Mi - Khand-3	20.242	207456	97713	305169	303630
18	Betwa	Kurona , Tehsil Orai	317Mi - Khand-4	16.195	134558	110086	244644	242910
19	Betwa	Kurona , Tehsil Orai	317Mi - Khand-5	12.120	107237	76137	183374	182175
20	Betwa	Dadri , Tehsil Orai	2093 - Khand-1	20.242	116607	87186	203793	202420
21	Betwa	Bandholi , Tehsil Orai	2559,2563 - Khand-1	20.242	181594	123989	305583	303630
22	Betwa	Bandholi , Tehsil Orai	2559,2563 - Khand-2	20.242	175426	130256	305681	303630
23	Betwa	Bandholi , Tehsil Orai	2558,2559,2563 - Khand-3	20.242	171751	133989	305740	303630
24	Betwa	Bandholi , Tehsil Orai	2558,2563 - Khand-4	16.195	143772	100724	244496	242910
25	Betwa	Bandholi , Tehsil Orai	2558,2563 - Khand-5	12.145	107209	76166	183374	182175
26	Betwa	Bandholi , Tehsil Orai	2556,2557 - Khand-5A	36.360	296641	252739	549380	545400
27	Betwa	Simiriya , Tehsil Orai	864/320, 865/320	27.470	257531	157906	415437	412950
28	Betwa	Simiriya , Tehsil Orai	866/144	17.500	166894	97136	264030	262500
29	Betwa	Tikar , Tehsil Orai	1482 - Khand-1	20.242	124046	79628	203674	202420
30	Betwa	Tikar , Tehsil Orai	1482 - Khand-2	20.242	133506	70017	203523	202420

Sl. No	River	Village/Tehsil	Lease Details	Lease Area (ha.)	Pre-Monsoon -2025 Reserve (Cum)	Post-Monsoon -2025 Replenishment (Cum)	Total Quantity in Lease-2025 (Cum)	DSR Approved Quantity (Cum)
31	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-1	20.242	185967	119546	305513	303630
32	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-2	20.242	197106	108229	305334	303630
33	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-3	20.242	203011	102229	305240	303630
34	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-4	20.242	201075	104196	305271	303630
35	Betwa	Bhedi khurd - Tehsil Kalpi	1396G - Khand-5	20.242	148634	157475	306110	303630
36	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-6	11.740	98441	78902	177343	176100
37	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-1	7.850	57066	65420	122485	121455
38	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-2	20.242	158851	147095	305946	303630
39	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-3	13.360	117943	83776	201719	200400
40	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-4	16.195	148725	95692	244417	242910
41	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-5	16.195	151495	92878	244373	242910
42	Betwa	Basrehi , Teshil Kalpi	596 - Khand-1	16.195	143083	101424	244507	242910
43	Betwa	Basrehi , Teshil Kalpi	596 - Khand-2	16.195	127138	117625	244762	242910
44	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-1	14.170	113422	100257	213679	212100
45	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-2	14.170	124577	88923	213500	212100
46	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-1	20.242	103714	100285	203999	202420
47	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-2	18.218	126007	57071	183079	182180
48	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-3	16.194	95551	67451	163002	161940
49	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-1	16.195	169531	156819	326350	323880
50	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-2	16.195	212017	113652	325670	323880
51	Betwa	Pathretha , Tehsil Kalpi	747 -Khand-3	16.195	168198	158173	326371	323880
52	Betwa	Pathretha , Tehsil Kalpi	747 -Khand-4	16.195	173398	152890	326288	323880
53	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-5	16.195	183756	142366	326122	323880
54	Betwa	Pathretha , Tehsil Kalpi	439 - Khand-6	10.120	81604	71340	152943	151820
55	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-1	9.710	120310	25745	146055	145650
56	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-2	20.242	209353	95785	305138	303630
57	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-3	12.120	111468	71458	182925	181800
58	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 -Khand-4	12.120	76681	107182	183863	182175
59	Yamuna	Taribulda , Tehsil Kalpi	36/1 - Khand-1	20.242	147267	56035	203302	202420
60	Yamuna	Gajraura , Tehsil Jalaun	22/14	6.950	34959	35195	70154	69600
61	Yamuna	Mahtoli , Tehsil Jalaun	714Ma	10.000	55936	44769	100705	100000
62	Betwa	Pathretha , Tehsil Kalpi	747/16, Khand-1	8.880	214572	5515	220087	220000

Sl. No	River	Village/Tehsil	Lease Details	Lease Area (ha.)	Pre-Monsoon -2025 Reserve (Cum)	Post-Monsoon -2025 Replenishment (Cum)	Total Quantity in Lease-2025 (Cum)	DSR Approved Quantity (Cum)
63	Yamuna	Jeetamau Deewara , Tehsil Kalpi	84,85,86,87 - Khand-1	15.000	115274	111482	226756	225000
64	Yamuna	Jeetamau Deewara , Tehsil Kalpi	84 ,87,91 - Khand-2	15.000	132105	94381	226486	225000
65	Yamuna	Jeetamau Deewara , Tehsil Kalpi	88/2, 89,90,91 - Khand-3	13.080	112676	84860	197536	196200
66	Yamuna	Jeetamau Deewara , Tehsil Kalpi	88/2, 89, 120/1 - Khand-4	15.000	126621	99953	226574	225000
67	Yamuna	Jeetamau Deewara , Tehsil Kalpi	120/1 - Khand-5	15.000	122302	104341	226643	225000
68	Yamuna	HarshanKarpur Diwara , Tehsil Jalaun	76Mi - Khand-01	9.000	77563	67500	145063	144000
69	Yamuna	HarshanKarpur Diwara, Tehsil Jalaun	76Mi -Khand-02	9.000	88305	56586	144891	144000
70	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 - Khand-01	11.000	106836	54015	160851	160000
71	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 -Khand-02	10.000	107176	53669	160845	160000
72	Yamuna	Heerapur Diwara , Tehsil Kalpi	169/9 - Khand-01	15.000	149129	92325	241454	240000
73	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-02	15.000	127778	114018	241796	240000
74	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-03	15.000	132270	109453	241724	240000
75	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-04	15.000	120821	121086	241907	240000
76	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-05	15.000	121522	120374	241896	240000
77	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-06	15.000	122932	118941	241873	240000
78	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-07	15.000	125112	116726	241838	240000
79	Betwa	Simeriya , Tehsil - Orai	861, 861/12, 861/12Mi	1.47	18617	14684	33301	33070
80	Betwa	Simeriya , Tehsil - Orai	860/19	3.112	58060	26355	84415	84000
81	Betwa	Parasan, Tehsil - Kalpi	4032/15	1.234	21248	13404	34651	34440

12. INVENTORY OF PROPOSED SAND/MORRUM LEASES IN DISTRICT JALAUN

• Newly proposed leases in district Jalaun.

Sl.No	River	Village	Tehsil	Lease Details	Area (in ha.)	Location (Latitude and Longitude)	Type of Land
1	Betwa	Sikrivyas	Orai	1191/2 - Khand-5	13.000	A - 25°47'8.43"N 79°20'32.42"E B - 25°46'46.61"N 79°20'13.69"E C - 25°46'41.76"N 79°20'16.19"E D - 25°47'3.87"N - 79°20'35.54"E	Govt. Land
2	Betwa	Sikrivyas	Orai	1191/2 - Khand-6	19.000	A - 25°47'08.43"N 79°20'32.42"E B - 25°47'14.20"N 79°20'41.85"E C - 25°47'18.49"N 79°20'45.94"E D - 25°47'23.54"N 79°20'54.30"E E - 25°47'22.89"N 79°20'56.47"E F - 25°47'24.05"N 79°21'07.51"E G - 25°47'20.12"N 79°21'08.31"E H - 25°47'15.44"N 79°20'53.48"E I - 25°47'03.87"N 79°20'35.54"E	Govt. Land
3	Betwa	Sikrivyas	Orai	1191/2 - Khand-7	10.000	A - 25°47'26.87"N 79°21'29.53"E B - 25°47'28.37"N 79°21'15.25"E C - 25°47'25.04"N 79°21'11.95"E D - 25°47'24.05"N 79°21'7.51"E E - 25°47'20.12"N 79°21'8.31"E F - 25°47'22.24"N 79°21'17.24"E G - 25°47'21.06"N 79°21'28.10"E	Govt. Land
4	Betwa	Pathretha	Kalpi	396	1.461	A - 25°54'11.29"N 79°48'24.11"E B - 25°54'19.29"N 79°48'24.20"E C - 25°54'22.45"N 79°48'24.30"E D - 25°54'26.30"N 79°48'26.68"E E - 25°54'29.76"N 79°48'28.25"E F - 25°54'26.30"N 79°48'27.64"E G - 25°54'23.95"N 79°48'26.36"E H - 25°54'20.50"N 79°48'25.26"E I - 25°54'16.97"N 79°48'25.37"E J - 25°54'13.45"N 79°48'24.72"E K - 25°54'11.29"N 79°48'24.11"E	Pvt. Land
5	Betwa	Simiriya	Orai	860/8 , 860/8Mi	1.710	A - 25°51'28.77"N 79°33'42.35"E B - 25°51'34.12"N 79°33'50.03"E C - 25°51'32.32"N 79°33'51.17"E D - 25°51'26.77"N 79°33'43.00"E	Pvt. Land

SL.No	River	Village	Tehsil	Lease Details	Area (in ha.)	Location (Latitude and Longitude)	Type of Land
6	Betwa	Parasan	Kalpi	898/1, 899/2, 899/3, 899/4, 899/5, 899/6, 899/7, 899/8, 899/9, 899/10, 899/11, 899/12, 899/13, 899/14, 899/15, 899/19, 899/20, 901/1	1.287	A - 25°54'58.92"N 79°40'23.61"E B - 25°55'3.35"N 79°40'28.58"E C - 25°55'3.09"N 79°40'28.87"E D - 25°55'2.54"N 79°40'28.23"E E - 25°55'0.48"N 79°40'30.43"E F - 25°54'59.80"N 79°40'29.81"E G - 25°55'1.40"N 79°40'28.34"E H - 25°55'1.20"N 79°40'28.00"E I - 25°54'59.58"N 79°40'29.58"E J - 25°54'57.67"N 79°40'27.82"E K - 25°54'59.65"N 79°40'25.67"E L - 25°54'58.33"N 79°40'24.32"E	Pvt. Land
7	Betwa	Simiriya	Orai	861/8, 861/10aa, 86/10ba, 861/11	0.809	A - 25°51'13.67"N 79°34'10.00"E B - 25°51'13.38"N 79°34'12.27"E C - 25°51'12.06"N 79°34'11.90"E D - 25°51'11.53"N 79°34'14.18"E E - 25°51'10.28"N 79°34'13.89"E F - 25°51'9.21"N 79°34'11.45"E	Pvt. Land
8	Betwa	Simiriya	Orai	861/2	2.290	A - 25°51'17.15"N 79°34'14.90"E B - 25°51'16.31"N 79°34'17.52"E C - 25°51'14.26"N 79°34'18.48"E D - 25°51'14.03"N 79°34'19.54"E E - 25°51'10.60"N 79°34'18.19"E F - 25°51'11.84"N 79°34'12.83"E	Pvt. Land
9	Betwa	Sikrivyas	Orai	404, 405	0.870	A - 25°47'20.55"N 79°20'46.19"E B - 25°47'21.71"N 79°20'45.34"E C - 25°47'24.69"N 79°20'50.76"E D - 25°47'23.18"N 79°20'51.90"E	Pvt. Land

13. RESULTS OF STUDY IN PRE & POST MONSOON PERIOD FOR PROPOSED LEASE AREAS

- Summary of Pre & Post Monsoon Study Results in Proposed Leases

Sl.No	River	Village	Tehsil	Lease Details	Lease Area (ha)	Pre-Monsoon Reserve A – (cum)	Post-Monsoon Reserve B – (cum)	Total Reserve (A+B) (cum)	Proposed Quantity (cum)
1	Betwa	Sikrivyas	Orai	1191/2 - Khand-5	13.000	234634	155366	390000	234000
2	Betwa	Sikrivyas	Orai	1191/2 - Khand-6	19.000	342333	227667	570000	342000
3	Betwa	Sikrivyas	Orai	1191/2 - Khand-7	10.000	181200	118800	300000	180000
4	Betwa	Pathretha	Kalpi	396	1.461	26877	16925	43802	26281
5	Betwa	Simiriya	Orai	860/8 , 860/8Mi	1.710	30948	20352	51300	30780
6	Betwa	Parasan	Kalpi	898/1 , 899/2, 899/3, 899/4, 899/5, 899/6, 899/7, 899/8, 899/9, 899/10, 899/11, 899/12, 899/13, 899/14, 899/15, 899/19, 899/20 , 901/1	1.287	23417	15193	38610	23166
7	Betwa	Simiriya	Orai	861/8, 861/10aa, 86/10ba, 861/11	0.809	14814	9456	24270	14562
8	Betwa	Simiriya	Orai	861/2	2.290	41567	27133	68700	41220
9	Betwa	Sikrivyas	Orai	404 , 405	0.870	15763	10337	26100	15660

14. CONCLUSION

- To determine the Pre-monsoon existing reserve and the replenishment of Sand/Morrum in the existing leases in River Betwa and Yamuna, field survey and measurement of river bed levels in all the leases were done.
- Field survey and measurement of levels in all the new proposed leases in River Betwa were also done in order to determine the pre-monsoon existing quantity and the replenished quantity
- Since the operations of mines / leases is an ongoing process and rivers keeps on replenishing year to year basis, it was important to estimate the quantity of existing deposits/reserve in pre-monsoon period, which has accumulated as a result of past replenishment.
- In the proposed leases, the maximum existing reserve & as well as maximum replenishment was observed in Sikruvyas Khand No. 6.
- Lease wise reserve and replenishment observed in this report will be utilized by Sub-Divisional Committee in coming period for scientific operation of District Survey Report.

15. ANNEXURES**LIST OF ANNEXURES**

Sl. No.	Description	Annexure No.
1.	DGPS Ground Control Point records of Leases	I
2.	DGPS Technical Report	II
3.	Field Survey Photographs	III
4.	List of Equipment's , Hardware and Software used for Replenishment Study	IV

**Annexure-I: DGPS Ground Control Point records of Lease with Coordinated
with Pre-Monsoon and Post Monsoon Elevation levels records.**

A. DGPS Ground control Point Record of Existing Leases

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
1	Betwa	Nandha , Tehsil Orai	345G , Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°46'49.88"N	79°18'12.61"E	111.227	111.612
		2	25°46'55.61"N	79°18'12.60"E	112.711	113.096
		3	25°46'53.16"N	79°18'19.33"E	113.267	113.649
		4	25°46'47.62"N	79°18'19.10"E	111.017	111.401
		5	25°46'43.71"N	79°18'24.89"E	111.946	112.331
		6	25°46'49.75"N	79°18'25.45"E	112.511	112.896
		7	25°46'45.59"N	79°18'31.02"E	112.716	113.100
		8	25°46'39.12"N	79°18'29.94"E	111.749	112.133
		9	25°46'36.22"N	79°18'33.33"E	111.812	112.197
		10	25°46'41.39"N	79°18'36.53"E	112.611	112.995
2	Betwa	Nandha , Tehsil Orai	3G , Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°47'6.16"N	79°17'41.29"E	111.069	111.459
		2	25°47'8.81"N	79°17'45.40"E	112.891	113.281
		3	25°47'4.19"N	79°17'50.64"E	112.916	113.306
		4	25°47'1.69"N	79°17'45.86"E	111.191	111.581
		5	25°46'58.16"N	79°17'54.13"E	112.254	112.644
		6	25°47'1.15"N	79°17'57.05"E	113.147	113.537
		7	25°46'58.84"N	79°18'3.82"E	113.421	113.810
		8	25°46'55.18"N	79°18'0.57"E	111.387	111.776
		9	25°46'52.44"N	79°18'7.43"E	111.729	112.118
		10	25°46'56.96"N	79°18'10.04"E	112.343	112.733
3	Betwa	Nandha , Tehsil Orai	3G , Khand-3	8.480		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°47'33.35"N	79°17'28.84"E	109.417	109.799
		2	25°47'34.29"N	79°17'33.07"E	110.772	111.154
		3	25°47'28.09"N	79°17'34.95"E	110.565	110.948
		4	25°47'27.62"N	79°17'30.62"E	109.466	109.849
		5	25°47'23.18"N	79°17'31.82"E	109.485	109.867
		6	25°47'24.08"N	79°17'35.95"E	110.810	111.192

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
4	Betwa	Karthara, Tehsil Orai	208, Khand-1	6.870		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°49'8.64"N	79°17'33.61"E	110.563	110.945
		2	25°49'11.30"N	79°17'33.02"E	113.736	114.118
		3	25°49'12.95"N	79°17'40.02"E	113.879	114.261
		4	25°49'9.99"N	79°17'40.55"E	110.485	110.867
		5	25°49'11.77"N	79°17'48.49"E	110.295	110.677
		6	25°49'14.67"N	79°17'47.84"E	114.159	114.541
5	Betwa	Kharka, Tehsil Orai	2513,2629, Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'8.91"N	79°34'11.57"E	100.226	100.660
		2	25°53'15.04"N	79°34'12.55"E	101.404	101.838
		3	25°53'15.54"N	79°34'19.72"E	101.416	101.850
		4	25°53'8.78"N	79°34'18.77"E	100.488	100.936
		5	25°53'9.27"N	79°34'25.95"E	100.693	101.127
		6	25°53'15.81"N	79°34'26.91"E	101.926	102.360
6	Betwa	Kharka, Tehsil Orai	2513,2629 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'10.84"N	79°34'33.15"E	100.459	100.814
		2	25°53'17.43"N	79°34'33.18"E	101.781	102.136
		3	25°53'18.94"N	79°34'40.27"E	101.713	102.067
		4	25°53'12.46"N	79°34'40.27"E	100.727	101.081
		5	25°53'15.12"N	79°34'46.97"E	100.402	100.756
		6	25°53'21.77"N	79°34'46.82"E	101.703	102.057
7	Betwa	Kharka, Tehsil Orai	2628,2629, 2513 - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'19.36"N	79°34'53.00"E	100.743	101.127
		2	25°53'25.23"N	79°34'52.28"E	101.662	102.046
		3	25°53'28.16"N	79°34'58.72"E	102.214	102.597
		4	25°53'22.32"N	79°34'59.53"E	100.751	101.135
		5	25°53'26.28"N	79°35'5.33"E	100.968	101.350
		6	25°53'30.55"N	79°35'5.57"E	101.710	102.093
8	Betwa	Kharka, Tehsil orai	2257 - Khand-6	11.740		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'35.66"N	79°35'14.71"E	100.944	101.347
		2	25°53'38.93"N	79°35'13.42"E	102.462	102.865
		3	25°53'42.13"N	79°35'21.42"E	102.267	102.670
		4	25°53'38.70"N	79°35'22.43"E	100.833	101.237

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
9	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-1	14.574		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°47'51.11"N	79°27'49.07"E	104.366	104.658
		2	25°47'53.61"N	79°27'39.40"E	105.905	106.197
		3	25°48'0.82"N	79°27'41.30"E	106.070	106.362
		4	25°48'0.74"N	79°27'48.41"E	104.072	104.363
10	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-2	8.906		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°48'6.43"N	79°27'48.94"E	106.007	106.399
		2	25°48'5.87"N	79°27'41.78"E	106.118	106.510
		3	25°48'12.14"N	79°27'41.10"E	104.043	104.435
		4	25°48'13.26"N	79°27'48.10"E	104.560	104.952
11	Betwa	Mohana , Tehsil Orai	1782,1783 - Khand-3	8.906		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°48'17.73"N	79°27'47.32"E	105.580	105.897
		2	25°48'17.30"N	79°27'42.77"E	105.761	106.078
		3	25°48'23.92"N	79°27'41.71"E	104.047	104.364
		4	25°48'24.36"N	79°27'45.76"E	103.205	103.522
12	Betwa	Sikrivyas , Tehsil Orai	1193/916, 1191/2 - Khand-1	15.300		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°46'36.40"N	79°18'36.54"E	111.050	111.436
		2	25°46'39.21"N	79°18'39.04"E	112.888	113.274
		3	25°46'35.35"N	79°18'44.87"E	113.637	114.024
		4	25°46'31.47"N	79°18'41.24"E	110.788	111.173
		5	25°46'26.72"N	79°18'46.22"E	111.170	111.557
		6	25°46'30.36"N	79°18'50.01"E	113.018	113.403
		7	25°46'25.50"N	79°18'54.80"E	112.642	113.028
		8	25°46'21.89"N	79°18'51.06"E	110.808	111.192
13	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°46'4.28"N	79°19'15.12"E	110.967	111.474
		2	25°46'8.82"N	79°19'16.20"E	113.013	113.520
		3	25°46'8.24"N	79°19'23.38"E	112.654	113.161
		4	25°46'3.71"N	79°19'22.34"E	111.096	111.603
		5	25°46'3.38"N	79°19'29.56"E	111.387	111.894
		6	25°46'7.77"N	79°19'30.60"E	112.677	113.184
		7	25°46'8.76"N	79°19'37.66"E	112.768	113.275
		8	25°46'5.00"N	79°19'36.98"E	110.629	111.136
		9	25°46'7.02"N	79°19'43.99"E	111.179	111.686

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
		10	25°46'11.26"N	79°19'44.34"E	111.458	111.965
		11	25°46'15.18"N	79°19'50.23"E	112.871	113.378
		12	25°46'11.36"N	79°19'51.81"E	112.667	113.174
14	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-4	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°46'13.38"N	79°19'55.90"E	112.543	112.900
		2	25°46'16.97"N	79°19'51.88"E	112.283	112.639
		3	25°46'22.18"N	79°19'56.23"E	110.606	110.962
		4	25°46'18.77"N	79°20'0.06"E	111.035	111.391
		5	25°46'24.54"N	79°20'3.51"E	110.820	111.185
		6	25°46'27.69"N	79°20'0.08"E	112.293	112.649
		7	25°46'33.42"N	79°20'3.64"E	112.906	113.263
		8	25°46'30.04"N	79°20'7.48"E	111.156	111.513
		9	25°46'35.60"N	79°20'11.47"E	111.277	111.644
		10	25°46'39.06"N	79°20'7.31"E	110.622	110.978
		11	25°46'44.36"N	79°20'11.59"E	112.987	113.343
		12	25°46'41.26"N	79°20'15.07"E	113.015	113.368
15	Betwa	Kurona , Tehsil Orai	317Mi - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'42.19"N	79°35'34.69"E	100.921	101.499
		2	25°53'45.70"N	79°35'34.50"E	102.269	102.846
		3	25°53'46.62"N	79°35'41.70"E	102.501	103.078
		4	25°53'43.18"N	79°35'41.78"E	100.998	101.575
		5	25°53'44.28"N	79°35'48.93"E	102.927	103.504
		6	25°53'47.32"N	79°35'48.96"E	102.896	103.474
		7	25°53'47.60"N	79°35'56.22"E	101.284	101.861
16	Betwa	Kurona , Tehsil Orai	317Mi - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'43.01"N	79°36'5.71"E	101.474	102.246
		2	25°53'46.83"N	79°36'5.82"E	102.998	103.770
		3	25°53'47.93"N	79°36'12.96"E	102.689	103.461
		4	25°53'43.78"N	79°36'12.73"E	101.801	102.573
		5	25°53'43.99"N	79°36'20.01"E	100.571	101.343
		6	25°53'48.73"N	79°36'17.84"E	102.512	103.274
		7	25°53'50.30"N	79°36'23.43"E	102.846	103.618
17	Betwa	Kurona , Tehsil Orai	317Mi - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
		1	25°53'46.58"N	79°36'30.79"E	101.848	102.331
		2	25°53'53.56"N	79°36'25.32"E	102.836	103.318
		3	25°53'57.77"N	79°36'30.88"E	102.913	103.402
		4	25°53'51.14"N	79°36'35.91"E	101.533	102.016
		5	25°53'56.33"N	79°36'40.32"E	102.112	102.595
		6	25°54'1.50"N	79°36'34.58"E	102.864	103.344
18	Betwa	Kurona , Tehsil Orai	317Mi - Khand-4	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'2.20"N	79°36'42.17"E	100.130	100.810
		2	25°54'5.50"N	79°36'35.16"E	101.499	102.179
		3	25°54'13.54"N	79°36'37.12"E	101.412	102.087
		4	25°54'13.14"N	79°36'43.12"E	100.367	101.047
19	Betwa	Kurona , Tehsil Orai	317Mi - Khand-5	12.120		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'19.91"N	79°36'42.07"E	101.043	101.671
		2	25°54'19.43"N	79°36'36.74"E	101.033	101.661
		3	25°54'27.78"N	79°36'34.27"E	101.035	101.663
		4	25°54'28.58"N	79°36'38.18"E	100.815	101.453
20	Betwa	Dadri , Tehsil Orai	2093 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°55'9.59"N	79°36'11.27"E	100.611	101.042
		2	25°55'10.08"N	79°36'8.51"E	102.207	102.638
		3	25°55'16.79"N	79°36'7.90"E	102.235	102.666
		4	25°55'16.67"N	79°36'10.28"E	100.711	101.142
		5	25°55'22.64"N	79°36'11.62"E	100.886	101.318
		6	25°55'23.55"N	79°36'8.78"E	102.369	102.800
		7	25°55'30.03"N	79°36'10.88"E	102.001	102.431
		8	25°55'28.98"N	79°36'13.56"E	100.660	101.084
		9	25°55'34.88"N	79°36'16.34"E	100.845	101.275
		10	25°55'36.40"N	79°36'13.32"E	102.250	102.681
		11	25°55'41.33"N	79°36'19.14"E	102.014	102.459
		12	25°55'39.87"N	79°36'20.63"E	100.698	101.145
21	Betwa	Bandholi , Tehsil Orai	2559,2563 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'15.13"N	79°29'55.10"E	106.432	107.045
		2	25°51'25.93"N	79°29'51.32"E	106.702	107.314
		3	25°51'27.33"N	79°29'58.08"E	107.099	107.712
		4	25°51'17.86"N	79°30'0.94"E	106.286	106.899

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
22	Betwa	Bandholi , Tehsil Orai	2559,2563 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'10.22"N	79°29'46.13"E	106.176	106.819
		2	25°51'22.52"N	79°29'39.84"E	107.128	107.771
		3	25°51'25.09"N	79°29'45.03"E	107.111	107.753
		4	25°51'12.50"N	79°29'50.30"E	106.302	106.946
23	Betwa	Bandholi , Tehsil Orai	2558,2559,2563 - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°50'56.76"N	79°29'33.56"E	105.431	106.093
		2	25°51'2.10"N	79°29'31.74"E	106.468	107.129
		3	25°51'7.82"N	79°29'40.60"E	106.478	107.140
		4	25°51'4.78"N	79°29'42.75"E	105.846	106.508
24	Betwa	Bandholi , Tehsil Orai	2558,2563 - Khand-4	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°50'52.36"N	79°29'23.89"E	106.196	106.818
		2	25°51'7.79"N	79°29'22.44"E	107.554	108.176
		3	25°51'8.33"N	79°29'25.56"E	107.285	107.905
		4	25°50'53.63"N	79°29'28.01"E	106.285	106.907
25	Betwa	Bandholi , Tehsil Orai	2558,2563 - Khand-5	12.145		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°50'50.14"N	79°29'17.49"E	105.779	106.406
		2	25°51'7.75"N	79°29'17.49"E	107.576	108.203
		3	25°51'8.04"N	79°29'19.57"E	107.238	107.867
		4	25°50'50.15"N	79°29'19.77"E	106.274	106.901
26	Betwa	Bandholi , Tehsil Orai	2556,2557 - Khand-5A	36.360		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°50'43.69"N	79°29'4.79"E	105.918	106.613
		2	25°50'55.30"N	79°29'0.15"E	107.802	108.497
		3	25°50'58.81"N	79°29'7.96"E	107.451	108.146
		4	25°50'48.13"N	79°29'12.62"E	106.296	106.991
27	Betwa	Simiriya , Tehsil Orai	864/320, 865/320	27.470		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'47.35"N	79°33'26.72"E	102.922	103.497
		2	25°51'50.99"N	79°33'26.90"E	102.781	103.356
		3	25°51'50.72"N	79°33'19.71"E	102.991	103.568
		4	25°51'46.77"N	79°33'19.52"E	101.868	102.443
		5	25°51'45.46"N	79°33'12.31"E	102.896	103.472
		6	25°51'49.22"N	79°33'12.56"E	102.561	103.136

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
		7	25°51'47.44"N	79°33'5.47"E	102.666	103.241
		8	25°51'43.20"N	79°33'5.39"E	103.172	103.744
		9	25°51'41.12"N	79°32'58.01"E	103.212	103.787
		10	25°51'45.00"N	79°32'57.23"E	102.563	103.132
28	Betwa	Simiriya , Tehsil Orai	866/144	17.500		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'54.05"N	79°33'20.13"E	103.120	103.675
		2	25°51'55.22"N	79°33'19.64"E	102.065	102.620
		3	25°51'53.22"N	79°33'12.78"E	101.845	102.400
		4	25°51'51.84"N	79°33'13.48"E	102.936	103.417
		5	25°51'49.39"N	79°33'6.91"E	103.167	103.722
		6	25°51'51.24"N	79°33'5.88"E	102.061	102.616
		7	25°51'49.06"N	79°32'59.02"E	101.834	102.360
		8	25°51'47.23"N	79°32'59.97"E	103.136	103.691
		9	25°51'45.17"N	79°32'53.07"E	103.471	104.026
		10	25°51'47.46"N	79°32'52.66"E	102.227	102.781
		11	25°51'45.94"N	79°32'45.56"E	102.159	102.748
		12	25°51'43.58"N	79°32'46.50"E	101.206	101.761
		13	25°51'40.89"N	79°32'40.71"E	103.071	103.626
		14	25°51'42.62"N	79°32'39.37"E	101.830	102.392
		15	25°51'40.91"N	79°32'32.51"E	102.009	102.667
		16	25°51'39.88"N	79°32'32.93"E	103.061	103.616
		17	25°51'39.70"N	79°32'25.33"E	103.258	103.813
		18	25°51'41.16"N	79°32'25.17"E	101.538	101.919
29	Betwa	Tikar , Tehsil Orai	1482 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'33.63"N	79°31'29.43"E	101.089	101.483
		2	25°53'29.38"N	79°31'31.76"E	99.944	100.338
		3	25°53'27.28"N	79°31'24.96"E	99.776	100.166
		4	25°53'31.89"N	79°31'22.65"E	101.519	101.912
		5	25°53'28.90"N	79°31'16.42"E	101.609	102.008
		6	25°53'25.19"N	79°31'18.13"E	99.957	100.355
30	Betwa	Tikar , Tehsil Orai	1482 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'30.89"N	79°31'37.81"E	99.353	99.699
		2	25°53'36.09"N	79°31'35.10"E	100.250	100.596
		3	25°53'38.51"N	79°31'41.85"E	100.431	100.777
		4	25°53'34.33"N	79°31'44.00"E	99.234	99.580
		5	25°53'37.59"N	79°31'50.36"E	99.837	100.196
		6	25°53'40.34"N	79°31'48.80"E	100.666	101.012

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
		7	25°53'41.56"N	79°31'55.89"E	100.959	101.292
		8	25°53'39.37"N	79°31'57.27"E	99.657	100.003
		9	25°53'39.30"N	79°32'4.38"E	99.823	100.169
		10	25°53'41.93"N	79°32'3.06"E	100.909	101.258
31	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'36.73"N	79°50'5.02"E	90.690	91.280
		2	25°53'41.66"N	79°50'7.25"E	92.463	93.053
		3	25°53'38.74"N	79°50'12.39"E	92.505	93.096
		4	25°53'32.64"N	79°50'10.40"E	91.281	91.871
		5	25°53'28.69"N	79°50'16.32"E	91.779	92.369
		6	25°53'33.07"N	79°50'19.13"E	93.011	93.601
32	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'23.38"N	79°50'22.48"E	90.338	90.873
		2	25°53'29.48"N	79°50'25.79"E	91.733	92.267
		3	25°53'27.32"N	79°50'30.79"E	91.651	92.186
		4	25°53'20.61"N	79°50'28.21"E	90.337	90.871
		5	25°53'17.75"N	79°50'34.50"E	90.668	91.204
		6	25°53'24.42"N	79°50'37.13"E	91.941	92.476
33	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-3	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'14.78"N	79°50'38.52"E	91.155	91.660
		2	25°53'22.01"N	79°50'42.67"E	92.536	93.041
		3	25°53'19.43"N	79°50'47.49"E	92.689	93.194
		4	25°53'12.38"N	79°50'44.49"E	91.374	91.879
		5	25°53'9.22"N	79°50'50.02"E	91.268	91.775
		6	25°53'16.21"N	79°50'53.30"E	92.406	92.911
34	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-4	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'7.40"N	79°50'54.57"E	90.468	90.982
		2	25°53'13.26"N	79°50'56.96"E	91.866	92.380
		3	25°53'10.01"N	79°51'3.22"E	92.584	93.099
		4	25°53'4.63"N	79°51'1.15"E	90.581	91.097
		5	25°53'1.39"N	79°51'9.96"E	90.561	91.076
		6	25°53'4.54"N	79°51'11.01"E	92.504	93.018

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
35	Betwa	Bhedi khurd - Tehsil Kalpi	1396G - Khand-5	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'58.72"N	79°51'16.74"E	91.077	91.855
		2	25°53'1.66"N	79°51'17.97"E	92.562	93.340
		3	25°53'0.37"N	79°51'23.83"E	91.987	92.766
		4	25°52'56.91"N	79°51'23.71"E	91.495	92.273
		5	25°52'55.63"N	79°51'31.20"E	90.764	91.541
		6	25°52'58.45"N	79°51'31.01"E	92.325	93.103
		7	25°52'57.68"N	79°51'38.16"E	92.214	92.993
		8	25°52'55.17"N	79°51'38.66"E	90.763	91.541
		9	25°52'56.91"N	79°51'48.44"E	90.902	91.680
		10	25°52'59.97"N	79°51'48.51"E	91.227	92.005
36	Betwa	Bhedi khurd , Tehsil Kalpi	1396G - Khand-6	11.740		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'57.71"N	79°51'54.83"E	90.666	91.338
		2	25°53'1.85"N	79°51'53.65"E	92.452	93.124
		3	25°53'4.98"N	79°51'59.72"E	92.060	92.733
		4	25°52'59.92"N	79°52'0.93"E	90.997	91.670
		5	25°53'2.66"N	79°52'6.04"E	90.687	91.360
		6	25°53'6.87"N	79°52'4.58"E	92.021	92.693
37	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-1	7.850		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'16.93"N	79°48'16.02"E	93.716	94.550
		2	25°52'19.25"N	79°48'13.50"E	95.668	96.502
		3	25°52'24.90"N	79°48'18.47"E	95.171	96.005
		4	25°52'23.21"N	79°48'21.09"E	94.326	95.160
38	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'59.31"N	79°48'1.45"E	94.234	94.961
		2	25°52'5.97"N	79°47'58.61"E	95.654	96.381
		3	25°52'3.48"N	79°47'51.46"E	95.235	95.973
		4	25°51'56.16"N	79°47'52.20"E	94.423	95.150
39	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-3	13.360		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'52.62"N	79°47'39.12"E	93.059	93.666
		2	25°52'0.53"N	79°47'38.93"E	94.215	94.822
		3	25°52'1.26"N	79°47'44.94"E	94.442	95.050

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
		4	25°51'53.29"N	79°47'45.73"E	93.073	93.680
40	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-4	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'52.43"N	79°47'25.34"E	93.131	93.722
		2	25°52'0.56"N	79°47'26.02"E	94.573	95.164
		3	25°52'0.60"N	79°47'33.54"E	94.342	94.932
		4	25°51'52.11"N	79°47'33.19"E	93.253	93.844
41	Betwa	Hemanpura , Tehsil Kalpi	240 - Khand-5	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'53.99"N	79°47'11.10"E	94.394	94.967
		2	25°52'1.43"N	79°47'11.75"E	94.983	95.557
		3	25°52'0.86"N	79°47'19.37"E	95.006	95.579
		4	25°51'52.58"N	79°47'19.55"E	94.410	94.983
42	Betwa	Basrehi , Teshil Kalpi	596 - Khand-1	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'58.79"N	79°45'45.69"E	93.026	93.652
		2	25°53'0.10"N	79°45'49.29"E	95.572	96.198
		3	25°52'54.93"N	79°45'53.69"E	95.604	96.230
		4	25°52'53.50"N	79°45'48.86"E	93.629	94.255
		5	25°52'47.59"N	79°45'51.81"E	95.396	96.023
		6	25°52'49.40"N	79°45'57.41"E	93.026	93.652
43	Betwa	Basrehi , Teshil Kalpi	596 - Khand-2	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'42.76"N	79°45'53.24"E	93.143	93.869
		2	25°52'45.19"N	79°45'59.37"E	95.132	95.858
		3	25°52'38.54"N	79°46'5.80"E	95.052	95.778
		4	25°52'34.62"N	79°45'59.72"E	92.996	93.722
44	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-1	14.170		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'24.07"N	79°46'6.73"E	93.481	94.187
		2	25°52'30.36"N	79°46'13.23"E	95.725	96.431
		3	25°52'26.95"N	79°46'17.99"E	95.494	96.199
		4	25°52'21.01"N	79°46'13.35"E	93.666	94.371
45	Betwa	Chirpura , Tehsil Kalpi	104 - Khand-2	14.170		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'18.22"N	79°46'18.52"E	94.298	94.926
		2	25°52'23.42"N	79°46'22.79"E	97.168	97.796
		3	25°52'20.55"N	79°46'27.16"E	97.232	97.860

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
		4	25°52'14.94"N	79°46'23.86"E	95.299	95.927
46	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'10.66"N	79°46'30.47"E	93.419	93.914
		2	25°52'16.17"N	79°46'33.29"E	95.449	95.944
		3	25°52'12.22"N	79°46'41.76"E	95.977	96.473
		4	25°52'6.37"N	79°46'38.35"E	93.047	93.542
47	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-2	18.218		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'3.14"N	79°46'44.73"E	93.005	93.318
		2	25°52'8.59"N	79°46'49.10"E	95.098	95.411
		3	25°52'5.73"N	79°46'55.31"E	95.000	95.314
		4	25°51'58.47"N	79°46'52.72"E	93.599	93.912
48	Betwa	Kyotra , Tehsil Kalpi	267,268 - Khand-3	16.194		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'56.08"N	79°46'57.12"E	93.042	93.458
		2	25°52'3.29"N	79°47'1.34"E	95.458	95.874
		3	25°52'2.11"N	79°47'6.36"E	95.364	95.779
		4	25°51'54.06"N	79°47'4.44"E	92.955	93.371
49	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-1	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'30.80"N	79°48'38.64"E	92.829	93.797
		2	25°52'31.39"N	79°48'31.93"E	93.963	94.932
		3	25°52'39.03"N	79°48'33.66"E	95.397	96.365
		4	25°52'38.25"N	79°48'40.71"E	92.903	93.872
50	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-2	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'44.06"N	79°48'44.96"E	90.963	91.670
		2	25°52'51.13"N	79°48'46.16"E	90.983	91.690
		3	25°52'52.14"N	79°48'37.13"E	92.493	93.201
		4	25°52'45.80"N	79°48'36.20"E	92.952	93.659
51	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-3	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'57.13"N	79°48'37.47"E	95.681	96.658
		2	25°53'5.59"N	79°48'37.94"E	95.926	96.903
		3	25°53'5.98"N	79°48'45.17"E	93.767	94.743
		4	25°52'57.01"N	79°48'45.13"E	93.698	94.674

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
52	Betwa	Pathretha , Tehsil Kalpi	747 -Khand-4	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'11.21"N	79°48'45.12"E	93.871	94.815
		2	25°53'11.31"N	79°48'37.79"E	95.509	96.453
		3	25°53'17.90"N	79°48'37.78"E	95.631	96.575
		4	25°53'17.79"N	79°48'44.18"E	93.570	94.514
		5	25°53'23.52"N	79°48'42.22"E	93.843	94.787
		6	25°53'24.39"N	79°48'36.93"E	95.500	96.444
53	Betwa	Pathretha , Tehsil Kalpi	747 - Khand-5	16.195		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'28.12"N	79°48'42.10"E	92.636	93.515
		2	25°53'28.51"N	79°48'36.09"E	94.533	95.412
		3	25°53'35.01"N	79°48'35.94"E	94.720	95.600
		4	25°53'34.54"N	79°48'40.60"E	92.777	93.656
		5	25°53'41.14"N	79°48'39.44"E	93.263	94.142
		6	25°53'41.45"N	79°48'35.07"E	95.122	96.002
		7	25°53'47.91"N	79°48'34.68"E	94.665	95.544
		8	25°53'47.38"N	79°48'38.25"E	93.009	93.888
54	Betwa	Pathretha , Tehsil Kalpi	439 - Khand-6	10.120		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°53'53.31"N	79°48'33.93"E	92.086	92.791
		2	25°53'53.60"N	79°48'29.09"E	94.510	95.215
		3	25°54'0.11"N	79°48'28.26"E	94.458	95.162
		4	25°54'0.21"N	79°48'31.92"E	91.759	92.464
		5	25°54'5.22"N	79°48'30.66"E	91.881	92.586
		6	25°54'5.19"N	79°48'27.66"E	94.358	95.062
55	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-1	9.710		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'25.56"N	79°39'30.57"E	100.228	100.493
		2	25°54'28.35"N	79°39'31.55"E	101.456	101.721
		3	25°54'27.49"N	79°39'37.77"E	101.407	101.673
		4	25°54'23.00"N	79°39'37.60"E	100.213	100.478
56	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-2	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'24.32"N	79°39'45.66"E	100.474	100.947
		2	25°54'30.34"N	79°39'44.49"E	101.764	102.237
		3	25°54'32.89"N	79°39'51.80"E	101.752	102.225
		4	25°54'26.76"N	79°39'53.37"E	100.780	101.253

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
57	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 - Khand-3	12.120		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'28.86"N	79°40'0.65"E	100.798	101.387
		2	25°54'36.42"N	79°39'58.52"E	102.108	102.697
		3	25°54'38.44"N	79°40'2.68"E	102.022	102.611
		4	25°54'31.18"N	79°40'6.31"E	101.227	101.816
58	Betwa	Kehtahamirpur , Tehsil Kalpi	1064 -Khand-4	12.120		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'34.97"N	79°40'10.46"E	100.518	101.402
		2	25°54'40.78"N	79°40'7.04"E	101.760	102.644
		3	25°54'44.19"N	79°40'11.46"E	102.141	103.025
		4	25°54'39.82"N	79°40'15.48"E	101.121	102.006
59	Yamuna	Taribulda , Tehsil Kalpi	36/1 - Khand-1	20.242		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26° 7'16.81"N	79°46'2.23"E	94.036	94.312
		2	26° 7'20.08"N	79°46'7.38"E	91.671	91.947
		3	26° 7'17.70"N	79°46'14.12"E	91.534	91.810
		4	26° 7'13.11"N	79°46'6.52"E	93.984	94.260
		5	26° 7'7.18"N	79°46'12.60"E	94.318	94.594
		6	26° 7'12.99"N	79°46'21.10"E	91.398	91.674
60	Yamuna	Gajraura , Tehsil Jalaun	22/14	6.950		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°25'4.74"N	79°28'53.77"E	107.692	108.199
		2	26°25'5.40"N	79°28'56.88"E	106.883	107.389
		3	26°25'0.16"N	79°29'0.19"E	106.943	107.449
		4	26°24'59.18"N	79°28'56.61"E	108.166	108.672
		5	26°24'53.63"N	79°29'0.09"E	108.235	108.741
		6	26°24'54.48"N	79°29'3.25"E	106.951	107.458
61	Yamuna	Mahtoli , Tehsil Jalaun	714Ma	10.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°26'20.37"N	79°17'34.75"E	106.802	107.250
		2	26°26'17.92"N	79°17'34.54"E	108.165	108.613
		3	26°26'16.70"N	79°17'41.72"E	107.559	108.007
		4	26°26'18.51"N	79°17'42.63"E	106.043	106.490
		5	26°26'16.57"N	79°17'48.73"E	106.715	107.162
		6	26°26'14.52"N	79°17'46.88"E	107.463	107.911
		7	26°26'11.52"N	79°17'51.82"E	107.504	107.951
		8	26°26'13.59"N	79°17'53.31"E	106.363	106.810

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
62	Retwa	9	26°26'5.63"N	79°18'1.59"E	106.681	107.129
		10	26°26'4.75"N	79°18'0.34"E	106.423	106.870
		Pathretha , Tehsil Kalpi	747/16, Khand-1	8.880		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°52'34.87"N	79°48'28.69"E	97.072	97.134
		2	25°52'35.00"N	79°48'27.94"E	97.121	97.183
		3	25°52'41.39"N	79°48'29.45"E	97.399	97.461
		4	25°52'41.19"N	79°48'30.25"E	98.077	98.139
		5	25°52'47.56"N	79°48'31.88"E	97.941	98.003
		6	25°52'47.74"N	79°48'31.15"E	97.304	97.366
		7	25°52'54.26"N	79°48'32.61"E	97.295	97.357
		8	25°52'54.04"N	79°48'33.49"E	97.847	97.909
		9	25°53'0.69"N	79°48'34.50"E	98.084	98.146
		10	25°53'0.74"N	79°48'34.09"E	97.164	97.226
		11	25°53'7.29"N	79°48'33.78"E	97.443	97.505
		12	25°53'7.30"N	79°48'34.42"E	97.677	97.739
		13	25°53'13.84"N	79°48'34.11"E	97.970	98.032
		14	25°53'13.81"N	79°48'33.56"E	97.399	97.461
		15	25°53'20.35"N	79°48'33.29"E	97.548	97.610
		16	25°53'20.32"N	79°48'33.96"E	97.537	97.599
		17	25°53'26.88"N	79°48'33.73"E	97.140	97.203
		18	25°53'26.91"N	79°48'33.18"E	97.250	97.312
		19	25°53'33.42"N	79°48'32.85"E	97.399	97.461
		20	25°53'33.45"N	79°48'33.37"E	97.198	97.260
		21	25°53'39.97"N	79°48'33.28"E	97.239	97.301
		22	25°53'39.99"N	79°48'32.59"E	98.061	98.123
		23	25°53'46.49"N	79°48'32.25"E	97.411	97.473
		24	25°53'46.47"N	79°48'33.00"E	97.183	97.245
		25	25°53'50.61"N	79°48'32.76"E	97.379	97.441
		26	25°53'50.81"N	79°48'32.19"E	97.421	97.483
63	Yamuna	Jeetamau Deewara , Tehsil Kalpi	84,85,86,87 - Khand-1	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'23.39"N	79°33'20.34"E	104.249	104.981
		2	26°21'24.55"N	79°33'12.90"E	104.303	105.035
		3	26°21'30.17"N	79°33'16.73"E	103.956	104.688
		4	26°21'28.00"N	79°33'23.38"E	103.933	104.665
		5	26°21'32.99"N	79°33'28.26"E	102.901	103.632
		6	26°21'35.41"N	79°33'22.61"E	102.596	103.327

SL.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
64	Yamuna	Jeetamau Deewara , Tehsil Kalpi	84 ,87,91 - Khand-2	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'23.65"N	79°33'23.19"E	103.984	104.603
		2	26°21'21.85"N	79°33'30.57"E	103.893	104.512
		3	26°21'27.03"N	79°33'34.50"E	103.680	104.299
		4	26°21'28.92"N	79°33'27.29"E	103.529	104.148
		5	26°21'34.71"N	79°33'31.60"E	102.567	103.186
		6	26°21'33.65"N	79°33'38.79"E	102.330	102.949
65	Yamuna	Jeetamau Deewara , Tehsil Kalpi	88/2, 89,90,91 - Khand-3	13.080		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'18.53"N	79°33'39.28"E	103.735	104.374
		2	26°21'20.56"N	79°33'33.35"E	103.439	104.078
		3	26°21'26.36"N	79°33'38.10"E	102.483	103.121
		4	26°21'23.55"N	79°33'43.98"E	102.575	103.213
		5	26°21'28.93"N	79°33'48.79"E	101.262	101.901
		6	26°21'31.74"N	79°33'43.56"E	101.260	101.898
66	Yamuna	Jeetamau Deewara , Tehsil Kalpi	88/2, 89, 120/1 - Khand-4	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'17.39"N	79°33'40.62"E	102.953	103.619
		2	26°21'13.95"N	79°33'45.95"E	103.211	103.877
		3	26°21'16.62"N	79°33'50.60"E	101.984	102.650
		4	26°21'22.17"N	79°33'45.60"E	102.079	102.745
		5	26°21'27.92"N	79°33'50.80"E	101.048	101.714
		6	26°21'20.31"N	79°33'56.09"E	101.011	101.677
67	Yamuna	Jeetamau Deewara , Tehsil Kalpi	120/1 - Khand-5	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°21'13.40"N	79°33'48.98"E	102.852	103.548
		2	26°21'17.46"N	79°33'56.20"E	100.719	101.415
		3	26°21'11.26"N	79°33'58.62"E	103.236	103.932
		4	26°21'9.27"N	79°33'51.78"E	101.322	102.017
		5	26°21'3.42"N	79°33'54.47"E	103.461	104.157
		6	26°21'4.03"N	79°33'59.92"E	101.282	101.977
68	Yamuna	HarshanKarpur Diwara , Tehsil Jalaun	76Mi - Khand-01	9.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°24'49.52"N	79°29'3.25"E	108.037	108.787
		2	26°24'50.48"N	79°29'7.54"E	106.445	107.195
		3	26°24'45.93"N	79°29'9.45"E	106.613	107.363

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
		4	26°24'45.03"N	79°29'4.55"E	107.389	108.138
		5	26°24'39.40"N	79°29'5.94"E	107.990	108.740
		6	26°24'40.27"N	79°29'11.83"E	107.150	107.899
69	Yamuna	Harshan Karpur Diwara, Tehsil Jalaun	76Mi -Khand-02	9.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°24'35.25"N	79°29'7.01"E	107.273	107.902
		2	26°24'36.63"N	79°29'12.96"E	105.919	106.548
		3	26°24'31.75"N	79°29'14.29"E	106.447	107.075
		4	26°24'31.18"N	79°29'8.61"E	107.480	108.109
		5	26°24'25.83"N	79°29'10.18"E	107.657	108.285
		6	26°24'26.32"N	79°29'15.10"E	106.537	107.166
70	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 - Khand-01	11.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°14'12.92"N	79°38'48.01"E	106.109	106.600
		2	26°14'13.75"N	79°38'52.11"E	103.047	103.538
		3	26°14'20.51"N	79°38'50.33"E	103.311	103.810
		4	26°14'19.70"N	79°38'45.88"E	105.767	106.256
		5	26°14'26.93"N	79°38'42.87"E	106.485	106.976
		6	26°14'27.82"N	79°38'47.77"E	102.701	103.189
71	Yamuna	Simra Sheikhpur, Tehsil Kalpi	117/1 - Khand-02	10.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°13'52.97"N	79°38'47.63"E	106.433	106.970
		2	26°13'52.45"N	79°38'50.96"E	102.819	103.356
		3	26°13'58.91"N	79°38'52.74"E	102.329	102.866
		4	26°13'59.48"N	79°38'48.95"E	106.136	106.672
		5	26°14'8.13"N	79°38'48.62"E	106.211	106.748
		6	26°14'8.47"N	79°38'53.26"E	102.336	102.872
72	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-01	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°10'45.56"N	79°45'23.15"E	101.749	102.365
		2	26°10'50.73"N	79°45'18.74"E	101.780	102.396
		3	26°10'58.20"N	79°45'27.22"E	100.307	100.922
		4	26°10'54.05"N	79°45'34.72"E	100.011	100.627
73	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-02	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°10'44.01"N	79°45'24.26"E	101.476	102.236
		2	26°10'40.33"N	79°45'28.23"E	101.367	102.127

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
		3	26°10'46.25"N	79°45'40.67"E	99.456	100.217
		4	26°10'52.05"N	79°45'36.72"E	98.619	99.379
74	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-03	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°10'33.92"N	79°45'30.82"E	101.281	102.011
		2	26°10'38.61"N	79°45'28.63"E	101.556	102.285
		3	26°10'43.81"N	79°45'42.02"E	98.920	99.650
		4	26°10'37.76"N	79°45'44.51"E	98.754	99.483
75	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-04	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°10'25.89"N	79°45'32.78"E	101.068	101.875
		2	26°10'31.70"N	79°45'31.90"E	101.056	101.863
		3	26°10'34.06"N	79°45'44.82"E	97.730	98.537
		4	26°10'26.59"N	79°45'45.59"E	99.016	99.824
76	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9, 170/1 - Khand-05	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26°10'12.46"N	79°45'33.68"E	100.440	101.242
		2	26°10'23.54"N	79°45'33.70"E	100.725	101.527
		3	26°10'23.44"N	79°45'44.68"E	97.421	98.223
		4	26°10'11.86"N	79°45'41.71"E	94.544	95.347
77	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-06	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26° 9'57.73"N	79°45'29.28"E	99.781	100.574
		2	26°10'9.96"N	79°45'32.98"E	100.064	100.857
		3	26°10'9.26"N	79°45'40.69"E	97.528	98.320
		4	26° 9'56.53"N	79°45'35.25"E	96.426	97.218
78	Yamuna	Heerapur Diwara, Tehsil Kalpi	169/9 - Khand-07	15.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	26° 9'34.02"N	79°45'13.06"E	99.498	100.276
		2	26° 9'32.34"N	79°45'15.74"E	97.686	98.464
		3	26° 9'39.19"N	79°45'23.19"E	97.028	97.806
		4	26° 9'41.44"N	79°45'19.22"E	99.591	100.369
		5	26° 9'51.99"N	79°45'27.04"E	99.782	100.560
		6	26° 9'50.36"N	79°45'31.93"E	97.136	97.915
79	Betwa	Simeriya, Tehsil - Orai	861, 861/12, 861/12Mi	1.47		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'17.41"N	79°34'10.69"E	103.738	104.7369

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
		2	25°51'17.00"N	79°34'12.73"E	104.84	105.8389
		3	25°51'14.67"N	79°34'11.92"E	104.388	105.3871
		4	25°51'14.85"N	79°34'10.51"E	103.493	104.492
80	Betwa	Simeriya , Tehsil - Orai	860/19	3.112		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
			25°51'33.06"N	79°33'42.63"E	104.592	105.4389
			25°51'36.35"N	79°33'47.46"E	106.119	106.9659
			25°51'34.80"N	79°33'48.27"E	105.587	106.4331
			25°51'31.77"N	79°33'43.39"E	104.966	105.812
81	Betwa	Parasan, Tehsil - Kalpi	4032/15	1.234		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'34.19"N	79°43'1.19"E	96.599	97.686
		2	25°54'34.92"N	79°43'1.82"E	95.066	96.152
		3	25°54'32.39"N	79°43'6.61"E	96.461	97.548
		4	25°54'31.78"N	79°43'5.83"E	95.74	96.827

B. DGPS Ground control Point Record of Proposed Leases

Sl.No	River	Village/Tehsil	Lease Details	Area (in ha.)	Pre-Monsoon Level (mRL)	Post-Monsoon Level (mRL)
1	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-5	13.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°46'47.26"N	79°20'15.51"E	113.674	114.497
		2	25°46'44.23"N	79°20'17.23"E	113.865	114.924
		3	25°46'50.58"N	79°20'18.80"E	114.112	115.357
		4	25°46'48.03"N	79°20'20.68"E	113.532	114.837
		5	25°46'56.15"N	79°20'24.32"E	112.874	114.074
		6	25°46'53.19"N	79°20'24.90"E	112.476	113.852
		7	25°47'3.52"N	79°20'29.33"E	113.657	115.011
		8	25°47'1.18"N	79°20'32.14"E	113.257	114.456
2	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-6	19.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°47'9.18"N	79°20'35.58"E	113.874	114.697
		2	25°47'6.79"N	79°20'37.68"E	113.695	114.724
		3	25°47'14.83"N	79°20'42.68"E	114.113	114.941
		4	25°47'11.35"N	79°20'45.47"E	114.247	116.136
		5	25°47'20.47"N	79°20'51.90"E	114.254	115.354
		6	25°47'16.94"N	79°20'54.43"E	113.741	115.132
		7	25°47'22.79"N	79°21'3.71"E	113.865	115.425
		8	25°47'19.53"N	79°21'4.54"E	113.465	114.431
3	Betwa	Sikrivyas , Tehsil Orai	1191/2 - Khand-7	10.000		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°47'23.24"N	79°21'9.39"E	114.124	115.477
		2	25°47'21.24"N	79°21'10.02"E	114.324	115.838
		3	25°47'26.55"N	79°21'15.54"E	113.766	114.818
		4	25°47'22.33"N	79°21'16.33"E	113.892	114.876
		5	25°47'25.28"N	79°21'23.69"E	114.627	116.018
		6	25°47'21.90"N	79°21'24.32"E	114.623	115.457
4	Betwa	Pathretha , Tehsil Kalpi	396	1.461		
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°54'13.78"N	79°48'24.47"E	94.574	95.642
		2	25°54'18.31"N	79°48'24.83"E	94.893	96.010
		3	25°54'24.06"N	79°48'25.94"E	95.237	96.558
		4	25°54'27.57"N	79°48'27.54"E	95.134	96.262
5	Betwa	Simiriya , Tehsil Orai	860/8 , 860/8Mi	1.710	94.765	
		GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'28.65"N	79°33'43.41"E	106.214	107.414

		2	25°51'30.47"N	79°33'46.06"E	106.135	107.331
		3	25°51'32.69"N	79°33'49.28"E	105.874	107.024
		4	25°51'27.74"N	79°33'43.84"E	105.835	106.851
		5	25°51'29.45"N	79°33'46.37"E	105.674	107.112
		6	25°51'31.70"N	79°33'49.77"E	105.733	106.874
		Parasan, Tehsil - Kalpi	898/1, 899/2, 899/3, 899/4, 899/5, 899/6, 899/7, 899/8, 899/9, 899/10, 899/11, 899/12, 899/13, 899/14, 899/15, 899/19, 899/20, 901/1	1.287		
6	Betwa	GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°55'0.19"N	79°40'25.61"E	102.874	104.365
		2	25°54'59.25"N	79°40'26.92"E	102.687	104.274
		3	25°54'58.37"N	79°40'27.82"E	101.874	102.658
		4	25°55'2.04"N	79°40'27.86"E	101.935	103.221
		5	25°55'1.06"N	79°40'28.99"E	102.635	103.521
		6	25°55'0.31"N	79°40'29.88"E	102.776	103.825
		Simiriya, Tehsil Orai	861/8, 861/10aa, 86/10ba, 861/11	0.809		
7	Betwa	GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'12.77"N	79°34'10.61"E	104.867	106.352
		2	25°51'12.73"N	79°34'11.81"E	105.324	106.241
		3	25°51'10.71"N	79°34'11.24"E	104.874	105.941
		4	25°51'11.08"N	79°34'13.48"E	104.658	105.823
		5	25°51'9.77"N	79°34'11.54"E	104.892	106.325
		6	25°51'10.40"N	79°34'13.60"E	105.278	106.224
		Simiriya, Tehsil Orai	861/2	2.290		
8	Betwa	GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°51'15.60"N	79°34'15.61"E	104.792	105.874
		2	25°51'12.25"N	79°34'14.30"E	104.685	106.014
		3	25°51'15.11"N	79°34'17.22"E	105.365	106.494
		4	25°51'11.70"N	79°34'16.06"E	105.147	106.552
		5	25°51'13.52"N	79°34'18.64"E	105.369	106.536
		6	25°51'11.39"N	79°34'17.71"E	104.877	105.874
		Sikrivyas, Tehsil Orai	404, 405	0.87		
9	Betwa	GCP No.	Latitude	Longitude	Pre-Monsoon Level	Post-Monsoon Level
		1	25°47'20.60"N	79°20'45.25"E	113.863	115.322
		2	25°47'19.82"N	79°20'45.71"E	113.762	115.101
		3	25°47'21.31"N	79°20'46.76"E	112.874	114.214
		4	25°47'20.48"N	79°20'47.32"E	112.938	113.763
		5	25°47'22.43"N	79°20'48.95"E	113.625	114.642
		6	25°47'21.46"N	79°20'49.43"E	113.475	114.624

Annexure-II: DGPS Technical Report

SP85 GNSS RECEIVER

The Spectra Geospatial® SP85 is a next generation GNSS receiver that combines decades of GNSS RTK technology with revolutionary new GNSS processing. Featuring the new 600-channel "7G" chipset combined with the patented Z-Blade™ technology, the SP85 system is optimized for tracking and processing signals from all GNSS constellations in challenging environments. With unmatched connectivity in the GNSS receiver market, the SP85 offers a unique combination of integrated 3.5G cellular, WiFi and UHF communications with SMS, email and anti-theft technology. These powerful capabilities, packaged in an ultra-rugged housing and patented antenna design, make SP85 an extremely versatile turnkey solution that can be used with unlimited operation time because of the SP85's hot-swappable, dual battery setup.

GNSS CHARACTERISTICS

Real-Time Kinematic Position (RTK)

- Horizontal: 8 mm + 1 ppm • Vertical: 15 mm + 1 ppm

Network RTK (6)

- Horizontal: 8 mm + 0.5 ppm • Vertical: 15 mm + 0.5 ppm

Weight • 1.17 kg (2.57 lb)

Operation

- RTK rover & base
- RTK network rover: VRS, FKP, MAC
- NTRIP, Direct IP
- CSD mode
- Post-processing
- RTK bridge
- UHF repeater
- UHF networking

REAL-TIME PERFORMANCE

- Instant-RTK® Initialization – Typically 2 sec for baselines < 20 km – Up to 99.9% reliability
- RTK initialization range: over 40 km

About Spectra SP85

The Spectra SP85 is a next generation GNSS receiver that combines decades of GNSS RTK technology with a revolutionary new GNSS processing. Featuring the new 600-channel “7G” chipset combined with the patented Z-Blade™ technology, the SP85 system is optimized for tracking and processing signals from all GNSS constellations in challenging environments.

The key features of the SP85 are:

- Patented Z-Blade® technology
- Up to 600-channel 7G ASIC
- Hot-swappable batteries
- Internal TxRx UHF radio
- L-Band satellite capable GNSS antenna
- 3.5G cellular modem
- Built-in WiFi communication
- SMS and e-mail alerts
- Anti-theft technology
- Backup RTK and RTK Bridge
- eLevel technology
- Trimble® RTX correction services
- Up to 20 Hz update rate.

Introducing SP85 as Rover

Network Rover

As a network rover, the SP85 can deliver RTK positions using one of the following standard network connection types:

- NTRIP
- Direct IP (TCP/IP Direct) Receiving RTK corrections over the Internet can be done in three different ways:
 - Using the built-in cell modem, which can be operated after having inserted the SIM card purchased for this purpose. NOTE: Turn the SIM Card upside down (label facing upward) before inserting it. Once the card has been inserted, close the rubber flap. Then you need to select this modem when configuring your receiver for RTK operation (from the field software).
 - Using the built-in WiFi device. You simply need to select this device when configuring your rover receiver for RTK operation (from the field software).

- Using the data collector's internal cell phone. RTK corrections are forwarded to the receiver over Bluetooth.

Rover Using Local Base

The expression "local base" refers to a base you own and can fully control (operating sessions, location, etc.). The rover can receive RTK corrections from the local base via:

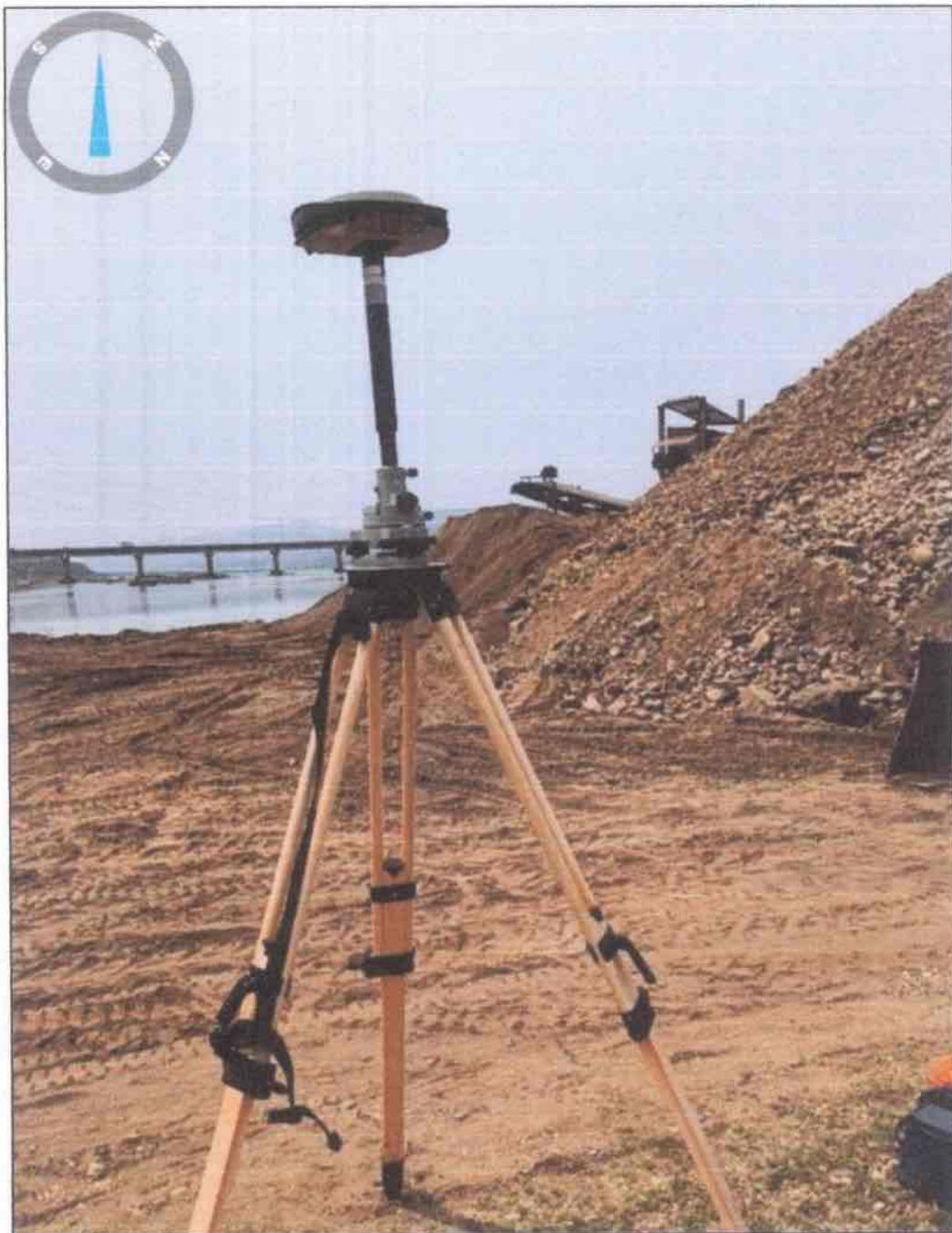
- Radio (internal at the rover, internal or external at the base). See Using the UHF Kit Option on page 80.
- Central (Spectra Geospatial cloud application). Available only if Survey Pro is used as field software. NOTE: Using Central relies on the use of a network connection of the NTRIP type, entirely managed by Survey Pro. The local base receiver should integrate a GPRS modem so it can support this connection on its own. Typically, the receiver used may be an SP85 as well.
- CSD mode. The SIM card used in that case is set to allow the rover to call the base directly through a phone number. Double-check with your ISP provider that CSD (or GSM data) is available and activated in your subscription. The rover will acquire RTK corrections in "Direct-Dial" mode. The rover will start a phone-like connection with the base (e.g. another SP85) by dialing the preset phone number.

Real-Time Kinematic Position (RTK):

- Horizontal: 8 mm (0.026 ft) + 1 ppm
- Vertical: 15 mm (0.049 ft) + 1 ppm Network RTK (8):
- Horizontal: 8 mm (0.026 ft) + 0.5 ppm
- Vertical: 15 mm (0.049 ft) + 0.5 ppm Real-Time Performance
- Instant-RTK® initialization – Typically 2 seconds for baselines less than 20 km – Reliability: up to 99.9%
- RTK initialization range: over 40 km Post-Processing Accuracy (RMS) (1) (2) Static & Fast Static:
- Horizontal: 3 mm (0.118") + 0.5 ppm
- Vertical: 5 mm (0.196") + 0.5 ppm High-precision Static (3):
- Horizontal: 3 mm (0.118") + 0.1 ppm
- Vertical: 3.5 mm (0.137") + 0.4 ppm Data Logging Characteristics Recording Interval: 0.05 - 999 seconds Physical Characteristics
- Size: 22.2 x 19.4 x 7.5 cm (8.7 x 7.6 x 3.0")
- Weight: (alone, without battery): 1.17 kg (2.57 lb) With two batteries: 1.3 kg With two batteries and UHF radio: 1.40 kg
- User interface: Graphical PMOLED display; Web UI (accessible via WiFi) for easy configuration, operation, status reading and data transfer.

List of Equipment's , Hardware and Software used for Replenishment Study

- **DGPS Equipment for Fixing Pillar Boundaries / Geo-Coordinates and Contour Elevations recordings.**



- Augers & Spade for Trenching and preparing Bore Hole Lith-logs



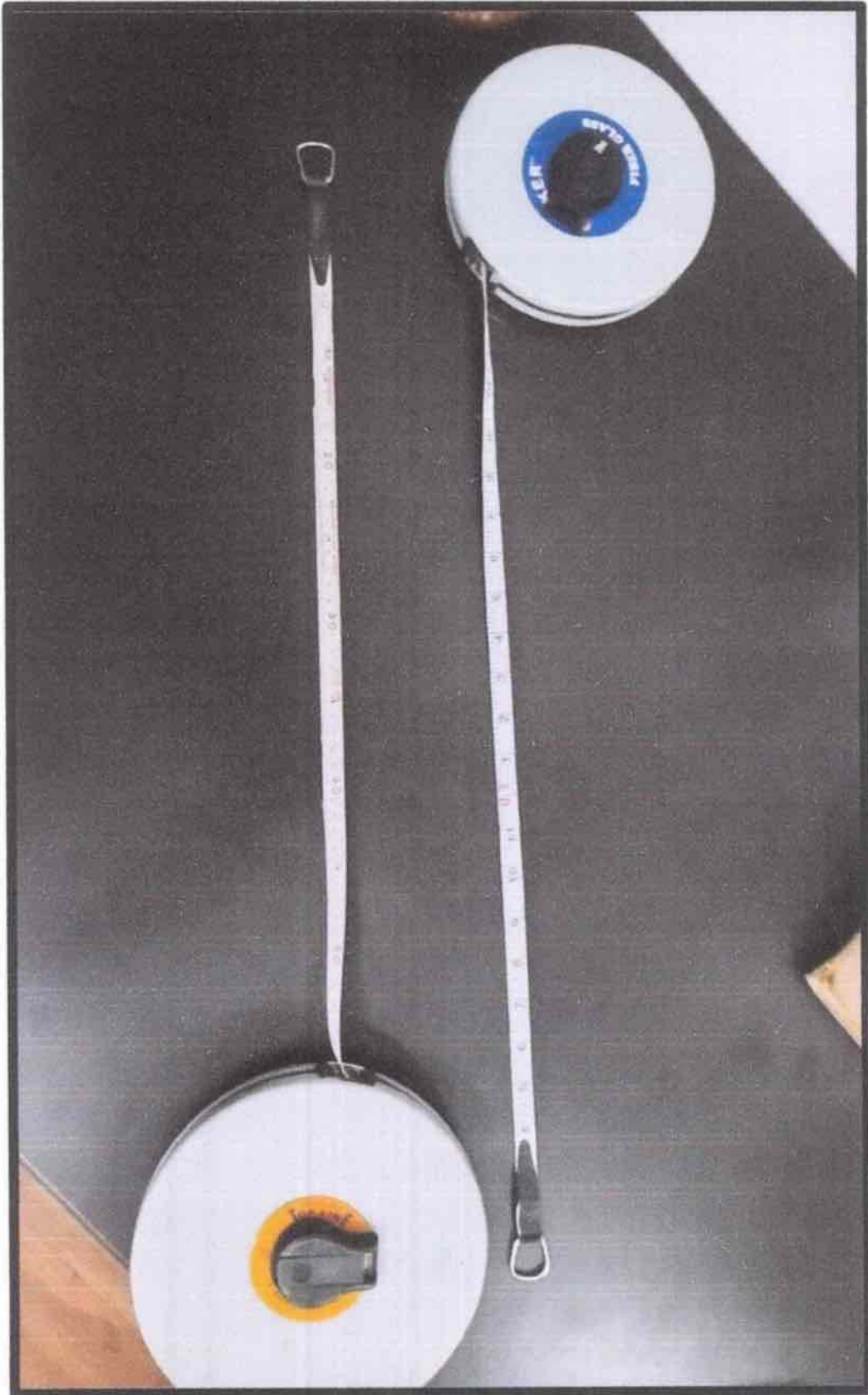
- **High Calibrated GPS Devices (Make Garmin)**



- **Hammer , Fixing Tools , Rock Trenching Tools and Medical Kit**



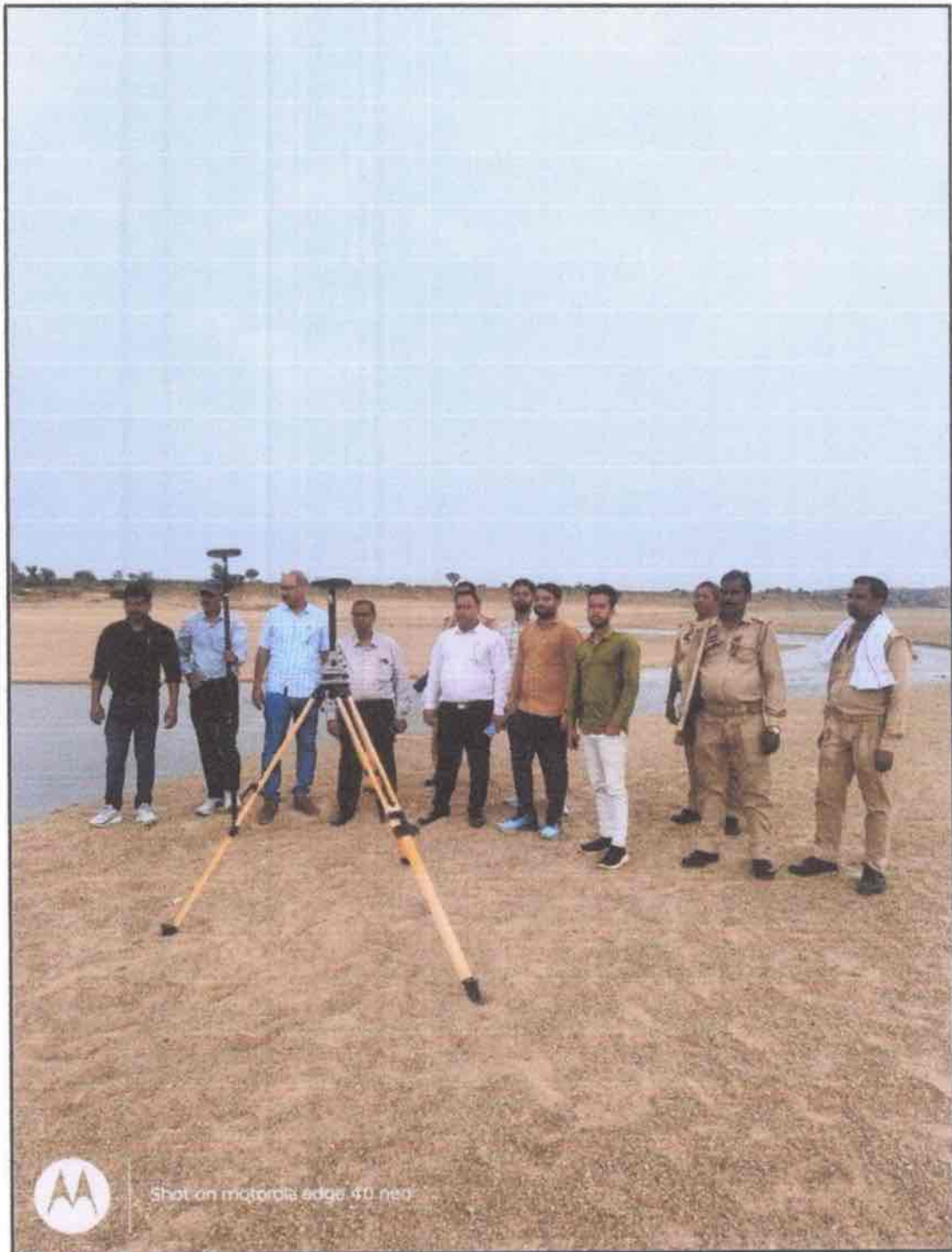
- Measurement Instruments



- **List of Hardware & Software's used for Project**

- AutoCAD
- Quantum GIS
- Google Earth Pro
- Time Stamp Camera
- GPX Viewer
- Intel i5 Work Station for Data Processing
- Inter i3 Laptop for Field investigation

ANNEXURE-IV: Field Survey Photographs

A. Pre-Monsoon Survey Photographs

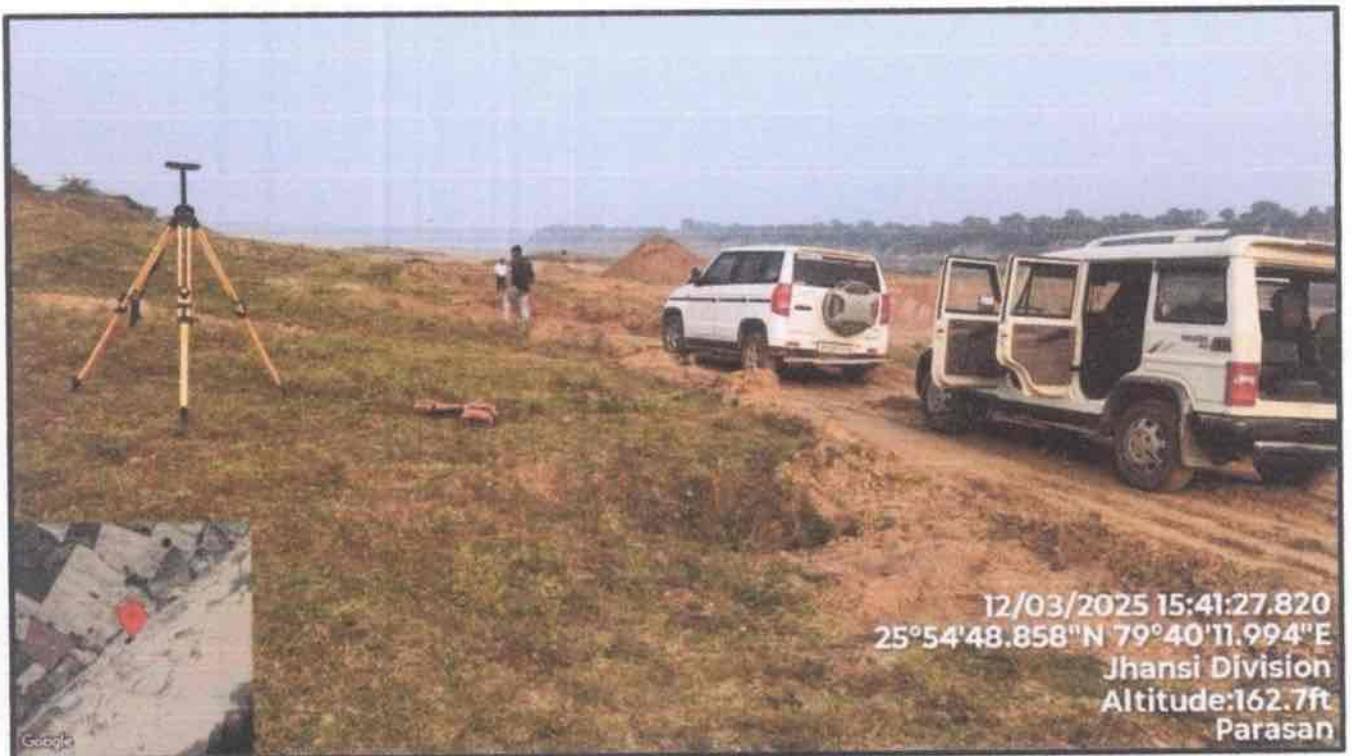
Shot on motorola edge 40 neo

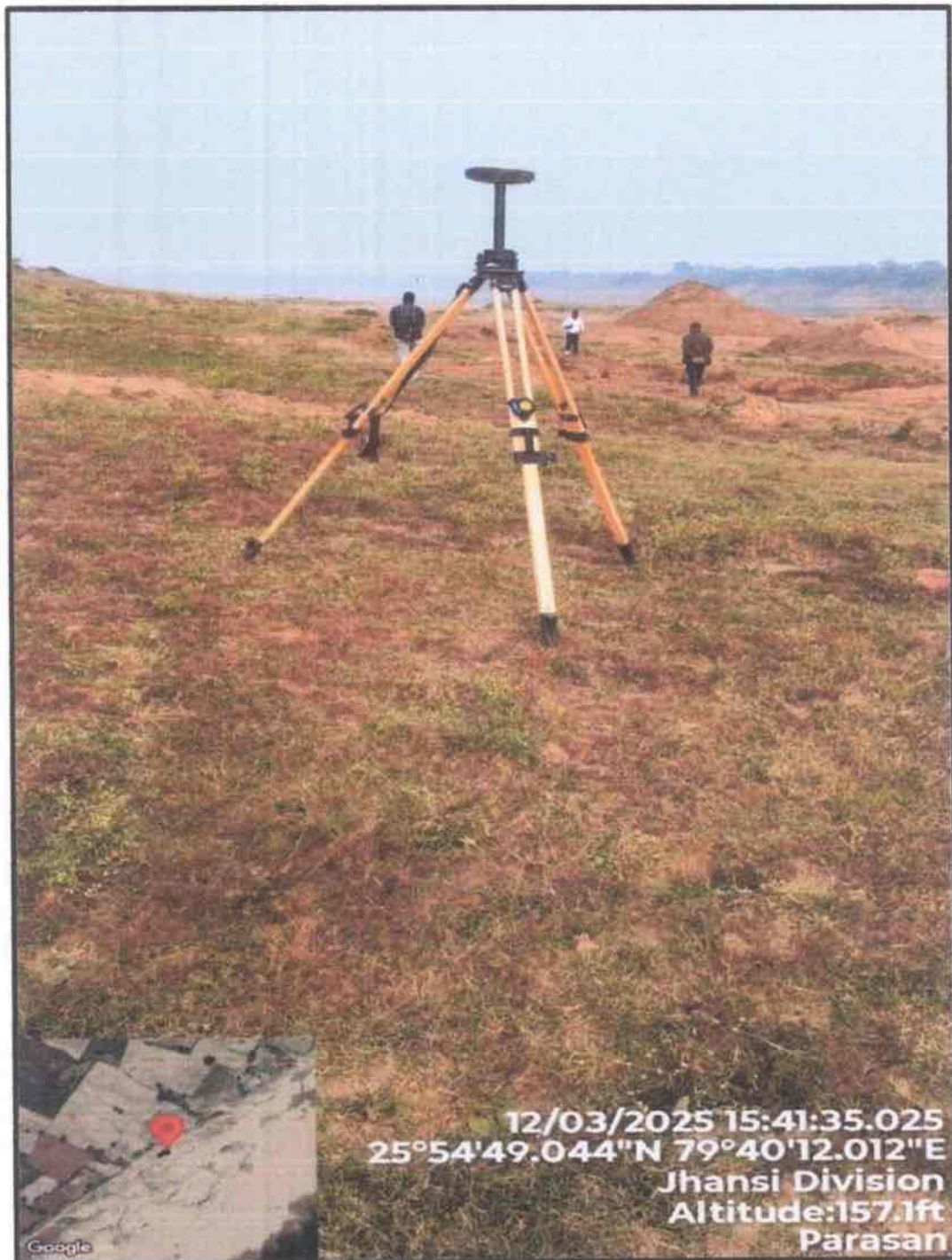


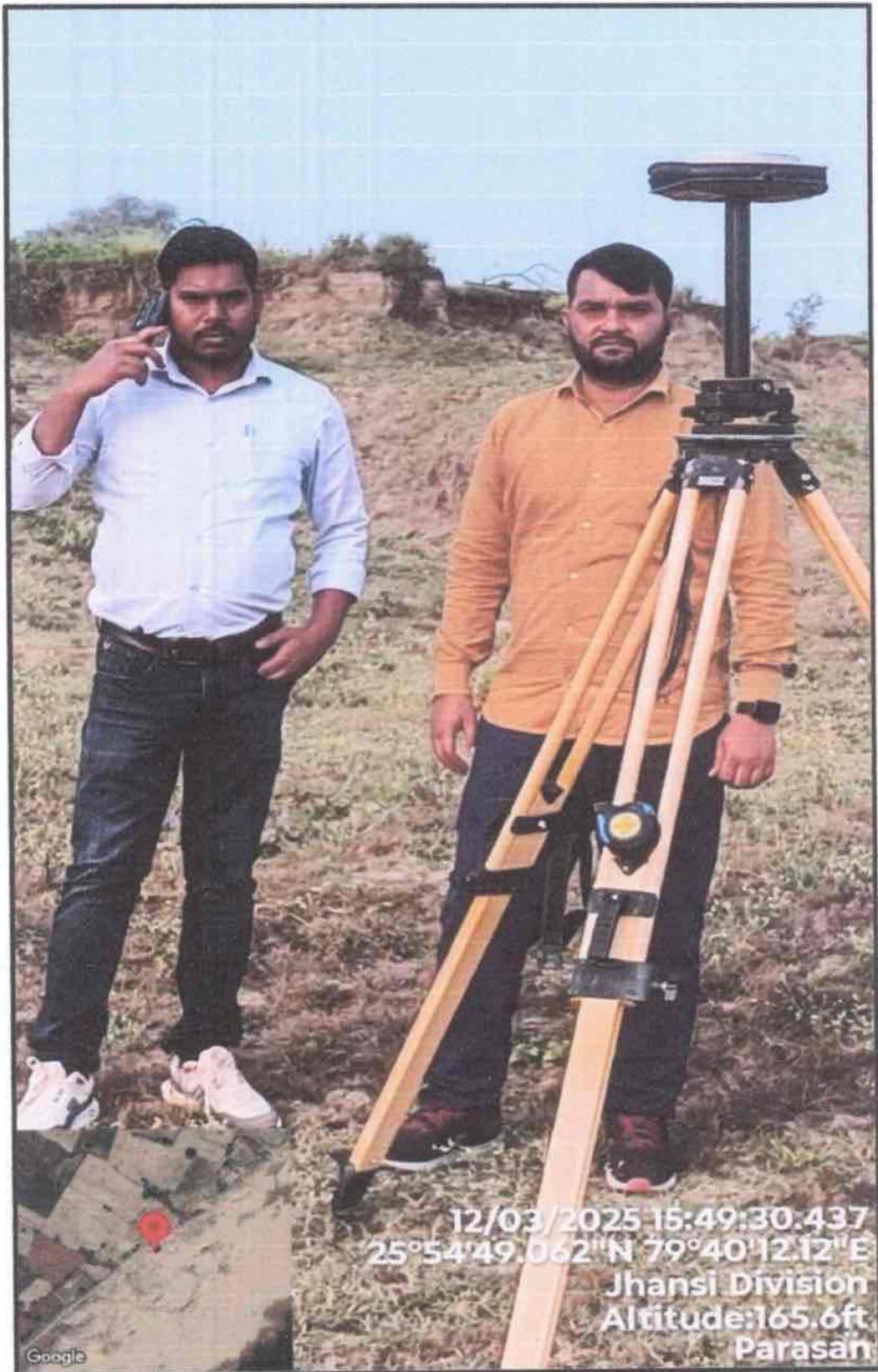






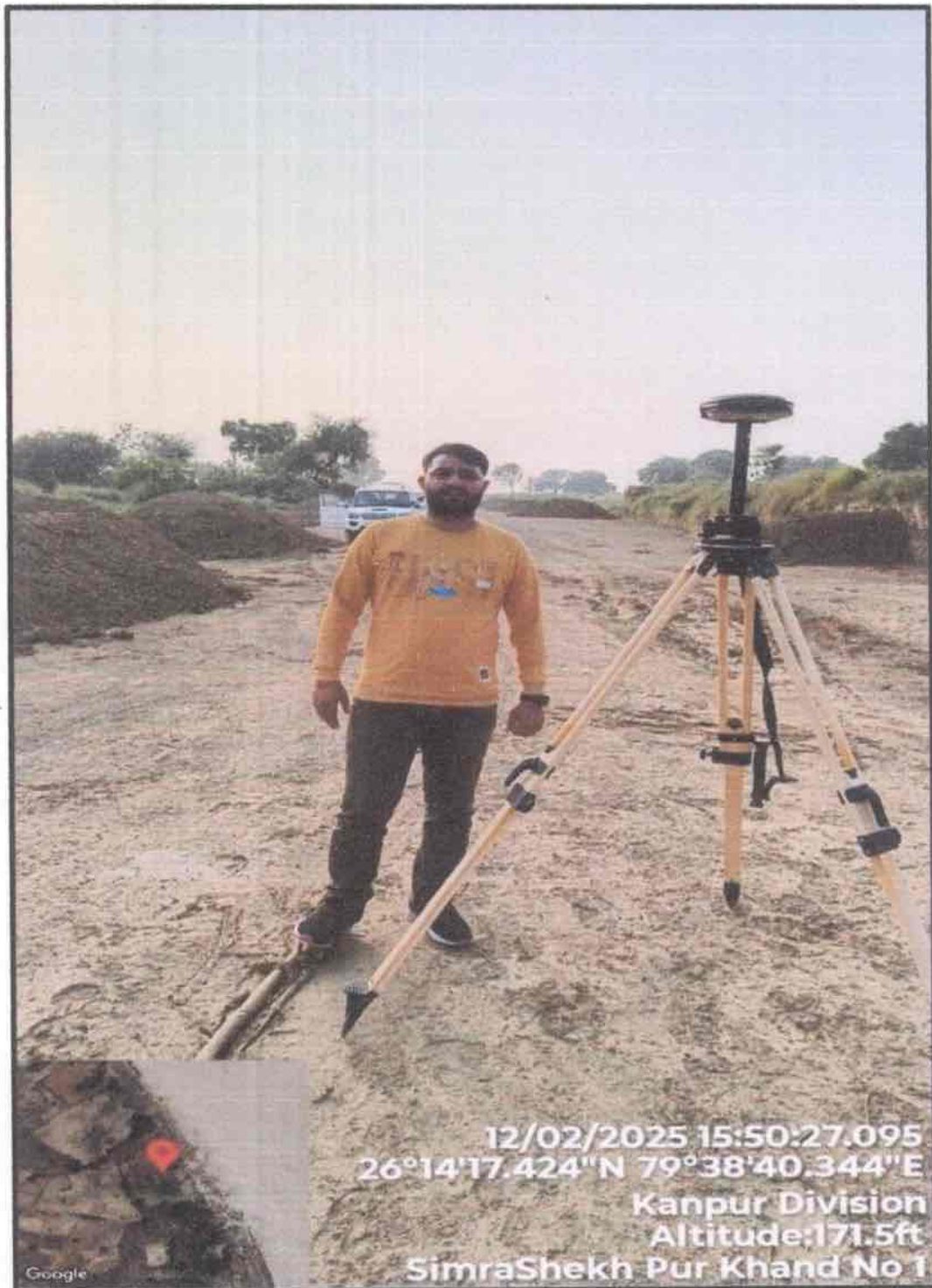
B. Post-Monsoon Survey Photographs









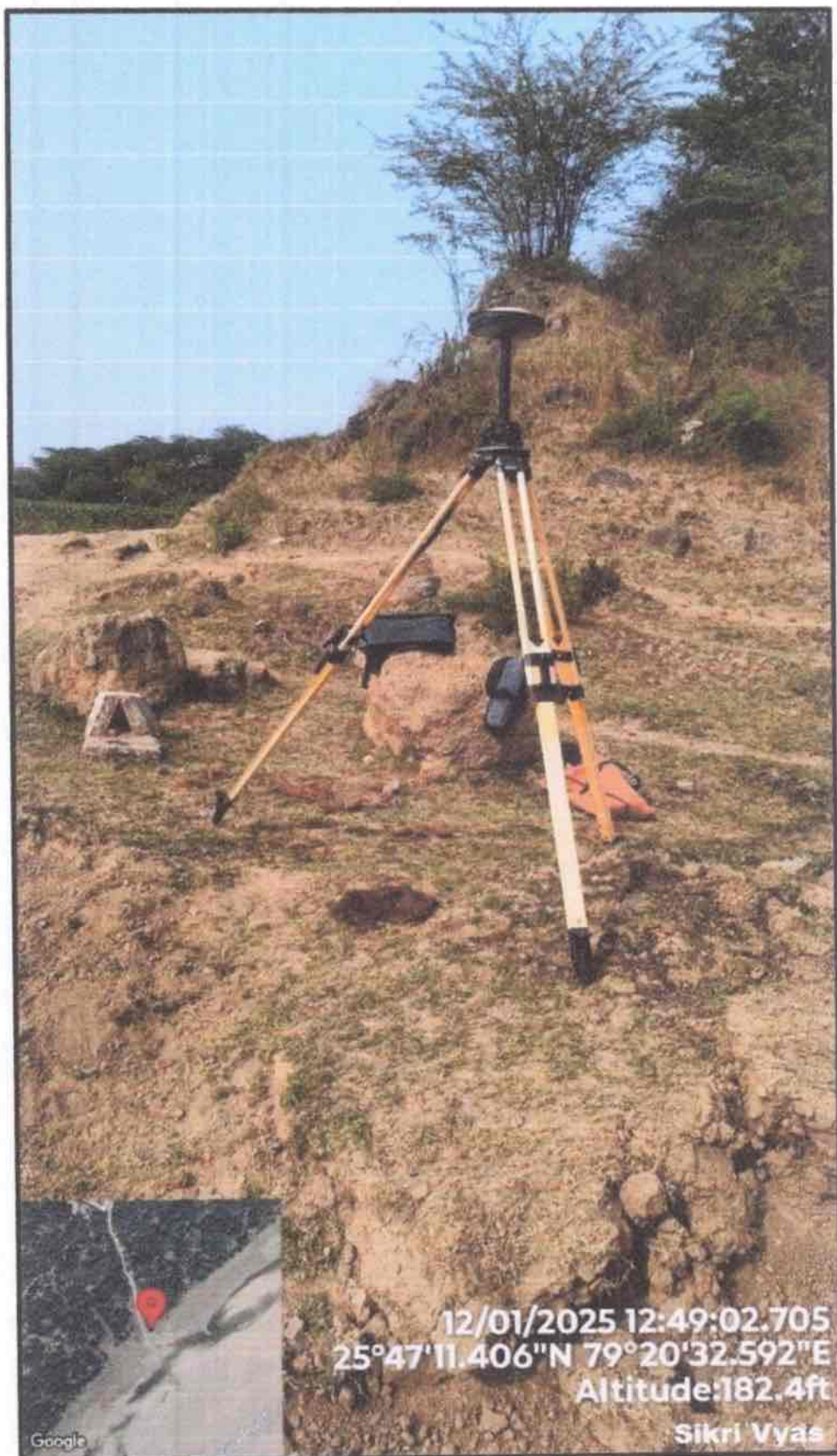


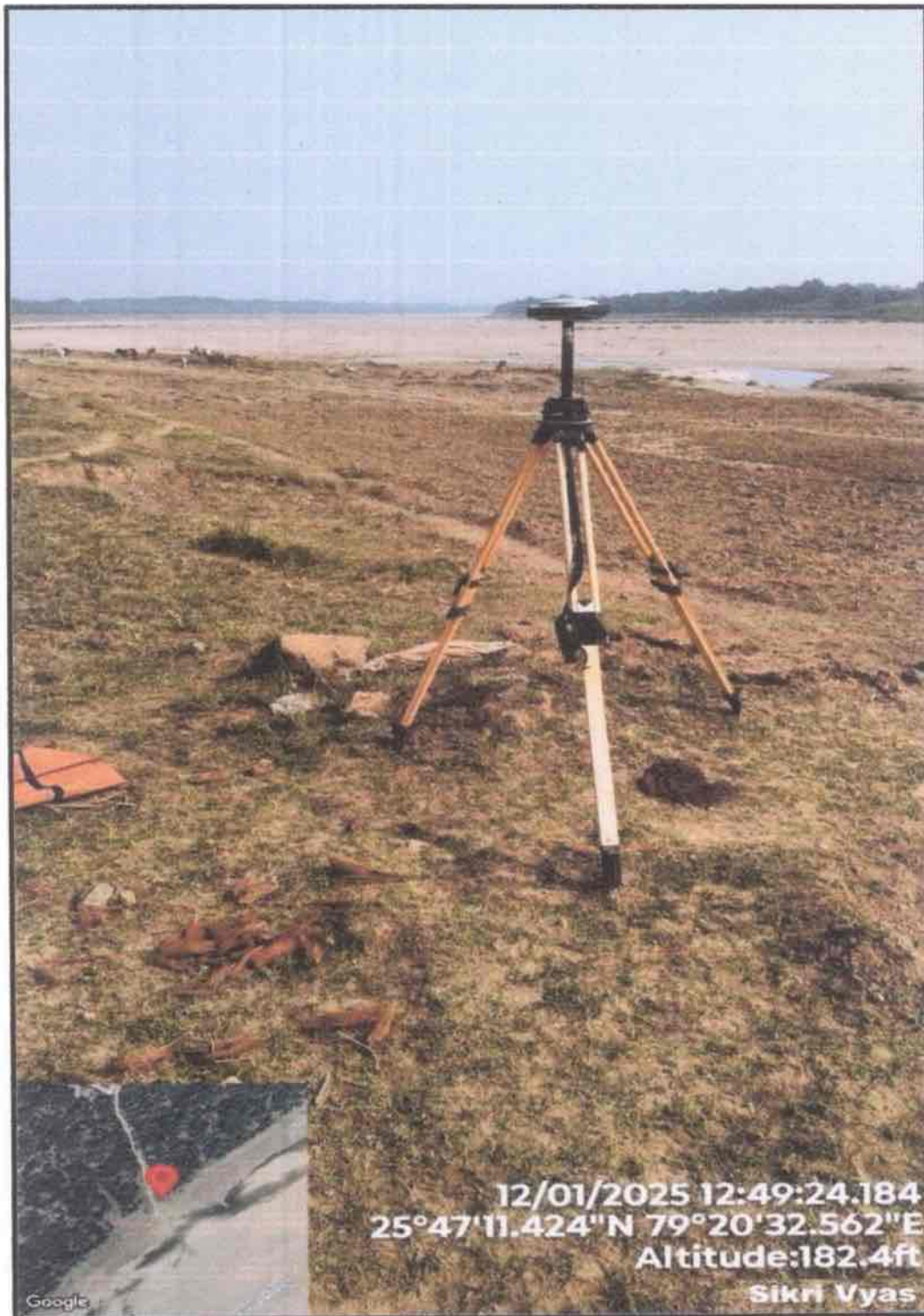


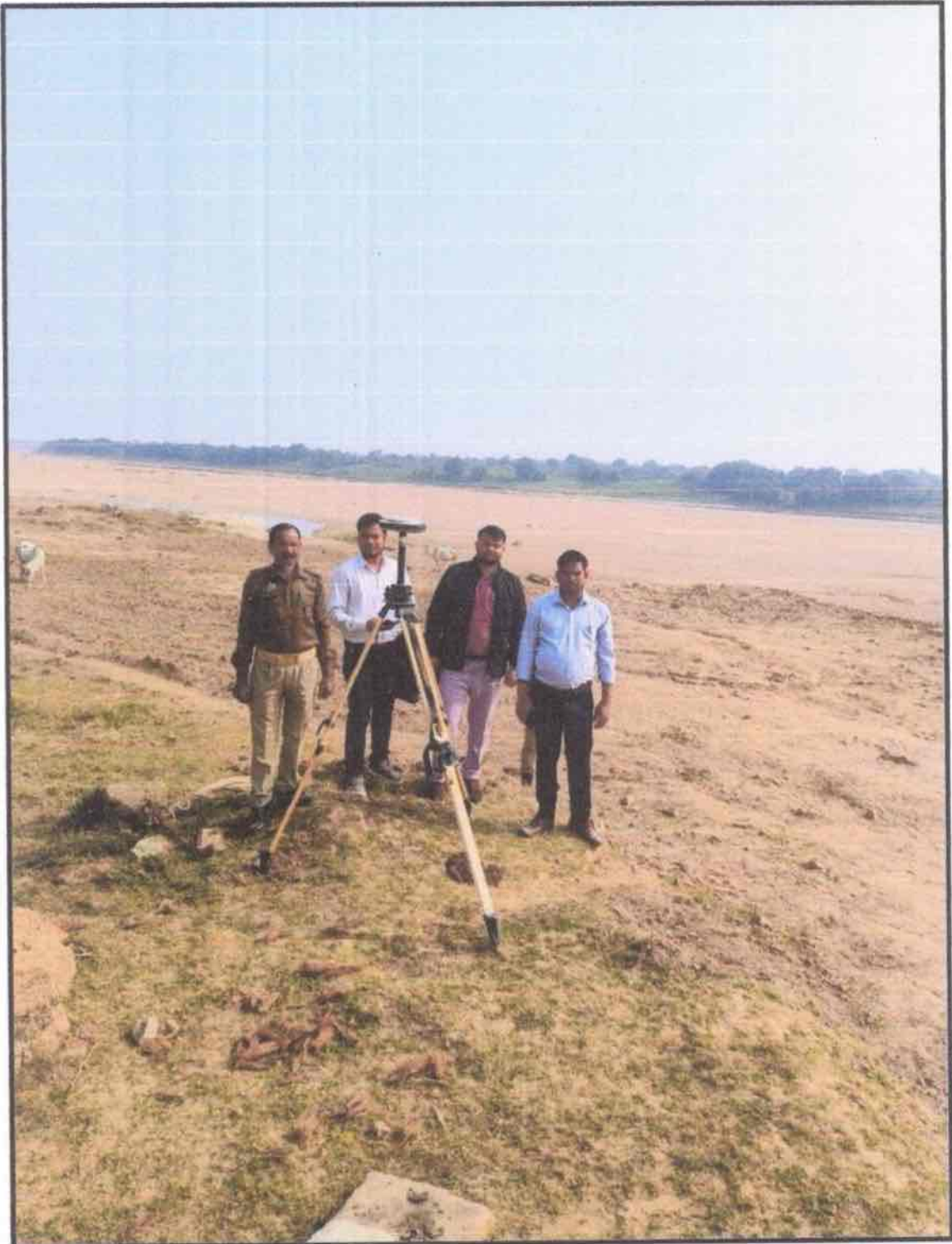












Annexure No. 3(Colly)



प्रेषक,

जिलाधिकारी,
जालौन।

सेवा में,

मा0 अध्यक्ष,
राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण(SEIAA)
पर्यावरण निदेशालय, उ0प्र0, लखनऊ।

पत्र सं0 2607/खनिज-एम0एम0सी0-30 दिनांक:

दिनांक- 18 अक्टूबर, 2025

विषय: जनपद जालौन के नदी तल में उपलब्ध बालू/मौरम खनन क्षेत्रों का Supplementart
District Survey Report-Year 2025 का अनुमोदन प्रदान किये जाने के सम्बन्ध में।

महोदय,

कृपया उपर्युक्त विषयक भूतत्व एवं खनिकर्म निदेशालय, उ0प्र0, शासन के पत्र संख्या-1659/86-2023 दिनांक 17.05.2023 एवं पत्र सं0 1665/एम0-228/खनन नीति-2017 डीएसआर दिनांक 15.12.2023 का सन्दर्भ ग्रहण करने का कष्ट करें, जिसके द्वारा पर्यावरण एवं जलवायु परिवर्तन मंत्रालय, इम्पैक्ट अस्सेसमेंट डिविजन नई दिल्ली के पत्र दिनांक 04.12.2023 तथा Civil Appeal No. 3661-3662 of 2020 title state of Bihar V/S Pawan Kumar, में मा0 सर्वोच्च न्यायालय द्वारा पारित आदेश दिनांक 10.11.2023 के क्रम में जिला सर्वेक्षण रिपोर्ट (DSR) की कार्यवाही कराने के निर्देश दिये गये हैं।

उक्त के सम्बन्ध में अवगत कराना है, कि वर्तमान में जनपद जालौन के नदी तल में उपलब्ध बालू/मौरम के 81 खनन क्षेत्र जिला सर्वेक्षण रिपोर्ट-2024 में सम्मिलित हैं। जनपद जालौन में नदी तल में 03 राजस्व भूमि में बालू/मौरम खनन क्षेत्र एवं 06 नदी तल स्थित निजी भूमि के नये खनन क्षेत्र चिन्हित किये गये हैं, जिन्हें जिला सर्वेक्षण रिपोर्ट में सम्मिलित किया जाना है। सप्लीमेन्टरी जिला सर्वेक्षण रिपोर्ट-2025 को शासनोदश सं0 1659 दिनांक 17.05.2023 के क्रम में गठित समिति द्वारा किया गया। गठित समिति की कार्यवृत्त दिनांक 15.10.2025 द्वारा सप्लीमेन्टरी जिला सर्वेक्षण रिपोर्ट 2025 पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार की अधिसूचना दिनांक 15.01.2016 एवं दिनांक 25.07.2018 तथा Sustainable sand Mining Management Guidelines-2016, Enforcement & Monitoring Guidelines For Sand Mining 2020 के अनुरूप है।

SEIAA द्वारा अनुमोदित अद्यतन जिला सर्वेक्षण रिपोर्ट 2024 में खनन योग्य 81 संगठित बालू/मौरम खनन क्षेत्रों के साथ 09 नये बालू/मौरम खनन क्षेत्रों को सम्मिलित करते हुये सप्लीमेन्टरी जिला सर्वेक्षण रिपोर्ट 2025 का परीक्षण/अध्ययन कर तैयार की गयी सप्लीमेन्टरी जिला सर्वेक्षण रिपोर्ट 2025 उपयुक्त पायी गयी।

अतः जनपद जालौन के बालू/मौरम खनन क्षेत्रों का Supplementart District Survey Report-Year 2025 (DSR) की प्रति निर्धारित प्रारूप 01 से 07 में तैयार कर आवश्यक अभिलेख के साथ संलग्न कर इस आशय से प्रेषित है, कि जनपद जालौन के बालू/मौरम खनन क्षेत्र हेतु सप्लीमेन्टरी जिला सर्वेक्षण रिपोर्ट 2025 का अनुमोदन प्रदान कराने का कष्ट करें।
संलग्नक- यथोपरि।

भवदीय,

See 17/10/2025
(राजेश कुमार पाण्डेय)
जिलाधिकारी, जालौन।
१६

पत्रांक व दिनांक उपरोक्तानुसार।

प्रतिलिपि:- निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

- 1- सचिव, भूतत्व एवं खनिकर्म विभाग, उ०प्र० शासन लखनऊ।
- 2- मा० अध्यक्ष, विशेषज्ञ स्तरीय मूल्यांकन समिति, (SEAC) लखनऊ।
- 3- निदेशक, भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०, खनिज भवन लखनऊ।
- 4- सदस्य सचिव, विशेषज्ञ स्तरीय मूल्यांकन समिति, (SEAC) लखनऊ।
- 5- सदस्य सचिव, राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण (SEIAA) पर्यावरण निदेशालय, उ०प्र० लखनऊ।
- 6- निदेशक, उ०प्र० प्रदूषण नियंत्रण बोर्ड, उ०प्र० लखनऊ।

See 17/10/2025
(राजेश कुमार पाण्डेय)
जिलाधिकारी, जालौन।
१६

प्रेषक,

सदस्य सचिव,
एस0ई0आई0ए0ए0,
गौमती नगर, लखनऊ।

सेवा में,

निदेशक,
भूतत्व एवं खनिकर्म विभाग, उ0प्र0,
लखनऊ।

पत्रांक : 1167 /पर्या./सामान्य/2023

दिनांक 17 मार्च, 2026

विषय:- Supplementary District Survey Report (DSR)-2025 of District- Jalaun Sand Morrum के सम्बन्ध में।

महोदय,

कृपया अवगत कराना है कि आपके पत्र संख्या 3560/डी0एस0आर0/2024 दिनांक 04.02.2026 द्वारा प्रेषित ड्राफ्ट डी0एस0आर0- जनपद-जालौन को राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति की बैठक दिनांक 12.02.2026 तथा राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण, उ0प्र0 की बैठक दिनांक 11.03.2026 में 09 पट्टों हेतु निम्न शर्तों के साथ अनुमोदन प्रदान किया गया :-

1. During DSR formulation a sub-committee is formed at District level and representative of Forest Department is a member in this sub-committee, so it is expected that they examine the issue of distance of forest area from the mining lease as well as distance of protected area (as per Wildlife Protection act 1972) from the mining lease. Hence, a certificate signed by an officer not below the rank of ACF shall be submitted with-in 15 days that the leases do not lie within any protected area, National Park, sanctuary and ESZ.
2. Cluster EIA shall be conducted for the leases in clusters as depicted in Jalaun. District Magistrate and DGM are advised to inform the lease holders, at the time of issuance of Loi that cluster EIA should be conducted.
3. Replenishment study on the basis of which the mineral availability is assessed should be uploaded on websites of District and Mining Department Uttar Pradesh and submitted to SEIAA along with methodology adopted for study and details like geo-coordinates etc. of study points.
4. The District shall prepare a schedule for conducting replenishment study annually. This study should be done by a reputed Central or State Govt. institute and should be uploaded on the websites of district, Geology and Mining Department and submitted to SEIAA on its website. Quantity mined and auctioned shall be strictly based on replenishment study. District administration as well as Mining Department will follow all norms and procedure to ensure no illegal mining takes place.
5. Mining Department shall be responsible for demarcating the leases where-ever needed after the monsoon.
6. Details of social and environmental preservation work done like name of the villages, health care facility, School etc. under DMF should be uploaded on district website and submitted to SEIAA.



7. The District Survey Report (DSR) shall be updated once in five years as mentioned in MoEF&CC, Govt. of India Notification No. S.O. 141(E), dated Minutes of SEAC-1 meeting dated 12/02/2026 regarding District Survey Report 15/01/2016, as per laid down procedure, under intimation to SEIAA.
8. A total of 09 new sand morrum mining lease areas have been approved in the supplementary District Survey Report-2025. Whereas, Total 81 sand/morrum mining lease areas have already been approved through Member Secretary, SEIAA letter no 136/Parya/DSR/Jalo/2024 dated 28/05/2024.
9. If any new lease is identified, Sub-Divisional Committee will follow the entire procedure every time on the basis of existing DSR.
10. Lease deeds shall be executed strictly in accordance with approved DSR and prevailing rules.
11. After approval of DSR from SEIAA, the District Administration shall upload the Approved DSR in public domain along with Lease Wise Digital Maps showing the status of deposits and pillar wise coordinates of existing and proposed areas.
12. The District Administration shall utilize the District Mineral Foundation Funds as per notification no. 866/86-2017-132/2016 dated 15/05/2017 issued by Department of Geology and Mining, Government of U.P. or any modification in it by competent authority.
13. DMF fund should also be utilized for the environmental protection, development and maintenance of haulage road.
14. NOC from Irrigation and Forest department shall be duly taken regarding any sensitivity in relation to the proposed mining areas.
15. The lease shall periodically conduct replenishment study of mineral deposits and audits of operative mine leases and take corrective measures as per the directions of District Administration in case of adverse observations and, a yearly report on this shall be sent to SEIAA as compliance.

समिति/प्राधिकरण की बैठक में लिये गये निर्णय के आलोक में सम्बन्धित कार्यवृत्त की प्रति इस अनुरोध के साथ प्रेषित है कि उक्त के सम्बन्ध में आवश्यक कार्यवाही करवाने का कष्ट करें।

संलग्नक- यथोक्त।

प्रतिलिपि- जिलाधिकारी, जालौन को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

भवदीय,

(मनीष मित्तल)

आई०एस०२०२०

सदस्य सचिव,

एस०ई०आई०ए०ए०

(मनीष मित्तल)

आई०एस०२०२०

सदस्य सचिव,

एस०ई०आई०ए०ए०